8214

Diag. Cht. No. 77-3.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. CO-05156 *Office No.* H-8214

LOCALITY

State Maryland

General locality Severn River

Locality Naval Engineering Experiment Station.

194/56

CHIEF OF PARTY

E. L. Jones

LIBRARY & ARCHIVES

DATE May 22, 1957

B-1870-1 (1)

8214

Portion of
#WL in error

Form 537
(Ed. June 1946)

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-8214

Field No. Co-05156

State MARYLAND

General locality SEVERN RIVER

Locality NAVAL ENGINEERING EXPERIMENT STATION

Scale 1:5,000 Date of survey 10 to 12 April 1956

Instructions dated 13 February 1956

Vessel COWIE

Chief of party E.L. JONES

Surveyed by E.L. JONES; B.E. GREENE; O.L. DOSTER

Soundings taken by ~~fathometer~~, graphic recorder, hand lead, ~~wire~~ Pole

Fathograms scaled by SHIP PERSONNEL

Fathograms checked by SHIP PERSONNEL & NORFOLK DISTRICT OFFICE

Protracted by R.D. LYNN

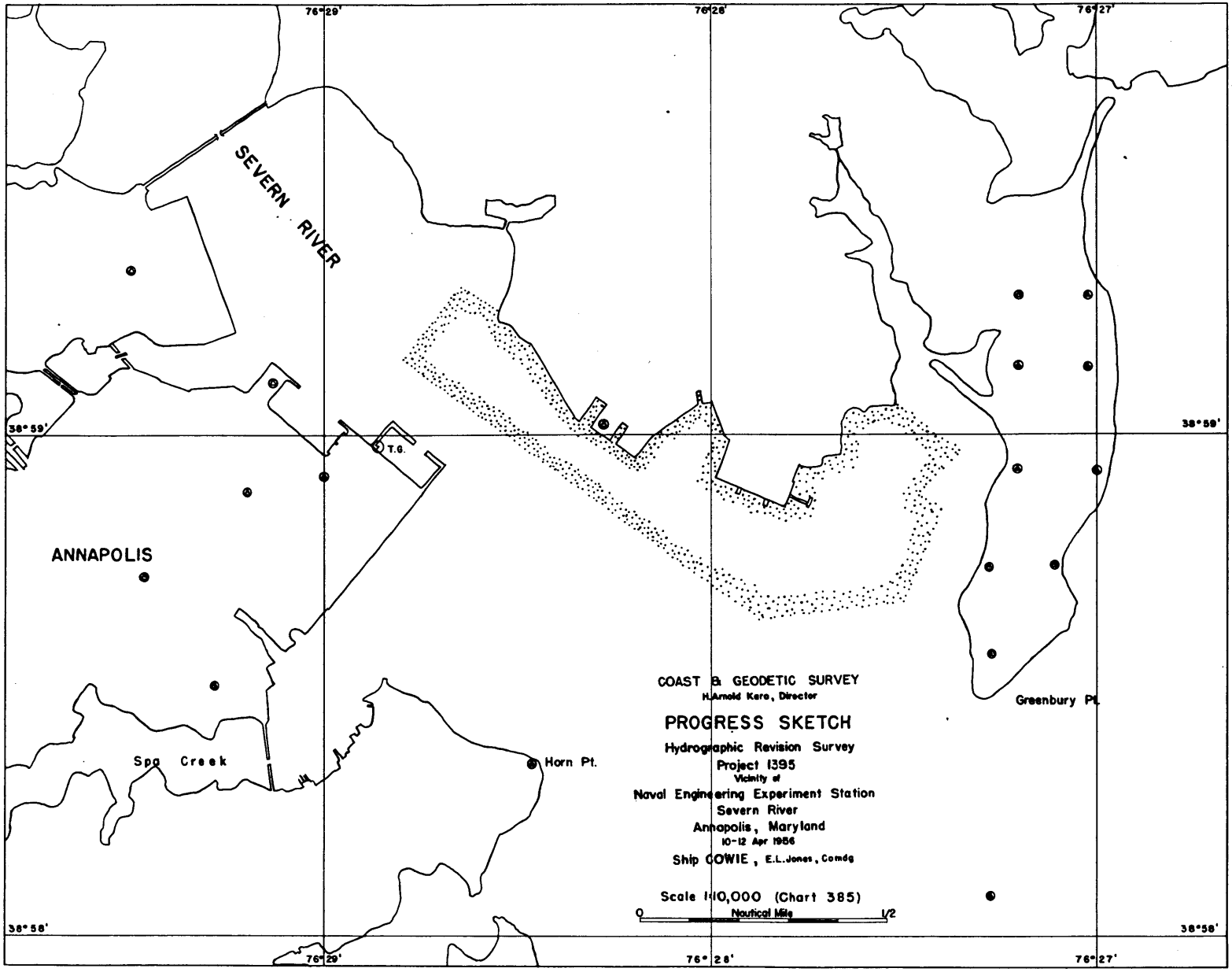
Soundings penciled by R.D. LYNN

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~ and are true depths.

REMARKS: This survey was smooth plotted in the Hydrographic Section of the Norfolk District Office.

U. S. GOVERNMENT PRINTING OFFICE 16—66520-1

NWD


76°29'
76°28'
76°27'
38°59'
38°58'
SEVERN RIVER
T.G.
ANNAPOLIS
Spa Creek
Horn Pt.
Greenbury Pt.
COAST & GEODETIC SURVEY
H.Arnold Karo, Director
PROGRESS SKETCH
Hydrographic Revision Survey
Project 1395
Vicinity of
Naval Engineering Experiment Station
Severn River
Annapolis, Maryland
10-12 Apr 1956
Ship COWIE, E.L.Jones, Comdg
Scale 1:10,000 (Chart 385)
0
Nautical Mile
1/2

DESCRIPTIVE REPORT
to accompany

PROJECT 1395

HYDROGRAPHIC SHEET NO. H-8214, (Field No. CO-05156)

SEVERN RIVER

NAVAL ENGINEERING EXPERIMENT STATION

ANNAPOLIS, MARYLAND

1956

SHIP COWIE, E. L. JONES, COMDG.

A - PROJECT:

This small hydrographic revision survey was made at the 8 November 1955 request of the District Public Works Officer, Naval Engineering Experiment Station, Annapolis, Maryland to provide accurate up-to-date depth in the vicinity of their wharfs and boat basins on the north side of the Severn River opposite the Naval Academy.

The work was accomplished 10 - 12 April 1956 in accordance with the Director's Instructions for Proj 1395, dated 13 February 1956. ~~A copy of these instructions are attached.~~

B - SURVEY LIMITS:

The limits of this hydrographic survey are shown on the attached reduced copy of the progress sketch.

The Bureau's prior survey of the project area was done in 1932 on sheet H-5199 (1:5,000 scale), and H-5198 (1:10,000 scale). The 1:5,000 scale sheet covers the present wharf areas.

C - VESSELS AND EQUIPMENT:

The fathometer hydrography was done with a 25-foot skiff, No. 749, powered with two 10 HP outboard motors and equipped with an 808 type fathometer, No. 114 S, with the transmitting unit (fish) suspended on the port side 12 feet from the bow. Pole and lead line soundings were taken from this same skiff. A 14-foot aluminum skiff powered with one 10 HP outboard motor was used for the small amount of signal building required and for miscellaneous use on the project.

All field parties operated from the ship which was berthed in the Worthington Basin at the Naval Engineering Experiment Station. The station furnished the ship with water and electricity.

D - TIDE AND CURRENT STATIONS:

Tides from the standard gage at the Santee Basin, Naval Academy, Annapolis, Maryland were used for the reduction of soundings. In accordance with the Director's letter of 5 April 1956, reference 22/ MEK S-I-CO, the gage was not inspected, serviced nor the elevation of the tide staff determined. This gage is tended regularly by employees of the Naval Academy Public Works Department. During the period of hydrography the Public Works Department checked the gage daily and the COWIE was informed by telephone that the gage was operating satisfactorily. Tide observations were furnished by the Washington Office. Tide observations and soundings are on Eastern Standard Time.

No current observations were required.

E - SMOOTH SHEET:

The smooth sheet was prepared on the projection ruling machine by the Washington Office. The sheet and the records were transferred to the Norfolk Processing Office. The field records were processed aboard the ship while engaged on field work of Project 1287, Chesapeake Bay, and were transmitted to the Norfolk Processing Office. ~~where the smooth sheet could be plotted by one of the ships officers, Ensign Oscar L. Doster, under the supervision of that office.~~

Since the Public Works Department at the Naval Engineering Experiment Station had an immediate need for preliminary information concerning the depths a photographic copy of the boat sheet was mailed to them on 23 April from Crisfield, Maryland. The following notation was placed on the boat sheet prior to photographing:

> This boat sheet, No. CO-05156, shows field recorded depths reduced to predicted mean low water datum. The smooth hydrographic sheet, when plotted, will show depths reduced from observed tide observations and will have fathometer corrections applied. The smooth sheet when verified will be the hydrographic authority for this survey and all depths will be accurately shown in both position and depth. The shoreline shown on the boat sheet is for the guidance of the hydrographer. Any discrepancy in the shoreline will be resolved on the smooth sheet.

CO-05156

See N.P.O. Signal List

F - CONTROL STATIONS:

Triangulation Stations	Hydrographic Name
Annapolis Naval Academy Chapel, Spire, 1933	Val
Annapolis, powerhouse, stack, 1910	Peg
Annapolis, Statehouse, spire, 1933-34	Ann
Annapolis, Naval hospital, cupola, 1906	Hop
Annapolis, Experiment Station, Outer Vent, 1910	Van
Greenburg Point Shoal Lighthouse, 1898, r. 1932	Out
Annapolis, St. Mary's (Md.) Catholic Church, Spire, 1933	Mar
Naval Radio Tower No. 2, 1932	Bag
Naval Radio Tower No. 3, 1932	Cab
Naval Radio Tower No. 4, 1932	Add
Radio Tower No. 5, 1932	Big
Radio Tower No. 7, 1945	Dip
Radio Tower No. 8, 1945	Daw
Radio Tower No. 9, 1945	End
Annapolis, Naval Academy Radio Mast, Northwesterly most of six, 1933	Abe
Bancroft Hall, North Cupola, 1932	Cup

Hydrographic Signals (Located by Sextant Fixes)

Hat - Signal nailed to seawall 5 feet in front of Triangulation Station Horn, 1910

Pip - Center pipe of water main

Cow - Corner of dock at Worthington Basin (SW corner)

Sig - Sign at entrance to Small Craft Boat Basin

Saw - Northern Corner of sawtooth building

Dog - Southwest corner piling of dock wrapped with signal cloth

Dan - Center of sign

Tar - Center of sign

Die - Wrapped signal on diving platform

G - SHORELINE AND TOPOGRAPHY:

No prior topographic surveys by this bureau showing changes due to recent construction were available. Shoreline was transferred to the boat sheet from a 1:5,000 scale film positive of a section of Chart No. 385 furnished by the Washington Office.

A discrepancy in the charted shoreline northwest of Worthington Basin at the Naval Experiment Station is due to the addition of a rock fill extending about 10 meters out from the previous shoreline. This section was sketched by the hydrographer from estimated distances of the survey vessel offshore and checked by measured distance to mean high water line from hydrographic signal "Pip". It is believed adequate for charting.

Revisions applied to smooth sheet.

Several differences were noted around the dock and pier areas particularly in the Small Craft Basin (Lat. 38° 59.0', Long. 76° 27.8') and at the eastern part of the Naval Air Facility (Lat. 38° 58.9, Long. 76° 27.8') where there is a displacement of the charted shoreline of about 10 meters northeast. Shoreline revision in these areas was sketched by the hydrographer from measured distances along the

Revisions applied to smooth sheet.

dock and pier faces and from sextant fixes for location of hydrographic signals and pier corners. The shoreline as so sketched agrees with the hydrographic data. Copies of blueprints covering part of this area were obtained from the District Public Works Officer at the Naval Engineering Experiment Station. These are forwarded as a part of the records of this survey. It is understood that additional prints covering the area to the east of the Small Craft Basin are available from the Naval Academy. It is recommended that these prints be obtained to verify the revised shoreline for charting purposes.

Bp ~~55236~~
Bp 55286 (15 parts)
Bp. 55137-8

H - SOUNDINGS:

Soundings on a and b days (purple) were by 808-J Fathometer. On a and b days (Red green) and on c day (purple) soundings were made by leadline and pole. Fathometer and velocity corrections were determined from bar checks. No unusual methods or equipment were used.

I - CONTROL OF HYDROGRAPHY:

Three-point sextant fixes on signals listed under F of this report were used for control of hydrography throughout this survey.

J - ADEQUACY OF SURVEY:

This survey is complete and adequate for the purpose intended and in this respect supersedes prior surveys for charting. (See Section G of this report for recommendations regarding charting of shoreline).

K - CROSSLINES:

Crosslines comprise about 8 per cent of the principal system of lines, with all crossings in good agreement.

L - COMPARISON WITH PRIOR SURVEYS:

A comparison was made with the following prior surveys made in 1932: H-5198 (1:10,000 scale) and H-5199 (1:5,000 scale). Since these surveys were made, extensive construction within the project limits of the present survey has greatly changed the shoreline, topography and submarine relief, rendering the prior surveys obsolete in these areas. At the outer limits of the present survey along the southwest side depths are generally in good agreement with the 1932 survey. Slight shoaling of 1 to 3 feet in depths of 30 feet is apparent in a few places at the deepest part of the main channel which runs parallel to the project limits on the southwest side, however crosslines extended out beyond the project limits indicate that depths on the other side of the channel are substantially the same. At the northwestern boundary of the present survey depths are generally somewhat deeper than previously found but depth curves can be drawn with slight adjustment.

At the southeastern part of the present survey, in the area to the south and east of Carr Point, dredging operations have caused extensive changes in the bottom configuration. Depths are generally deeper than on the previous survey except for the inshore flats to the northeast of Carr Point where depths of 1 to 2 feet now extend out to the 6-foot curve as shown on the 1932 survey.

M - COMPARISON WITH CHART:

Chart 385 is the largest scale chart of this area. Comparison was made with a 1:5,000 scale film positive print of this chart furnished by the Washington Office. In no case on this survey were depths found to be substantially less than the charted depths. There is a 32 foot sounding charted in Lat. 38° 59.03', Long. 76° 28.56' which fall among ~~30~~ 28 foot soundings on this survey. In Latitude 38° 59.02', Longitude 76° 28.88', just west of the entrance to Worthington Basin, the 12-foot curve extends about 40 meters farther offshore than is shown on the chart.

The area in front of the Naval Engineering Experiment Station between Worthington and Dungan Basins has been dredged to a maximum depth of ~~35~~ 34 feet. (Lat. 38° 58.97', Long. 76° 28.28'). A minimum depth of ~~10~~ 9 feet was found along the face of the pier in this area. The area south of Carr Point around the T pier at the eastern end of the Naval Air Facility waterfront has been dredged to a depth of about ~~22~~ 20 feet. The minimum depth found at the southwestern offshore end of this pier is ~~17~~ feet and at the inshore end ~~15~~ 19 feet.

These are comparable anchors on grounding with BP 53236 NRD 7-10-57

The four charted obstructions about 200 meters south of Carr Point were searched for but not found. In addition to regular sounding lines run over this area, approximately 40 minutes was spent running at slow speed and drifting through the area using numerous trial sextant fixes for position and feeling with the lead line. It should be noted that a duck blind on a piling structure projecting about 2 feet above mean high water was found 100 meters northeast of the northern most of the four charted obstructions.

Delete obstructions (Concrete Anchors) from Chart. See Review

Chart information, collected during the various field operations and outside of the hydrographic area, have been shown on 4 chart sections of chart 385 along with landmark inspection and verification. The chart sections are in single copy and have been attached to the original copy of the descriptive report.

N - DANGERS AND SHOALS:

No new dangers or shoals were found on this survey. However it should be noted that the 12-foot curve was found to extend about 40 meters farther offshore than is shown on Chart 385 just west of the entrance to Worthington Basin (Lat. 38° 59.02', Long. 76° 28.38').

O - COAST PILOT INFORMATION:

The following information was obtained during the course of field operations 10 - 12 April 1956, on hydrographic revision survey in the vicinity of the Naval Engineering Experiment Station on the north side of the Severn River, opposite Annapolis, Maryland. The investigation was confined to the area covered by Chart No. 385 and pages 290 to 293 of Coast Pilot 3, Atlantic Coast, Sandy Hook to Cape Henry, Sixth (1953) Edition.

Coast Pilot Information:

Page 291 - Line 15 - 17: strike out.

The charted landmark, Annapolis Roads Club House Tower (Lat. 38° 57.1', Long. 76° 28.0'), and the building were destroyed by fire in about 1950. The building has been since rebuilt in about the same location, but it is no more prominent than other buildings along this shore.

outside limits of H 8214

Piling, which extends 2 - 3 feet above MHW, is all that remains wharf. While this club was formerly used by yachts it now appears abondoned and was in the intervening years a night club.

Page 292 - Line 5: insert after.

The Annapolis Yacht Club is at the north end and on the Severn River side of this bridge. The Water along the face of the yacht club wharf is reported to be 12 feet.

P - AIDS TO NAVIGATION:

The following floating aids to navigation falling within or adjacent to the area of this survey were located by sextant fixes with check angle.

No.	Light List Name	Description
-----	Chanel Buoy 11	Black; 2d-cl, can
	Channel Buoy 14	Red; 1st-cl, nun
2756.7	Channel Lighted Bell Buoy 13	Black; QK. Fl. W.
-----	Severn River Restricted Area Buoy A	Orange and white horizontal bands; 2d-cl. spar
-----	Channel Buoy 15	Black; 2d-cl can
	Channel Buoy 16	Red; 2d-cl nun
------	Severn River Restricted Area Buoy B	Orange and white horizontal bands 2d-cl, spar
-----	Channel Buoy 18	Red; 3d-cl, nun
-----	(C "7"; unlisted 1955)	Black; 3d-cl, can

See N.P.O. List of Aids

The charted positions of these aids fall close to the located positions. The positions and other required data concerning them will be shown on the attached sheet after the smooth sheet has been plotted.

There are no new non-floating aids to navigation in the general area of the hydrographic survey. Only one aid, Greenbury Point Shoal Light (triangulation station GREENBURY POINT SHOAL LIGHT, 1898) was used on this survey. Its charted position is in agreement with other triangulation stations in the area as determined by sextant fixes and cuts.

Q - LANDMARKS FOR CHARTS:

There are no new landmarks to be charted.

Charted landmarks were inspected and where used in the hydrographic survey verified. Landmarks inspected have been combined with notes on chart inspection shown on four sections of Chart 385 submitted with the original copy only of this report. If duplicate copies are needed it is request that they be reproduced.

Only one charted landmark, Annapolis Roads Club House Tower (Latitude 38° 57.08', Longitude 76° 28.05'), is recommended for deletion. This landmark was destroyed by fire in about 1950.

R - GEOGRAPHIC NAMES:

Geographic Names have been made the subject of a special report. The field investigation was done jointly by Cdr. E. L. Jones and Ens. Oscar L. Doster and was carried out along with other boat operations on the project. on file 454 (#251)

Nearly all of the geographic names on Chart No. 385 were investigated. The investigation was not as thorough as usually conducted on photogrammetric parties since this work was hampered by lack of vehicle transportation and contacts with residents in outlying areas. In addition to furnishing geographic name information this investigation and special report was used for training of junior officers in this type of work.

S - T Not Applicable.

U - Y - MISCELLANEOUS:

During the brief stay of the COWIE at Annapolis we were greatly aided by the Public Works Department of the Naval Engineering Experiment Station. The COWIE tied-up at the Worthington Basin adjacent to the Adminstration Building and was furnished electricity, water, and garbage collection service. We were also able to fuel at this same basin. We are particularly indebted to the Public Works Officer at the Experiment Station, LCDR M. J. Harper and his top civilian aides, Mr. S. F. Brown and Mr. R. F. Chapman.

Z - TABULATION OF APPLICABLE DATA:

A list of signals used is attached to sounding Volume No. 1.

A list of survey records and supporting data transferred to the Norfolk Processing Office is shown on the attached copy of letter of transmittal.

Respectfully submitted,

Bruce E. Greene

Bruce E. Greene
Lieutenant, C&GS

Approved and forwarded
to the Norfolk Processing Office
30 April 1956

Edmund L. Jones
Commander, C&GS
Comdg. Ship COWIE

150 YEARS OF SERVICE
1807 - 1957

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY
WASHINGTON 25

IN REPLY ADDRESS THE DIRECTOR
COAST AND GEODETIC SURVEY
AND NOT THE SIGNER OF THIS LETTER

AND REFER TO NO 224/MEK
D-1-NK

1 February 1957

To: Norfolk District Officer
Coast and Geodetic Survey
102 West Olney Road
Norfolk 10, Virginia

Subject: Shoreline for survey CO-05156

With reference to your request of 3 January 1957 recent photographs have not been applied to the topographic sheets in the Severn River, Maryland, area.

Air-photo revision from 1953 photographs was made on acetate for the recent construction of chart 385. Because of the process used in the compilation of chart 385 this acetate is in poor condition and not suitable for reproduction. A reverse blue-line impression on vinylite of chart 385 is being furnished to you for the application of shoreline and topographic detail to smooth sheet CO-05156. ✓

Director

1. RS-446 N/2 of T-5341 used 9lens photo of 6/1/50 ✓
(NOT APPLIED TO CHART)
2. T-8265 is an AMS Quad using 1938 & 1942 photo ✓
3. Photos 12/16/53 OX 1439, 40, 41, 42, 43 must of been applied directly to chart ✓

H-8214
(CO-05156)

TIDE NOTE

HYDROGRAPHIC SHEET H-8214 (Field CO-05156)

PROJECT 1395

SEVERN RIVER

ANNAPOLIS, MARYLAND

SHIP COWIE

Hourly heights furnished by the Washington Office from observations at the standard tide station at the Santee Basin, Annapolis, Maryland were used for the reduction of soundings on this sheet. (Latitude 37° 58.98', Longitude 76° 28.87')

Project 1395
Sheet H-8214
Ship COWIE

FLOATING AIDS TO NAVIGATION

Light List Name	No.	Latitude ° '	dm m	Longitude ° '	dp m	Pos. No.	Vol. No.	Depth Feet	Date of Location
UNOFFICIAL FIXED AID TO NAVIGATION									
* Fixed white light	----	~~38° 58.95~~ ~~58° 45'~~ 38°58'57"	----	~~76° 28.33'~~ ~~28° 15'~~ 76°28'20"	----	24c	II		12 April

* Low intensity, visible 360°, on top of pile, 3 feet above MHW, with 5 foot cross arm from which hydro-phones suspended. Maintained by Naval Engineering Experiment Station. Not seasonal. Electrical lighted from underwater cable.

ABSTRACT OF CORRECTIONS

TO ACCOMPANY DESCRIPTIVE REPORT

FATHOMETER CORRECTIONS:

Fathometer Reading (Feet) A Scale	Correction (Feet)	Fathometer Reading (Feet) A Scale	Correction (Feet)
0.0 - 9.2	0.0	21.8 - 24.1	-1.2
9.3 - 12.1	-0.2	24.2 - 26.5	-1.4
12.2 - 14.5	-0.4	26.6 - 28.9	-1.6
14.6 - 16.9	-0.6	29.0 - 31.4	-1.8
17.0 - 19.3	-0.8	31.5 - 33.8	-2.0
19.4 - 21.7	-1.0	33.9 - 36.2	-2.2

B Scale

No soundings on B Scale.

LEAD LINE CORRECTIONS:

Mark (Feet)	True Depth (Feet)	Mark (Feet)	True Depth (Feet)
6	6.00	24	24.00
12	12.00	30	30.00
18	18.00	36	36.00

No corrections applied.

Comp. OLD

✓ GH

COPY ✓ OLD

ABSTRACT OF CORRECTIONS

TO ACCOMPANY DESCRIPTIVE REPORT

INDEX CORRECTION _____ SKIFF 749

Position			Correction
1a			-0.2
2a	-	94a	0.0
94a ≠15"	-	102a	-0.2
102a ≠15"			-0.4
102a ≠30"	-	124a	0.0
1b	-	15b	0.0
15b ≠15"	-	18b ≠15"	-0.2
18b ≠30"	-	21b ≠15"	0.0
21b ≠30"	-	41b	-0.2
42b	-	81b ≠30"	0.0
81b ≠45"	-	90b	-0.2
90b ≠15"	-	138b	0.0
138b ≠15"	-	139b	-0.2
139b ≠15"	-	140b	≠0.2
141b	-	144b ≠15"	0.0
144b ≠30"	-	145b	-0.2
145b ≠15"	-	178b ≠45"	0.0
178b ≠ 1'	-	180b ≠30"	≠0.2
180b ≠45"	-	212b ≠15"	0.0
212b ≠30"	-	216b ≠15"	-0.2
216b ≠30"	-	232b	0.0
233b	-	234b	≠0.2
234b ≠15"	-	236b ≠30"	0.0
236b ≠45"	-	237b	≠0.2
237b ≠15"	-	242b	0.0
243b	-	244b ≠15"	-0.2
244b ≠30"	-	248b ≠45"	0.0
249b	-	250b	-0.2
251b	-	252b ≠15"	≠0.2
252b ≠30"	-	267b	-0.2

Comp: OLD. CH

Copy:

Copy ✓: OLD

STATISTICS

HYDROGRAPHIC SHEET NO. H-8214

SEVERN RIVER, MARYLAND

STATISTICS:

	Day	Date	Sdg. Vol. No.	Statute Miles	Positions
Aluminum Skiff	a	11 April	3	*	41
	b	12 April	3	*	14
Skiff 749	a	10 April	1	10.2	124
	b	11 April	1 & 2	17.0	267
	c	12 April	2	3.0	75
Total:				30.2	521

Area: Square statute miles 0.3

* Location of signals and hand lead soundings along the edge of docks.

Comp. 4/
✓ OLD

NORFOLK PROCESSING OFFICE
LIST OF FLOATING AIDS TO NAVIGATION

H-8214

BUOY	LATITUDE	LONGITUDE	DEPTH	POS. NO.	DATE
ANNAPOLIS HARBOR					
Channel Buoy 18	38-59.16	76-28.68	24'	1a(pur)	4/10/56
Channel Buoy 7	38-59.09	76-28.87	20'	2a(pur)	4/10/56
Channel Buoy 15	38-58.92'	76-28.43'	26'	4a(pur)	4/10/56
Channel Buoy 16	38-58.93'	76-28.38'	26'	5a(pur)	4/10/56
Channel Ltd. Bell Buoy 13	38-58.69'	76-28.03'	19'	7a(pur)	4/10/56
Channel Buoy 14	38-58.69'	76-27.92'	23'	9a(pur)	4/10/56
Channel Buoy 11	38-58.60'	76-27.93'	19'	10a(pur)	4/10/56
SEVERN RIVER RESTRICTED					
Area Buoy A	38-58.87	76-28.28'	26'	6a(pur)	4/10/56
Area Buoy B	38-58.98'	76-28.44'	26'	3a(pur)	4/10/56
Seaplane Bouy Marker BY (vert stripe)	38°58.76'	76°27.86'	19'	21c(pur)	4/12/56'

NORFOLK PROCESSING OFFICE
LIST OF SIGNALS

H-8214

TRIANGULATION STATIONS

ABE	ANNAPOLIS, NAVAL ACADEMY RADIO MAST, NW'LY, MOST OF SIX, 1933
ADD	NAVAL RADIO TOWER NO. 4, 1932-56
ANN	ANNAPOLIS STATEHOUSE, SPIRE, 1933-56
BAG	NAVAL RADIO TOWER NO. 2, 1932-56
BIG	RADIO TOWER NO. 5, 1932-56
CAB	NAVAL RADIO TOWER NO. 3, 1932-56
CUP	BANCROFT HALL, NORTH CUPOLA, 1932-56
DAW	RADIO TOWER NO. 8, 1945-56
DIP	RADIO TOWER NO. 7, 1945-56
END	RADIO TOWER NO. 9, 1945-56
HOP	ANNAPOLIS, NAVAL HOSPITAL, CUPOLA, 1906-56
HORN	HORN, 1910-56
MAR	ANNAPOLIS, ST. MARY'S CATHOLIC CHURCH, SPIRE, 1933-56
OUT	GREENBURY POINT SHOAL LIGHTHOUSE, 1898-1956
PEG	ANNAPOLIS, POWERHOUSE STACK, 1910-56
VAL	ANNAPOLIS NAVAL ACADEMY CHAPEL, SPIRE, 1933-56
VAN	ANNAPOLIS EXPERIMENT STATION, OUTER VENT, 1910-56

HYDROGRAPHIC STATIONS

Cow	Vol. 1, pg.19
Dan	Vol. 3, pg. 4
Die	Vol. 1, pg. 7
Dog	Vol. 3, pg. 4
Hat	Vol. 1, pg. 5
Pip	Vol. 1, pg. 19
Saw	Vol. 1, pg. 7
Sig	Vol. 1, pg. 9
Tar	Vol. 3, pg. 3

NORFOLK PROCESSING OFFICE
ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-8214 (Field No. Co-05156)

GENERAL

This appears to be an excellent basic survey except for the shoreline discrepancy listed below.

SHORELINE

According to the notes in the descriptive report and also to the boat sheet overlay showing shoreline revisions, the hydrographer was apparently under the impression there was a general shoreline displacement in the area. It is believed this may be accounted for because of the difficulty of obtaining an accurate shoreline transfer from an enlarged chart section, and particularly to the fact that the general shift was apparently based on sextant fixes, most of which appear to be entirely questionable as they could not be plotted in the field or in this office. See Review Pt.

Definite shoreline changes apparently have occurred between stations Dog and Dan. These changes ~~were~~ ~~not~~ shown on the smooth sheet. ~~as the positions, 10 thru 17b (red), could not be plotted.~~ Ap 5528 6, Let 9012

Also, it may be considered desirable to chart the rip rap in the vicinity of station Pip as a new high water line. Rip Rap plotted as approx. HW.L. on Smooth Sheet

The shoreline, as shown on the smooth sheet, is a direct transfer from a bromoil of chart 385.

SOUNDINGS

Particular consideration should be given to the ~~12~~ 13 sounding falling about ~~30~~ 10 meters south of station Cow. The trace on the fathogram shows some of the characteristics of a side echo. See positions 119 thru 120a. wrong spacing of soundings ranked on Smooth Sheet

Respectfully submitted,
Hugh L. Proffitt, Cart Hugh L. Proffitt

GEOGRAPHIC NAMES

Survey No. 8214

Name on Survey	On Chart No. A	On previous survey No. B	On U. S. quadrangle Maps C	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
Maryland									BGN	1
Annapolis									"	2
Severn River									"	3
Santee Basin			(tide station)							4
Ferry Point										5
Naval Engineering Experiment Station										6
Worthington Basin										7
Dungan Basin										8
Small Craft Basin										9
Carr Point									BGN	10
Carr Creek									"	11
Greenbury Point									"	12
										13
			Names approved 5-29-57. L. Heck							14
										15
	The names report mentioned on page 11 is on file in Geographic Names Section (454), No. 231. Necessary corrections have been applied to charts 566, 385, 550.									16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. 8214

Records accompanying survey:

Boat sheets 1; sounding vols. 3; wire drag vols. ;

bomb vols. ; graphic recorder rolls 1-Envelope

special reports, etc. 1-Smooth sheet, 1-Descriptive report,

and 1-Boat sheet overlay.

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

Number of positions on sheet		521
Number of positions checked		55
Number of positions revised		12
Number of soundings revised (refers to depth only)		52
Number of soundings erroneously spaced		60
Number of signals erroneously plotted or transferred		0
Topographic details	Time	12 hrs
Junctions	Time	1 hr
Verification of soundings from graphic record	Time	4 hrs

Verification by C.R. Helmer Total time 80 hrs. Date 7/25/57.

Reviewed by J.W. Zeskind Time 24 Date 7/31/57.

M-2232-1

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-8214 FIELD NO. CO-05156

Maryland, Severn River, Naval Engineering Experiment Station

Project No. 1395

Surveyed - April, 1956 Scale 1:5,000

Soundings: Control:

808 Fathometer
Lead line
Pole

Sextant fixes on
shore signals

Chief of Party - E. L. Jones
Surveyed by - E. L. Jones, B. E. Greene, and O. L. Doster
Protracted by - R. D. Lynn
Soundings plotted by - R. D. Lynn
Verified and inked by - C. R. Helmer
Reviewed by - I. M. Zeskind 7/31/57
Inspected by - R. H. Carstens

1. Shoreline and Control

The shoreline originates with the 1953 photographs as applied on the drawing of Chart 385, and with revisions determined by the hydrographer.

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

2. Sounding Line Crossings

Depths at crossings are in good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves were adequately delineated. The 3-ft. and 24-ft. curves have been added to more clearly define the bottom configuration in several inshore areas and in the channel.

The bottom is fairly irregular. Flats, shoals, and dredged channels contribute to the bottom irregularity.

4. Junctions with Contemporary Surveys

H-5199 (1932) overlaps the present survey northwest of long. 76°27.6', and H-5198 (1932) overlaps it south of lat. 38°59.0'. Because of the extensive changes in bottom configuration occurring in this area since 1932, it was not considered of any practical value to show junctions between the present and prior surveys.

5. Comparison with Prior Surveys

H-5198 (1932), 1:10,000
H-5199 (1932), 1:5,000

Comparisons between surveys accomplished prior to 1932 and H-5198 and H-5199 were made in the reviews of H-5198 and H-5199. Therefore, no further consideration of the surveys prior to 1932 is deemed necessary.

A comparison between surveys H-5198 and H-5199 and the present survey shows extensive changes in the shoreline and bottom configuration. These changes were caused by the reclaiming of land, dredging operations, the construction and alteration of piers, and the action of the current on the bottom. Changes of as much as 3 ft. in depths are noted in the main channel and at the outer limits of the present survey.

One sounding has been carried forward from H-5199 (1932) to the present survey. With the addition of this sounding, the present survey is adequate to supersede the prior surveys within the common area.

6. Comparison with Correction Drawing to Chart 385, dated 7/11/57

A. Hydrography

The charted hydrography originates with the present survey after verification and review. No discrepancies between the charted and present survey depths are noted.

B. 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.

7. Condition of Survey

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

b. The smooth plotting was accurately done.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work Recommended

The survey is considered basic within the area sounded and no additional field work is recommended.

Examined and Approved:

Wallace A. Bruder
for Max G. Ricketts
Chief, Nautical Chart Branch

Charles A. Schanck
Chief, Division of Charts

Karl B. Jeffers 8/13/57
Karl B. Jeffers
Chief, Hydrography Branch

Samuel B. Grenell
Chief, Division of Coastal Surveys

RHC

Form 712
(11-30-55)

U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Chart Division: R. H. Carstens: 29 May 1957

Plane of reference approved in
3 volumes of sounding records for

HYDROGRAPHIC SHEET 8214

Locality Annapolis, Maryland

Chief of Party: E. L. Jones in 1956

Plane of reference is mean low water, reading

4.0 ft. on tide staff ~~xx~~(1928)at Annapolis

5.7 ft. below B.M. 1 (1928)

Height of mean high water above plane of reference is 0.9 foot.

Condition of records satisfactory except as noted below:

William Shofus
Signature

Chief, Tides Branch

Comm-DC 34330

CORRECTIONS IN FEET ~~FATHOMS~~

VELOCITY CORRECTIONS
U.S. Coast and Geodetic Survey

Ship Cowie
E.L. Jones Comdg.

These corrections are to be used between 10 April 1956 and 12 April 1956
in the locality Annapolis, Maryland
Severn River
for hydrographic surveys Nos. H-8214

April 10, 1956 (A)
April 10, 1956 (B)
April 11, 1956 (A)
April 11, 1956 (B)
Mean Curve

DEPTHS IN ~~FATHOMS~~

(For deep water add a 0 to these figures)

10 ~~10~~
20 ~~20~~
30 ~~30~~
40 ~~40~~
00 ~~50~~
~~60~~
05 ~~70~~
~~80~~
10 ~~90~~
~~100~~
15 ~~110~~
~~120~~
20 ~~130~~
~~140~~
25 ~~150~~
~~160~~
30 ~~170~~
~~180~~
35 ~~190~~

0.4 0.2 0.0 -0.2 -0.4 -0.6 -0.8 -1.0 -1.2 -1.4 -1.6 -1.8 -2.0

B-1736-5

Plotted 6/24

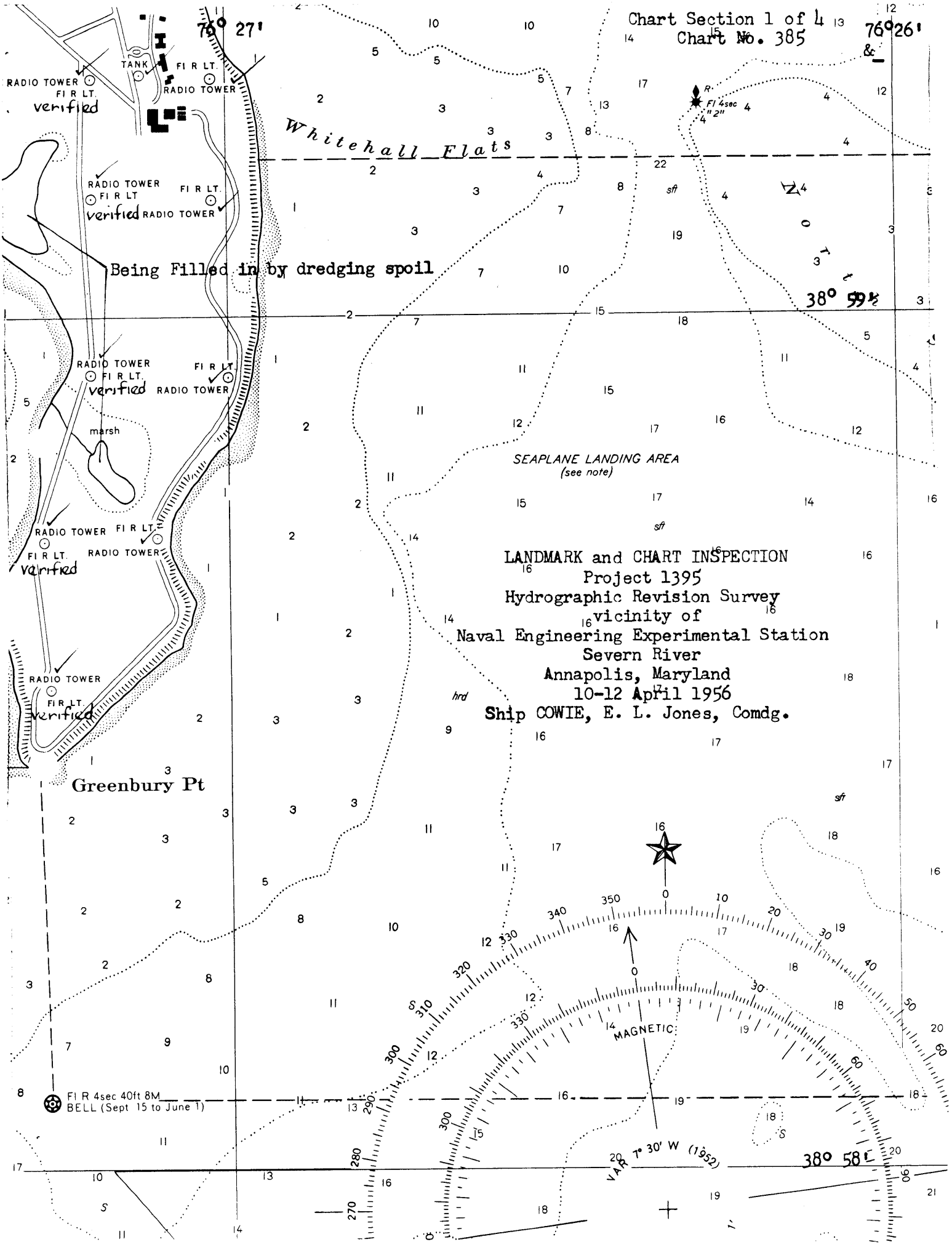


Chart Section 1 of 4
Chart No. 385
76° 27'
76°26'
38° 59½
38° 58'
RADIO TOWER
FI R LT.
verified
TANK
Whitehall Flats
Being Filled in by dredging spoil
marsh
SEAPLANE LANDING AREA
(see note)
LANDMARK and CHART INSPECTION
Project 1395
Hydrographic Revision Survey
vicinity of
Naval Engineering Experimental Station
Severn River
Annapolis, Maryland
10-12 April 1956
Ship COWIE, E. L. Jones, Comdg.
Greenbury Pt
Fl 4sec "1 2"
Fl R 4sec 40ft 8M
BELL (Sept 15 to June 1)
MAGNETIC
VAR 7° 30' W (1952)

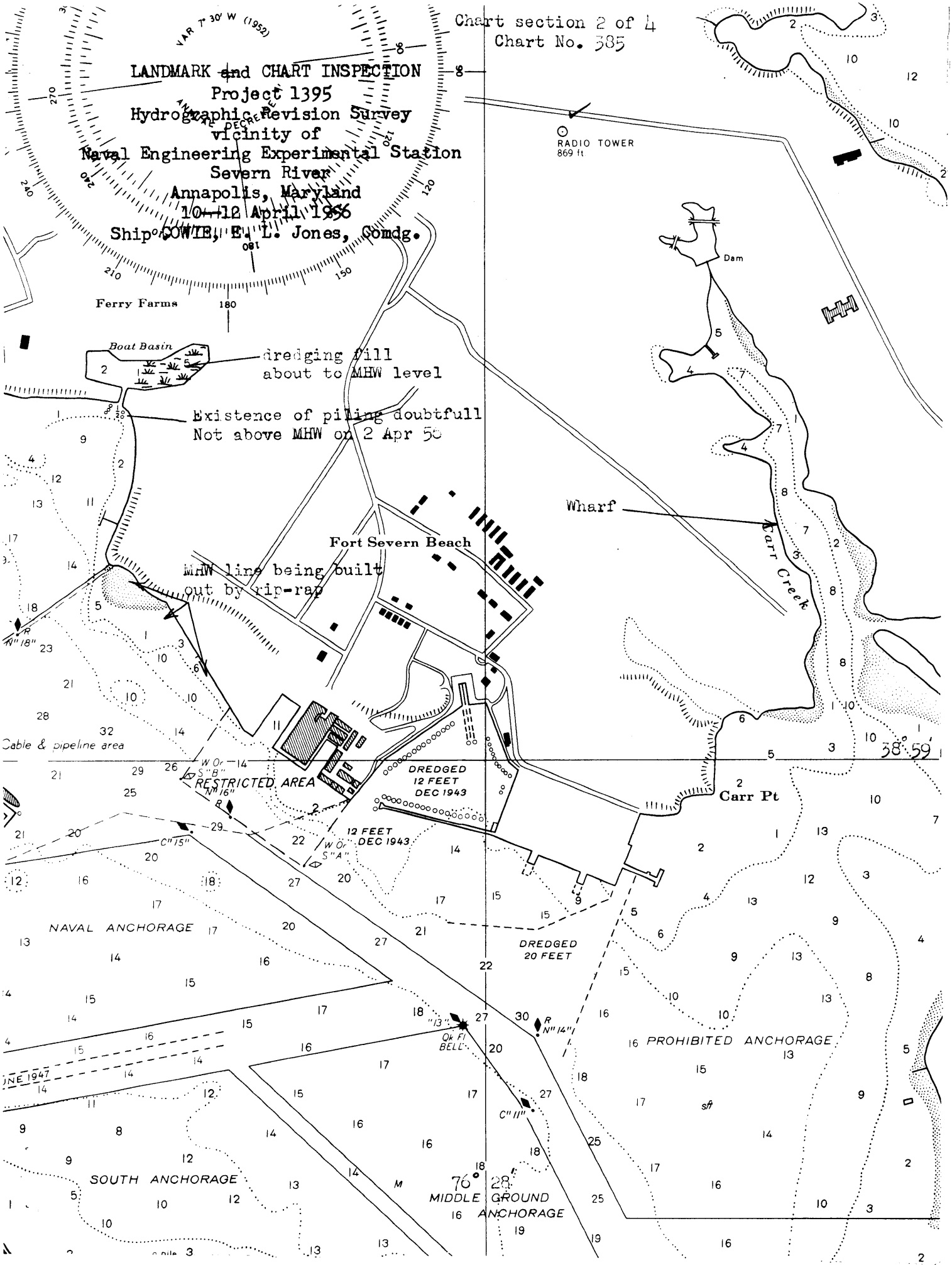


Chart section 2 of 4
Chart No. 385
LANDMARK and CHART INSPECTION
Project 1395
Hydrographic Revision Survey
vicinity of
Naval Engineering Experimental Station
Severn River
Annapolis, Maryland
10-12 April 1956
Ship: OWEN, E. L. Jones, Comdg.
VAR 7° 30' W (1952)
ANNUAL DECREASE
RADIO TOWER
869 ft
Dam
Ferry Farms
Boat Basin
dredging fill
about to MHW level
Existence of piling doubtfull
Not above MHW on 2 Apr 56
Wharf
Fort Severn Beach
MHW line being built
out by rip-rap
Carr Creek
Cable & pipeline area
RESTRICTED AREA
DREDGED
12 FEET
DEC 1943
12 FEET
DEC 1943
Carr Pt
38° 59'
NAVAL ANCHORAGE
DREDGED
20 FEET
PROHIBITED ANCHORAGE
SOUTH ANCHORAGE
MIDDLE GROUND
ANCHORAGE
76° 28'

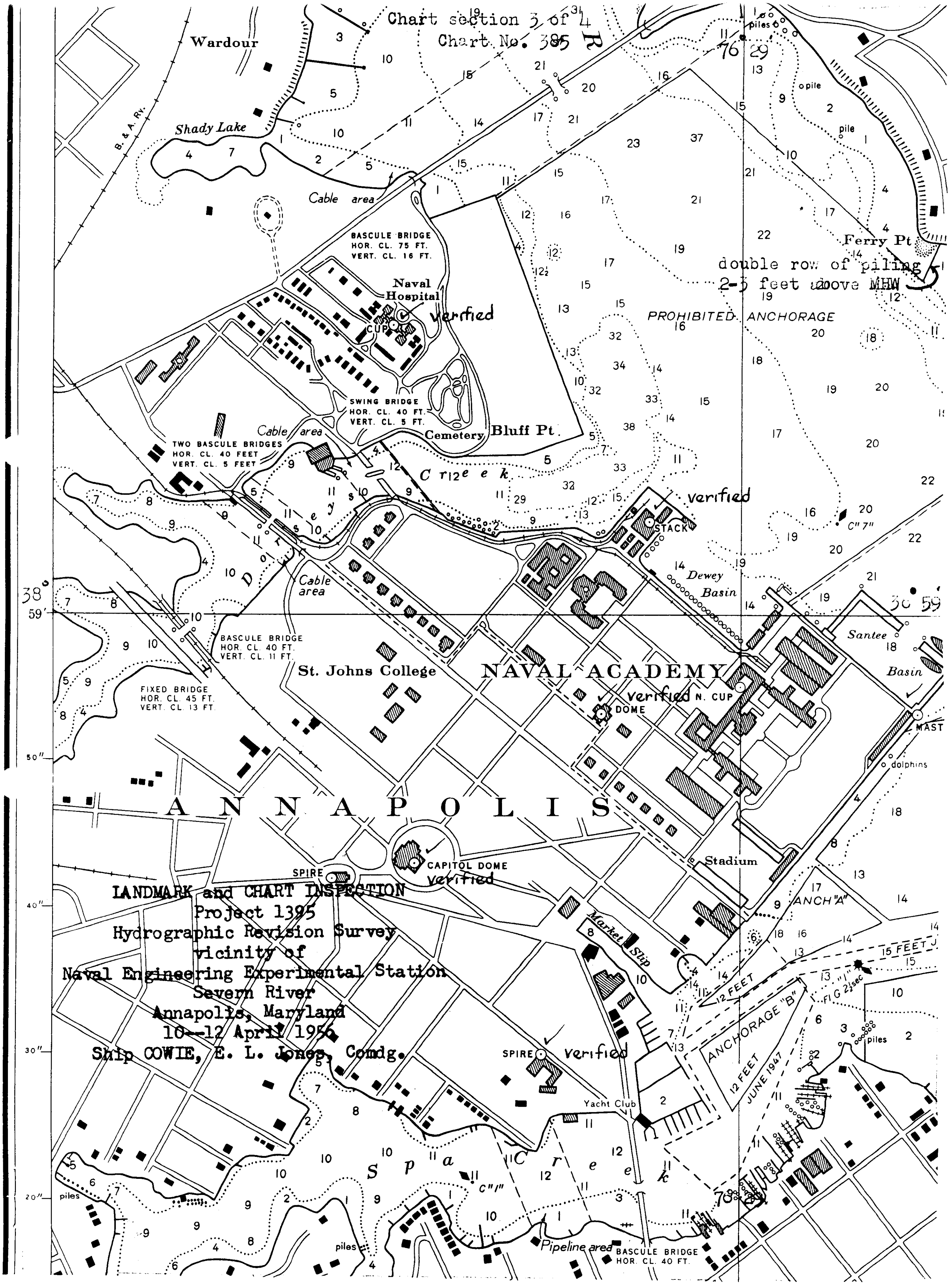


Chart section 3 of 4
Chart No. 385 R
Wardour
B. & A. Ry.
Shady Lake
Cable area
BASCULE BRIDGE
HOR. CL. 75 FT.
VERT. CL. 16 FT.
Naval Hospital
CUP
verified
SWING BRIDGE
HOR. CL. 40 FT.
VERT. CL. 5 FT.
Cemetery
Bluff Pt
TWO BASCULE BRIDGES
HOR. CL. 40 FEET
VERT. CL. 5 FEET
Dorseys Creek
Ferry Pt
double row of piling
2-5 feet above MHW
PROHIBITED ANCHORAGE
STACK
verified
Dewey Basin
Santee Basin
BASCULE BRIDGE
HOR. CL. 40 FT.
VERT. CL. 11 FT.
FIXED BRIDGE
HOR. CL. 45 FT.
VERT. CL. 13 FT.
St. Johns College
NAVAL ACADEMY
verified
N. CUP
DOME
MAST
dolphins
ANNAPOLIS
Stadium
SPIRE
CAPITOL DOME
verified
Market Slip
ANCH "A"
15 FEET
12 FEET
ANCHORAGE "B"
12 FEET
JUNE 1947
SPIRE
verified
Yacht Club
Spa Creek
Pipeline area
BASCULE BRIDGE
HOR. CL. 40 FT.
piles
LANDMARK and CHART INSPECTION
Project 1395
Hydrographic Revision Survey
vicinity of
Naval Engineering Experimental Station
Severn River
Annapolis, Maryland
10--12 April 1956
Ship COWIE, E. L. Jones, Comdg.

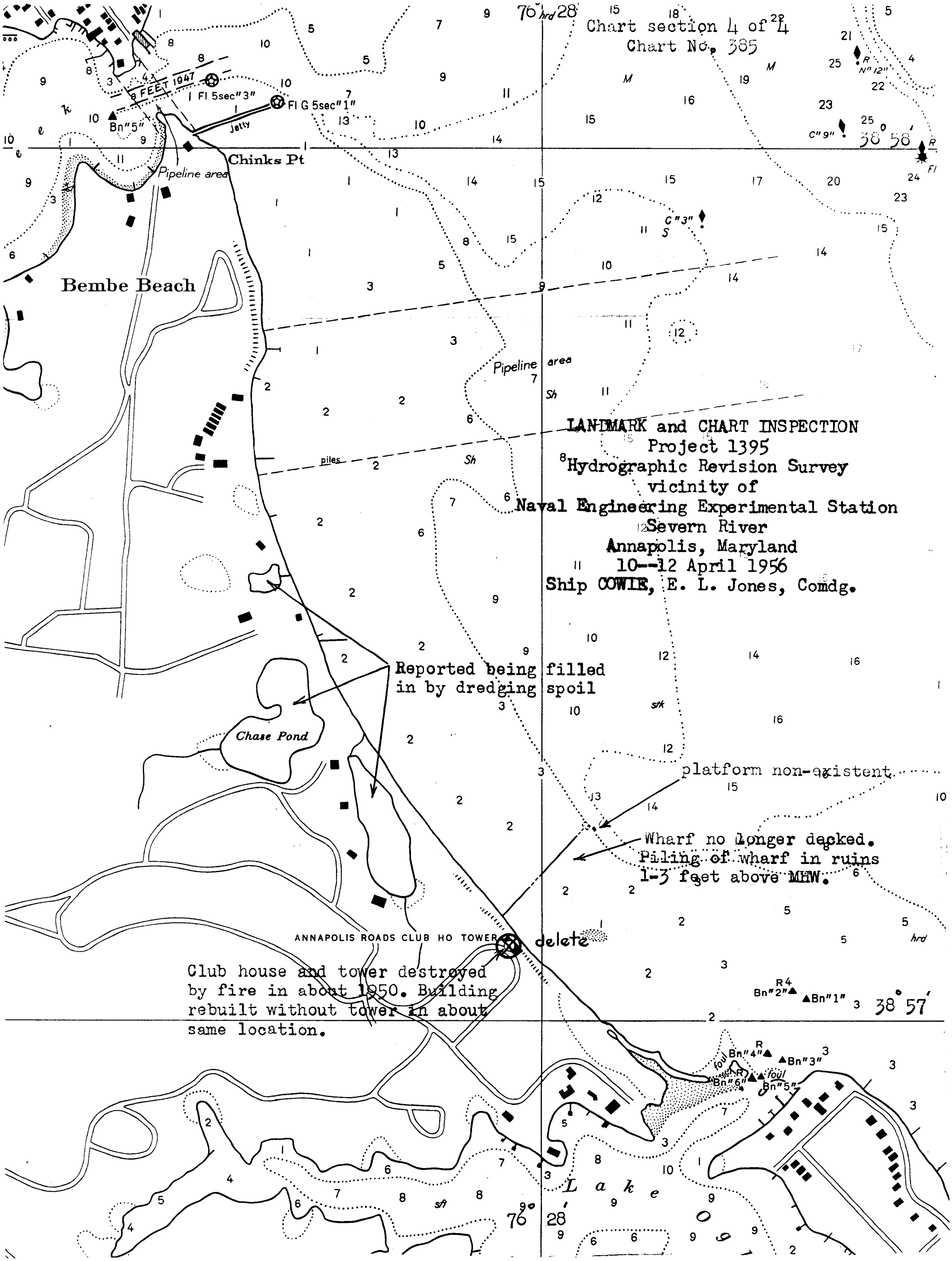


Chart section 4 of 4
Chart No. 385
LANDMARK and CHART INSPECTION
Project 1395
Hydrographic Revision Survey
vicinity of
Naval Engineering Experimental Station
Severn River
Annapolis, Maryland
10--12 April 1956
Ship COWIE, E. L. Jones, Comdg.
8 FEET 1947
Fl 5sec"3"
Fl G 5sec"1"
Jetty
Bn"5"
Chinks Pt
Pipeline area
Bembe Beach
Pipeline area
piles
Reported being filled
in by dredging spoil
Chase Pond
platform non-existent
Wharf no longer decked.
Piling of wharf in ruins
1-3 feet above MHW.
ANNAPOLIS ROADS CLUB HO TOWER
delete
Club house and tower destroyed
by fire in about 1950. Building
rebuilt without tower in about
same location.
Bn"2"
Bn"1"
38° 57'
38° 58'
76° 28'
foul
Bn"4"
Bn"3"
Bn"6"
Bn"5"
Lake Ogleton

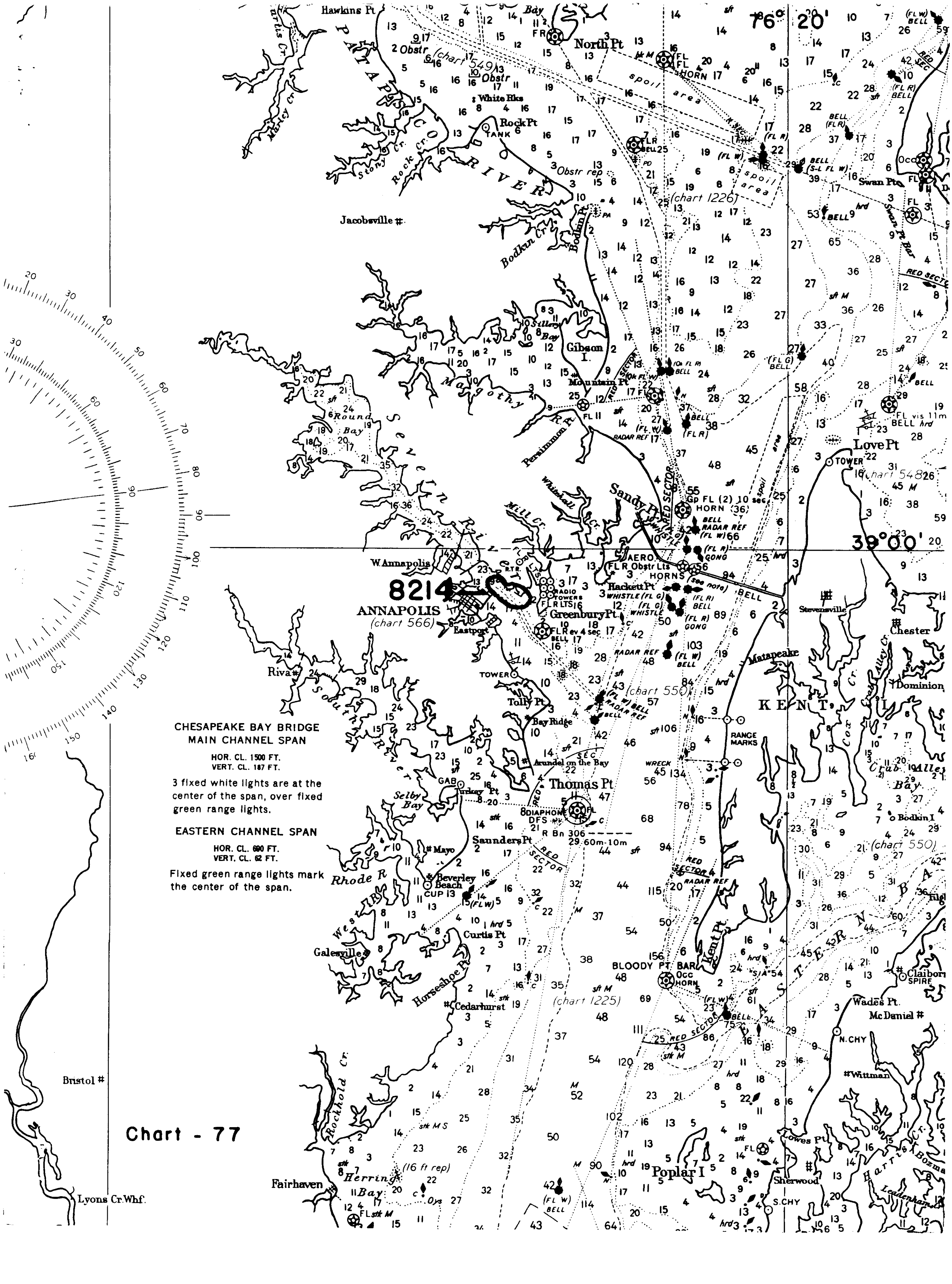

CHESAPEAKE BAY BRIDGE
MAIN CHANNEL SPAN
HOR. CL. 1500 FT.
VERT. CL. 187 FT.
3 fixed white lights are at the center of the span, over fixed green range lights.
EASTERN CHANNEL SPAN
HOR. CL. 690 FT.
VERT. CL. 62 FT.
Fixed green range lights mark the center of the span.
8214
ANNAPOLIS
(chart 566)
(chart 549)
(chart 1226)
(chart 548)
(chart 550)
(chart 1225)
76° 20'
39°00'
PATAPSCO RIVER
Hawkins Pt
North Pt
Rock Pt
White Rks
Jacobsville
Bodkin Pt
Bodkin Cr.
Stony Cr.
Rock Cr.
Gibson I.
Mountain Pt
Magothy R.
Persimmon Pt
Sandy Pt
Mill Cr.
Whitehall Cr.
Round Bay
Severn River
W. Annapolis
Eastport
Greenbury Pt.
Hackett Pt
Tolly Pt.
Bay Ridge
Arundel on the Bay
Thomas Pt
Saunders Pt
South River
Riva
Selby Bay
Turkey Pt
Mayo
Rhode R
Beverley Beach
West R
Galesville
Curtis Pt
Horseshoe Pt
Cedarhurst
Rockhold Cr.
Herring Bay
Fairhaven
Bristol
Lyons Cr. Whf.
Love Pt
Stevensville
Chester
Matapeake
KENT I.
Kent Pt
BLOODY PT. BAR
Dominion
Cox Cr.
Crab Alley Bay
Bodkin I
Claiborne
Wades Pt.
McDaniel
EASTERN BAY
Wittman
Poplar I
Lowes Pt
Sherwood
Harris Cr.
Swan Pt
Swan Pt Bar
spoil area
RED SECTOR

Chart - 77

NAUTICAL CHARTS BRANCH

SURVEY NO. H-8214

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
6-26-57	1225	H.F.S.	Before ~~After~~ Verification and Review Penciled sheet Examined only
9-1-57	566	R.K. DeLawder	Before ~~After~~ Verification and Review - thru Ltr 385
7-8-57	550	R.K. DeLawder	Before ~~After~~ Verification and Review thru Ltr 566.
7-10-57	385	R.K. DeLawder	Before ~~After~~ Verification and Review JMG
8/6/57	385	CRW & JTW	~~Before~~ After Verification and Review Completely
9/30/57	550	M. Rogers	~~Before~~ completely applied After Verification and Review thru chart 385.
12-18-57	1225	JTW	~~Before~~ After Verification and Review thru 550
4-22-58	566	R.K. DeLawder	~~Before~~ After Verification and Review thru chart 385.
			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.