# 7956

7647

Diag. Cht. Nos. 78-3 & 1222-3

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. CO-1552 Office No. -H-7956

LOCALITY

State VIRGINIA

General locality CHESAPEAKE BAY

Locality WARE RIVER AND NORTH RIVER

194 52

CHIEF OF PARTY

J. H. Brittain

LIBRARY & ARCHIVES

DATE OCTOBER 16, 1953

B-1870-1 (i)

CS-350

### 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-7956

Field No. CO-1552

| State VIRGINIA  |
|---|
| General locality CHESAPEAKE BAY   |
| Locality WARE RIVER AND NORTH RIVER   |
| Scale 1:10,000 Date of survey 23 Sep't 14 Oct. 1952                             |
| Instructions dated 13 March 1952  |
| Vessel Ship COWIE   |
| Chief of partyJ H Brittain  |
| Surveyed by Ship's Officers   |
| Port. 808 Soundings taken by fathometer/graphic recorder, hand lead, wire pole. |
| Fathograms scaled by SHPPS: PERSONNEL   |
| Fathograms checked by SHIPS' PERSONNEL  |
| Protracted by ROY B. DAVIS  |
| Soundings penciled by ROY B. DAVIS & W.W. FEAZEL                                |
| Soundings in fatherese feet at MLW MEET and are frue depths                     |
| Remarks: This survey was smooth plotted in the Hydrographic Section of          |
| the Norfolk Processing Office.  |
|   |
| · · · · · · · · · · · · · · · · · · ·   |
|   |
|   |

U. S. GOVERNMENT PRINTING OFFICE 777032

#### DESCRIPTIVE REPORT

#### TO ACCOMPANY

HYDROGRAPHIC SHEET H -7956 , FIELD NO. CO-1552

WARE RIVER AND NORTH RIVER

CHESAPEAKE BAY

SCALE L:10,000

SHIP COWIE

J. H. BRITTAIN, COMDG.

### A - PROJECT:

Project CS-350; Original Instructions dated 13 March 1952.

#### B - SURVEY LIMITS AND DATES:

The area covered by this survey is the Ware River and the upper end of North River. Junction is made with (CO-1652) (1952) to the east. Hydrographic surveys began 23 Sep't. 1952 and were conducted through 14 October 1952.

#### C - VESSELS AND EQUIPMENT:

Thirty-foot launch no. 102 and 25 foot hydrographic skiff no. 737 were used, boats operating from the Ship COWIE. Launch no. 102 using 808 type fathometer #63 was used where the depth was 6 feet or over in unconfined areas. Skiff no. 737 powered by two outboard motors using 808 type fathometer no. 118, pole and leadline for sounding was used in shoal areas close to shore and in creeks and inlets where the depths were not sufficient for launch operation.

#### D - TIDE AND CURRENT STATIONS:

A portable automatic tide gage was maintained at Auburn Wharf,

North River for the major part of the survey. The work done on 14 Oct.

was referred to the gage at Mobjack, East River. Tide gage records and
all soundings are on Eastern Standard Time. No Current Stations were

### D - TIDE AND CURRENT STATIONS: (CON'T.)

observed in this area.

### E - SMOOTH SHEET:

Projections will be constructed and sheets plotted by the Norfolk Processing Office.

### F - CONTROL STATIONS:

| l. | The | following | triangu | lation | stations | were | us ed: |
|----|-----|-----------|---------|--------|----------|------|--------|
|----|-----|-----------|---------|--------|----------|------|--------|

| CED | Cedar (VFC), 1930-44.   | MIL  | Windmill (VFC), 1930-44. |
|-----|-------------------------|------|--------------------------|
| COT | Cottage (VFC), 1930-44. | SAN  | Sand (VFC), 1936-44.     |
| DAR | Darling (VFC), 1936-44. | TAB  | Tabb (VFC), 1936-44.     |
| HIC | Hicks (VFC), 1936-44.   | TAL  | Talia (VFC), 1936-44.    |
| HIL | Hill (VFC), 1936-44.    | TOD  | Todd (VFC), 1936-44.     |
| IRV | Irving (VFC), 1930-44.  | WARE | Ware (VFC), 1930-44.     |

### 2. The following topographic stations were used:

| ANT - | RS-431 | BED - | RS-431 | L ELM | - | RS-431 | HAG |   | RS-431 |
|-------|--------|-------|--------|-------|---|--------|-----|---|--------|
| AXE - | 431    | CRA - | 431    | L EBB | - | 431    | WAH | - | 431    |
| ADA - | 429    | CAN - | 431    | I FLY | - | 431    | ILL | - | 431    |
| AND - | 433    | CAB - | 431    | L FAT | - | 433    | IVY | - | 431    |
| AHA - | • 433  | CAT - | 433    | 5 FIT | - | 431    | IRK |   | 431    |
| AMY - | 431    | CAR - | 431    | FOX   | _ | 431    | IDA | _ | 433    |
| ART - | 431    | CAW - | 433    | GAT   | - | 431    | JOE | - | 431    |
| ALL - | 431    | POT - | 429    | GIG   | - | 431    | JAK | - | 429    |
| BUG - | 431    | DOG - | 429    | GOO   |   | 431    | JAR | _ | 431    |
| BAD - | 431    | DIX - | 431    | . GAB | _ | 431    | ЛВ  | _ | 431    |
| BOX - | 431    | DEE - | 433    | GUM   |   | 431    | JIG | - | 431    |
| BEE - | 429    | EGO - | 431    | HIG   | _ | 429    | KIM | _ | 429    |

| F - CONTROL STATIONS: | (CON'T.)(TOPOGRAP | 'HIC STATIONS) |           |
|-----------------------|-------------------|----------------|-----------|
| BUD - RS-431          | EAR - RS-431      | HIT - RS-431   | KEP - RS- |

| BUD  | - | RS-431 | EAR - | R <b>S-4</b> 31 | HIT - | - RS-431 | KEP   | - RS-433         |
|------|---|--------|-------|-----------------|-------|----------|-------|------------------|
| BON  | - | 431    | ERA - | 433             | HOD - | 431      | KEY   | - 431            |
| KE D | - | 431    | NIP - | 431             | RID - | 431      | TAP   | <b>-</b> 433     |
| LAM  | - | 431    | NED - | 429             | QUO - | • 433    | TAN . | <del>-</del> 431 |
| LAG  | - | 429    | NAT - | 433             | RIM - | 431      | USE · | - 433            |
| LAX  |   | 433    | ODE - | 431             | RAG - | 431      | VEE . | - 431            |
| LIZ  | _ | 431    | ONE - | 431             | RAM - | 433      | VAL - | - 433            |
| LOP  | _ | 433    | ODD - | 433             | ROD - | 433      | VET - | - 431            |
| MUG  | - | 431    | ORA - | 433             | SAX - | 431      | WIN - | - 433            |
| WAM  | - | 433    | PAW - | 431             | SAL - | 433      | WIG - | - 433            |
| MET  | - | 431    | PEG - | 431             | SUE - | 431      | WAN - | - 431            |
| MAG  | _ | 433    | PUD - | 431             | sox - | 433      | YES - | - 433            |
| MAR  | _ | 429    | PET - | 433             | TOY - | 431      | YAK - | - 433            |
|      |   |        |       |                 |       |          | ZIG - | - 433            |
|      |   |        |       |                 |       |          | ZAG - | - 433            |

### G - SHORELINE AND TOPOGRAPHY:

The shoreline on the boat sheet was transferred from air photo manuscripts RS-429, RS-431 and RS-433 which cover this area. The air photos were taken recently and the shoreline on the manuscripts is correct. All of the topographic signals were radial plotted from the air photos on the manuscripts and then transferred directly to the boat sheet.

It was not practical to define the entire low water line by soundings due to the small range of tide and the attendant difficulty of getting the sounding vessel close to the beach without long periods spent
dragging bottom or going aground. However, the sounding lines were
run close to and parallel to the beach wherever possible.

#### H - SOUNDINGS:

Depths were measured with 808 type recording fathometer, handlead and pole. Bar checks were taken daily from the launch and skiff to depths where satisfactory results could be obtained. Fathometer corrections have been determined from the bar checks and entered in the sounding volumes by the field party.

A check on the boat sheets of the overlap between fathometer, leadline and pole shows no more than 1 foot difference.

### I - CONTROL OF HYDROGRAPHY:

Sounding lines were controlled by three point fixes using natural objects or signals erected along the shoreline. Satisfactory results were obtained from using these signals.

### J - ADEQUACY OF SURVEY:

The survey is considered complete, adequate for charting purposes and should supercede all prior surveys. Junctions with adjoining surveys are satisfactory, no holidays exist and depth curves can be adequately drawn at the junctions.

#### K - CROSSLINES:

Crosslines are in good agreement, the percentage is estimated at 10 percent.

### L-M - COMPARISON WITH PRIOR SURVEYS:

A comparison with Chart 494 shos the following:

1. The 12 foot sounding circled on preliminary review was looked for but 13 feet was the least depth found in this area.

### L-M - COMPARISON WITH PRIOR SURVEYS: (CON'T.)

In general there is very little change between the present survey and the chart and previous surveys.

#### N - DANGERS AND SHOALS:

No evidence of dangers or shoals were found in the channels. Crab and fish nets are spotted along the shorelines, but they are temporary.

No other important dangers or shoals not already shown on Chart 494 were found in the area covered by this survey. There are several wrecks and ruins of piers far up creeks that are marked on the boat sheet and positions recorded in the record books.

Numerous charted pier ruins are not disposed of. - See review.

### O - COAST PILOT INFORMATION:

This information is covered by a separate report by the Commanding Officer, Ship COWIE.

#### P - AIDS TO NAVIGATION:

Sextant fixes were obtained at all floating aids. Positions of fixed aids were obtained by air photo processes.

- Ware River 1. Ware Point Shoal Buoy "2"; Lat. 37°21.75'; Long. 76°25.05'; in 8 feet of water.
- Ware River BEn

  2. Piney Point Shoal Buoy "1"; Lat. 37°22.18'; Long. 76°26.34'; in 12 feet of water.
- Ware River 13 En Middle Ground Shoal Buoy "3"; Lat. 37°22.75'; Long. 76°27.50'; in 9 feet of water.
- 4. Bailey Wharf Daybeacon; Lat. 37023.23'; Long. 76027.58'; in 5 feet of water.

The air photo position of Bailey Wharf Daybeacon was said to be unreliable.

### Q - LANDMARKS FOR CHARTS:

No new landmarks for charts are recommended for the area covered by this survey.

### R - GEOGRAPHIC NAMES:

Geographic names shown on Chart 494 for this area are adequate and no additional names are recommended.

### U-Y - MISCELLANEOUS:

In featureless shoal areas, soundings were spaced every 30 seconds apart on the boat sheet. Intermediate soundings were plotted only when needed to define underwater features.

### Z - TABULATION OF APPLICABLE DATA:

The Coast Pilot Report has been forwarded to the Washington Office.

A list of signals is attached in Volume I of the sounding records. A tabulation of other data is attached.

Respectfully submitted,

Robert M. Borst, Ensign, USC&GS, Ship COWIE.

Approved and forwarded:

J. H. Brittain, Condr., USC&GS, Comdg. Ship COWIE.

### STATISTICS \_

### SKIFF NO. 737:

| VOL. NO.             | DAY     | DATE      | NO. OF POSITIONS | STAT. MILES   |
|----------------------|---------|-----------|------------------|---------------|
| I                    | a       | 9/23      | 145              | 22.1          |
| I & II               | р       | 9/25      | 178              | 28.8          |
| II                   | o       | 9/26      | 89               | 15.4          |
| II & III             | ď       | 10/2      | 218              | 38.1          |
| III                  | •       | 10/3      | 57               | 9.0           |
| III                  | f       | 10/8      | 163              | 21.8          |
| TV<br>TOT <b>AL:</b> | g       | 10/14     | 190<br>1040      | 24.8<br>160.0 |
| LAUNCH NO.           | 102:    |           |                  |               |
| V                    | 8.      | 9/24      | 84               | 15.8          |
| V                    | ъ       | 10/1      | 117              | 21.1          |
| TOTAL:               |         |           | 201              | 36.9          |
| GRAND TOTAL          | LS:     |           | 1241             | 196.9         |
| TOTAL AREA           | : 7,5 S | q. Miles. |                  |               |

### TIDE NOTE

A portable automatic tide gage at Auburn Wharf, North River, Lat. 37°25!12"; Long. 76°26!10"; was used for obtaining tide reducers for most of this survey. The work done on 14 October was referred to the portable automatic gage at Mobjack, East River, Lat. 37°22!27"; Long. 76°20!45"; Height of MLW for Auburn Wharf was 1.4 feet above zero of the tide staff and for East River was 4.6 feet above zero of the staff.

### FATHOMETER CORRECTIONS:

### LAUNCH NO. 102:

"a" day - 24 Sep't. 1952 - Fathometer 808, No. 63.

### "A" SCALE

- 0.0 to 13.0 ft.
- -0.2 to 19.0
- -0.4 to 25.0
- -0.6 to ----

### "b" day - 1 Oct. 1952 - Fathometer 808, No. 63.

- "A" SCALE 0.0 to 14.0 ft.
- -0.2 to 21.0
- -0.4 to 29.5
- -0.6 to ----

### SKIFF NO. 737:

"g" day - 14 October 1952 - Fathometer 808, No. 118.

No Correction.

### "f" day - 8 October 1952 - Fathometer 808, No. 118.

- 0.0 to 5.0 ft.
- -0.2 to 11.5
- -0.4 to 15.5
- -0.6 to 21.5
- -0.8 to 28.0

### AIDS TO NAVIGATION H-7956

### FLOATING AIDS

| NAME   | LAT.  | <u>M.</u> | LONG. | <u>M.</u> | DEPTH | POS. NO.     | DATE     |
|--|-------|-----------|-------|-----------|-------|--------------|----------|
| Ware River *Ware Ft. Sheal Buoy 2  | 37-21 | 1380      | 76-25 | 82        | 81    | 16           | 10/ 1/52 |
| +Ware River Dybeacon/ *Finey Pt. Shoal Buoy 1  | 37-22 | 322       | 76-26 | 487       | 11.   | 218d         | 10/ 2/52 |
| +Ware River  *Middle Ground Shoal  Buoy 3 Dayblacon 3  | 37-22 | 1394      | 76-27 | 721       | 9'    | 163 <b>f</b> | 10/ 8/52 |
| **Spar 100N  | 37-21 | 654 ~     | 76-24 | 1386      | 231   | la           | 9/24/52  |
|  |       |           |       |           |       |              |          |
| NON-FLOATING AIDS  |       |           |       |           |       |              |          |
| ***Bailey Wharf Day-beacon Windmill Point Shoal Lig Jarvis Point Shoal Lig Lone Point Light Cradle Point Light | ght   | 430       | 76-27 | 853       | 5'    | 167d         | 10/2/52  |

<sup>\*</sup> Names changed in 1953 Light List

\*\* Not listed in Light List

\*\*\* Sextant position, air-photo position not reliable

+ Listed in Light List, 1955

### LIST OF SIGNALS H-7956

### TRIANGULATION STATIONS

| CED  | CEDAR (VFC), 1930-44    |
|------|-------------------------|
| COT  | COTTAGE (VFC), 1980-44  |
| DAR  | DARLING (VFC), 1936-44  |
| HI6  | HICKS (VFC), 1936-44    |
| HIL  | HILL (VFC), 1936-44     |
| IRV  | IRVING (VFC), 1930-45   |
| MIL  | WINDMILL (VFC), 1930-44 |
| SAN  | SAND (VFC), 1936-44     |
| TAB  | TABB (VFC), 1936-44     |
| TAL  | TALIA (VFC), 1936-44    |
| TOD  | TODD (VFC), 1936-44     |
| WARE | WARE (VFC), 1930-44     |

| TOPOG                                  | RAPHIC  | STATIONS                                       | •                                      | (Source                                | RS-429                                 | ))                                     |  |  |                                 |                                 |
|--|---|--|--|--|--|--|--|--|---------------------------------|---------------------------------|
| Ada                                    | Вее   | Dot  | Dog                                    | Hig                                    | Jak                                    | Kim                                    | Lag                                    | Ned                                    |                                 |                                 |
|  |   |  |  | (Source                                | RS-431                                 | .)                                     |  |  |                                 |                                 |
| All<br>Cab<br>Fox<br>Hod<br>Lax<br>Rid | Amy<br>Can<br><b>RKK</b><br>Ill<br>Liz<br>Rim | Ant<br>Car<br><b>KRU</b><br>Irk<br>Metm<br>Sax | Art<br>Cra<br>Gab<br>Ivy<br>Mug<br>Sue | Axe<br>Dix<br>Gat<br>Jar<br>Nip<br>Tan | Bad<br>Ear<br>Gig<br>Jib<br>Ode<br>Toy | Bed<br>Ebb<br>Goo<br>Jig<br>One<br>Vee | Bon<br>Ego<br>Gum<br>Joe<br>Paw<br>Vet | Box<br>Elm<br>Hag<br>Ked<br>Peg<br>Wan | Bud<br>Fit<br>Haw<br>Key<br>Pud | Bug<br>Fly<br>Hit<br>Lam<br>Rag |
|  |   |  |  | (Source                                | RS-433                                 | ;)                                     |  | •                                      |                                 |                                 |
| Aha<br>Mag<br>Use                      | And<br>Maw<br>Val                             | Cat<br>Nat<br>Wig                              | Caw<br>Odd<br>Win                      | Dee<br>Ora<br>Yak                      | Era<br>Pet<br>Yes                      | Fat<br>Quo<br>Zag                      | Ida<br>Ram<br>Zig                      | Kep<br>Sal                             | Lax<br>Sox                      | Lop<br>Tap                      |

### ADDENDUM To Accompany

### HYDROGRAPHIC SURVEY H-7956 (Field No. Co-1552)

### GENERAL

No difficulty was experienced during the smooth plot of this survey.

The control is very good and the hydrography apparently well done. Additional sounding lines would have been helpful in drawing depth curves in creeks.

Respectfully submitted,

Hugh L. Proffitt

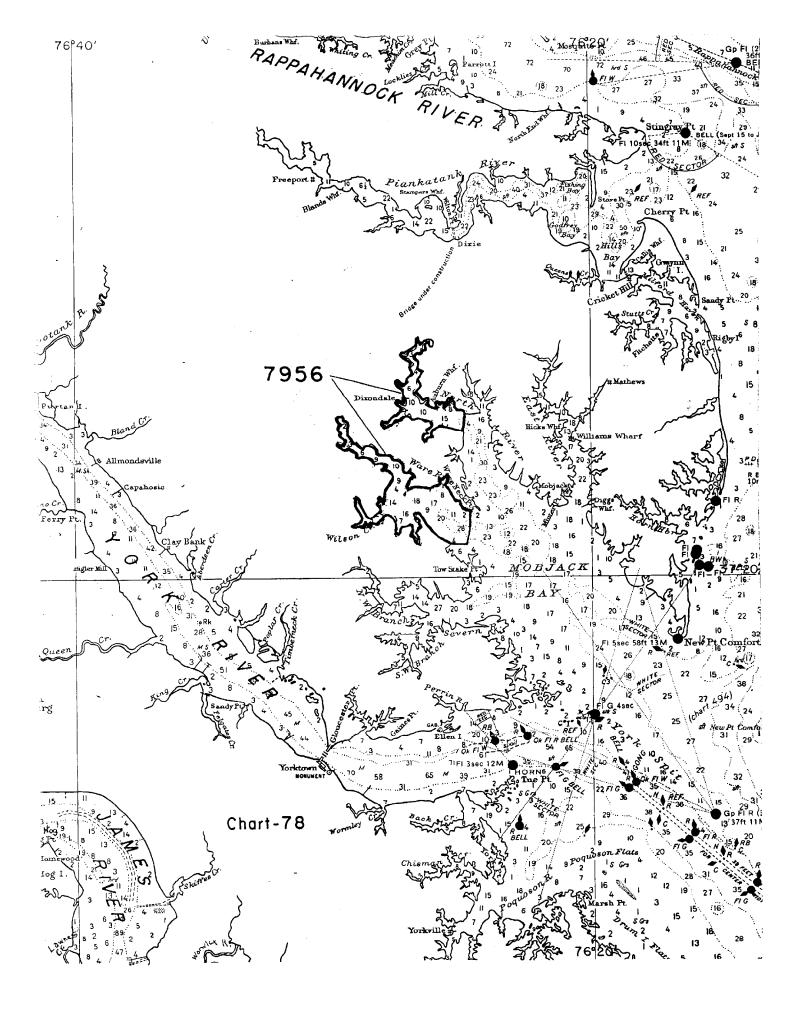
Cartographer.

Norfolk, Va. 13 October 1953

Approved & Forwarded;

Supervisor, S.E. District.

|     | GEOGRAPHIC NAMES Survey No. H-7956         |          |           | No Sur     | Madra    |                | Mars           | / ke of     | Walley Prolity |           | <i>*</i>    |
|-----|--|----------|-----------|------------|----------|----------------|----------------|-------------|----------------|-----------|-------------|
|     |  |          | HO. OL    | de jone ou | of lands | or local state | Or local Magra | O. Guide of | Mag McMolly    | J.S. John |             |
|     | Name on Survey                             | A        | B         | C          | / D \    | E              | 5 F            | G           | Н              | K         |             |
|     | Virginia                                   | 414      | 7         | _          | 1        |                |                |             |                | BEN       | 1           |
| ,   | Chesapeage Bay                             |          | 3         | tor        | ተናኮ      | c              |                |             |                | ζ,        | 2           |
| •   | Ware River                                 | V        |           | -          | -        |                |                |             |                | 4         | 3           |
|     | Ware Heck Point                            | -//      |           |            |          |                |                |             |                |           | 4           |
|     | Oldhouse creen                             | //       |           |            |          |                |                |             |                | BHY       | 5           |
|     | Wilson Creen                               | <u> </u> |           |            |          |                |                |             |                |           | 6           |
|     |  |          |           |            |          |                |                |             |                |           | 7           |
|     | North River                                | V _/     |           | •          |          | 20             |                |             |                |           | 8           |
|     | Lone Point                                 |          |           |            |          |                |                |             |                |           | 9           |
|     | Belleville Crea                            | 5        | <u></u>   |            |          | \              |                |             |                |           | 10          |
|     | Auburn Whar                                |          | (4        | : dé .     | stati    | ion)           |                |             |                |           | 11          |
|     | Back Creek                                 |          |           | /          |          |                |                |             |                | 7         | 12          |
|     | Elmington Cres                             |          | 7         |            |          |                |                | •           |                |           | 13          |
|     | 10 adsbury                                 | věe      | <u>K</u>  | 1          |          |                |                |             |                |           | 15          |
|     |  | rancl    | N         | 1          |          |                |                |             |                |           |             |
|     | North End                                  | Byay     | - LN      |            |          |                |                |             |                |           | 16          |
|     |  |          |           |            |          | mes            |                |             |                |           | 18          |
|     |  |          |           |            | 10       | 0-2            | 2-5            | e prov      | Hac            |           | 19          |
|     |  |          |           | /see       |          | rt4            |                |             |                |           | 20          |
|     |  |          |           | 4264       | cem      | ent            | 01             | nan         | 68)            |           | 21          |
|     | Mobjack                                    |          | <u>(t</u> | ide        | sp       | etin           | )              |             |                |           | 22          |
|     | Ware River Point                           | 2        |           | -          |          |                |                | ,           |                |           | 23          |
| · . | Ware River Point Jarvis Point Cradle Point |          |           | -          |          |                |                |             |                |           | 24          |
|     | Cradle Point                               | <u> </u> |           | ~          |          |                |                |             |                |           | 25          |
|     |  |          |           |            |          |                |                | . »         |                | -         | 26          |
|     |  |          |           |            |          |                |                |             |                |           | 27<br>M 234 |



### Hydrographic Surveys (Chart Division)

### HYDROGRAPHIC SURVEY NOH-7.956....

| Records accompanying survey:  |                 | -                 |      |
|---|-----------------|-------------------|------|
| Boat sheets; sounding vols;   | wire dra        | ag vols           | ;    |
| bomb vols; graphic recorder rolls   | 4 Env.;         |                   |      |
| special reports, etc. 1 Smooth Sheet: 1 Desc                              | riptive Re      | port;             | •    |
| •                                   | · • • • • • • • |                   | •    |
|   |                 |                   |      |
| The following statistics will be submitted wrapher's report on the sheet: | vith the        | Prelim fruit      | l'in |
| Number of positions on sheet  |                 | 1241 1241         | 1241 |
| Number of positions checked   | •               | 10                | 136  |
| Number of positions revised   |                 | • • • • • • • • • | Ø    |
| Number of soundings revised (refers to depth only)                        |                 | 20                | 2    |
| Number of soundings erroneously spaced                                    |                 | •••••             | 45   |
| Number of signals erroneously plotted or transferred                      |                 | • • • • •         |      |
| Topographic details   | Time            | 2hr               | 4    |
| Junctions   | Time            | 2hr               | v    |
| Verification of soundings from graphic record                             | Time            | 4601              | 4    |
| Preliminary Verification by - R.E. Elkips 36 hr.                          | · ·             | 12-23-53          |      |
| Verification by J. Blanding. Total tim                                    | ne .7.4         | Date 6-23-        | 3-   |
| Reviewed by P.E.Elkins  | ne /Hhr         | Date /2-23-53     | •    |
| Addendum ARStirni - 36  | hes             |                   | ·    |

### DIVISION OF CHARTS

### REVIEW SECTION - NAUTICAL CHART BRANCH

### REVIEW OF HYDROGRAPHIC SURVEY

### REGISTRY NO. H-7956

FIELD NO. CO-1552

Virginia, Chesapeake Bay, Ware River and North River

Project No. CS-350

Surveyed - Sept., Oct., 1952

Scale 1:10,000

Soundings:

Control:

808 Fathometer Pole and leadline Sextant fixes on shore signals

Chief of Party - John H. Brittain
Surveyed by - R. M. Borst, R. A. Parker
Protracted by - R. B. Davis
Soundings plotted by - R. B. Davis, W. W. Feazel
Preliminary Verification by - R. E. Elkins
Verified and inked by - J.C. Chambers
Reviewed by - R. E. Elkins 12/23/53
Inspected by - R. H. Carstens

### 1. Shoreline and Control

The shoreline and topographic signals are from photogrammetric shoreline compilation RS-429, RS-431, RS-433 (1952, unreviewed).

### 2. Sounding Line Crossings

Depths at crossings are in good agreement.

### 3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated. The low-water curve was determined where practicable.

Except for a few irregularities and abrupt slopes off spits and along the shores, the bottom is generally smooth.

### 4. Junctions with Contemporary Surveys

An adequate junction was effected with H-7957 (1952) on the east. The present survey extends to shoal depths close to the shore on all other sides. The transfer of junctional soundings is deferred, pending complete verification of the present survey.

### 5. Comparison with Prior Surveys

### H-984 (1868) 1:20,000 H-3288 (1911) 1:20,000

A comparison between the prior and present surveys reveals no appreciable differences between prior and present depths.

With the addition of several bottom characteristics from H-3288, the present survey is adequate to supersede these prior surveys within the common area.

### 6. Comparison with Chart 494 (Print date 3-23-53)

### A. Hydrography

The charted hydrography originates principally with the prior survey, H-3288 (1911), supplemented with several soundings from a survey by the Corps of Engineers, Bp. 14706 (1913), and the earlier survey H-984 (1868). The charted depths are in general agreement with present survey depths.

The present survey is adequate to supersede the charted soundings within the common area.

### B. Piers, Piling, Obstructions

The charted object in lat 37°25.55', long. 76°26.80'as well as several charted pier remains from prior topographic surveys and Coast Pilot inspection reports dating from 1905 to 1946, are not disposed of by the present survey. Old piling may possibly still exist at several of these former pier locations. It is also noted that several uncharted piling groups appearing on T-8327, T-8330 (1942-46) are not disposed of by the present survey.

### C. Aids to Navigation

The charted aids are in substantial agreement with the present survey and adequately mark the features intended.

### 7. Condition of Survey

Numerous strays appearing on the fathograms, especially in channel areas, were not labeled in the records.

The sparsity of bottom characteristics necessitated carrying forward on the present survey, numerous characteristics from the prior survey H-3288 (1911).

Thirteen piers originating with early topographic surveys, and now charted as pier remains, are not disposed of by the present survey.

- b. Preliminary inspection indicates that the smooth plotting was accurately done.
- c. The preliminary verification of this survey was confined to sounding line crossings and unnatural bottom configuration. Several lines covering the general area have been verified and inked. Completion of the verification and inking is deferred until some future date, at which time the shoreline will be checked and the inspection of the depth curves will be made.

### 8. Compliance with Project Instructions

This survey adequately complies with the Project Instructions, except as noted above in paragraph 7a.

### 9. Additional Field Work Recommended

This is a good basic survey and no additional hydrographic work is requested. As a matter of record it is noted that numerous pier ruins charted from prior topographic surveys were not disposed of by the hydrographer.

Examined and approved

H. Arnold Karo

Chief, Division of Charts .

Chief, Nautical Chart Branch

A K Tush

Chief, Section of Hydrography

Forl O Hoston

Chief, Division of Coastal Surveys

COAST AND GEODETIC SURVEY Rev. June 1937

### TIDE NOTE FOR HYDROGRAPHIC SHEET

4 November 1953

xDivisionx of xHydrography xandx Ropographyx x x

R. H. Carstens Division of Charts:

Plane of reference approved in 5 volumes of sounding records for

. HYDROGRAPHIC SHEET

7956

Locality Chesapeake Bay, Virginia

Chief of Party: J. H. Brittain in 1952 Plane of reference is mean low water, reading

1.4 ft. on tide staff at Auburn Wharf, North River

6.6 ft. below B. M. 1 (1952)

4.6 ft. on tide staff at East River, Mobjack Bay

5.0 ft. below B. M. 1 (1952)

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

Auburn Wharf, North River = 2.5 feet

East River, Mobjack Bay = 2.4 feet

Condition of records satisfactory except as noted below:

E.C. McKay Section of Tides

Chief, Division of Tides and Currents.

## Addendum to Review H-7956 (1952)

Inked by - J. C. Chambers
Review Addendum by - A. R. Stirni 2/15/56
Inspected by - R. H. Carstens

The verification of this survey is now complete.

### Junctions with Contemporary Surveys

The junction on the south with survey H-7957 (1952), which has been given only a preliminary verification, will be considered in the review of that survey.

### Comparison with Chart 494 (print date 8/22/55)

The charted hydrography originates with the present survey after preliminary verification and review. The charted piling and wrecks not shown on the present survey are from reviewed air-photographic surveys T-8327 (1942-49), T-8330 (1942-49) and aerial photographs made in 1951. All other charted information is in accord with the present survey, except that the offshore end of the pier ruins in lat. 37° 22', long. 76°27.8' are not charted.

### Condition of Survey

Completion of the verification reveals that the smooth plotting was carefully done.

Approved:

Chief, Chart Division

Ef. We Carley

### NAUTICAL CHARTS BRANCH

SURVEY NO. H-7956

### Record of Application to Charts

| DATE       | CHART              | CARTOGRAPHER | REMARKS   |
|------------|--------------------|--------------|---|
| 10 Feb '54 | Reconstr.<br>494   | HEMac Even   | Preliminary After Verification and Review             |
| 1954       | 1222               | Mac Ewen     | Prelim  Before After Nerification and Review Thru 494 |
| 1955       | 494                | gestantive   | Before After Verification and Review 1955 BBn 1+3     |
| 10-2-85    | 1222/<br>Petertype | 1 Graham     |   |
|            | a dio 1 pc         |              | Before After Verification and Review                  |
|            |                    |              | Before After Verification and Review                  |
|            |                    |              | Before After Verification and Review                  |
|            |                    |              | Before After Verification and Review                  |
|            | _                  |              | Before After Verification and Review                  |
|            |                    |              | Before After Verification and Review                  |
|            |                    |              |   |
|            |                    | , , ,        |   |
|            |                    |              |   |
|            |                    |              |   |
|            |                    |              |   |

M-2168-1

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