

FE34

4
3
E
E

NOAA FORM 76-35A	
U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SURVEY	
DESCRIPTIVE REPORT (HYDROGRAPHIC)	
Type of Survey	Field Examination
Field No.	
Office No.	FE-34
LOCALITY	
State	Virginia
General Locality	Chesapeake Bay
Locality	
1942	
CHIEF OF PARTY H.C. Warwick	
LIBRARY & ARCHIVES	
DATE	1942

☆ U.S. GOV. PRINTING OFFICE: 1976-669-441

NOTE: A new system for registering Field Examinations (FE's) was established in 1980. All FE's are now consecutively numbered as shown hereon. The date shown in the new format is the actual date of survey. This material was previously registered as: FE No.4 1942

FE4
1942

Form 504
Rev. April 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~ } Sheet No. SPECIAL
Hydrographic }

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

APR 25 1942

Acc. No. _____

State VIRGINIA

LOCALITY

CHESAPEAKE BAY

19342

CHIEF OF PARTY

H. C. Warwick

FE4
1942

D E S C R I P T I V E R E P O R T

TO ACCOMPANY

HYDROGRAPHIC SURVEY

VICINITY SS E. H. BLUM

ENTRANCE TO CHESAPEAKE BAY

Date of this report

April 15, 1942.

INSTRUCTIONS:

The instructions for this survey and the authority to proceed with same are contained in correspondence between the Commandant, Fifth Naval District, the Director, U. S. Coast and Geodetic Survey and the Officer in Charge, Norfolk Processing Office. Copies of this correspondence are on file.

SCALE:

The scale of this survey is 1:10,000. The length of the base line CAPE HENRY L.H. to STACK, SS E.H.BLUM prohibited using a larger scale than 1:10,000.

SURVEY METHODS:

The geographic position of STACK, SS E.H. BLUM was computed from data furnished by the U. S. Navy as follows:

	<u>Distance</u>	<u>Azimuth</u>
CAPE HENRY LH to Center STACK SS E.H.BLUM	6440yd (5888.7m)	51° 45'

This distance and azimuth were determined on March 30, 1942. A determination on the last day of field work, April 2, 1942 checked the above valuations. The distance determination was by range-finder, the probable error of which was not furnished.

Sextant angles were observed at QK.FL.W. Whistle Buoy, at FLR"2A" Bell Buoy and at STACK SS E.H.BLUM. A distance was obtained between STACK and MAST SS E.H. BLUM. The positions of the two buoys and the MAST were then determined by plotting. The above data was recorded in the sounding volume. While the BLUM appeared not to have moved during this survey, it is probably subject to shifting.

A vertical base of 10 meters was marked on the MAST SS E.H.BLUM in such a position that a vertical angle on the base could be observed from any part of the area to be sounded. An angle and distance curve was constructed with the corrections for the elevation of the base above the height of the observer.

SOUNDING LINE POSITIONS:

By observing the vertical angle on the marks on the mast it was possible to determine the distance off from the mast by means of the angle and distance curve. This distance combined with a horizontal angle observed between the mast and one of the other plotted objects furnished the necessary data for plotting the sounding line positions. A wire drag protractor was used for the plotting.

SOUNDINGS:

All soundings on this survey were made with the leadline. The leadline was tested before and after the survey and no leadline correction was found necessary. The sounding interval, was held to 15 seconds, but because of the inability to keep the speed of the boat reduced to that required for the depths encountered and because of the strong currents in the vicinity of the SS E.H. BLUM difficulty was experienced in obtaining the true vertical sounding on the mark.

HOLIDAYS:

The maneuverability at slow speeds of the boat furnished by the Navy for this survey and the strong currents and presence of submerged portions of the wreck, prohibited approaching close to the BLUM, with the result that a large holiday was left in the immediate vicinity of the wreck.

TIDAL DATA:

The predicted tides for Cape Henry were used for the reduction of soundings on this survey.

DISPOSITION OF SURVEY:

Corrected soundings were applied to the boat sheet and a tracing of the boat sheet was furnished the Navy by the Officer in Charge, Norfolk Processing Office.

It is felt that the information furnished the Navy on this tracing was sufficient for the purposes required. Although it was desirable from a salvage standpoint to obtain the survey on a larger scale, the condition of the control and the limited time for plotting prohibited a scale greater than 1:10,000. It is believed that the survey could be enlarged photostatically without decreasing its accuracy sufficient to prohibit its use for the salvage operations.

COOPERATION OF THE NAVY:

The boats used for this survey were furnished by the Inshore Patrol, Little Creek Section Base, U. S. Navy. The Section Base Operations Officer and the Commanding Officers of the boats furnished cooperated whole heartedly in the execution of this survey.

Respectfully submitted,

Don A. Jones per H.C.W.
Don A. Jones, Ensign, C&GS.,
Norfolk Processing Office

Approved and forwarded:

H. C. Warwick
H. C. Warwick, Lt. Comd'r. C&GS.,
Officer in Charge, Norfolk Processing Office.

Predicted Tides

Investigation S.S. E.H. Blum.
Cape Henry Va.

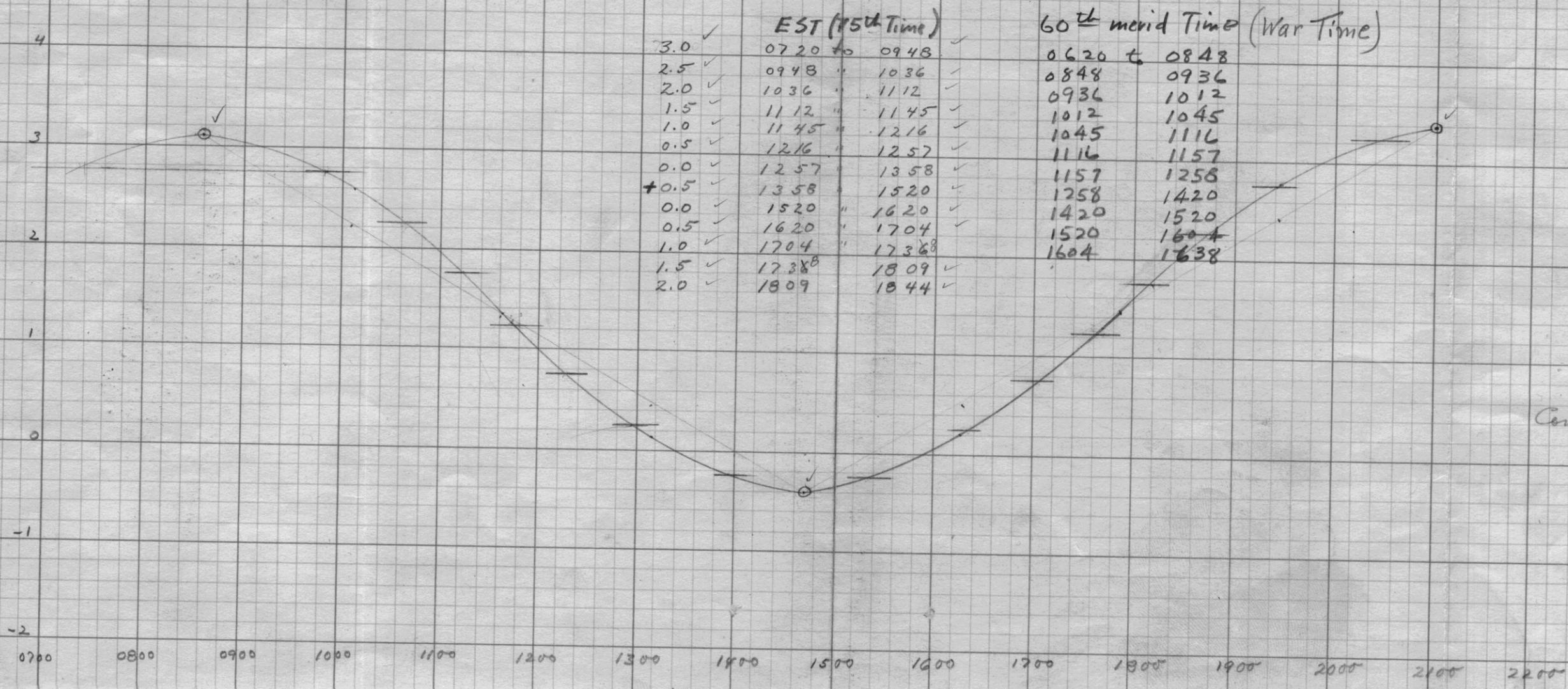
Hampton Roads (75th)
EST

Predicted Highs - 09 40 AM 2.8
10 05 PM 3.1
Lows - 03 33 AM -0.5
03 46 PM -0.4

Ref. Station Hampton Roads
April 2, 1942

Tidal Difference for Cape Henry - Time Range Ratio -1.05
1.1

Prediction for Cape Henry April 2, 1942
(75th Time)
Highs 08 35 AM 3.1
09 00 PM 3.4
Low 02 41 PM -0.4



Comp. by WBO

△ CAPE HENRY L. H., 1887, 1932

36°55' *F.E.-4-1942 Special for Navy - Cape Henry*
76° 01'

76° 00'

1942

FE4

15056

57'

55'

TLE-TLE

QK FL W WHISTLE BUOY

10K FL W WHISTLE

wBP

F.E.-4-1942 Special for NAVY - Cape Henry

36°56'

U.S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES

APR 20 1942

Acc. No. _____

F.E. 4, 1942

59'
36° 58'

75° 58'

57'

FL RED 2A BELL BUOY



WBP

22

23

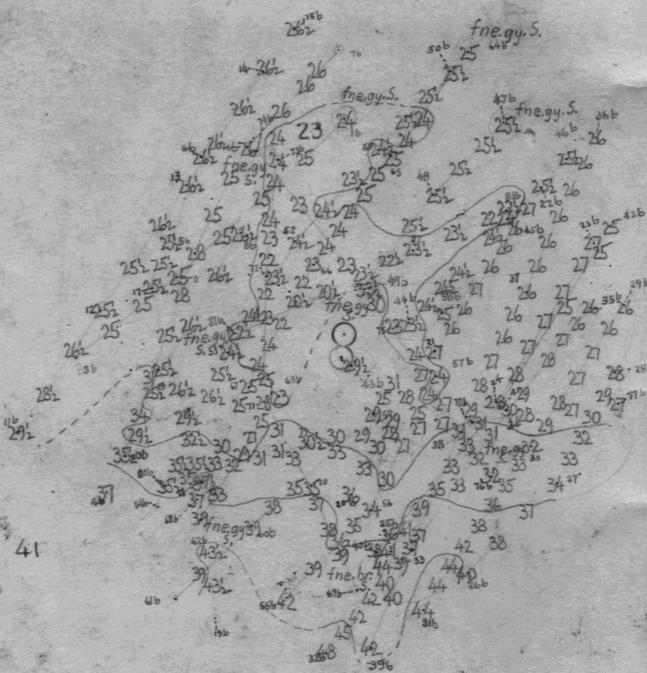
24

20

20

24

29



MAST
WRECK OF S.S. E.H. BLUM
STACK

comp checked

37

hrd

101

36° 51'

F.E.-4-1942 Special for Navy - Cape Henry