

# FE237

Diagram No. 1217-2

NOAA FORM 76-35A

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## DESCRIPTIVE REPORT

Type of Survey Hydrographic  
Field No. RU/HE-80  
Office No. FE-237

### LOCALITY

State New Jersey  
General Locality Atlantic Ocean  
Locality Approach to Brigantine Inlet

1980

CHIEF OF PARTY  
CDR Melvyn C. Grunthal

### LIBRARY & ARCHIVES

DATE November 9, 1981

☆U.S. GOV. PRINTING OFFICE: 1980-668-537

Area 2  
CHT  
12312  
12300

ref L-1635(80)

## HYDROGRAPHIC TITLE SHEET

FE-237

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

RU/HE-80

State New JerseyGeneral locality East Coast Investigations Atlantic OceanLocality Approach to Brigantine InletScale \_\_\_\_\_ Date of survey 1 Dec - 3 Dec 1980Instructions dated 17 October 1980 Project No. S-C619-RU/HE-80Vessel NOAA Ships RUDE (S590) and HECK (S591)Chief of party Cdr. Melvyn C. GrunthalSurveyed by Cdr M.C.Grunthal, Lt. Cdr R.S.Moody, Lt D.H.Peterson, Ens F.L.CollinsSoundings taken by echo sounder, hand lead, pole Pneumatic depth gauge

Graphic record scaled by \_\_\_\_\_

Graphic record checked by \_\_\_\_\_

Protracted by \_\_\_\_\_ Automated <sup>smooth</sup> plot by XYNETICS 1201 (AMC)Verification by R.D. SanockiSoundings in ~~fathoms~~ feet at MLW ~~MLW~~ <sup>smooth</sup> Predicted tidesREMARKS: Position of sunken tug PATRICE McALLISTER was determined by HP 9815Aprogram 800210 All times are GMTNOTE: It would serve no useful purpose toprepare a digital magnetic tape and effectall the associated digital file handling procedures,since only 1 sounding comprises the entiresurvey development. Accordingly, this surveyshould be considered as a manual survey andentered into the AIS via the most expedient method.

REW 12/16/82

#### A. AUTHORITY

Hydrographic Project Instructions S-C619-RU/HE-80, East Coast Investigations, Approach to Brigantine Inlet, New Jersey dated 17 October 1980.

#### B. CHARACTER AND LIMITS OF THE WORK

The purpose of this project was to assist the U.S. Coast Guard in locating and obtaining a least depth over the wreck of the tug PATRICE MCALLISTER. The approximate location of the tug, as determined by the Coast Guard, was  $39^{\circ}24.7'N$ ,  $74^{\circ}13.9'W$ , about 5 miles east of Brigantine Inlet, New Jersey, in charted depths of 49 to 51 feet of water. Visual control was used exclusively on this project.

#### C. SOUNDING LAUNCH

Vessels used during the fathometer search to locate the PATRICE MCALLISTER were the NOAA Ship RUDE, S590 and the NOAA Ship HECK, S591.

#### D. SOUNDING EQUIPMENT AND CORRECTIONS TO SOUNDINGS

Least depths were taken using a Roylyn Model 25546-23B14-HDD precision depth gauge S/N 784996 configured as a pneumatic depth gauge. The manufacturer's specified accuracy for this gauge is 1/4 of 1% over the range of 230' or 0.58'. This accuracy was verified by comparison with a lead line from 2' to 30' and back to 2', by 2' increments. The greatest variance from the leadline depth was 0.2'. The average variance of the 30 comparisons was 0.04'. The comparison was made on 27 October 1980 and is shown below. No corrections are deemed necessary since the depths were determined by water pressure.

#### PNEUMATIC DEPTH GAUGE CALIBRATION

<u>LEADLINE</u>	<u>PNEUMO DOWN</u>	<u>PNEUMO UP</u>	
2'	2.0	2.1	Greatest Variance
4'	4.0	4.1	0.2'
6'	6.1	6.1	
8'	8.2	8.1	Average Variance
10'	10.1	10.0	+0.04'
12'	12.0	12.2	
14'	14.2	14.0	
16'	16.0	16.2	
18'	17.9	18.1	
20'	20.0	20.0	
22'	22.1	22.1	
24'	23.9	24.1	
26'	25.9	26.0	
28'	28.0	28.0	
30'	29.9	29.8	

## E. HYDROGRAPHIC SHEET

Not applicable. ✓

## F. CONTROL STATIONS

The following landmarks were used in locating the PATRICE MCALLISTER. ✓  
These landmarks are shown on charts 12318 and 12323.

Atlantic City, Claridge Hotel Dome , 1932

Latitude =  $39^{\circ}21'26.671''$ N  
Longitude =  $74^{\circ}25'55.913''$ W

Seven Islands Fish Factory Tank , 1950

Latitude =  $39^{\circ}31'07.980''$ N  
Longitude =  $74^{\circ}20'15.260''$ W

Long Beach Waterworks Standpipe , 1932

Latitude =  $39^{\circ}35'10.198''$ N  
Longitude =  $74^{\circ}13'29.143''$ W

Holgate Water Tank , 1962

Latitude =  $39^{\circ}32'06.286''$ N  
Longitude =  $74^{\circ}15'47.098''$ W

## G. HYDROGRAPHIC POSITION CONTROL

Three-point visual sextant fixes, with check angles, were used to locate the tug, PATRICE MCALLISTER. The latitude and longitude for the PATRICE MCALLISTER was obtained mathematically using the Utility Hydrographic Package 800210 as programmed for the Hewlett-Packard 9815A. ✓

The following position was obtained for the 3-point fix taken on the RUDE near the position of the least depth of the PATRICE MCALLISTER.

Left Object - Atlantic City, Claridge Hotel Dome  
Center Object - Seven Islands Fish Factory Tank  
Right Object - Long Beach Water Works Standpipe  
Check (right) - Holgate Water Tank  
Object

Left Angle -  $72^{\circ}39'18''$  ✓  
Right Angle -  $39^{\circ}14'48''$   
Check Angle -  $26^{\circ}30'00''$

Latitude =  $39^{\circ}24'43.459''$ N ✓ ✓  
Longitude =  $74^{\circ}14'02.904''$ W

Latitude =  $39^{\circ}24'42.686''$ N Determined by  
Longitude =  $74^{\circ}14'03.065''$ W Check angle ✓

The following position was obtained as a check of the first 3-point fix:

Left Object - Atlantic City Claridge Hotel Dome  
 Center Object - Seven Islands Fish Factory Tank ✓  
 Right Object - Long Beach Water Works Standpipe

Left Angle =  $72^{\circ}39'24''$  ✓  
 Right Angle =  $39^{\circ}15'00''$

Latitude =  $39^{\circ}24'43.504''N$  ✓  
 Longitude =  $74^{\circ}14'02.912''W$  ✓

Originally, Beach Haven Tank had been used as a check object for the above 3 point fix. However, It was learned that the latitude and longitude which we had for the tank was not in the NGS data base and the check angle was therefore rejected. ✓

The average of the positions found using the 3 point visual fix along with the check angle is

Latitude =  $39^{\circ}24'43.07''N$  ✓  
 Longitude =  $74^{\circ}14'02.98''W$  ✓

The above average position is not over the least depth of the PATRICE MCALLISTER (see explanation in section M). The best estimate of the least depth position is 80' (24 m) due north of the above average position. This puts the position of the least depth at: ✓

Latitude =  $39^{\circ}24'42.29''N$  } in error see Verification Report, Section 4.6. ✓  
 Longitude =  $74^{\circ}14'02.98''W$  }

#### H. SHORELINE

Not applicable.

#### I. CROSSLINES

Not applicable.

#### J. JUNCTIONS

Not applicable.

#### K. COMPARISON WITH PRIOR SURVEYS *see Verification Report, Section 6* ✓

Depths found in the area by the RUDE and HECK show general agreement with the prior survey, H-6271 (1937). However, the RUDE and HECK do not have survey quality fathometers and no effort was made to determine the actual depths in the area.

## L. COMPARISON WITH THE CHART

The wreck of the PATRICE MCALLISTER as currently charted at position  $39^{\circ}24.7'N$  and  $74^{\circ}13.8' W$  on chart 12318 is incorrect. See section O. ✓

## M. REMARKS

On 1 December, the RUDE located an obstruction, tentatively identified as the PATRICE MCALLISTER, during a fathometer search west of the "RB" buoy marking the location of the PATRICE MCALLISTER. From this obstruction, the "RB" buoy was 0.21 nm at a bearing of  $064^{\circ} T$  by ship's radar and gyrocompass. The location was marked by temporary floats. The next day the ships returned directly to the obstruction with the intention of obtaining a least depth and detached position. After analyzing the current and wind, the RUDE anchored approximately 250' to the south of the obstruction and drifted north directly over the obstruction. The RUDE's 260 lb end weight was then deployed over the stern, and in addition, a grapple was set in the obstruction to hold the RUDE in position over the obstruction in a two point moor. At this time 2 sets of 3-point visual sextant fixes, with check angles, were taken from the RUDE near the forward edge of the stack, to insure that we had properly identified landmarks on the beach. The objects used are enumerated in section F. In addition, the Beach Haven Tank was used for a check object. The position for this object was later found not to be in the NGS Data Base and the check angle rejected. A dive was then made on the obstruction to identify it and determine a least depth. The obstruction was positively identified as the PATRICE MCALLISTER based on size, configuration and hull color when actual observations were compared with a description provided by McAllister Brothers Transportation, Inc. ✓

The tug was lying on its bottom in approximately 55' of water with the bow pointing north. A least depth of 25' (reduced for predicted tides) was obtained by pneumatic depth gauge. During the dive it was found that the RUDE's end weight had lodged on the deck of the tug about midway between the bow and the stern. Our intention at this point was to obtain a detached position over the point of least depth on the PATRICE MCALLISTER. Unfortunately, haze had settled along the shoreline obscuring the objects we had intended to use for control. In addition, the ships had to get u/w for Atlantic City because of the necessity of getting one of the divers to a recompression chamber. ✓

The positions determined by the two 3-point visual fixes and the single check angle were calculated utilizing the Hydrographic Utility Program (800210) for the H.P. 9815A computer. All were found to lie within the International Hydrographic Accuracy Standards (see page 1.4, Hydrographic Manual) which call for an indicated repeatability of a fix combined with plotting error to seldom exceed 0.05 inches at survey scale. Since the scale of the affected chart (12318) is 1:80000 and the scale of the latest prior survey (H-6271 accomplished between the dates of May 7 and August 5, 1937) was 1:40000, the repeatability combined with the plotting error should seldom exceed 51 M. The 25 M repeatability for this position falls within this requirement. ✓

A secondary problem occurs since the fixes were not taken directly over the least depth, but from a point south of the position of the least depth. See Figure 1 for an illustration of this problem. ✓

The problem is to find the distance from the point at which the fix was taken to the position of the least depth. The distance from the point at which the fix was taken to the stern of the RUDE is approximately 55'. The end weight was nearly directly beneath the stern of the RUDE, approximately midway between the bow and the stern of the PATRICE MCALLISTER (about 45-50' from the bow of the tug). The point of least depth was on the pilothouse approximately 25' from the bow of the tug. Therefore, the distance from the fix to the position of the least depth was 55' + 25', approximately 80', in a direction of almost due north.

The original intention was to obtain a position directly over the least depth on the next day, December 3rd. Unfortunately, winds of 40 kts prevented operations on this date. Communication with AMC/CAMI and thru CAMI to C35 determined that the position obtained on 2 December would be adequate for the scale of the chart. A better position could have been obtained through the use of Del Norte and/or T2's; however, this would have required an estimated 2 to 3 days minimum of additional ship time. When this was balanced against the additional accuracy which would have resulted, it was decided that the additional accuracy did not justify the added cost.

#### N. ADEQUACY

This item is considered complete and adequate for charting purposes.

#### O. RECOMMENDATIONS

It is recommended that a symbol showing a submerged<sup>d</sup> dangerous wreck over which the depth is known be placed on the chart at:

Latitude = 39°24'42.29"N }  
 Longitude = 74°14'02.98"W } *See Verification Report Section 7.a.*

The depth least should be given as 25' below MLW (reduced for <sup>smooth</sup> ~~predicted~~ tides) The wreck symbol at Latitude 39°24.7'N, Longitude 74°13.8'W should be removed.

#### P. APPROVAL

All records of this survey are hereby approved. The field work was personally supervised by the undersigned and the records were inspected daily. The item is considered complete and adequate for charting.

*Richard S. Moody*

*FOR*

Approved by  
 M. C. Grunthal  
 Commanding Officer  
 NOAA Ships RUDE/HECK

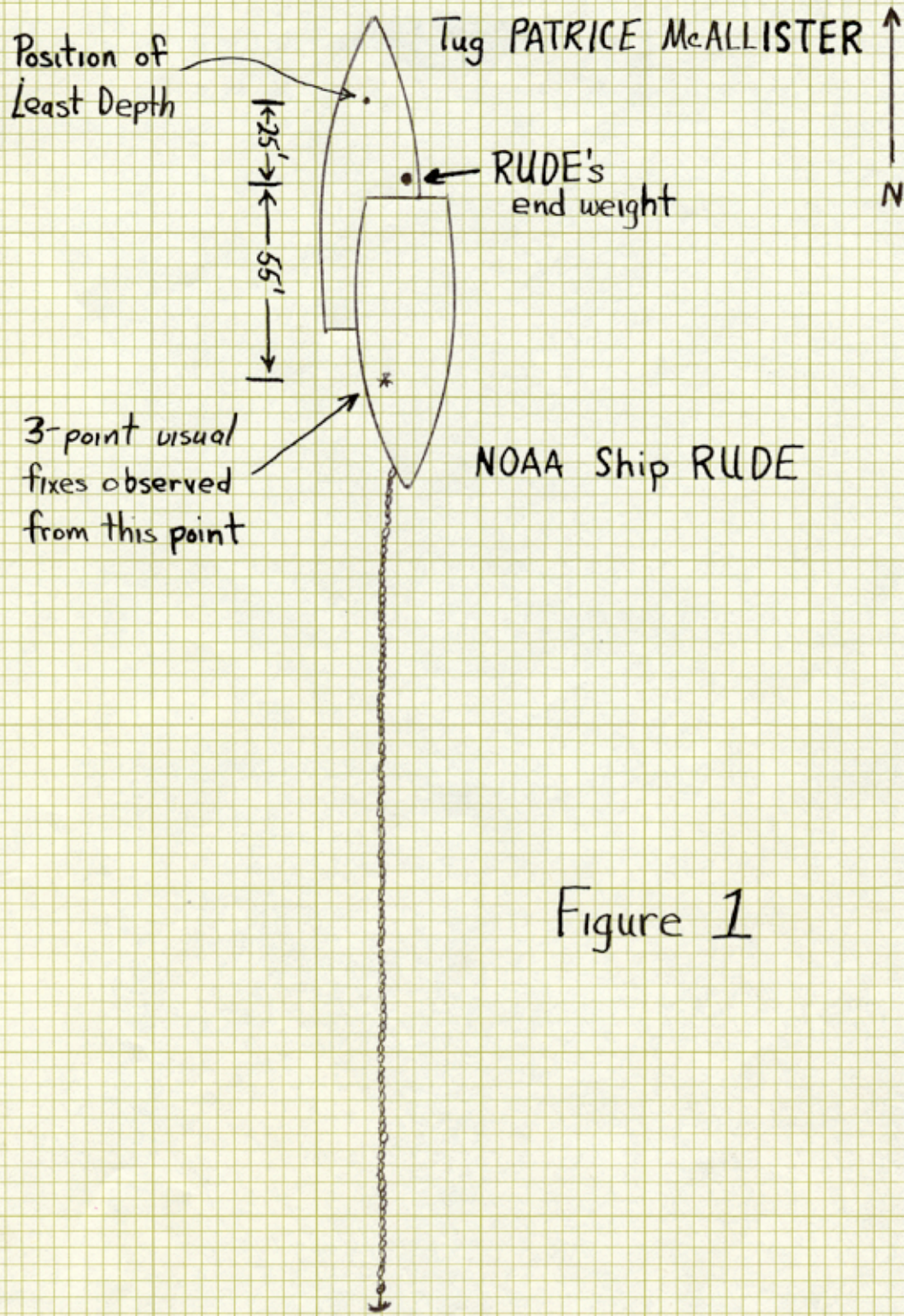


Figure 1





U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SURVEY

3 Point Visual  
Fix # 2

→A STACK POS  
SYS STA ID NBR:

-----  
STA1↑STA2→RUN

R-R STA1            11  
R-R STA2            12

STACK ANT. HGTS:

-----  
ABV GRND/WTRLNE  
TO NEAREST METER

-----  
S1↑S2↑VESSEL→RUN

@STA1                1 M  
@STA2                1 M  
VESSEL                1 M

\*MT SG TAPE→RUN\*

→K STACK OBJ ID:

-----  
LFT↑CTR↑RGT→RUN  
OR L↑C↑R↑CHK→RUN

LFT                    1  
CTR                    2  
RGT                    3

→L STACK RATES:

-----  
PTRN1↑PTRN2→RUN

P1'                    0 M  
P2'                    0 M

→M STACK ANGLES:

-----  
DDDMM.M L↑R→RUN  
OR L↑R↑CHK→RUN

LFT                    7239.4  
RGT                    3915.0

POSITION:

-----  
LAT            392443.504  
LON            741402.912

ERROR ELLIPSE:

AZ-MAX            168 DEG  
MAX                3.44 M  
MIN                1.98 M

CS                    1





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National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SURVEY

→D DIRECT FROM:

3 Point Fix  
Position (average)

STNDPT LAT&LON:

LAT            39 DEG  
                  24 MIN  
                  43.07000 SEC  
LON            74 DEG  
                  14 MIN  
                  2.98000 SEC

→E TO:

Least Depth  
for PATRICE MC

FWD AZ & DIST:

FWD AZ        0 DEG  
                  0 MIN  
                  0.000 SEC

DST            24.000 M

[ LAT            39 DEG  
                  24 MIN  
                  42.29177 SEC  
LON            74 DEG  
                  14 MIN  
                  2.98000 SEC

BCK AZ        180 DEG  
                  0 MIN  
                  0.000 SEC

In error.  
See  
verifier's  
Report  
sec. 4.b.

‡  
sec. 7.a  
Dew





**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
 NATIONAL OCEAN SURVEY

PROJECT:

*S-C619-RU/HE-80*  
*Brigantine Inlet, NJ*

SIGNALS/STATIONS

*Atlantic City,*  
*Claridge Hotel*

ID NBR 1  
 LAT 392126.671  
 LON 742555.913

FILE 1

*Seven Islands Fish*  
*Factory Tank*

ID NBR 2  
 LAT 393107.980  
 LON 742015.260

FIL

*Long Beach Water*  
*Works Standpipe*

ID NBR 3  
 LAT 393510.198  
 LON 741329.143

FILE 3

*Holgate Water*  
*Tank*

ID NBR 4  
 LAT 393206.286  
 LON 741547.098

4

*Beach Haven Water*  
*Tank*

ID NBR 5  
 LAT 393346.764  
 LON 741431.479

FILE 5

*Del Norte Station*  
*1 - Fake*

ID NBR 11  
 LAT 392126.671  
 LON 742555.913  
 ELEV'N 1.00 M

FILE 6

*Del Norte Station*  
*2 - Fake*

ID NBR 12  
 LAT 393107.980  
 LON 742015.260  
 ELEV'N 1.00 M





**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
 NATIONAL OCEAN SURVEY

*3 Point Visual  
 Fix #1*

→A STACK POS  
 SYS STA ID NBR:

-----  
 STA1↑STA2→RUN

R-R STA1           11  
 R-R STA2           12

STACK ANT HGTS:

-----  
 ABV GRND/WTRLINE  
 TO NEAREST METER

-----  
 S1↑S2↑VESSEL→RUN

@STA1               1 M  
 @STA2               1 M  
 VESSEL              1 M

\*MT SG TAPE→RUN\*

LFT↑CTR↑RGT→RUN  
 OR L↑C↑R↑CHK→RUN

LFT                   1  
 CTR                   2  
 RGT                   3

→L STACK RATES:

-----  
 PTRN1↑PTRN2→RUN

P1'                   0 M  
 P2'                   0 M

→M STACK ANGLES:

-----  
 DDDMM.M L↑R→RUN  
 OR L↑R↑CHK→RUN

LFT                   7239.3  
 RGT                   3914.8

POSITION: ✓ 005

-----  
 LAT           392443.459  
 LON           741402.904

ERROR ELLIPSE:

AZ-MAX       168 DEG  
 MAX           3.44 M  
 MIN           1.98 M





**U.S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
 NATIONAL OCEAN SURVEY

3 Point Visual  
 Fix #1 - Check  
 <

→A STACK POS  
 SYS STA ID NBR:

-----  
 STA1↑STA2→RUN

R-R STA1            11  
 R-R STA2            12

STACK ANT HGTS:

-----  
 ABV GRND/WTRLINE  
 TO NEAREST METER

-----  
 S1↑S2↑VESSEL→RUN

@STA1                1 M  
 @STA2                1 M  
 VESSEL               1 M

\*MT SG TAPE→RUN\*

LFT↑CTR↑RGT→RUN  
 OR L↑CTR↑CHK→RUN

LFT                    1  
 CTR                    2  
 RGT                    4

→L STACK RATES:

-----  
 PTRN1↑PTRN2→RUN

P1'                    0 M  
 P2'                    0 M

→M STACK ANGLES:

-----  
 DDDMM.M L↑R→RUN  
 OR L↑R↑CHK→RUN

LFT                    7239.3  
 RGT                    2630.0

POSITION:

-----  
 LAT            392442.686  
 LON            741403.065

ERROR ELLIPSE:

AZ-MAX            165 DEG  
 MAX                6.22 M  
 MIN                1.90 M





U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SURVEY

→I INVERSE FROM:

Fix #1 to Fix  
#1 Check Z

STNDPT LAT&LON:

LAT            39 DEG  
                 24 MIN  
                 43.45900 SEC  
LON            74 DEG  
                 14 MIN  
                 2.90400 SEC

→J TO:

-----  
FOREPT LAT&LON:

LAT            39 DEG  
                 24 MIN  
                 42.68600 SEC  
LON            74 DEG  
                 14 MIN  
                 3.06500 SEC

DST            24.148 M

FWD AZ        9 DEG  
                 10 MIN  
                 41.008 SEC  
BCK AZ        189 DEG  
                 10 MIN  
                 40.906 SEC  
-----





U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SURVEY  
NOAA SHIPS RUDE & HECK  
439 West York Street  
Norfolk, VA 23510

December 16, 1980

To: Chief, Tidal Requirements & Acquisitions Branch  
ATTN: C231

From: Commanding Officer

Subj: Smooth Tides for Project S-C619/RU/HE-80

Ref: Hydrographic Project Instructions: S-C619-RU/HE-80

Smooth tides for the time period 1300-1900 CUT <sup>(GMT)</sup> on 2 Dec 1980 is  
requested for position

39°24' 42.3"N

74°14' 03.0"W

This data will be used to reduce depths taken on the dangerous obstruction to navigation, the sunken tug PATRICE McALLISTER located on Chart 12318. Sandy Hook, NJ (853-1681) will provide control for data determination. The operating tide station at Atlantic City, NJ (853-4720) will provide additional control.

All data should be sent to Chief, Requirements Branch, C351.

February 9, 1981

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

TIDE NOTE FOR HYDROGRAPHIC SHEET

Processing Division: Atlantic Marine Center:

Hourly heights are approved for

Tide Station Used (NOAA Form 77-12): 853-4720 Atlantic City, New Jersey

Period: December 2, 1980

WIRE DRAG:

~~HYDROGRAPHIC SHEET~~ RU/HE 80

OPR: *FE-237* RU/HE 80

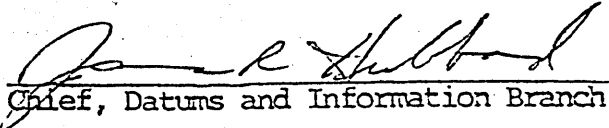
Locality: Coast of New Jersey, Offshore of Atlantic City, New Jersey

Plane of reference (mean ~~lower~~ low water): 4.53 ft.

Height of Mean High Water above Plane of Reference is 4.10 ft.

REMARKS: Recommended Zoning:

Zone direct.

  
Chief, Datums and Information Branch

Original not received by AHC - RDS



GEOGRAPHIC NAMES

7E-237

Name on Survey	Source of Name										
	A	B	C	D	E	F	G	H	K		
	ON CHART NO.	ON PREVIOUS SURVEY NO.	ON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP	RAND McNALLY ATLAS	U.S. LIGHT LIST			
Brigantine Inlet (title)											1
											2
											3
											4
											5
											6
											7
											8
											9
											10
											11
											12
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											23
											24
											25

Approved:

*Chris L. Harrington*  
Chief Geographer - C3x5

10 June 1982

## HYDROGRAPHIC SURVEY STATISTICS

FE-237

RECORDS ACCOMPANYING SURVEY: To be completed when survey is registered.

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		1	BOAT SHEETS & PRELIMINARY OVERLAYS		0	
DESCRIPTIVE REPORT		1	SMOOTH OVERLAYS: POS. ARC, EXCESS		1	
DESCRIP- TION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES			1 $\frac{1}{2}$ 77-44, Sound. Vol. Fathograms			
CAHIERS						
VOLUMES						
BOXES						
T-SHEET PRINTS (List)			None			
SPECIAL REPORTS (List)			None			

## OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS		
	PRE- VERIFICATION	VERIFICATION	TOTALS
POSITIONS ON SHEET			
POSITIONS CHECKED	4	4	4
POSITIONS REVISED			
SOUNDINGS REVISED		0	
SOUNDINGS ERRONEOUSLY SPACED		0	
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED		0	
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	1		1
VERIFICATION OF CONTROL		1	1
VERIFICATION OF POSITIONS		1	1
VERIFICATION OF SOUNDINGS		1	1
COMPILATION OF SMOOTH SHEET		2	2
APPLICATION OF TOPOGRAPHY			
APPLICATION OF PHOTOBATHYMETRY			
JUNCTIONS			
COMPARISON WITH PRIOR SURVEYS & CHARTS		1	1
VERIFIER'S REPORT		1	1
OTHER			
<b>TOTALS</b>			<b>8</b>
Pre-Verification by	R. D. Sanocki	Beginning Date 21 Aug 81	Ending Date 31 Aug 81
Verification by	R. D. Sanocki	Beginning Date 1 Sep 81	Ending Date 2 Sep 81
Verification Check by	R. G. Roberson	Time (Hours) 2	Date 10 Sep 81
Marine Center Inspection by	HIT	Time (Hours) 1	Date 14 Sep 81
Quality Control Inspection by	L. M. Quinan	Time (Hours) 10	Date 15 MAR 82
Requirements Evaluation by		Time (Hours)	Date

J. M. Quinan 4/1/82 1hr.

REGISTRY NO. FC-237

The magnetic tape containing the data for this survey has not been corrected to reflect the changes made during evaluation and review.

When the magnetic tape has been updated to reflect the final results of the survey, the following shall be completed:

MAGNETIC TAPE CORRECTED

DATE \_\_\_\_\_ TIME REQUIRED \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:

*No digital data will be forwarded for  
this survey. See Title Sheet.*

*Jew 12/16/42*

ATLANTIC MARINE CENTER  
VERIFICATION REPORT

REGISTRY NO.: FE-237

FIELD NO.: RU/HE-80

New Jersey, Atlantic Ocean, Approach to Brigantine Inlet

SURVEYED: December 1 through 3, 1980

SCALE: 1:40,000

PROJECT NO.: S-C619-RU/HE-80

SOUNDINGS: Pneumatic Depth Gauge

CONTROL: Three Point Sextant  
Fixes on Shore Signals

Chief of Party .....  
Surveyed by .....

M. C. Grunthal  
R. S. Moody  
D. H. Peterson  
F. L. Collins

1. INTRODUCTION

- a. No unusual problems were encountered during the verification of this survey.
- b. Changes in red in the Descriptive Report were made during verification.

2. CONTROL AND SHORELINE

- a. The control was adequately described in sections F. and G. of the Descriptive Report.
- b. No shoreline was applied.

3. HYDROGRAPHY

The methods by the hydrographer were adequate to identify the wreck and to determine the least depth.

4. CONDITION OF SURVEY

The smooth sheet and accompanying overlays, hydrographic records, and reports are adequate and conform to the requirements of the Hydrographic Manual. The following is also noted:

- a. During the verification process field data was entered into the processing system at the Atlantic Marine Center. To obtain the desired results some observations were manipulated for the convenience of the automated system at AMC for the purpose of verification of the field data. The resulting accompanying listings, therefore, will not correspond to the field data regarding time of observation and position numbers. This does not invalidate the original field observations and the approach used in processing the data was for evaluative purposes only. The results are adequately represented on the smooth plot as shown in the Descriptive Report.

b. The field correction applied to the average of the observed position fixes to account for displacement of approximately 80 ft. to the position of the wreck was found to be applied in the opposite direction (South instead of North). The correction was reapplied based upon the relationship illustrated in Figure 1 in the Descriptive Report provided by the hydrographer.

5. JUNCTIONS

None

6. COMPARISONS WITH PRIOR SURVEYS

H-6271 (1937) 1:40,000

The wreck found by the present survey falls in the above prior survey depths of 50 to 51 feet. The present survey results should be considered supplemental to the above prior survey for charting purposes.

7. COMPARISON WITH CHART 12318 (32nd. Ed., Oct. 27, 1979)

a. Hydrography

The charted hydrography originates with the previously discussed prior survey supplemented by Local Notice to Mariners 45 of 1976 and 50 of 1977. The present survey is considered adequate to supersede the source of the wreck charted in latitude  $39^{\circ}24'42''$ , longitude  $74^{\circ}13'48''$ . It is recommended that a "wreck over which depth is known" (25 wk) with a danger curve be charted at ~~this position of~~ latitude  $39^{\circ}24'44.27''$ , longitude  $74^{\circ}14'02.98''$ .

b. Aids to Navigation

The field unit verified the position of "RB" buoy by "LORAN C" relative to a fathometer indication of the wreck. The buoy was found to be 0.21 nm from the wreck by a radar bearing of  $064^{\circ}$ T. It is recommended that the buoy be continued to mark the wreck and repositioned by the Coast Guard to the present survey's position of the wreck.

8. COMPLIANCE WITH INSTRUCTIONS

This survey complies with the Project Instructions.

9. ADDITIONAL FIELD WORK

This is considered to be an excellent survey and no additional field is recommended.



R. G. Roberson  
Cartographer  
Verification Check



R. D. Sanocki  
Cartographer  
Evaluation and Analysis



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SERVICE  
CHARTING AND GEODETIC SERVICES  
Rockville, Md. 20852

AUG 8 1983

N/CG241:CBE

TO: N/MOA - Wesley V. Hull

FROM: *for* N/CG2.- C. William Hayes *Sign d R. Peters*

SUBJECT: Report of Compliance for FE-237

The Descriptive Report for FE-237 (1980), New Jersey, Atlantic Ocean, Approach to Brigantine Inlet, has been reviewed. This survey, as noted in the Quality Control Report, dated March 2, 1982 (copy attached), and the Hydrographic Survey Inspection Team Report, dated September 15, 1981, is complete and adequate for the purposes intended and is in compliance with Project Instructions S-C619-RU/HE-80, dated October 17, 1980.

Attachment

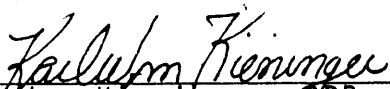
cc:  
N/CG242 w/o att.



INSPECTION REPORT  
FE-237

The completed survey has been inspected by the Hydrographic Inspection Team with regard to survey coverage, delineation of depth ~~contours~~<sup>curves</sup>, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The Verification Report has presented the facts accurately and properly, the procedures used were appropriate, and the recommendations are logical and justifiable. The survey complies with National Ocean Survey requirements except as noted in the Verification Report. The survey records comply with NOS requirements except where noted in the Verification Report. The Hydrographic Inspection Team concurs with the verifier's findings, actions, and recommendations.

Examined and Approved  
Hydrographic Inspection Team

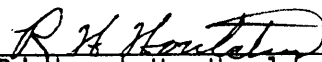


Karl Wm. Kieninger, CDR, NOAA  
Chief, Processing Division



Guy F. Trefethen  
Senior Cartographic Technician  
Verification Branch

Approved/Forwarded  
September 15, 1981



Richard H. Houlder, RADM, NOAA  
Director, Atlantic Marine Center



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL OCEAN SURVEY  
Rockville, Md. 20852

C352:LQ

March 2, 1982

TO: Glen R. Schaefer *Del for*  
Chief, Hydrographic Surveys Division

THRU: Chief, Quality Control Branch *fm*

FROM: Lisa Quinlan *Lisa Quinlan*  
Quality Evaluator

SUBJECT: Quality Control Report for FE-237 (1980), New Jersey, Atlantic Ocean,  
Approach to Brigantine Inlet

A quality control inspection of FE-237 was accomplished to monitor the survey for adequacy with respect to data acquisition, determination of least depths, navigational hazards, smooth plotting, decisions made and actions taken by the verifier, and the cartographic presentation of data. In general, the survey was found to conform to the National Ocean Survey's standards and requirements except as stated in the Verifier's Report.

cc:  
C351





74° 16' 00"

74° 14' 00"

74° 12' 00"

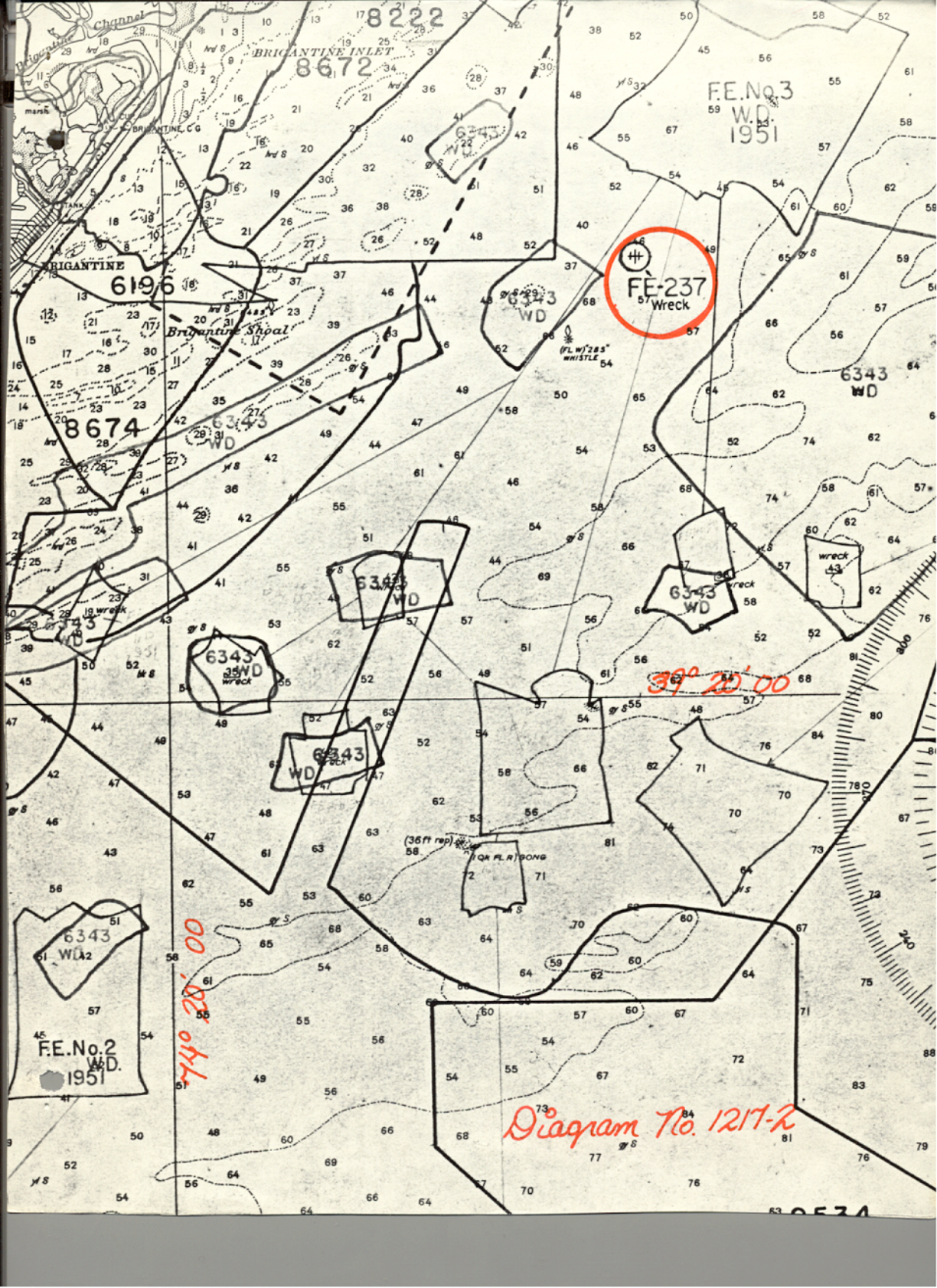
39° 26' 00"

25 *wt*

39° 24' 00"

FE-237  
APPROACH TO BRIGANTINE INLET  
DECEMBER 1980  
SCALE: 1:40,000  
SOUNDINGS IN FEET AT MLW

39° 22' 00"



8222

8672

F.E. No. 3  
W.D.  
1951

6196

FE-237  
Wreck

8674

6343  
WD

39° 20' 00"

6343  
WD  
wreck

6343  
WD  
wreck

6343  
WD  
wreck

740 20' 00"

F.E. No. 2  
W.D.  
1951

Diagram No. 1217-R

8534

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. 7E-237

INSTRUCTIONS

A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart.

1. Letter all information.
2. In "Remarks" column cross out words that do not apply.
3. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.

CHART	DATE	10' CARTOGRAPHER	REMARKS
12318	8-15-83	D.C. Harpini	Full Part <del>Before</del> After Verification Review Inspection Signed Via Drawing No. 47
		Jo'C	
12300	8-15-83	D.C. Harpini	Full Part <del>Before</del> After Verification Review Inspection Signed Via Drawing No. 53
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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