

8523 WIRE DRAG

Diag. Cht. No. 77-3.

| | |
|---|--|
| Form 504 U. S. DEPARTMENT OF COMMERCE COAST AND GEODETIC SURVEY DESCRIPTIVE REPORT | |
| <i>Type of Survey</i> <u>Wire Drag</u> | |
| <i>Field No.</i> <u>Wa-HI 10-1-60WD</u> No. H-8523WD | |
| LOCALITY | |
| <i>State</i> <u>Maryland</u> | |
| <i>General locality</i> <u>Chesapeake Bay</u> | |
| <i>Locality</i> <u>West Side of Kent Island</u> | |
| <u>1960</u> | |
| CHIEF OF PARTY | |
| <u>D. G. Rushford</u> | |
| LIBRARY & ARCHIVES | |
| DATE <u>August 8, 1960</u> | |

USCOMM-DC 5087

8523
WIRE DRAG

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-8523WD

Field No. Wa-H1 10-1-60 WD

State MARYLAND

General locality CHESAPEAKE BAY

Locality ✓ KENT ISLAND, WEST SIDE of

Scale 1:10,000 Date of survey ²¹⁻²⁷ April 1960

Instructions dated 18 Feb. 1960

Vessel WAINWRIGHT & HILGARD

Chief of party DEWEY G. RUSHFORD

Surveyed by D.G. RUSHFORD, D.I. WOLSK, G.N. ORR & J.T. MALDARI

Soundings taken by ~~XXXXXXXX~~, graphic recorder, ~~XXXXXXXXXX~~

Fathograms scaled by PARTY PERSONNEL

Fathograms checked by PARTY PERSONNEL & NORFOLK DISTRICT OFFICE

Protracted by W.W. FEAZEL (NORFOLK PROCESSING OFFICE)

Drag strips inked by:

~~XXXXXXXXXXXX~~ W.W. FEAZEL

Soundings in ~~XXXXXX~~ feet at MLW ~~XXXX~~

REMARKS:

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

806

DESCRIPTIVE REPORT

WIRE DRAG

SPECIAL PROJECT 10,000-816

WEST SIDE - KENT ISLAND

CHESAPEAKE BAY, MARYLAND

SCALE: 1:10,000

DEWEY G. RUSHFORD - CHIEF OF PARTY
USC&GS SHIPS WAINWRIGHT & HILGARD

1960

A. AUTHORITY

Special Project 10,000-816 original instructions dated 18 February 1960. ✓

B. CHARACTER AND LIMITS OF THE WORK

On 22, 23 October 1959, USS ABILITY reported her mine-sweeping gear appeared to "hang-up", then veer inboard in water apparently cleared to thirty (30) feet. The USS ABILITY'S position was on an approximate bearing 240T, 600 yards from navigation buoy N "20C". ✓

Project area was approximately seven (7) nautical square miles long and 1.25 nautical miles wide. Area resembles a parallelogram whose sides are given as follows: ✓

NW - Longitude $76^{\circ} 24'00''$; Latitude $38^{\circ} 58'14''$

NE - Longitude $76^{\circ} 21'56''$; Latitude $38^{\circ} 58'07''$

SE - Longitude $76^{\circ} 23'08''$; Latitude $38^{\circ} 53'26''$

SW - Longitude $76^{\circ} 24'02''$; Latitude $38^{\circ} 53'31''$

WA-10-1-60WD

Project 10,000-816 was completed on Boat Sheet ~~1160-WD~~, Scale 1:10,000 by visual control with an effective depth range of sixty (60) feet wherever possible, and the remaining area was cleared within two (2) feet of the shoalest wire drag, or shoalest sounding.

C. CONTROL AND SHORELINE

Source of triangulation was Maryland, Chesapeake Bay, Herring Bay to Magothy River, Triangulation Diagram No. 550, adjusted in North Am. 1927 datum, April 1948.

H-8523WD

Boat Sheet ~~1160-WD~~, Scale 1:10,000 was used and control stations located by visual reconnaissance. All stations located will be found in Attachment No. 1.

D. DATE OF SURVEY

Dragging began on 21 April 1960 and ended on 27 April.

E. TIDAL REDUCERS

Tide reducers were obtained from the standard tide gage at Annapolis, Maryland with correction of minus 0.5 hour and ratio of high water heights (1.1).

There were no current station observations within the limits of this survey.

F. JUNCTIONS

There were no junctions with previous wire drag surveys.

G. SPLITS

There were no splits within the project area. Overlap was adequate.

H. GROUNDINGS AND SHOALS

See Attachment No. 2. ✓

I. GENERAL NOTES

There was no departure from standard procedure with respect to the plotting of positions and subdividing. ✓

J. CURRENTS

Drift of current in the project area was not greater than 0.6 knot, flooding at 030°T while ebbing at 185°T.

K. DISCREPANCIES AND COMPARISON WITH PREVIOUS SURVEY(S) and CHARTS

Only previous survey covering this area is hydrographic survey H-2402, Scale 1:20,000 dated 1898.

One discrepancy was discovered over a wreck and is described as follows: Latitude 38° 55'54", Longitude 76° 23'00" a sounding of twenty-four (24) feet was discovered in charted water with previously shoalest sounding of forty-one (41) feet.

Comparison with Chart C&GS-¹¹⁰~~556~~ was same as above excepting that its shoalest sounding was forty-five (45) feet.

Other discrepancies were noted in section (I) of this report.

One conclusion reached was a hazard to navigation discovered at Latitude 38° 55'^{90'}~~54"~~, Longitude 76° ^{22.96'}~~23'00"~~, twenty-four (24) feet from the water surface and is believed to be the one encountered by the USS ABILITY in October 1959.

L. PERSONNEL AND EQUIPMENT

The USC&GS Ships WAINWRIGHT and HILGARD acted as guide and end launch respectively with the skiff from the HILGARD serving as tender.

Standard wire drag equipment was used throughout.

M. LIST OF ATTACHMENTS

1. LIST OF SIGNALS
2. GROUNDINGS OF SHOALS /
3. AIDS TO NAVIGATION
4. TIDAL NOTE
5. STATISTICS

Submitted:

D. D. I. Welsch
Ltjg. C&GS.

Approved and Forwarded:

Dewey G. Rushford
Dewey G. Rushford
Lt. Commander, C&GS
Chief of Party

NORFOLK PROCESSING OFFICE
LIST OF SIGNALS
H-8523WD

TRIANGULATION STATIONS

FERRY FERRY BUILDING, SOUTH GABLE, 1932
HOUSE CARVEL HOUSE, N. CHIMNEY, 1932-40
LARGE WHITE HOUSE, CHIMNEY, 1932-40
RANGE KENT ISLAND, SPEED TRIAL N. FRONT RANGE, 1960
SALLY RED SILO, 1932
SHOAL THOMAS POINT SHOAL LIGHTHOUSE, 1905-34
SUZIE C.B.A. EXPERIMENTAL TOWER NO. 4 (KENT I.), 1945
TOWER CHESAPEAKE BAY BRIDGE E. TOWER, 1957

TOPOGRAPHIC STATIONS

SOURCE T-11716

Ace Jim Joe Tom

SOURCE T-11715

Jan

USC&S Ships WAINWRIGHT & HILGARD

U. S. DEPARTMENT OF COMMERCE
 COAST AND GEODETIC SURVEY
 Machiasport, Maine

13 July 1960

To: Director,
 Coast and Geodetic Survey,
 U. S. Department of Commerce Bldg.,
 Washington 25, D. C.

Subject: Special Report - Special Project 10,000-816, Hydrography
 and Wire Drag of Reported Obstructions West Side Kent
 Island, Chesapeake Bay, Maryland

In accordance with Instructions 22/MEK, S-2-WAHI dated 18 Feb. 1960 under separate cover were forwarded two (2) boat sheets WAHI-1160 and two (2) boat sheets WAHI-1160-WD to the Washington Office for copying. Fathograms were scanned and checked, all soundings were reduced and checked, and included with all other pertinent records on Special Project 10,000-816 shipped to Norfolk District Office.

The project area was cleared to an effective depth of sixty (60) feet where possible and the remaining area was cleared as close to the bottom as was possible.

There were three obstructions located in the project area and they are described as follows:

see Addendum

| No. | Lat. & Long. | Date | Time | Day | Ltr. | Upright | Lift | Tide | Hang | Eff. Clr. |
|-----|----------------------------|-----------------|-----------------|---------------|------------------|-----------------|-----------------|------------------|-----------------------------|------------|
| 1. | 38° 55' 58" 76° 23' 38" | 4/21 | 1241 | 2A | 64.0' | 1.5' | 2.0' | 60.5' | --- | * |
| | | 4/21 | 1635 | 3A | 50.0' | 1.0' | 1.5' | 47.5' | <i>See **Addendum</i> | |
| | | 4/23 | 1635 | 64C | 63.0' | 1.5' | 1.5' | 60.0' | --- | 51.8 |
| | | 4/22 | 0850 | 3-4B | 52.0' | 1.0' | 0.5' | --- | 50.5' | 49.6' sdg. |
| 2. | 38° 55' 31" 76° 23' 58" | 4/22 | 0910 | 8B | 52.0' | 1.0' | 0.5' | 50.5' | --- | |
| | | 4/22 | 1010 | 10-11B | 51.0' | 1.5' | 0.5' | --- | 49.0' | |
| 3. | 38° 55' 53" 76° 22' 57" | 4/25 | 1155 | 24D | 27.0' | 1.0' | 1.0' | 32.0' | --- | |
| | | 4/26 | 0905 | 3-SE | 25.0' | 1.0' | 1.5' | --- | 22.5' | 26.5' sdg. |
| | | 4/25 | 1400 | 30D | 26.0' | 0.5' | 1.5' | 24.0' | *** 4**** Hang & clear xxxx | |

* Lost wire drag buoy ** Recovered same *** Reported obstruction

Conclusion was reached that obstruction No. 3 is the location of the reported obstruction by USS ABILITY letter dated 3 November 1959. This was reported as Danger to Navigation on Form 786 dated 27 Apr. '60.

**** Temporary hang and clear at this location at 24'

Proffitt

13 July 1960
SP 10,000-816

- 2 -

Tide reducers were based on standard tide gage at Annapolis, Maryland with a correction of minus 1/2 hour, and a ration of 1.1 for high water heights.

Work was performed in a routine manner utilizing natural objects for visual control.

No additional dragging in project area is recommended.

Dewey G. Rushford
Lt. Commander, C&GS
Commanding Ships WAINWRIGHT
& HILGARD

DIW/jrb

see Survey 73
Sheet 101/145

ATTACHMENT NO. 2

GROUNDINGS OF SHOALS

| Latitude | Longitude | Date | Time | Latent | Depth | WCT | Tide | Effective | Effective | Remarks |
|------------|------------|-----------------|-----------------|---------------|---------------|----------------|----------------|-----------------|----------------------|---------------------------------------|
| | | | | dir | | | | Base | Clear | |
| 38° 55.97' | 76° 23.66' | 4/21 | 1221 | 2A ✓ | 64 | 1.5 | 2.0 | 60.5 ✓ | — | Lost buoy ✓ |
| | | 4/22 | 1635 | 3A | 50 | 1.0 | 1.5 | 67.5 | — | see Addendum rec. buoy |
| | | 4/23 | 1635 | 6A | 63 | 1.5 | 1.5 | 60.0 ✓ | — | — |
| | | 4/22 | 0830 | 3B 4B | 52 | 1.0 | 0.5 | — | 50.5 ✓ | 51.8' sdg. ✓ |
| 38° 55.55' | 76° 23.98' | 4/22 | 0910 | 8B | 52 | 1.0 | 0.5 | 50.5 ✓ | — | no sdg. ✓ |
| | | 4/22 | 1010 | 10-11B | 51 | 1.5 | 0.5 | — | 49.0 ✓ | — |
| 38° 55.90' | 76° 22.95' | 4/25 | 1155 | 2AB | 34 | 1.0 | 1.0 | 32.0' ✓ | — | reported obstruction |
| | | 4/26 | 0905 | 3-4E | 25 | 1.0 | 1.5 | — | 22.4 ✓ | — |
| | | 4/25 | 1400 | 30D | 26.0 | 0.5 | 1.5 | — | 24.0' (hang & clear) | 26.4' sdg. ✓ |

• Wire drag buoy

AIDS TO NAVIGATION

No fixed aids to navigation were located

Floating aids to navigation are as follows:

| <u>Sheet 10-2-60</u> | <u>Latitude</u> | <u>Longitude</u> | <u>Depth</u> | <u>Position Number</u> | <u>Date</u> |
|----------------------|-----------------|------------------|--------------|----------------------------|-------------|
| Red Nun Buoy 20C | 38° 56'10" | 76° 22'54" | 31' | WA2B | 4/14 |
| Red Bell No. 2 | 38° 57'45" | 76° 23'42" | 50' | WA 69F | 4/27 |
| RNB, 20B | 28° 55'18" | 76° 23'10" | 32' | WA 11D | 4/24 |

*Floating aids were transferred from the smooth plot of
Wa-H-10-1-60 (H. 8522)*

TIDAL NOTE

Standard tide gage, Annapolis, Maryland, latitude $38^{\circ} 59'06''$
longitude $76^{\circ} 29'12''$, was used for tidal control throughout the
survey with a correction of plus (\ast) 0.5 hour and height high
water of 1.1.

Hourly heights were furnished from the Washington Office.

ATTACHMENT NO. 5

S T A T I S T I C S

| <u>Letter Day</u> | <u>Date</u> | <u>Positions Claimed</u> | <u>Nautical Miles</u> | <u>Statute Miles</u> |
|-------------------|-------------|--------------------------|-----------------------|----------------------|
| | April | | | |
| A | 21 | 34 | 4.0 | 4.60 |
| B | 22 | 43 | 4.0 | 4.60 |
| C | 23 | 64 | 4.1 | 4.71 |
| D | 25 | 57 | 6.7 | 7.60 |
| E | 26 | 27 | 3.4 | 3.90 |
| F | 27 | 39 | 2.0 | 2.30 |
| | | | | |
| | TOTALS | 264 | 24.2 | 27.71 |

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

WIRE DRAG SURVEY H-8523WD (Wa-H1 10-1-60WD)

GENERAL

This survey appears to be adequate to show the locations and clearances of obstructions in the project area.

The smooth plotting was complicated by the rather erratic courses and the sub-division of the necessarily steeply inclined sections along the East side of the survey. There were several instances where these inclined sections bumped along the bottom and no effective drag depths were obtained; however, these lines showed the areas to be clear of all obstructions as long as forward progress was maintained.

All drag strips were plotted on overlay templates which are being forwarded with the smooth sheet. They contain numerous notes explaining the discrepancies encountered and the various methods used to resolve them. All references to charted depths on overlays and on the smooth sheet refer to depths shown on the boat sheet for hydrographic survey Wa-H1-10-1-60. These depths should be corrected when the smooth plot of that survey has been completed.

Line 1 thru 10D is being submitted on a smooth overlay to avoid undue congestion on the smooth sheet. *This strip was transferred to the smooth sheet in the Wash. Office. (Tracing filed with bathygrams.)*

DISCREPANCIES

Line 2 thru 4C was not smooth plotted. It is believed the hang was due to sag as the drag never got underway - See plotting overlay.

Line 19 thru 27E was not smooth plotted. Three grounds occur on this line, all of which were cleared at the same or greater depths. It is believed the grounds may be attributed to sag caused by insufficient strain on drag while reversing off the navigating buoy. See plotting overlay.

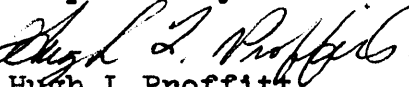
Line 29 thru 34A was ended at position 33A to avoid confusion at the point of hang on obstruction. The note on page 10, Vol. 1(GL), states that the hang at 47' effective was on lost drag gear still attached to the obstruction. The item was cleared on line 1 thru 8B at 50 feet. See plotting overlay.

Line was broken at position 15D as towline parted. See overlay.

The wreck charted at Lat. 38-54.8' Long. 76-23.85' was not found. The area was cleared at 61' effective.

Norfolk, Va.
2 Aug. 1960

Respectfully submitted,


Hugh L. Proffitt
Cartographer

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8523 W.D.

Records accompanying survey: Smooth sheets .1...;
 boat sheets .2...; sounding vols.; wire drag vols. ..5...;
 Descriptive Reports .1...; graphic recorder envelopes ..1...;
 special reports, etc. .1- Area and Depth Sheet, 1-Field A&D Sheet,
 1-Drag Strip Overlay and 1-Roll, Plotting Overlays.....

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

| | | |
|---|-------|---------|
| Number of positions on sheet | | 263 |
| Number of positions checked | | 49 |
| Number of positions revised | | 0 |
| Number of soundings revised (refers to depth only) | | 0 |
| Number of soundings erroneously spaced | | 0 |
| Number of signals erroneously plotted or transferred | | 0 |
| Topographic details | Time | 1 |
| Junctions | Time | |
| Verification of soundings from graphic record | Time | 1 |
| Special adjustments | Time | 6 |

Verification by *[Signature]* Total time *62* Date *10-11-60*
 Reviewed by *[Signature]* Time *8* Date *10-18-60*

RHC

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Coastal Surveys~~

24 August 1960

Division of Charts: R. H. Carstens

Plane of reference approved in
5 volumes of ~~sounding~~ records for
wire drag

HYDROGRAPHIC SHEET 8523 WD

Locality Kent Island, Maryland

Chief of Party: D. G. Rushford in 1960
Plane of reference is mean low water
ft. on tide staff at
ft. below B. M.

Height of mean high water above plane of reference is 1.0 foot.

Condition of records satisfactory except as noted below:



Chief, Tides Branch

~~Chief, Division of Tides and Currents~~

OFFICE OF CARTOGRAPHY

REVIEW SECTION -- NAUTICAL CHART DIVISION

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8523 WD

FIELD NO. WA-HI 10-1-60 WD

Maryland, Chesapeake Bay, West Side of Kent Island

SURVEYED: April 1960

SCALE: 1:10,000

PROJECT NO. 10,000-816

SOUNDINGS: 808 Depth Recorder

CONTROL: Sextant fixes
on shore signals

Chief of Party ----- D. G. Rushford
Surveyed by ----- D. G. Rushford; D. I. Wolsk;
G. N. Orr; J. T. Maldari
Protracted by ----- W. W. Feazel
Soundings plotted by ----- W. W. Feazel
Verified by ----- I. M. Zeskind
Reviewed by ----- I. M. Zeskind
Inspected by ----- R. H. Carstens

DATE 10-18-60

a. Purpose of the Survey

The purpose of the survey was to wire-drag to a depth of 60 ft. as much as possible the area off the western shore of Kent Island, Md., in the vicinity of the measured nautical-mile range. In the remaining area, the ground-wire was to be set as near the bottom as practical. Wire drag was not required in depths less than 30 ft. The obstruction reported to be located on bearing 240°, approximately 600 yards from Buoy N "20C", with a cleared depth of 30 ft. was to be confirmed or disproved.

b. Shoreline and Control

The shoreline originates with unreviewed air-photographic surveys T-11715 and T-11716 of 1960.

The source of the control is given in the Descriptive Report.

c. Junctions with Wire Drag Surveys

There are no contemporary wire-drag surveys within the area of the present survey.

H-8523 WD - 2

d. Comparison with Hydrographic Surveys

H-167 (1844), 1:20,000
H-2402 (1898), 1:20,000
H-5237 (1932), 1:20,000

The effective depths of the present wire-drag survey do not conflict with the depths on the above listed surveys.

e. Comparison with Chart 550 (Latest print date 5-30-60)

1. Hydrography

The charted hydrography originates with H-2402 (1898). There are no conflicts with the charted hydrography. However, attention is directed to the following:

The wreck with 45 ft. of water over it charted in Lat. 38°54.82', Long. 76°23.85' from chart letter 36 (1940) was cleared by the wire drag set to an effective depth of 61 ft. The chart letter reports the wreck to have sunk in depths of about 65 ft. and to be a pile driver, steel hull, 60' x 25'. The area of 65 ft. depths on the west side of the channel has been cleared by effective depths of 50-61 ft. It is considered that the wreck cleared by 50 ft. in Lat. 38°55.98', Long. 76°23.64' is probably the wreck previously reported. The 45 WK sounding is considered disapproved and should be deleted from the chart.

The wreck with a cleared depth of 23 ft. charted in Lat. 38°55.90', Long. 76°22.95' from advance information of the present survey (chart letter 381, 1960) was found. The wreck was hung by a wire drag set to an effective depth of 24 ft. and was cleared by a wire drag set to an effective depth which was revised during smooth-plotting from 23 to 22 ft. The 23-ft. charted cleared depth should, therefore, be revised to 22 ft.

2. Aids to Navigation

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

f. Condition of Survey

1. Field Work

The field work was satisfactorily accomplished.

2. Records

The information recorded in the sounding volumes is adequate.

3. Descriptive Report

The Descriptive Report is complete and comprehensive.

4. Field Plotting

The field plotting was satisfactory except that in several instances the path lines of the intermediate buoys did not accurately follow the buoy paths. The path lines were revised on the smooth and A and D sheets where these lines affected the cleared depth limits on the A and D sheet.

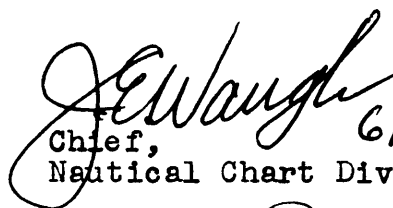
g. Compliance with Project Instructions


The survey adequately complies with the project instructions.


h. Additional Field Work Recommended

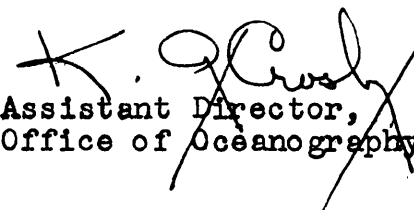
No additional field work is recommended.

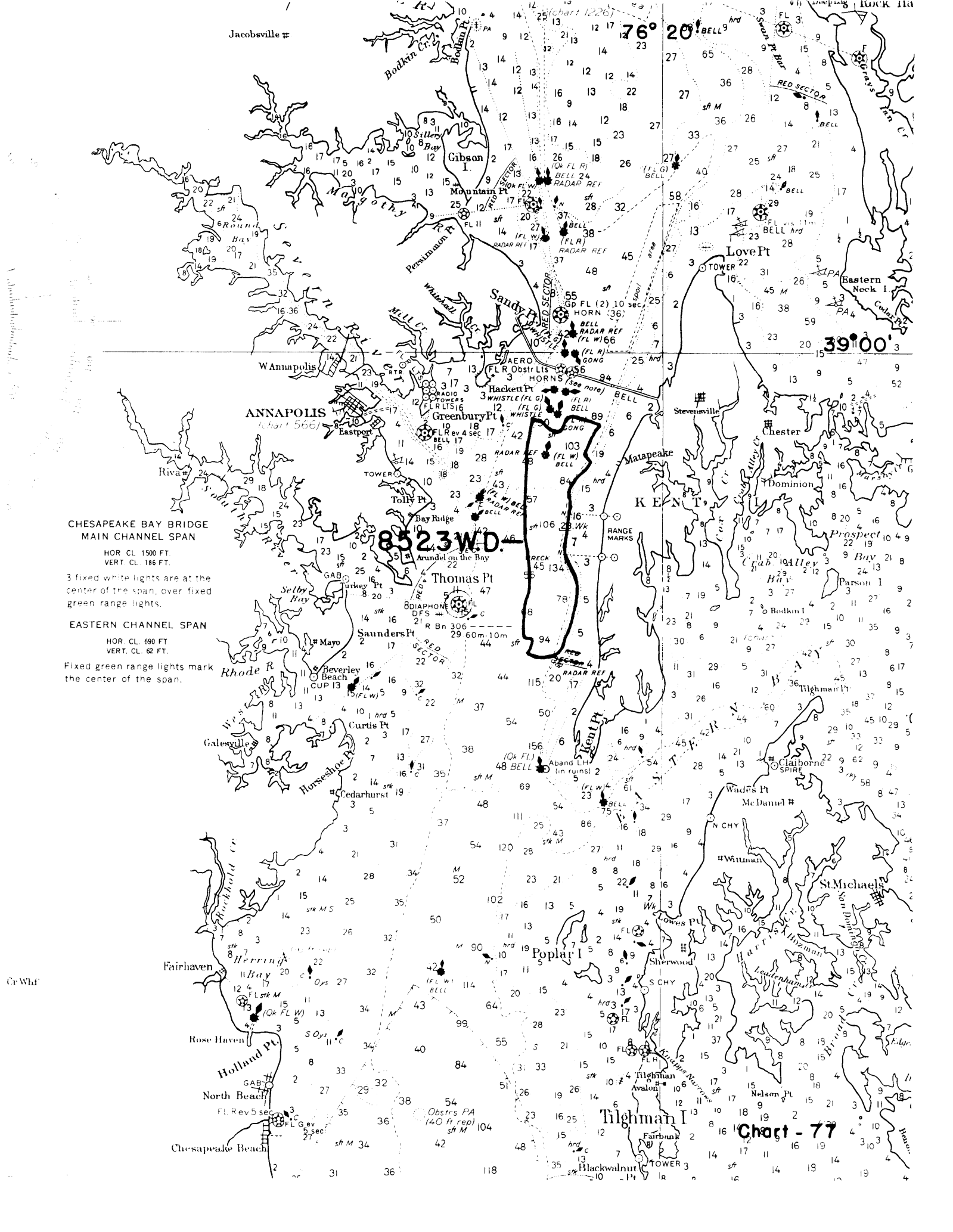
Examined and Approved:

 6/15/61
Chief,
Nautical Chart Division


Projects Officer,
Operations Division


Assistant Director,
Office of Cartography


Assistant Director,
Office of Oceanography



Jacobsville #

76° 20'

39° 00'

ANNAPOLIS
(Chart 566)

8523 WD.

CHESAPEAKE BAY BRIDGE
MAIN CHANNEL SPAN
HOR. CL. 1500 FT.
VERT. CL. 186 FT.

3 fixed white lights are at the center of the span, over fixed green range lights.

EASTERN CHANNEL SPAN
HOR. CL. 690 FT.
VERT. CL. 62 FT.

Fixed green range lights mark the center of the span.

Chart - 77

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8523 W.D.

Record of Application to Charts

| DATE | CHART | CARTOGRAPHER | REMARKS |
|----------|-------|------------------------|---|
| 8-30-60 | 566 | <i>E. P. [unclear]</i> | Before After Verification and Review <i>changed basket depth to 1221 wreck</i> |
| 11/21/60 | 550 | <i>J. Walker</i> | Before After Verification and Review <i>Completely</i> |
| 1-28-61 | 1225 | <i>R. E. Elkins</i> | Before After Verification and Review <i>Completely applied thru chart 550 deg 25</i> |
| 12/14/60 | 566 | <i>O. Swanson</i> | Before After Verification and Review |
| 8/2/61 | 77 | <i>J. H. Eaton</i> | <i>thru deg 25 chrt-550</i> 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 |
| | | | 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 |
| | | | 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 |
| | | | 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.