7781

Diag. Cht. No. 78-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. CO-1549 Office No. H-7781

LOCALITY

State MARYLAND

General locality CHESAPEAKE BAY

Locality KEDGES STRAITS

194 9

CHIEF OF PARTY

E. B. Latham

LIBRARY & ARCHIVES

DATE 9 November , 1949

B-1870-1 (1)

7781

Vols. 6 & 8

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-7781

Field No. Co-1549

State MARYLAND

General locality CHESAPEAKE BAY

Locality KEDGES STRAITS

Scale 1:10,000 Date of survey 14 Sept to 5 Oct. 1949

Instructions dated 28 Feb. 1949 & 29 Mar. 1949

Vessel COWIE

Chief of party Ector B. Latham

Surveyed by Ector B. Latham & W.F. Deane

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

Fathograms scaled by Ships Personnel

Fathograms checked by " "

Protracted by W.W. Feazel

Soundings penciled by W.W. Feazel

Soundings in ~~fathoms~~ feet at MLW ~~XXXXX~~ and are true depths

REMARKS:

U. S. GOVERNMENT PRINTING OFFICE 777032

NOTES FOR DESCRIPTIVE REPORT,

Hydrographic Sheet No. H-7781 (1949) CO-1549, Scale 1/10,000

Kedges Strait

A AUTHORITY:

Project CS 287, Amended INSTRUCTIONS dated 28 February, 1949, with Amendment dated 29 March, 1949.

B LIMITS AND DATES:

Kedges Strait and approaches; East shore of South Marsh Island Lat. 38-05, southward along Lon. 75-59.1 to Lat. 38-02.6 southeastward to Lat. 38-01.5, Lon. 75-58.1, West limits from Fog Point (NW point of Smith Island) Northwestward to Lat. 38-02.9, Lon. 76-03.0, westward to Lon. 76-04.3 Northward to Lat. 38-04.7, Westward to Lon. 76-04.6, Northwrd to Lat. 38-06.3, Northeastward to Lat. 38-06.6, Lon. 76-03.3; including bays, sloughs and tributaries.

Also included in this survey is "large unfinished area" vicinity Lat. 38-04.2, Lon. 76-04.9 and development of the six foot charted sounding at Lat. 38-04.5, Lon. 76-05.75.

Junctions are made with Sheet H-7782(1949) on the east CO-2149 and Hydrographic Sheet No. 6776 (1/10,000, COWIE, 1942) on the west.

Limits along the West Side have been dictated somewhat by availability of adequate fixes within the limit of this sheet.

A current Station, No. 1 of INSTRUCTIONS, was occupied from 5 to 8 July. Tide Gage Installation: A gage at Ewell County Wharf was installed 7 Sep't., gage at Holland Island Bar Light Station 8 Sep't. Signal building was started on 14 September, and last day's hydrography was accomplished on 5 October. The area covered by this Sheet is quite exposed. No good anchorage within a reasonable distance of the Working Grounds was available. For these reasons

work on other sheets and control work in other areas was done on several days when weather prevented work on this sheet.

C VESSELS AND EQUIPMENT:

Launch No. 102 and the Hydrographic ARK. The ARK was operated with two outboard motors, increasing the sounding speed to 5-6 knots with Fish in "deep" water. The speed is materially affected by depths of less than three feet.

For tactical diameters etc. please see Notes for Sheet H-7722(1949) CO-1149.

Submarine Signal Co. Type 808 portable depth recorders were used throughout, except in depths of 2 feet and less where the fathometer would not function properly. Such Pole soundings are noted in the records and on the fathograms.

Frequent checks with lead line and pole were taken.

Gould Kathanode 8D KRG 204, 12 volt storage batteries were used on all portable fathometers and rendered most excellent service throughout the season.

D TIDE AND CURRENT STATIONS:

Current station, No. 1 of INSTRUCTIONS, was occupied 5 - 8 July (not concurrent with Hydrography). Tide gages were maintained at Holland Bar Light Station, and at Crisfield, Md. throughout the period when Hydrography was in progress. A "reserve" gage was installed at County Wharf, Ewell, Smith Island, but was not referred to inasmuch as no casualty was suffered by the Holland Island Bar gage. Vincent S. Marinelli was employed as Tide Observer, 8 Sept. - 6 October, 1949.

All tide reducers on the Sheet are taken from the Holland Island Bar Gage, with zero corrections for time and height.

Mean Low water, determined from the I beam supporting the lighthouse is 2.5 ft. on the staff, which is in agreement with the value reached by comparison with the gage at Crisfield, Md.

E SMOOTH SHEET:

The smooth sheet is to be plotted by the Norfolk Processing Office.

SPECIAL NOTE: Please read Paragraph "G" before transferring shore line to the Smooth Sheet.

F CONTROL STATIONS:

Triangulation Stations SOLOMONS LUMP LIGHTHOUSE, and HOLLAND ISLAND BAR LIGHTHOUSE lie within the limits of the sheet and were used directly as hydrographic signals and to control Graphic Control Sheet CO-49-H, subsequently destroyed from which the other signals were taken. Station OTTER lies within the limits of the sheet but was not recovered. Stations EWELL and BIG THOROGARE LIGHT NO. 1. lie on the Graphic Control sheet but not on the Hydrographic Sheet; they were used to control the graphic sheet. EWELL CHURCH SPIRE has been noted lost due to reported re-building operations, however it was found to check its triangulation position on the graphic control sheet.

The Graphic Control was done on scale 1/20,000, as authorized in amended Instructions of 29 March. Graphic triangulation method was used and the indications are that all signals are located within plotting accuracy. No traverses were run.

G SHORE LINE AND TOPOGRAPHY:

Shore line is taken from air photo compilation. The shore line along South Marsh Island has been found generally accurate and satisfactory. Small adjustments are required to fit the shore line to signals and shore line fixes. Greatest discrepancies exist at Signals YAW and NAT (Both on the S.L.) and along the South shore of Pry Cove. Positions 117 and 118 and 180 through 185 & ARK should be plotted and the shore line adjusted thereto. Smooth plot of positions show only slight displacement of shoreline in this area.

On the Smith Island shore, however, the shore line is considerably in error.

In the vicinity of signal Far (Fog Point) shore line has changed due to erosion; shore line in that vicinity should be transferred from Boat Sheet B (Ark). Shore line in the vicinity of signals Ted, Eat, Hog, Kid, Mag and Oar should be adjusted to those signals which are on the shore line or within plotting distance thereof. Review, par. 1. (Minor ~~adjustments~~ revisions made in shoreline)

Ark positions listed should be plotted, and shore line adjusted thereto; examination of the Boat Sheet will indicate which positions are Beach Line and which are mid stream. See Processing office Addendum

1 through 5, a; 65 through 67, a; 133 - 134, a; 140 a; 143 through 158, a; 64 through 87, g. Grass line, vicinity of signals Bug and Nat should be transferred from Boat Sheet "B".

List of signals specifying those on or near the shore line is a part of this report. ✓

H SOUNDINGS:

All depths except extremely shoal ones have been measured with Submarine Signal Co. Type 808 portable depth recorders. Bar checks, as specified in the Hydrographic Manual were taken as often as weather and sea conditions permitted, and good results obtained. ✓ Echo corrections have been determined to to be zero throughout all ranges of depths sounded and through the entire period of work on this sheet.

Pole soundings have been taken in depths of two feet and less, and wherever it was found necessary to list the boat for clearing the Fish of the bottom. Frequent checks were taken with lead line and pole, particularly where grass was present. ✓ It was found that the grass was not so thick as to prevent accurate fathometer soundings.

All pole soundings are so noted in the Records and on the Fathograms.

Soundings so noted should in no case be changed as a result of re-scanning graphs.

I CONTROL OF HYDROGRAPHY:

Standard methods of three point fixes on shore objects were used throuhout. No area or part of the sheet is inferior to any other area or part.

J ADEQUACY OF SURVEY:

The survey is complete and adequate to supersede all previous surveys for charting purposes. It must be realized, however that the entire area of Kedges Strait appears subject to change; hard sand bottom is practically universal throughout, and sand ridges, indicative of "Flow" appear at many places. Areas which appear particularly subject to changes are as follows: Lat. 38-02.8, Lon. 76-01.8; Lat. 38-02.8, Lon. 76-00.2; and Lat. 38-03, Lon. 76-00.

Junctions with Sheet CO-2149 and H-7782 (1949) H-6776 (1/10,000, COWIE, 1942) appear entirely satisfactory from inspection of the Boat Sheets. Apparently satisfactory agreement is noted near Holiday, Lat. 38-04.2, Lon. 76-04.9 and "Charted six foot sounding", Lat. 38-04.5, Lon. 76-05.75.

There is no program of surveys by the U S Engineers or other accredited Organizations within the limits of the sheet.

K CROSSLINES:

Crosslines and overlap are in excess of project INSTRUCTIONS referred to the Hydrographic Manual, due to junctions, Ark-Launch and different systems of lines.

Examination of the Boat Sheets indicate that crossings will be satisfactory after application of final tide reducers and re-scanning of the fathograms. Depths at crossings very good
Please see Paragraph U-Y.

L - M COMPARISON WITH PREVIOUS SURVEYS, CHART:

Preliminary Review Items;

There are no "Preliminary Review Items" within the limits of this sheet.

Please see Paragraph "J" re. changing bottom.

Shore line in the vicinity of Fog Point Appears subject to frequent changes of considerable extent.

Charted Soundings:

"5"	38-03.25,	76-00.0	Disproved, expunge
"5"	38-03.12,	75-59.70	Disproved, expunge
"5"	38-03.6,	75-59.8	Disproved, expunge
"2"	38-03.6,	76-00.4	Disproved, expunge
"8"	38-03.4,	76-00.8	Disproved, expunge
"2"	38-02.70,	76-00.3	Disproved, expunge

Bottom changes described in Review, par. 5.

3½ 200 m. N.E.
(NOTE: May be verified after rescanning, see PP U-Y)

Charted Island 38-02.2, 76-02.2, Disproved, expunge

"2" 38-06.0, 76-04.3 Expunge "2" in this position, chart "2" at 38-06.1, 76-04.37, "6" 38-04.5, 76-05.75 Least depth 8 ft. expunge "6". Review, par. 5

N DANGERS AND SHOALS:

A shoal having least depth of 2 feet, very hard sand bottom, lat. 38-02.75, Lon. 76-01.75. Notice of this danger was posted in the Post Office at Smith Island, and reported through the Supervisor Southeast district on 10 October. This danger is known to exist by local boatmen and is called "The Rock Pile". No rock bottom was found by the hydrography, and none is believed to exist.

3½ ft.	38-02.75	76-00.26
3 ft.	38-02.64	76-00.16
2 ft.	38-06.1	76-04.37
5 ft.	38-03.0	75-59.1 See also report Sheet CO 2149 H-7782(1949)
9 ft.	38-03.2	76-02.6 Guarded by Solomons Lump Buoy "2".

0 COAST PILOT NOTES:

Current station No. 1, lat. 38-03.1, lon. 76-00.8 has been occupied and records forwarded to the Washington Office. Information re. average and maximum currents to be expected should be furnished by the Division of Tides and Currents.

Reference: US Coast Pilot Section, "C" Atlantic Coast, 1947 Edition, page 313 line 25 et. seq.

Delete line 35—" It is easy of navigation by day with the aid of the chart though" Capitalize "the" following. add "critical depths exist east of South Marsh Island, best water is found with Holland Island Bar Lighthouse open 50 yards north of Solomons Lump Lighthouse until South Marsh Spit lighted Buoy bears 312 deg. true, on line with south point of island which is the most Easterly point along the south shore of South Marsh Island having salt bushes growing thereon. After passing South Marsh Spit lighted buoy steer to make good 282 true, with Holland Island Bar Lighthouse open 300 yds. to the North of Solomons Lump Buoy "2".

NOTE: Critical depths on course described lie on Sheet H-7782 CO-2149.

There is a channel leading from just North of Solomons Lump Obstruction buoy westward into Chesapeake Bay (saving considerable distance into Smith Island) south of the shoal which is marked by Solomons Lump buoy "2". 10 feet at MLW can be carried through this channel, as follows: Steer to make good course 270 true for 0.3 miles from the Junction buoy, thence to make good 263 true, with South Marsh Spit lighted buoy mid way between the Junction buoy and Solomons Lump Lighthouse.

NOTE: Currents in this area are strong and irregular, passage is considered dangerous for boats of more than 7 foot draft when marks cannot be seen.

Anchorages:

The COWIE anchored at various places during the progress of the survey. None can be considered good.

The anchorage at Lat. 38-03.8 Lon. 76-03.0 was the only place found with good holding bottom. Throughout the area hard sand bottom is found. Local boatmen take pride in being able to find the one spot with mud bottom.

The COWIE anchored on several occasions at Lat. 38-02.1, Lon. 75-58.8, in 11 feet of water, hard sand bottom. This anchorage offers some protection from the south and southwest.

Tributaries:

Pry Cove offers best anchorage in the area for vessels drawing 6 feet or less. Other tributaries are shoal water bights and sloughs used only by local crabbers.

P AIDS TO NAVIGATION:

Holland Island Bar Lighthouse and Solomons Lump Lighthouse are presently charted in their correct positions, as determined by triangulation. Floating aids to be reported after smooth plotting.

Q LANDMARKS FOR CHARTS:

Form 567, attached.

R GEOGRAPHIC NAMES:

Geographic names are presently correctly shown on the chart.

U-Y MISCELLANEOUS:

It proved impractical to obtain observed values of the tides for plotting soundings on the Boat Sheets. Predicted tides were used.

Boat sheets were forwarded to the Washington Office for photostadting—, before forwarding the several soundings which were considered critical were referred to observed tides, and resulting information noted on the sheets. It is regretted that a statement is necessary to the effect that a number of gross

errors in reading the fathometer(s) have been subsequently discovered. All graphs have been re-scanned (Before forwarding records to the Processing Office). It is recommended that all items of this report involving depths be carefully checked after smooth plotting.

Sheet limits have been affected by availability of good fixes. It is believed that the area west of Fog Point, (especially) can be better controlled on the 1/0,000 sheet west of Smith Island or on the 1/20,000 sheet to which this sheet will join.

Respectfully submitted:

Ector B. Latham

Ector B. Latham,
Chief of Party.

STATISTICS SHEET CO-1549

Launch No. 102

Date: Sep't. 8 Installed T. G., Holland Bar LH.
14 Control

		Pos.	Stat. mi.	HL & P	Bar Chk.	Day
	22	149	24.2	11	2	a
	23	125	19.8	1	1	b
	26	161	24.3	17	1	c
	27	264	46.5	21	2	d
	28	184	32.9	23	1	e
Oct.	3	211	40.7	16	2	f
	4	267	52.7	16	2	g
	5	161	33.9	12	2	h
Total		1522	275.0	125	13	

Ark

Sep't. 8 Signal Building
14 Signal Building and Control

		Pos.	Stat. mi.	HL & P	Bar Chk.	Day
	22	236	36.6		2	a
	23	90	14.7		2	b
	27	205	38.7	38	2	c
	28	168	26.2		1	d
Oct.	3	179	33.1		2	e
	4	205	33.0		2	f
	5	91	13.5		2	g
Total		1174	195.8	38	13	
Total for Sheet		2696	470.8	163	26	

Area, sq. stat. mi. 15.8

LIST OF SIGNALS
To Accompany

HYDROGRAPHIC SURVEY H-7781 (Field No. Co-1549)

TRIANGULATION STATIONS

HOLLAND ISLAND BAR, LIGHTHOUSE, (MD.) 1897-1934

SOLOMONS LUMP, LIGHTHOUSE, (MD.) 1898-1934

TOPOGRAPHIC SIGNALS

(Source, Graphic Control Sheet T-7128 (Co-H-49)

*ASK	*BUG	*COW	DOME	DUK	*DUM	*EAT	*FAR	*HOG
JOE	*KID	*LAY	*MAG	*MAR	*NAT	*OAR	PIN	*TED
UMP	*WET	*YAW	*ZIT					

(Stations designated by an asterisk are on or with-in three meters of the shore-line)

FLOATING AIDS TO NAVIGATION
To Accompany

HYDROGRAPHIC SURVEY H-7781 (Field No. Co-1549)

LIGHT LIST	LAT.	METERS	LONG.	METERS	DEPTH	POS.NO.	DATE
Entrance Buoy	38-03	176	76-03	762	14	29g	10/4/49
Solomons Lump Buoy 2	38-03	650	76-02	589	13½	157f	10/3/49
Obstruction Buoy	38-02	1679	76-00	1351	6	75b	9/23/49
South Marsh Spit Lighted Bell Buoy 1	38-02	1832	75-59	1020	17½	10a	9/22/49

ADDENDUM
To Accompany

HYDROGRAPHIC SURVEY H-7781 (Field No. Co-1549)

SHORELINE DISCREPANCIES

Al-tho it is believed improbable that such changes have occured, the shoreline of the sloughs on the North end of Smith Island has been adjusted to the visual fixes at the following positions, as reccommended by the Hydrographer.

Because of little importance of sloughs, hydro. positions were shifted to midstream of air photo location

Pos. 65 to 67a (Ark)
" 143 " 159a "
" 180 " 185a "
" 64 " 87g "

Reccommended changes at the following positions were found unnecessary as the air-photo compilation appeared to be in agreement.

Pos. 1 to 5a (Ark)
" 133 " 134a "
" 140a "

CROSSING DISCREPANCIES

Lat. 38-01.8 Long. 75-59.5 Soundings from positions 119 to 123a (Ark) average about one foot deeper than surrounding hydrography. This condition probably exists during the remainder of the day, how-ever, there are no crossings with other days to confirm this. The needle was changed in the fathometer just prior to position 119a and choppy seas prevented bar checks except at the end of the day. (Discrepancies appear negligible)

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

Norfolk, Va.
11 Oct. 1950

Approved & Forwarded:
Earl O. Heaton
Earl O. Heaton
Supervisor, Southeastern District.

Form 567
April 1945

DEPARTMENT COMMERCE
U. S. COAST AND GEODETIC SURVEY

NONFLOATING AIDS OR LANDMARKS FOR CHARTS

TO BE CHARTED / ~~TO BE DELETED~~ } STRIKE OUT ONE

Norfolk, Va. 7 November, 1949

I recommend that the following objects which have *(have not)* been inspected from seaward to determine their value as landmarks be charted on *(deleted from)* the charts indicated.

The positions given have been checked after listing by William F. Deane

Ector B. Latham,
Chief of Party.

STATE Maryland

CHARTING NAME	DESCRIPTION	SIGNAL NAME	POSITION LATITUDE ° ′	LATITUDE D.M. METERS	LONGITUDE ° ′	LONGITUDE D.P. METERS	DATUM	METHOD OF LOCATION AND SURVEY No.	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
Clump	Most prominent vegetation on	checked on H.7781 3-mia.						G.C					
	South Marsh Island (25)	Ump	38-05	~~1143~~ 1134.0	76-00	~~1252~~ 1257.2	NA 27	Co-49-H	1949		X		1224

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

16—51696-1 U. S. GOVERNMENT PRINTING OFFICE

GEOGRAPHIC NAMES

Survey No. H-7781

Name on Survey	A On Chart No.	B On previous survey No.	C On U. S. quadrangle Maps	D From local information	E On local Maps	F P. O. Guide or Map	G Rand McNally Atlas	H U. S. Light List	K	
Maryland									USGB	1
Chesapeake Bay									"	2
Tangier Sound									"	3
Kedges Straits			(BGN approves plural form)						"	4
South Marsh Island ✓									"	5
Smith Island ✓										6
Fog Point ✓										7
Fog Point Cove ✓										8
Bridge Creek ✓										9
Fishing Creek										10
Back Cove ✓										11
Otter Creek ✓										12
Fishing Point ✓										13
Solomons Lump Light									USGB	14
Holland Island Bar Light									"	15
Pry Island ✓										16
Sedgy Point Gut										17
Pry Cove ✓										18
Johnson Point										19
Sheepshead Harbor										20
Sheepshead Point										21
Muscle Hole										22
										23
										24
				Names underlined in red are approved. 1-9-51 L. Heck						25
For best placement of names, see AMS Terrapin Sand Point and Kedges Straits quadrangles.										26
										27
										M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. H-7781

Records accompanying survey:

Boat sheets 2; sounding vols. 9; wire drag vols. .....;
bomb vols. .....; graphic recorder rolls 8 envel.;
special reports, etc. 2 overlay tracings

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

Number of positions on sheet		2696
Number of positions checked		210
Number of positions revised		15
Number of soundings revised (refers to depth only)		8
Number of soundings erroneously spaced		10
Number of signals erroneously plotted or transferred		0
Topographic details	Time	20 hr.
Junctions	Time	12 hr.
Verification of soundings from graphic record	Time	20 hr.

Verification by W. Werline Total time 274 hr. Date June 6, 1951

Reviewed by J. A. Dinsmore Time 28 Date 22 June 1951

M-2232-1

RHC

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

~~Division of Hydrography and Topography~~ 16 January 1951

Division of Charts: R. H. Carstens

Plane of reference approved in
9 volumes of sounding records for

HYDROGRAPHIC SHEET 7781

Locality Kedges Straits, Chesapeake Bay, Maryland

Chief of Party: E. B. Latham in 1949
Plane of reference is mean low water, reading
2.5 ft. on tide staff at Holland Island Bar Light House
14.2 ft. below B. M. 3 (1942)

Height of mean high water above plane of reference is 1.4 feet.

1.4
2.5
3.9

Condition of records satisfactory except as noted below:

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

U. S. GOVERNMENT PRINTING OFFICE 756675

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. H-7781 FIELD NO. CO-1549

Maryland - Chesapeake Bay, Kedges Straits

Project No. CS-287

Surveyed in Sept. - Oct., 1949 Scale 1:10,000

Soundings:

808 Fathometer
Handlead
Pole

Control:

Sextant fixes on shore signals

Chief of Party - E. B. Latham
Surveyed by - E. B. Latham and W. F. Deane
Protracted by - W. W. Feazel
Soundings plotted by - W. W. Feazel
Verified and inked by - W. Werline
Reviewed by - T. A. Dinsmore, 22 June 1951
Inspected by - R. H. Carstens

1. Shoreline and Signals

The shoreline originates with air-photographic surveys T-8149 and T-8150 of 1942. Shoreline revisions shown in red are from the boat sheet of the present survey.

The signals are from graphic control survey CO-49-H which has been subsequently destroyed.

2. Sounding Line Crossings

Depths at crossings are in very good agreement.

3. Depth Curves and Bottom Configuration

The usual depth curves are adequately delineated. The 3-ft. curve has been added to aid in defining the configuration of the inshore bottom.

Except for minor irregularities, the bottom is generally smooth. Shoal flats extend offshore in several localities. A natural channel with depths ranging from 11 to 33 feet provides the deepest passage through the straits.

4. Junctions with Contemporary Surveys

A butt junction was effected with H-6776 (1942) on the west because of a number of 1-ft. differences in depths and resulting differences in the positions of the depth curves on the two surveys. The depth curves now adequately join.

The junction with H-7782 (1949) on the east will be considered in the review of that survey.

Project surveys on the northwest and southwest have not yet been received in this office.

5. Comparison with Prior Surveys

H-211 (1849) 1:20,000
H-557 (1856) 1:40,000
H-1441b (1879) 1:40,000
H-2616 (1901-02) 1:20,000
H-3379 (1912) 1:40,000

The survey of 1901-02 provides the most complete prior coverage of the area under consideration. A comparison between the prior and present depths reveals that bottom changes have taken place. Examples of both shoaling and deepening are indicated in the following comparison:

Prior Depth	Latitude	Longitude	Present Depth
5	38° 03.64'	75° 59.83'	8 - 9
2	38° 03.58'	76° 00.38'	7 - 8
5	38° 03.28'	75° 59.97'	8
12	38° 03.07'	75° 59.38'	6
7	38° 02.60'	76° 01.21'	3 - 4
20	38° 03.83'	76° 03.30'	16
13	38° 04.73'	76° 04.38'	4 - 5

Shoreline erosion amounting to as much as 150 meters is noted in several localities throughout the area. Two small islands in the vicinity of lat. 38° 05.0', long. 76° 03.2', on the prior surveys have since washed away to present depths of 5-6 feet.

The above changes in bottom are but a few of the more conspicuous examples. Numerous differences of 1-2 ft. are also noted.

The 6-ft. sounding charted in lat. 38° 04.52', long. 76° 05.75', from H-3379 (1912) should be disregarded. Close development on the present survey reveals 8 ft. to be the least depth in the immediate vicinity with 7-ft. depths slightly northward. Depths on the present development are in close agreement with those obtained in the same area on H-6776 (1942).

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

6. Comparison with Chart 1224 (Latest print date 1/8/51)

A. Hydrography

Charted hydrography originates with the prior surveys which need no further consideration. The present survey supersedes the charted hydrography.

B. Aids to Navigation

Aids to navigation located on the present survey are in substantial agreement with the charted aids 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.

c. Hydrography was accomplished in the vicinity of lat. 38° 04.2', long. 76° 04.9', where an area of about one quarter square mile had been left unsurveyed on H-6776 (1942).

d. The 6-ft. sounding charted in lat. 38° 04.51', long. 76° 05.75', from H-3379 (1912) and carried forward to H-6776 (1942) was disproved by an investigation on the present survey. Disposition of the 6-ft. sounding was made in paragraph 5 of this review.

8. Compliance with Project Instructions

The survey adequately complies with the Project Instructions.

9. Additional Field Work

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

H. R. Edmonston
Chief, Nautical Chart Branch

Examined and approved:

H. Arnold Karo
Chief, Division of Charts

L. S. Hubbard
Chief, Section of Hydrography

W. M. Scaife
Chief, Division of Coastal Surveys

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7781

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
7/19/51	1224	[illegible]	~~Before~~ After Verification and Review Applied in part.
10-8-51	77	J. W Eaton	~~Before~~ After Verification and Review Applied in Part.
11/8/51	78	GJE	~~Before~~ After Verification and Review
4-8-52	3330	[illegible]	~~Before~~ After Verification and Review Complete application of Hydro
			Before After Verification and Review
11/7/52	555	J.G. McGann	~~Before~~ After Verification and Review
12/19/52	Reconstr. 1224	GJE	~~Before~~ After Verification and Review
2/26/64	77	O. Svendsen	~~Before~~ After Verification and Review
			Before After Verification and Review
			Before After Verification and Review

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