7025

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey HYDROGRAPHIC

Field No. GI-1145 *Office No.* H-7025

LOCALITY

State VIRGINIA

General locality James River

Locality Fort Eustis

194 5

CHIEF OF PARTY

I. E. Rittenburg and Ronald R. Moore

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DATE MAY 8 1945

8-1870-1 (1)

7025

Form 537
(Ed. Nov. 1941)
f.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. H7025

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-7025

Field No. GI-1145

State VIRGINIA

General locality James River

Locality Fort Eustis

Scale 1:10,000 Date of survey March 7 to April 12, 1945

Instructions dated October 11, 1940; Nov. 17, 1942; Feb. 13, 1945; Feb. 15, 1945.

Vessel Motor Vessel GILBERT

Chief of party I. E. Rittenburg and Ronald R. Moore

Surveyed by Miller J. Tonkel

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

Protracted by M.T. Miller

Soundings penciled by M.T. Miller & J. Curd

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

REMARKS: This sheet was processed at the S.E. District, Norfolk, Va. Hydrographic Section.

U. S. GOVERNMENT PRINTING OFFICE 428975

H-7025

DESCRIPTIVE REPORT

TO ACCOMPANY

HYDROGRAPHIC SURVEY H-7025 (Field No. GI-1145)

M. V. GILBERT I. E. Rittenburg, COMDG.
Ronald R. Moore, COMDG.

PROJECT CS-255 SCALE 1:10,000.

A. ---- This survey is part of Project CS-255. It was executed under instructions from the Director to the Commanding Officer, M. V. GILBERT, dated October 11, 1940, reference 22mjc - 1995 GI-1; as amended on November 17, 1942, reference 22 RCC - 1995 GI-1; as amended on February 13, 1945, reference 22/MEK 1975 NK 4; as amended February 15, 1945, reference 22/MEK 1975 NK 4.

B. ---- This survey is of the area between Deep Water Shoals Light and bell buoy No. 24 marking the northern entrance to Rocklanding Shoal Channel, and between the eastern shore and the 18-foot depth curve at the western edge of the main river channel of James River. This survey did not join with any recent survey of the area. The field work on this sheet was accomplished between March 7, 1945 and April 12, 1945.

C. ---- The work was accomplished by using launches 101 and 102 as the sounding vessels on the channel areas and by using a 25 foot skiff, propelled by outboard motors as the sounding vessel on the shoal areas. The party operated from the M. V. GILBERT which was anchored on the working grounds.

A type 808A Submarine Signal Depth Recorder (No. 53) was used for all the soundings, except for some of the detached positions when an accurately graduated lead line was used.

D. ---- The tide station was on the offshore end of the pier at Fort Eustis, Va. in Latitude 37° 08.20', Longitude 76° 38.02'. No time or height corrections should be applied to the observed tides. The soundings on the boat sheet were reduced in part from the predicted tides for Hampton Roads (Sewell Point), Virginia and in part from the observed tides using 2.78 feet MLW as was computed. A time correction of plus three hours and five minutes; and a minus 0.4 foot on high water were used on the predicted Hampton Roads tides. The actual tides differed somewhat from the predicted tides due to varying wind conditions. The value of 2.78 feet for MLW was computed from the difference between the staff 9.0 foot mark and the elevation of the bench marks with reference to the MLW computed against the same bench marks at an earlier date. (See letter from the Washington Office, reference mlh - 2-13-45)

F. ---- The triangulation control for this sheet was accomplished by H. E. Finnegan in 1938. Stations were found as described. No recovery cards were submitted. 1162

The topographic stations were located by air photographic methods, Fred. L. Peacock, Chief of Party, in 1942. Sheet Nos. T-8059, 8060, 8069, and 8070 were used for the source of signals on this survey. It was necessary to supplement these signals by hydrographic signals. The hydrographic signals were located by sextant fixes at the signal and by cuts from adjacent topographic signals and triangulation stations. The location of these signals will be found in volume one, except for signal SAD, in volume three.

G. ---- The shore line and topographic detail on this sheet was transferred from sheet nos. T-8059, 8060, 8069, and 8070 - (1942). The shore line detail as compiled was found correct.

The low water line was defined where sufficient tide and open water permitted. It was impossible to get the boat in close enough to the beach for the most part of this work, due to the tree stumps and old pilings.

H. ---- All depths, except for two detached soundings with hand lead, were taken with a type 808A Depth Recorder. The echo soundings were corrected for bar checks taken to the deepest depth sounded for any period, except for f-day (skiff) April 12 when two lines extend into previous work of deeper depth. On this day the bar check curve was extended to include the deeper depths obtained. The recorder was operated with the middle reed vibrating. The speed was checked against time signals as sent out by radio station WWV, Bureau of Standards, Washington, D. C. The speed was found to be in error less than 0.4 of 1 %.

The launches were tested for settlement and squat. The mean value as determined was plus 0.26 feet. Plus 0.2 feet was entered into the final corrections. The skiff had been tested previously and the mean values were not large enough to enter into the final corrections. A list of the corrections used are attached to this report in addition to the original bar check curves from which these correctors were computed.

There was no initial correction except for a-day (Skiff) April 5. The initial corrections for this day were computed and are shown with the bar check corrections for the same day.

I. ---- The horizontal control was by sextant angles on the triangulation, topographic, and hydrographic points located as described in E above. No signals on the west shore of the James River were used. A list of signals used will be included in this report.

J. ---- The survey is complete and adequate to supersede prior surveys for charting. There was no junction made with recent surveys. No holidays or excessive differences exist between soundings obtained on this survey and those of Chart 529, except as noted below. The depth curves compare favorably with those of chart 529. There seemed to be shoaling in the area immediately south of the pier.

There was no signs of a dredged area near the pier (reference 22/MEK 1975 NK 4 - letter dated 13 February 1945) and no 15 meter lines were run on this work. Area had not been dredged at time of survey. Maritime Commission's request for survey had in mind the possibility of dredging.

K. ---- The percentage of crosslines (exclusive of development) is 8.7% The average crossing is satisfactory on the boat sheet. The tide reducers as computed from the actual tide will eliminate a large percentage of the slight differences. In case of any remaining differences, the shoal soundings should be charted in all cases.

L. ---- Comparison with previous surveys. No prior surveys available for comparison. See paragraph "J" above.

M. ---- On one cross line, vicinity of Latitude 37° 07.5', Longitude 76° 38.2', a depth of 24 feet was obtained on a sharp pinnacle in a surrounding average depth of 36 feet. This spot was developed thoroughly and two soundings which reduced to 23 feet and one which reduced to 25 feet were obtained. Because of the sharpness of the shoal spot and the difficulty of holding skiff on the spot due to wind and current, no results could be obtained with the hand lead. As this spot is near the edge of the channel, it is recommended that the shoalest depth be charted as a danger to navigation.

N. ---- There were no signs of the piles as charted in Latitude 37° 07.1', Longitude 76° 37.95', or the wreck as charted in Latitude 37° 07.85', Longitude 76° 37.95'. A sunken steel boiler, possibly the remains of a wreck was found south of the offshore end of the pier in Latitude 37° 08.1', Longitude 76° 37.98'. It bares 1.5 feet at MLW. (See paragraph M.)

The locations of numerous fish stakes, fish traps, and various sunken snags were located by sextant fixes and plotted on the boat sheet.

P. ---- The Deep Water Shoal Light was the only fixed aid to navigation in this area. It was one of the triangulation control points of the work.

FLOATING AIDS TO NAVIGATION

Name	Latitude Longitude	Depth of water - ft.	Position No.	Date
James River Buoy #23	37° 07.08' 76° 38.27'	38	31-e (Launch 102)	3-29-45
James River Lt. Bell # 24	37° 07.18' 76° 38.22'	32	32-e (Launch 102)	3-29-45

Q. ---- The landmarks as reported by the field inspection party and indicated on the compilations were found to be adequate.

R. ---- The Geographic Names as reported by the field inspection party were found to be adequate

Miller J. Tonkel

Miller J. Tonkel
Ensign, USC&GS.

H7025

STATISTICS FOR HYDROGRAPHIC SURVEY H- (1945)

M. V. GILBERT's Launches 101, 102, & Skiff.

Volume Number	Day Letter	Boat Used	Date 1945	Number of Soundings	Number of Positions	Statute Miles Soundings
1	a	Launch 101	3-20	*	110	12.8
1	b	Launch 101	3-23	*	68	10.0
1	c	Launch 102	3-27	*	79	11.8
2	d	Launch 102	3-28	*	166	23.6
2	e	Launch 102	3-29	2(HL)	135	17.9
3	a	Skiff	4- 5	*	99	9.3
3	b	Skiff	4- 6	*	80	7.6
3	c	Skiff	4- 9	*	4	0.2
3	d	Skiff	4-10	*	102	8.7
4	e	Skiff	4-11	*	165	17.3
4	f	Skiff	4-12	*	75	6.0
			Total	2(HL)	1083	125.2

TOTAL AREA: 5.8 square statute miles

* - Indicates continuous profile with Depth Recorder.

TIDAL NOTE

A portable automatic tide gage was maintained at the offshore end of the pier at Fort Eustis, Virginia in Latitude 37° 08.20' Longitude 76° 38.02' throughout the period of this survey. The value of 2.78 feet for MLW was computed from the difference between the staff 9.0 ft. mark and the elevation of the bench marks with reference to the MLW computed against the same bench marks at an earlier date. (See letter from the Washington Office - reference mlh - 2-13-45) No time or height correction should be applied to the observed tides.

BAR CHECK CORRECTIONS FOR SHEET H- H7025

M. V. GILBERT (Launches 101, 102, & Skiff)

DATE(1945):	March 20		March 23		March 24 27		March 28		March 29		April 5		DATE(1945)
BOAT:	Launch 101		Launch 101		Launch 102		Launch 102		Launch 102		Skiff		Boat
DAY:	a - day		b - day		c - day		d - day		e - day		a - day		DAY
CORRECTIONS:	From	To	From	To	From	To	From	Tob	From	To	From	To	CORRECTIONS
FEET	FEET		FEET		FEET		FEET		FEET		FEET		FEET
+0.6	0.0	6.5							0.0	2.2	*		+0.6
+0.4	6.6	9.9							2.3	10.0	(P.M.)		+0.4
+0.2	10.0	13.1					—	12.2	10.1	28.0	0.0	2.8	+0.2
0.0	13.2	16.5					12.3	19.7	28.1	46.3	2.9	5.3	0.0
-0.2	16.6	21.8					19.8	26.0	46.4	54.1	5.4	7.0	-0.2
-0.4	21.9	29.2	0.0	5.2			26.1	34.3	54.2	63.0	7.1	8.9	-0.4
-0.6	29.3	35.0	5.3	12.8			34.4	43.2	63.1	—	9.0	11.0	-0.6
-0.8	35.1	38.8	12.9	20.2	6.0	15.1	43.3	52.1			11.1	13.0	-0.8
-1.0	38.9	42.6	20.3	27.1	0.0 to 5.9	15.2 to 21.4	52.2	61.0			13.1	15.2	-1.0
-1.2	42.7	—	27.2	32.7	21.5	30.3	61.1	69.1			15.3	—	-1.2
-1.4			32.8	38.0	30.4	36.5	69.2	76.0					-1.4
-1.6			38.1	43.2	36.6	—	76.1	82.4					-1.6
-1.8			43.3	48.3			82.5	88.2					-1.8
-2.0			48.4	53.7			88.3	93.0					-2.0
-2.2			53.8	58.6			93.1	—					-2.2
-2.4			58.7	63.9									-2.4
-2.6			64.0	—									-2.6

*NOTE: (A. M.) 0.0 feet correction for all A.M. depths.

NOTE: On March 20, 23, 24, 28, and 29 add +0.2 for settlement and squat. (In addition to the above correctors)

NOTE: On March 23 and 28, add +1.3 to all "B" scale soundings. (In addition to the above correctors)

NOTE: On March 28 add +1.8 to all "C" scale soundings. (In addition to the above correctors.)

NOTE: On March 29, add +1.5 to all "B" and "C" scale soundings. (In addition to the above correctors)

NOTE: INITIAL CORR'N a-day (Skiff)

Correction	Time
0.0 feet to	1512
-0.2 feet to	1545
-0.4 feet to end.	

+3.3

BAR CHECK CORRECTIONS FOR SHEET H- H7025

M. V. GILBERT (Skiff)

DATE(1945):	April 6		April 9		April 10		April 11		April 12		DATE(1945)
BOAT:	Skiff		Skiff		Skiff		Skiff		Skiff		BOAT
DAY:	b - day		c - day		d - day		e - day		f - day		DAY
CORRECTIONS: FEET	From	To	From	To	From	To	From	To	From	To	CORRECTIONS FEET
		FEET		FEET		FEET		FEET		FEET	
+0.6						3.4		1.0			+0.6
+0.4	0.0	8.3			3.5	4.4	1.1	3.0			+0.4
+0.2	8.4	12.7			4.5	6.4	3.1 to 5.2	8.7 to 16.0	0.0	5.8	+0.2
0.0	12.8	--	0.0	10.1	6.5	21.2	5.3 to 8.6	16.1 to --	5.9	--	0.0
-0.2			10.2	18.0	21.3	32.0					-0.2
-0.4			18.1	--	32.1	--					-0.4

NOTE: On April 12, add +1.4 to all "B" scale soundings.
(In addition to the above correctors.)

APPROVAL SHEET

No. H-

The records and boat sheet for survey No. GI-1145 are herewith approved. It should be borne in mind that this descriptive report was written prior to the plotting of the smooth sheet and is subject to revision, as indicated by the notes attached to this report by the Norfolk Processing Office.

The records and boat sheet were subjected to frequent inspections as the work progressed and I consider the survey complete and adequate and no other additional work is recommended.

Ronald R. Moore

Ronald R. Moore,
Lt. Comdr., USC&GS,
Chief of Party.

* SIGNALS USED *

M.V.GILBERT Project CS 255

Fort Eustis; JAMES RIVER, VA.

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TRIANGULATION STATIONS

Deepwater Sheal Lighthouse, 1870, 1910, 1938.

Mulberry, (USE), 1930, 1938.

Tower Near "Crawford", Flagpole, 1938.

Ulber, 1938.

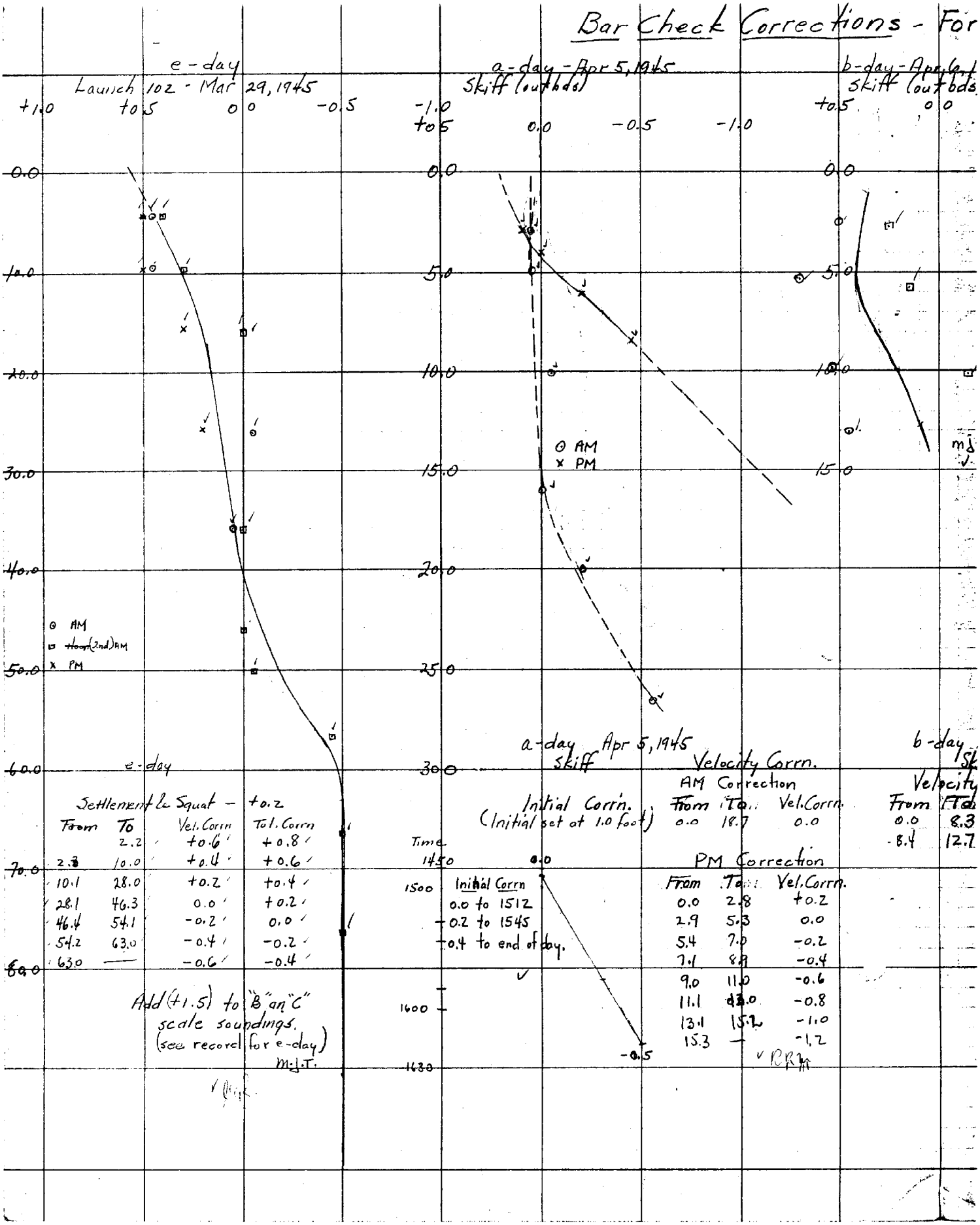
TOPOGRAPHIC STATIONS

DOT	from	Air	Photo	Compilation	Sheet	T-8060
EAT	"	"	"	"	"	T-8060
HOW	"	"	"	"	"	T-8059
ICE	"	"	"	"	"	T-8059
NAT	"	"	"	"	"	T-8059
OAK	"	"	"	"	"	T-8059

HYDROGRAPHIC STATIONS

EGO	from	Volume	No.	1,	page	6
FAR	"	"	"	1,	"	5
GAD	"	"	"	1,	"	5
JIM	"	"	"	1,	"	6
KED	"	"	"	1,	"	6
MAN	"	"	"	1,	"	5
PAD	"	"	"	1,	"	6
SAD	"	"	"	3,	"	66

Bar Check Corrections - For



e-day

Settlement & Squat - +0.2

From	To	Vel. Corrn	Tot. Corrn
	2.2	+0.6	+0.8
2.3	10.0	+0.4	+0.6
10.1	28.0	+0.2	+0.4
28.1	46.3	0.0	+0.2
46.4	54.1	-0.2	0.0
54.2	63.0	-0.4	-0.2
63.0	—	-0.6	-0.4

Add (+1.5) to "B" and "C" scale soundings. (see record for e-day)
M.J.T.

a-day Apr 5, 1945
Skiff

Initial Corrn. (Initial set at 1.0 foot)

Initial Corrn
0.0 to 1512
-0.2 to 1545
-0.4 to end of day.

Velocity Corrn.

AM Correction

From	To	Vel. Corrn.
0.0	18.7	0.0

PM Correction

From	To	Vel. Corrn.
0.0	2.8	+0.2
2.9	5.3	0.0
5.4	7.0	-0.2
7.1	8.9	-0.4
9.0	11.0	-0.6
11.1	13.0	-0.8
13.1	15.2	-1.0
15.3	—	-1.2

RRM

b-day - Sk

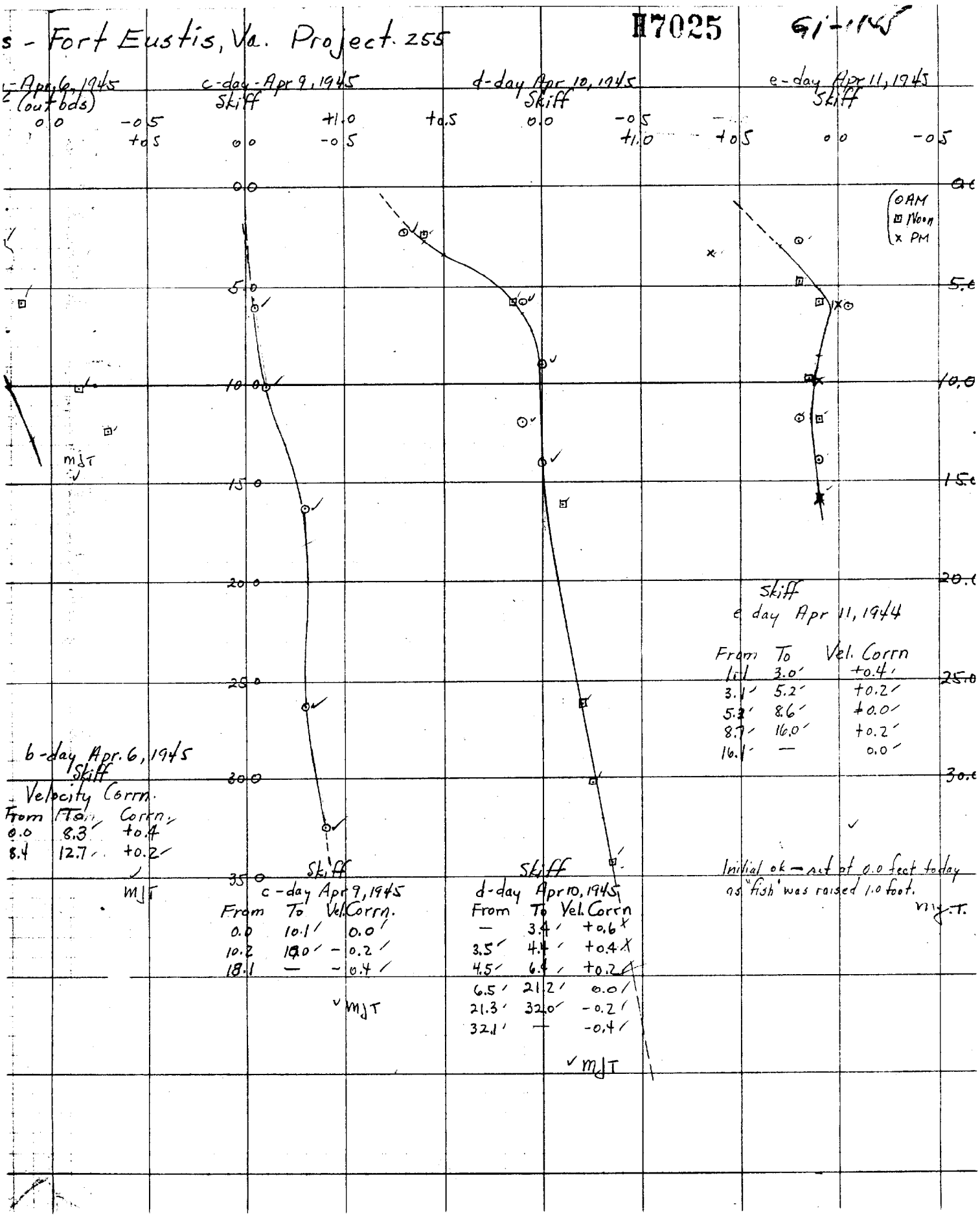
Velocity

From	To
0.0	8.3
8.4	12.7

s - Fort Eustis, Va. Project 255

H7025

6/1945



b-day Apr. 6, 1945
Skiff
Velocity Corrn.

From	To	Corrn.
0.0	8.3	+0.4
8.4	12.7	+0.2

mJT

c-day Apr 9, 1945
Skiff

From	To	Vel. Corrn.
0.0	10.1	0.0
10.2	19.0	-0.2
18.1	—	-0.4

mJT

d-day Apr 10, 1945
Skiff

From	To	Vel. Corrn
—	3.4	+0.6
3.5	4.4	+0.4
4.5	6.4	+0.2
6.5	21.2	0.0
21.3	32.0	-0.2
32.1	—	-0.4

mJT

e-day Apr 11, 1944
Skiff

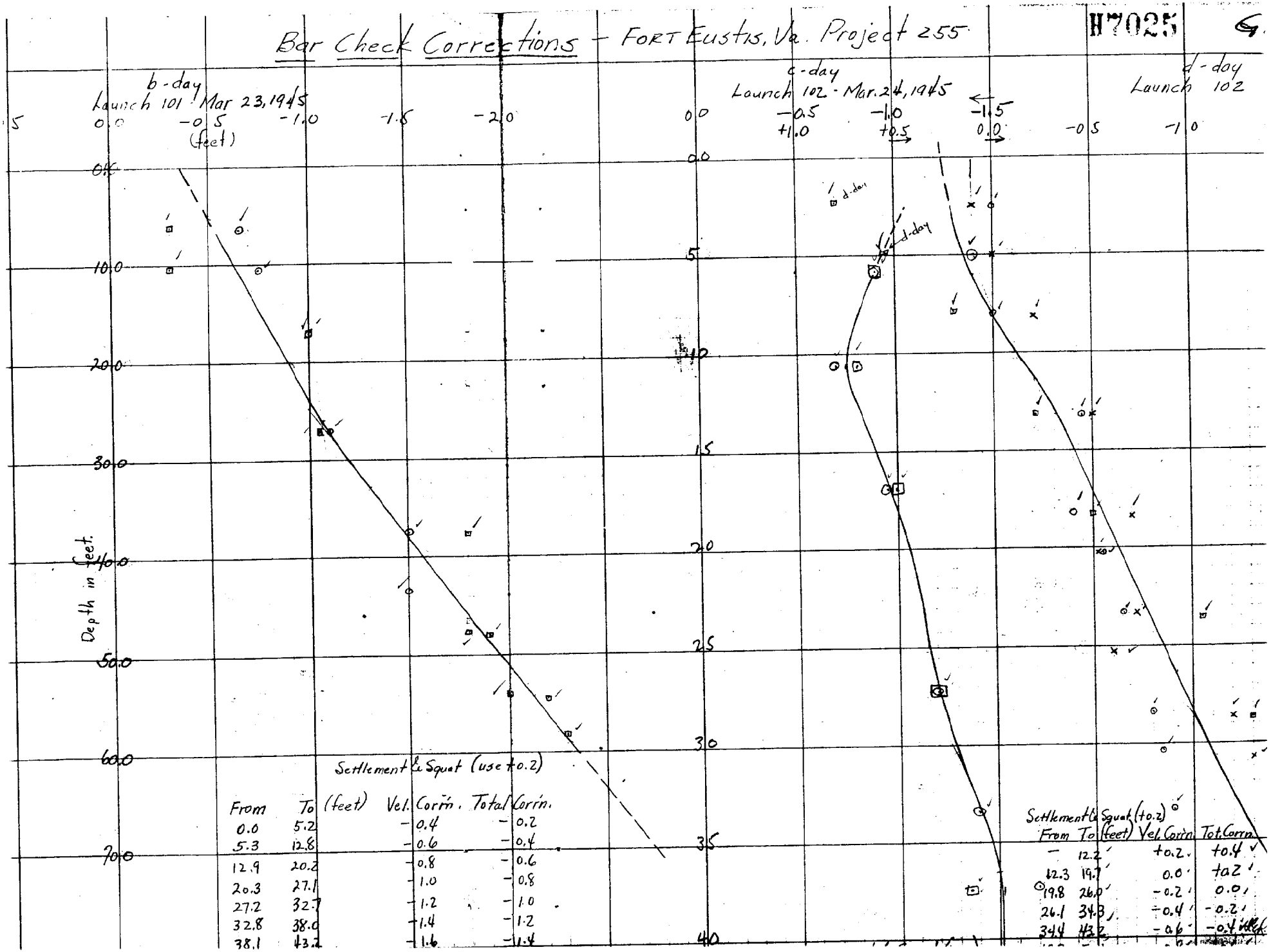
From	To	Vel. Corrn
1.1	3.0	+0.4
3.1	5.2	+0.2
5.3	8.6	+0.0
8.7	16.0	+0.2
16.1	—	0.0

Initial ok — set at 0.0 feet today as "fish" was raised 1.0 foot.

mJT

Bar Check Corrections – Fort Eustis, Va. Project 255

H7025 6.



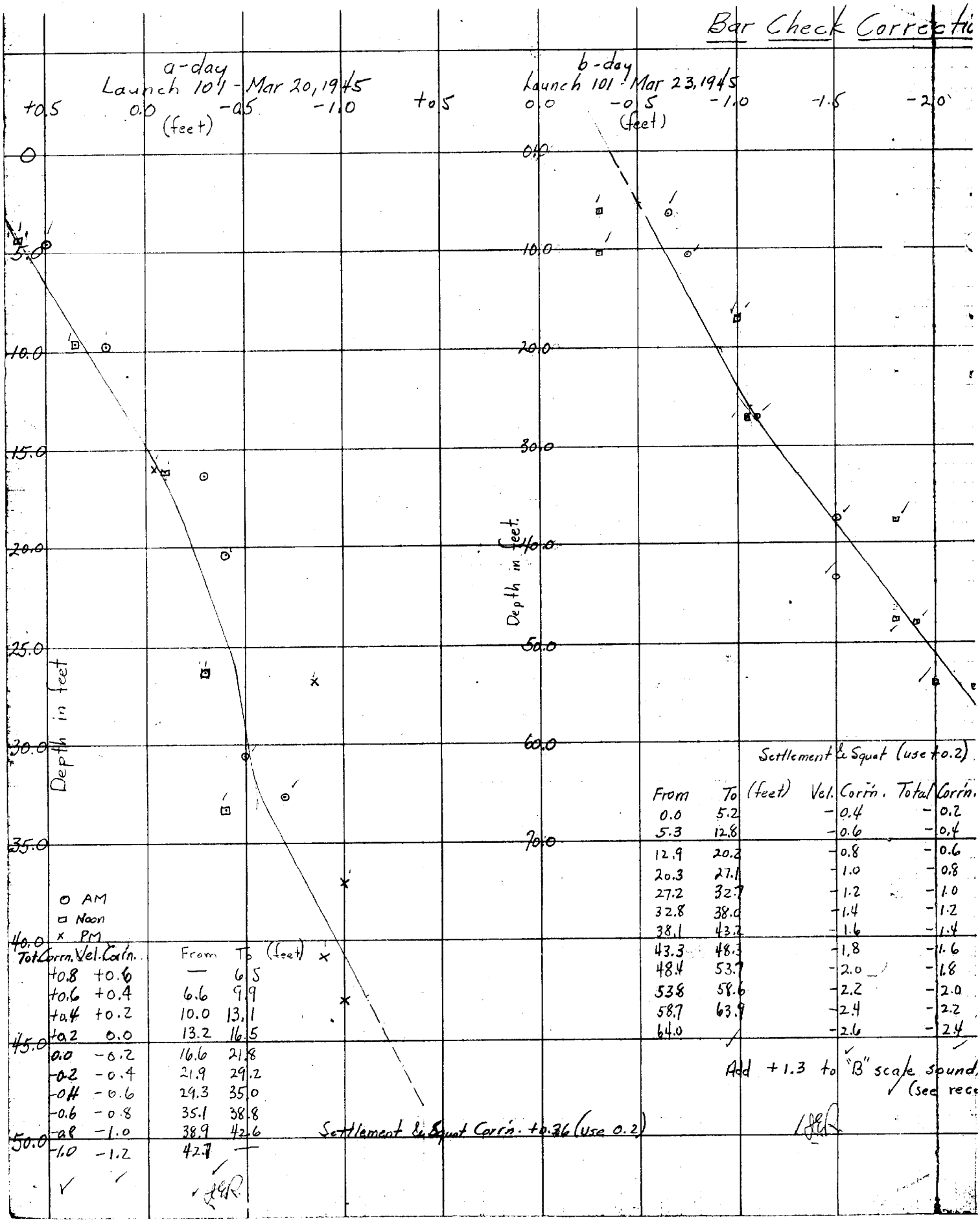
Settlement & Squat (use +0.2)

From	To	(feet)	Vel. Corrn.	Total Corrn.
0.0	5.2		−0.4	−0.2
5.3	12.8		−0.6	−0.4
12.9	20.2		−0.8	−0.6
20.3	27.1		−1.0	−0.8
27.2	32.7		−1.2	−1.0
32.8	38.0		−1.4	−1.2
38.1	43.2		−1.6	−1.4

Settlement & Squat (+0.2)

From	To	(feet)	Vel. Corrn	Tot. Corrn.
—	12.2		+0.2	+0.4
12.3	19.7		0.0	+0.2
19.8	26.0		−0.2	0.0
26.1	34.3		−0.4	−0.2
34.4	43.2		−0.6	−0.4

Bar Check Correctio



○ AM
□ Noon
× PM

Tot Corrn.	Vel. Corrn.	From	To (feet)
		—	6.5
+0.8	+0.6	6.6	9.9
+0.6	+0.4	10.0	13.1
+0.4	+0.2	13.2	16.5
+0.2	0.0	16.6	21.8
0.0	-0.2	21.9	29.2
-0.2	-0.4	29.3	35.0
-0.4	-0.6	35.1	38.8
-0.6	-0.8	38.9	42.6
-0.8	-1.0	42.7	—
-1.0	-1.2		

Settlement & Squat Corrn. +0.36 (use 0.2)

Settlement & Squat (use +0.2)

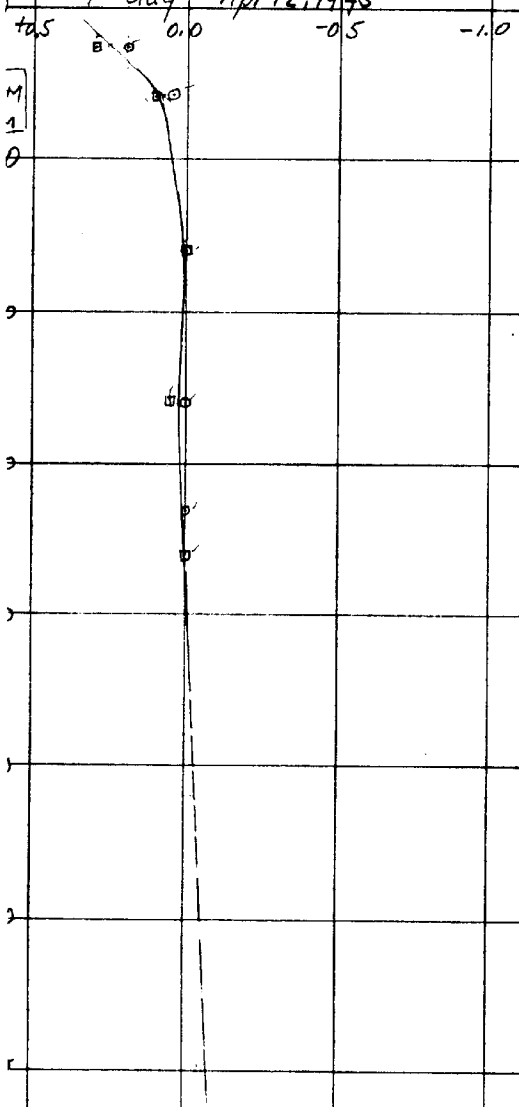
From	To (feet)	Vel. Corrn.	Total Corrn.
0.0	5.2	-0.4	-0.2
5.3	12.8	-0.6	-0.4
12.9	20.2	-0.8	-0.6
20.3	27.1	-1.0	-0.8
27.2	32.7	-1.2	-1.0
32.8	38.0	-1.4	-1.2
38.1	43.2	-1.6	-1.4
43.3	48.3	-1.8	-1.6
48.4	53.7	-2.0	-1.8
53.8	58.6	-2.2	-2.0
58.7	63.9	-2.4	-2.2
64.0		-2.6	-2.4

Add +1.3 to "B" scale sound. (See rec

BAR CHECK CORRECTIONS - FORT EUSTIS, VA. PROJECT 255

Skiff.

f-day - Apr 12, 1945



f-day - Apr 12, 1945

From	To	Vel. Corrn.
—	5.8	+0.2
5.9	—	0.0

Use +1.4 to "B" scale soundings.

H7025 Gi+1145

ADDENDUM

HYDROGRAPHIC SHEET H-7025

This sheet was processed in the Hydrographic Section, S. E. District, Norfolk, Va.

Respectfully submitted,

Isadore M. Zeskind
Cartographic Engineer

Norfolk, Virginia
May 4, 1945

Approved & Forwarded

Paul C. Whitney
Supervisor SE District

GEOGRAPHIC NAMES
Survey No. H7025

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		
James River								U.S.G.B		1
Fort Eustis		(Title only)			371 765					2
Mulberry Point					371 766					3
Deep Water Shoals Light					"					4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
										17
										18
										19
										20
										21
										22
										23
										24
										25
										26
										27

Names unidentified in the approved by Lotteck on 7/24/45

M 234

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. H7025

Records accompanying survey:

Boat sheets .1..; sounding vols. 4...; wire drag vols. ....;

bomb vols. .....; graphic recorder rolls 11...;

special reports, etc. .....

.....

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

Number of positions on sheet		1083
Number of positions checked		118
Number of positions revised		19
Number of soundings recorded		6000 (Approx)
Number of soundings revised (refers to depth only)		15
Number of soundings erroneously spaced		21
Number of signals erroneously plotted or transferred		.....
Topographic details	Time	.....
Junctions	Time	0
Verification of soundings from graphic record	Time	16

Verification by McAlwood-Burgoyne. Total time 116. Date 6/11/45...

Review by J.A. McCormick Time 8 hrs. Date 7/12/45...

RQC
CKG
Murn.

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

May 12, 1945

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: H. W. MURRAY

Plane of reference approved in
4 volumes of sounding records for

HYDROGRAPHIC SHEET 7025

Locality Fort Eustis, James River, Virginia.

Chief of Party: I. E. Rittenburg and R. R. Moore in 1945
Plane of reference is mean low water reading
2.7 ft. on tide staff at Fort Eustis
7.8 ft. below B. M. 1

Height of mean high water above plane of reference is 2.4 feet.

Condition of records satisfactory except as noted below:

C K Green
Chief, Division of Tides and Currents.

U. S. GOVERNMENT PRINTING OFFICE 154327

DIVISION OF CHARTS

REVIEW SECTION - NAUTICAL CHART BRANCH

REVIEW OF HYDROGRAPHIC SURVEY REGISTRY NO. 7025

Field No. GI-1145

Virginia; James River; Fort Eustis
Surveyed in March-April, 1945, Scale 1:10,000.
Project CS-255

Soundings:

Hand lead
808 Fathometer

Control:

Three-point fix on shore signals

Chief of Party - I. E. Rittenburg; R. R. Moore
Surveyed by - M. J. Tonkel
Protracted by - M. T. Miller
Soundings plotted by - M. T. Miller; J. Curd
Verified and inked by - J. M. McAlinden, H. W. Burgoyne
Reviewed by - J. A. McCormick
Inspected by - H. W. Murray Date - July 12, 1945

1. Shoreline and Signals -

Shoreline and red-circled signals are from topographic map compilations T-8059, T-8060, T-8069 and T-8070. Cubs for location of supplementary hydrographic signals are recorded in the sounding volumes.

2. Sounding Line Crossings -

Agreement at crossings is satisfactory.

3. Bottom Configuration -

On the east side of the river, the bottom drops sharply between the 6- and 30-foot curves. Slopes on the west side are not so pronounced. A shoal depth of 23 feet (30 to 38 feet surrounding) was obtained in latitude 37°07.5', longitude 76°38.2' but is not outstanding because of similar depths 100 meters inshore.

4. Contemporary Surveys -

The survey was made because of a request by the Maritime Commission for detailed information concerning depths off the Fort Eustis pier. Project CS-255 will eventually

be extended from the south to envelop the present survey and continue upstream, but at the present writing there are no contemporary surveys adjoining.

5. Previous Surveys -

H-530 (1855), 1:20,000; H-1179 b (1873), 1:20,000; H-3097 (1910, 1:20,000.

H-530 is labeled reconnaissance and appears to be just that. Depths are widely spaced and much of the deeper area southwest of Deepwater Shoals Lighthouse was missed. H-1179b is the most complete of the three old surveys, and comparison with the present survey indicates only minor changes in the 72 years intervening between the two. Depths inside the 6-foot curve around the present pier now average 1 to 2 feet shoaler, and the 18- and 30-foot curves on the west side of the river north of latitude 37°08' have moved out a little since 1873. H-3097 consists of a development i n the vicinity of the lighthouse plus cross-channel lines at one-mile intervals. Such depths as it shows agree fairly well with present determinations. The older surveys can be considered superseded in the common area.

6. Comparison with Chart 529 (Print of Aug. 25, 1944)

Hydrographic information now charted in the subject area is mostly from superseded surveys discussed in the preceding paragraph. Minor exceptions are as follows:

a. Hand corrections of 13 and 15 feet charted at the offshore end of the Fort Eustis pier were ordered applied after a preliminary inspection of the unverified smooth sheet. They are misleading and should be removed.

b. The wreck charted in latitude 37°07.85', longitude 76°37.95' is noted on B. P. 29824 (1935 Coast. Pilot Examination Data) as being that of a barge baring about 4 feet at M. H. W. Piles charted in latitude 37°07.1', longitude 76°37.95' were reported from two independent sources, the reports being attached to Chart Letter 268 of 1925. B. P. 29824 notes these same piles as being about 3 feet above M. H. W. No indications of wreck or piles were found on the survey (see descriptive report, page 5) although an old boiler and several logs, baring 1 foot at M.L.W. were found in the same general shoal area. It is presumed that both wreck and piles have been removed and, consequently, should be expunged from the chart.

c. Buoy "C 23" in latitude 37°07.0', longitude 76°38.3' on the survey is charted as "C3" because of an error in hand correction. The current aid proof verifies the number shown on the survey. Chart and survey positions of all aids in the area are in agreement.

The survey is basic and supersedes, without exception, all hydrographic material now charted in the area which it covers.

7. Compliance with Project Instructions

The survey was well done and amply fulfills the requirements of special instructions dated February 13, 15, 1945 (See also Paragraph 4).

8. Additional Field Work Recommended.

None.

Examined and Approved:

Chief, Chart Division

Division of Charts

Chief, Division of Coastal Surveys

Chief, Section of Hydrography

80 1813
82 CP pik
83 1 HRE
83 [illegible]
939 file

22/MEK
1975 NK 4

30 April 1945

To: Supervisor, Southeastern District,
U. S. Coast and Geodetic Survey,
Room 418, U. S. Post Office Building,
Norfolk-10, Virginia.

Subject: Survey in the vicinity of Camp Eustis wharf—hydrographic sheet No. 7025.

The Maritime Commission has made inquiry regarding the status of the Camp Eustis wharf survey and when the results of this survey will be available for dredging purposes. This work is now being delayed until copies of this survey are received.

In accordance with paragraph 8 of my letter of 13 February 1945, containing instructions for this project, you will please give processing of this survey priority over all other work, if practicable.

A careful estimate of the time which will be required for the completion of this processing should be made and submitted to this office.

(signed) J. H. HAWLEY

Acting Director.

cc. Division of Charts

NAUTICAL CHARTS BRANCH

SURVEY NO. H-7025.

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
7-3-45	529	A.K. Andrus	Before ~~After Verification and~~ Review
7-22-46	529	"	
			~~Before~~ After Verification and Review
7-22-46	78	"	~~Before~~ After Verification and Review
9-9-44 reconstruction	529	John McAlinden	~~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.