FE143
WIRE DRAG

Diagram No.1001-3 & 1233-2

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey Wire Drag

Field No. PBS-4255WD

Office No. FE-143WD

LOCALITY

State North Carolina

General Locality Atlantic Ocean

Locality Off Cape Lookout

1955

CHIEF OF PARTY
J.C. Mathisson

LIBRARY & ARCHIVES

DATE January 23, 1957

☆ 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.2 1957WD

FE143
WIRE DRAG

FE No. 2 1957
WIRE DRAG

FE-143WD

Diag. Cht. Nos. 1001-3 and 1233-2.

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey WIRE DRAG WRECK LOCATIONS

Field No. PBS-4255WD *Office No.* F.E.No.2-1957 Wire Drag

LOCALITY

State NORTH CAROLINA

General locality ATLANTIC OCEAN

Locality OFF CAPE LOOKOUT

194 55

CHIEF OF PARTY

JOHN C. MATHISSON

LIBRARY & ARCHIVES

DATE JAN 23 1957

B-1870-1 (1)

FE No. 2 1957
WIRE DRAG

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. F.E.No.2-1957 W.D.

Field No. PBS-4255WD

State NORTH CAROLINA

General locality ATLANTIC OCEAN

Locality OFF CAPE LOOKOUT

Scale 1:40,000 Date of survey 29 to 31 Aug. 1955

Instructions dated 28 January 1955

Vessel PARKER, BOWEN & STIRNI

Chief of party JOHN C. MATHISSON

Surveyed by JOHN C. MATHISSON, H.J. SEABORG, C.R. REED, D.B. RUSHFORD
W.R. KACHEL & J.R. PLAGMIER

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

Drag Strips Plotted By
~~Fathograms scaled by~~ Hugh L. Proffitt

Drag Strips Inked By
~~Fathograms checked by~~ A. Kaupa

Protracted by

Soundings penciled by

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

REMARKS:

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

Field Notes for Descriptive Reports to Accompany 1955
Wire Drag and Hydrographic Sheets - Ships PARKER, BOWEN, STIRNI -
Cdr. John C. Mathisson, Chief of Party

A. PROJECT - Original instructions for Project No. CS-377 addressed to the Commanding Officer of the Ships PARKER, BOWEN, and STIRNI are dated 28 January 1955. Project number was later changed to 1377.

B. SURVEY LIMITS AND DATES - The following sheets are included in the 1955 seasons work of the Ships PARKER, BOWEN, and STIRNI.

(a.) Hydrography and Wire Drag: PBS2255 (H-8247) Cape Lookout Shoals - North End
PBS 2355 (H-8248) Cape Lookout Shoals - South End

(b.) Hydrography: PBS 2455 (H-8249) Diamond Shoals

(c.) Wire Drag:
PBS-4155 W.D. South of Cape Lookout, N. C.
PBS-4255 W.D. East of Cape Lookout, N.C.
PBS-4355 W.D. Off Ocracoke Inlet, N.C.
PBS-4455 W.D. Cape Hatteras, N.C.
PBS-4555 W.D. Northeast of Cape Hatteras, N.C.
PBS-4655 W.D. Offshore - East of Cape Fear, N.C.
PBS-4755 W.D. Inshore - East of Cape Fear, N.C.

(d.) Reconnaissance Hydrography: PBS-4855 - Offshore - Southeast of Cape Lookout, N.C.

No work was accomplished on sheet PBS-2155 W.D. - Northwest of Cape Henry, Virginia.

A special hydrographic investigation was made in Core Sound, north of Ocracoke Inlet. It is the subject of a special report previously submitted.

A special wire drag investigation was made in the Pasquotank River, ~~Virginia~~ N.C. This is also the subject of a special report already forwarded.

Plotting of the wire drag boat sheets was not completed in the field. Shoalest hangs and deepest clearances on wrecks will have to be determined after plotting has been completed. Wreck letters submitted during the field season give preliminary values based on predicted tides and approximate lifts.

A comparison of boat sheet depths with charted depths in the case of hydrographic sheets serves no useful purpose at this time. The comparison should be made after the completion of the smooth sheets.

SHORAN CORRECTIONS:

The shoran equipment in all three vessels was calibrated at frequent intervals during the season. Three "Dinoplex" calibration sheets were used. One each in the vicinities of Cape Hatteras, Cape Lookout, and Cape Fear. Calibrations were taken each time the shoran stations were moved and at other intervals when thought necessary.

Once a shoran correction was determined, this correction was applied to all shoran readings until a new calibration was taken. The new connection was then applied to all subsequent shoran readings. Zero checks were made at the time of each calibration and at frequent intervals while using shoran control. No abnormal deviation from the zero set was found.

A tabulation of the shoran corrections used for the through ships follows: Shoran corrections were rounded off to the nearest 0.005 mile when entering corrections in volumes.

Tabulation of Shoran Calibrations - STIRNI:

Date	Recorded in Vol. Sheet No.	Monitor No.	Sta. 36	Corr'n	Sta. 37	Corr'n
4-26-55	2255	1	SAM	-0.021	KNOL	+0.012
5-9-55	8155	1	SAM	+0.001	KNOL	+0.010
5-25-55	8155	1	SAM	+0.002	KNOL	-0.009
6-3-55	4455	1	CLUB	+0.007	PEA	-0.045
6-6-55	4455	2	CLUB	+0.008	PEA	-0.016
7-22-55	2455	2	CLUB	+0.061 (r)	PEA	+0.021 (r)
7-29-55	4355	2	CLUB	-0.031	LOLA	-0.029
8-31-55	4255	2	SAM	+0.004	LOLA	-0.019
9-26-55	4155	2	DEY	-0.040	KNOL	-0.030
10-20-55	4755	2	SURF	-0.008	OAK	-0.034
		PARKER:				
		1	SAM	-0.003	KNOL	-0.026
4-18-55	2355	2	SAM	-0.016	KNOL	-0.008
4-27-55	2355	1	SAM	-0.009	KNOL	-0.011
5-25-55	4155	1	SAM	-0.008	KNOL	-0.016
5-31-55	2455	1	CLUB	-0.020	PEA	-0.055
6-6-55	4555	2	CLUB	-0.001	PEA	-0.032
7-22-55	4455	2	CLUB	-0.023	PEA	-0.032
7-28-55	4455	2	CLUB	-0.004	LOLA	-0.034
8-31-55	4255	2	SAM	-0.001	LOLA	-0.042
9-28-55	4155	2	DEY	-0.015	KNOL	-0.043
10-18-55	4755	2	SURF	-0.061	OAK	-0.022

Tabulation of Shoran Corrections Entered in Volumes - STIRNI:

		Sta. 36	Sta. 37
Begin season thru 5-8-55		-0.020 (SAM) (Set #1)	+0.010 (KNOL) (Set #1)
5-9-55 - 6-1-55		0.000 (SAM) "	+0.010 (KNOL) "
6-2-55 - 6-5-55		+0.005 (CLUB) "	-0.045 (PEA) "
6-6-55 - 7-28-55		+0.010 (CLUB) Set #2	-0.015 (PEA) Set #2
7-29-55 - 8-5-55		-0.030 (CLUB) "	-0.030 (LOLA) "
8-6-55 - 9-25-55		+0.005 (SAM) "	-0.020 (LOLA) "
9-26-55 - 10-5-55		-0.040 (DEY) "	-0.030 (KNOL) "
10-6-55 - Season End		-0.010 (SURF) "	-0.035 (OAK) "
		PARKER:	
4-18-55	0900 - 1130	-0.005 (SAM) (Set #1)	-0.015 (KNOL) (SET #1)
	1401 - 1520	-0.015 (SAM) (Set #2)	-0.010 (KNOL) (Set #2)
	1520 - 1650	-0.005 (SAM) (Set #1)	-0.015 (KNOL) (Set #1)
	1650 - end	-0.015 (SAM) (Set #2)	-0.010 (KNOL) (Set #2)
4-19-55 - 5-2-55		-0.005 (SAM) (Set #1)	
5-2-55	1055-1115	-0.015 (SAM) (Set #2)	
	1115-end	-0.005 (SAM) (Set #1)	
4-19-55 - 4-20-55	1600 4-26-55		-0.015 (KNOL (Set #1)
	1600 - 1650		-0.010 (KNOL) (Set #2)
	1650 - End		-0.015 (KNOL) (Set #1)

	Sta. 36	Sta. 37
-3-55 - 5-25-55	-0.005 (SAM)(Set #1)	
-27-55 - 5-25-55		-0.015 (KNOL)(Set #1)
-31-55 - 6-5-55 1300	-0.020 (CLUB)(Set #1)	
6-5-55 1300-1945	-0.015 (CLUB)(Set #2)	
-31-55- 6-7-55		-0.045 (PEA)(Set #1)
-13-55 - 7-23-55		-0.040 (PEA)(Set #2)
-6-55 - 6-14-55 1400	-0.015 (CLUB)(Set #2)	
6-14-55 1400 to end	-0.020 (CLUB)(Set #1)	
-26-55 - 9-2-55		-0.040 (LOLA)(Set #2)
-15-55 - 8-4-55	-0.015 (CLUB)(Set #2)	
-7-55 - 10-5-55		-0.045 (KNOL)(Set #2)
-8-55 - 9-18-55	0.000 (SAM)(Set #2)	
-21-55 - 10-4-55	-0.015 (DEY)(Set #2)	
10-5-55 - 10-27-55	-0.060 (SURF)(Set #2)	
10-6-55 - 10-25-55		-0.020 (OAK)(Set #2)
8,12,&28 July 1955	STIRNI as Shore Station (STIR I, STIR II, STIR III)	-0.020

BOWEN:

-18-55 0900 - 1130	-0.020 (SAM)(Set #1)	∕0.005 (KNOL)(Set #1)
1130 - 1345	-0.015 (SAM)(Set #2)	∕0.005 (KNOL)(Set #2)
1345 - End	-0.020 (SAM)(Set #1)	∕0.005 (KNOL)(Set #1)
4-19-55 - 4-20-55	-0.020(SAM)(Set #1)	∕0.005 (KNOL)(Set #1)
4-21-55 - 5-2-55 1055	∕0.010(SAM(Set #1)	
1055-1115	∕0.005 (SAM)(Set #2)	
5-2-55 1115-end	∕0.010 (SAM)(Set #1)	
4-19-55 - 4-26-55 at 1600		-0.005 (KNOL)(Set #1)
1600 - 1650		∕0.005 (KNOL)(Set #2)
4-26-55 1650 - end		-0.005 (KNOL)(Set #1)
4-27-55 - 5-25-55		-0.005 (KNOL)(Set #1)
5-3-55 - 5-25-55	∕0.010 (SAM)(Set #1)	
5-31-55 - 1300 6-5-55	-0.010 (CLUB)(Set #1)	
6-5-55 - 1300 - end	-0.010 (CLUB)(Set #2)	
5-31-55 - 6-7-55		-0.040 (PEA)(Set #1)
6-13-55 - 7-23-55		-0.015 (PEA)(Set #2)
6-6-55 - 1400 6-14-55	-0.010 (CLUB)(Set #2)	
6-14-55	-0.010 (CLUB)(Set #1)	
-15-55 - 8-4-55	-0.010 (CLUB)(Set #2)	
7-26-55 - 9-2-55		-0.025 (LOLA(Set #2)
8-8-55 - 9-18-55	∕0.010 (SAM)(Set #2)	
9-7-55 - 10-04-55		-0.015 (KNOL)(Set #2)
9-21-55 - 10-4-55	-0.005 (DEY)(Set #2)	
10-5-55 - 10-27-55	-0.035 (SURF)(Set #2)	-0.015 (OAK)(Set #2)

Settlement and Squat Corrections:

The settlment and squat corrections were the same as used in previous years for all three ships. The correction depending upon the speed and the water depth. Tabulation of corrections follows:

(Next Page)

SETTLEMENT & SQUAT CORRECTIONS (ALL ∠)

PBS

SPEED (RPM)	CORRECTION (FEET)	FROM DEPTH TO DEPTH (FEET)
400	0.2	all depths
450	0.2	all depths
500	0.2	all depths
600	0.4	6.0 to 14.5
	0.2	15.0 and over
650	0.4	11.5 to 17.0
	0.2	17.5 and over
700	0.6	12.5 to 15.0
	0.4	15.5 to 19.5
	0.2	20.0 and over
750	0.8	12.5 to 14.0
	0.6	14.5 to 16.5
	0.4	17.0 to 21.5
	0.2	22.0 to 31.5
	0.4	32.0 and over
800	1.0	12.5 to 13.0
	0.8	13.5 to 15.5
	0.6	16.0 to 19.0
	0.4	19.5 and over
850	1.0	12.5 to 13.5
	0.8	14.0 to 16.5
	0.6	17.0 to 22.5
	0.4	23.0 and over
900	1.0	12.5 to 14.5
	0.8	15.0 to 20.5
	0.6	21.0 to 34.0
	0.4	34.5 and over
1000	1.0	6.0 to 21.5
	0.8	22.0 to 31.5
	0.6	32.0 and over

TIDES:

Final tides were either furnished by the Washington Office for the periods needed, or were tabulated in the field from observed tides.

Tide reducers for the Cape Hatteras Area were based on tide staff readings for Hatteras Inlet (Outside).

Tide reducers for the Cape Lookout Area were based on the portable gage installed at Lookout Bight.

Tide reducers for the Cape Fear Area were interplated by the Washington Office, Division of Tides and Currents.

All tide reducers were referred to the plane of mean low water.

On the hydrographic surveys, tide reducers were entered to 0.2 ft. On the wire drag surveys, tide reducers were intered to 0.5 feet.

ECHO CORRECTIONS:

The echo corrections for all three ships were determined by bar checks at intervals during the season. Standard methods were used and the leadlines on the bars were checked and found to be the correct length so no correction was necessary to leadline lengths.

Bar checks were not taken as often as would be expected for a hydrographic party due to the nature of operations and lack of suitable weather along the open coast. However, sufficient tests were made to provide accurate corrections for the various fathometers and scales.

The Edo fathometer on the STIRNI was not used for hydrographic work, but was tested and separate reports submitted to the Washington Office on 30 September 1955 and 20 June 1956.

On the BOWEN and STIRNI fathometers No. 160SPX, 100S and 161SPX the corrections on the A scale varied with the depths and were so entered. On the PARKER fathometer No. 1175, the A scale corrections were uniform regardless of depth so one correction for the entire A scale was determined and used. On the B, C, and D scales of all fathometers, a single correction was determined for each scale.

On the PARKER, fathometer No. 1175 no D scale correction could be determined as no return could be gotten from the bar at that depth in D scale. On the PARKER, the D scale was used only for a few soundings during the following periods:

6 June 1955 Sheet PBS-4455 Vol. I Position 8 on B day
12 July 1955 Sheet PBS-4455 Vol. II Pos. 46 to 49 on D day
12 July 1955 Sheet PBS-4455 Vol. II Pos. 57 to 62 on D day

On 11 June 1956, a bar check was obtained under ideal conditions and one check on the D scale at 110 feet was obtained. The correction was -2.0 feet. It is suggested that this correction be used in the above few positions. These positions had no correction entered in the Volumes at the time the volumes were transferred to the Norfolk District Office.

A tabulation of the corrections applied to the fathometer soundings follows:

A. PARKER — Fath. No. 1175 Type 808

A scale	-0.2 feet
B scale	-0.6 feet
C scale	-0.2 feet
D scale	See Report*

B. BOWEN — Fath. No. 160SPX Type 808

A scale	-0.2 feet.	0 to 16.9 ft.
	0.0 ft.	to 27.2 ft.
	∕0.2 ft.	to 33.8 ft.
	∕0.4 ft.	to 39.4 ft.
	∕0.6 ft.	to 45.2 ft.
	∕0.8 ft.	to 50.9 ft.
	∕1.0 ft.	to 55.0 ft.
B Scale	∕1.5 ft.	to 57.8 ft.
	∕2.0 ft.	to 90.0 ft.
C Scale	∕2.5 ft.	
D Scale	∕2.5 ft.	

Fath. No. 100S Type 808

A Scale	0.0 ft.	to 22.0 ft.
	∕0.2 ft.	to 35.5 ft.
	∕0.4 ft.	to 48.9 ft.
	∕0.6 ft.	to 55.0 ft.
B Scale	∕1.0	
C Scale	∕1.5	

C. STIRNI — Fath. No. 161 SPX Type 808

A Scale	0.0 ft.	0 to 13.5 ft.
	∕0.2 ft.	to 24.0 ft.
	∕0.4 ft.	to 33.0 ft.
	∕0.6 ft.	to 42.5 ft.
	∕0.8 ft.	to 49.0 ft.
	∕1.0 ft.	to 55.0 ft.
B Scale	0.0 ft.	
C Scale	-2.5 ft.	
D Scale	-4.5 ft.	

WRECK INFORMATION
PBS-4255

does not agree with letter 684. replaced 17 by 16 ✓

WRECK NUMBER	LAT.	LONG.	MIN. HANG	MAX. CLEAR
467 ✓	34-32.77 ✓	76-00.80 4	-	~~96~~ 97 sdg 104ft
455 ✓	34-31.70	76-14.51	-	66' ✓ sdg 69ft
451 ✓	34-36.41 ✓	76-18.94 0	49' ✓	47' ✓ sdg 53ft.
853 (Identification doubtful)	34-37.80 ✓	76-19.72 1	72' ✓	63' ✓ sdg 67ft.
Cape Lookout Wreck Ltd. Buoy "D"	34-36.41	76-18.70 2		

all discussed in Letter 684 (1955) previously applied

wreck #451 L 684 (55) states that drog cleared at 49'. (Used 47' or 7 4 fm to agree with Aid Proof WWB - 5/3/57

quarters not charted in depths greater than 7 fms. use 8. MLP 10/22/66

ADDENDUM
To Accompany

WIRE DRAG SURVEY PBS-4255WD

GENERAL

All surveys for the 1955 season were recieved at the Processing Office with only the positions of "N" buoy plotted on the Guide Launch sheet and the positions of "F" buoy plotted on the End Launch sheet. The positions for "F" buoy were transferred to the Guide launch sheet and all drag strips were inked and effective depths plotted according to drag strips in the volumes. Field plotting was accepted in all instances except for the final positions of each wreck.

Other than line 44 to 83B, only those drag lines showing minimum hangs and those showing maximum clearances were plotted on the sheet. ~~The other drag lines and their effective depths were listed at each wreck.~~

Respectfully submitted,

Hugh L. Proffitt

Hugh L. Proffitt
Cartographer.

Norfolk, Va.
18 January 1957

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: 7 February 1957

Plane of reference approved in
5 volumes of ~~sounding records for~~ wire drag and sounding records for

HYDROGRAPHIC SHEET FE NO 2 1957

Locality Cape Lookout, North Carolina

Chief of Party: J. C. Mathisson in 1955

Plane of reference is mean low water, reading

2.6 ft. on tide staff at Lookout Bight

8.6 ft. below B.M. 5 (1926)

Height of mean high water above plane of reference is 3.7 feet.

Condition of records satisfactory except as noted below:

William Shafer
Signature

Chief, Tides Branch

Comm-DC 34330

GEOGRAPHIC NAMES

Survey No. F.E.No.2
(1957)W.D.

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	
										1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
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										19
										20
										21
										22
										23
										24
										25
										26
										27

M 234

Hydrographic Surveys (Chart Division)

HYDROGRAPHIC SURVEY NO. F.E.No.2-1957 W.D.

Records accompanying survey:

Boat sheets ..1..; sounding vols. ..3..; wire drag vols. ...2..;

bomb vols. .....; graphic recorder rolls 2-Envelopes

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

.....

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

Number of positions on sheet		152
Number of positions checked		22
Number of positions revised		3
Number of soundings revised (refers to depth only)		1
Number of soundings erroneously spaced		0
Number of signals erroneously plotted or transferred		0
Topographic details	Time	0
Junctions	Time	0
Verification of soundings from graphic record	Time	1

Verification by [signature] Total time 17 Date July 16 1957

Reviewed by [signature] Time 1 Date July 16, 1957

M-2232-1

Field Examination No. 2, 1957

The field examination was made to locate and determine the least depths over wrecks Nos. 451, 455, 467, and 853, in compliance with the original instructions for Project CS-377 dated 28 January 1955. The Project number was subsequently changed to 1377.

Wrecks Nos. 451, 455 and 467 were found. The identification of wreck No. 853 is doubtful.

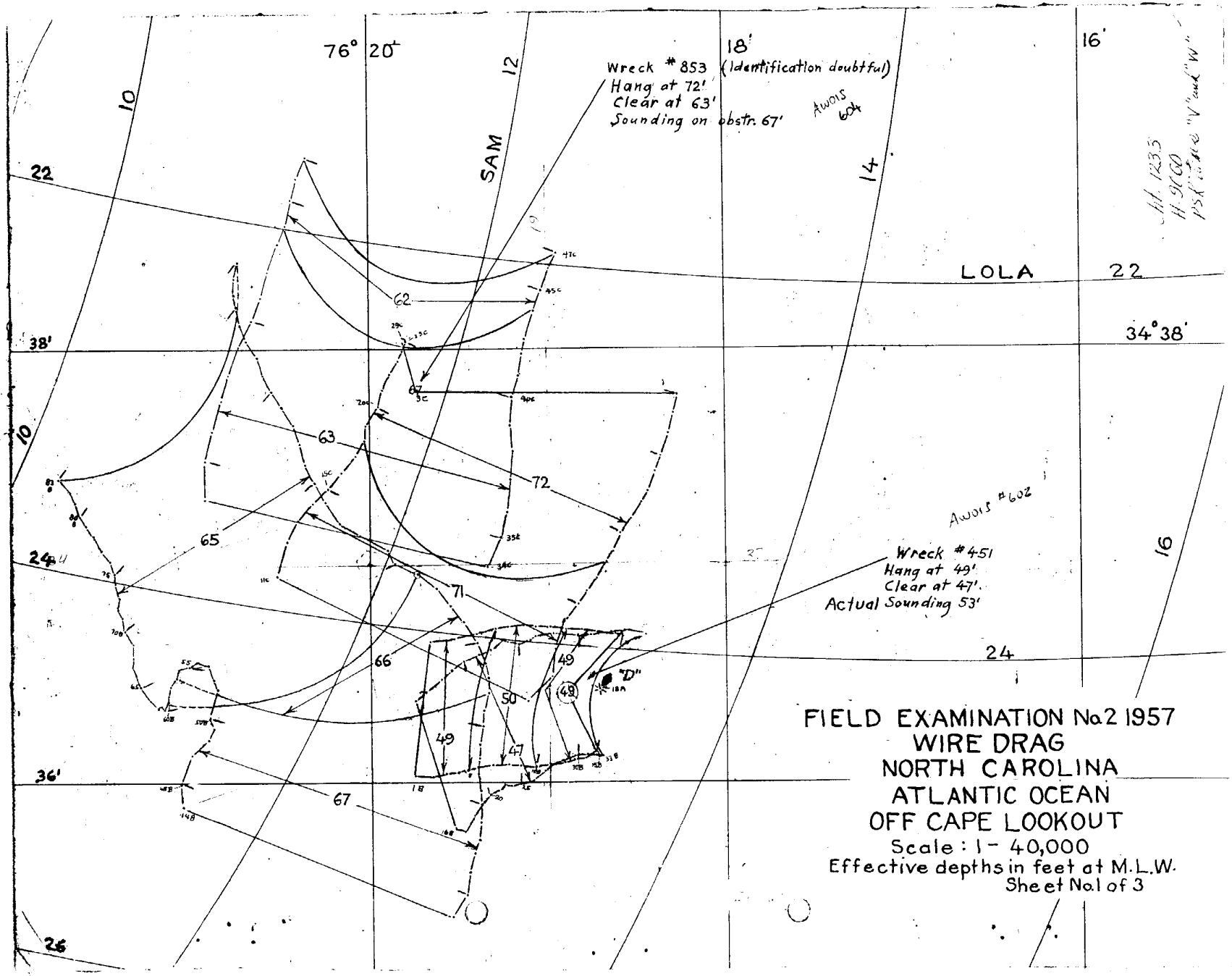
The results of the wire-drag examinations are tabulated on the Wreck Information sheet in the Descriptive Report and are plotted on the attached 3 sections of smooth sheet.

The work was applied to charts Nos. 1000, 1001, 1110, and 1233 between February and April, 1957. The charted information is correct.

The Descriptive Report adequately covers all other matters pertaining to this examination. No further discussion is considered necessary.

Reviewed by - I. M. Zeskind
7-16-57

Inspected by - R. H. Carstens

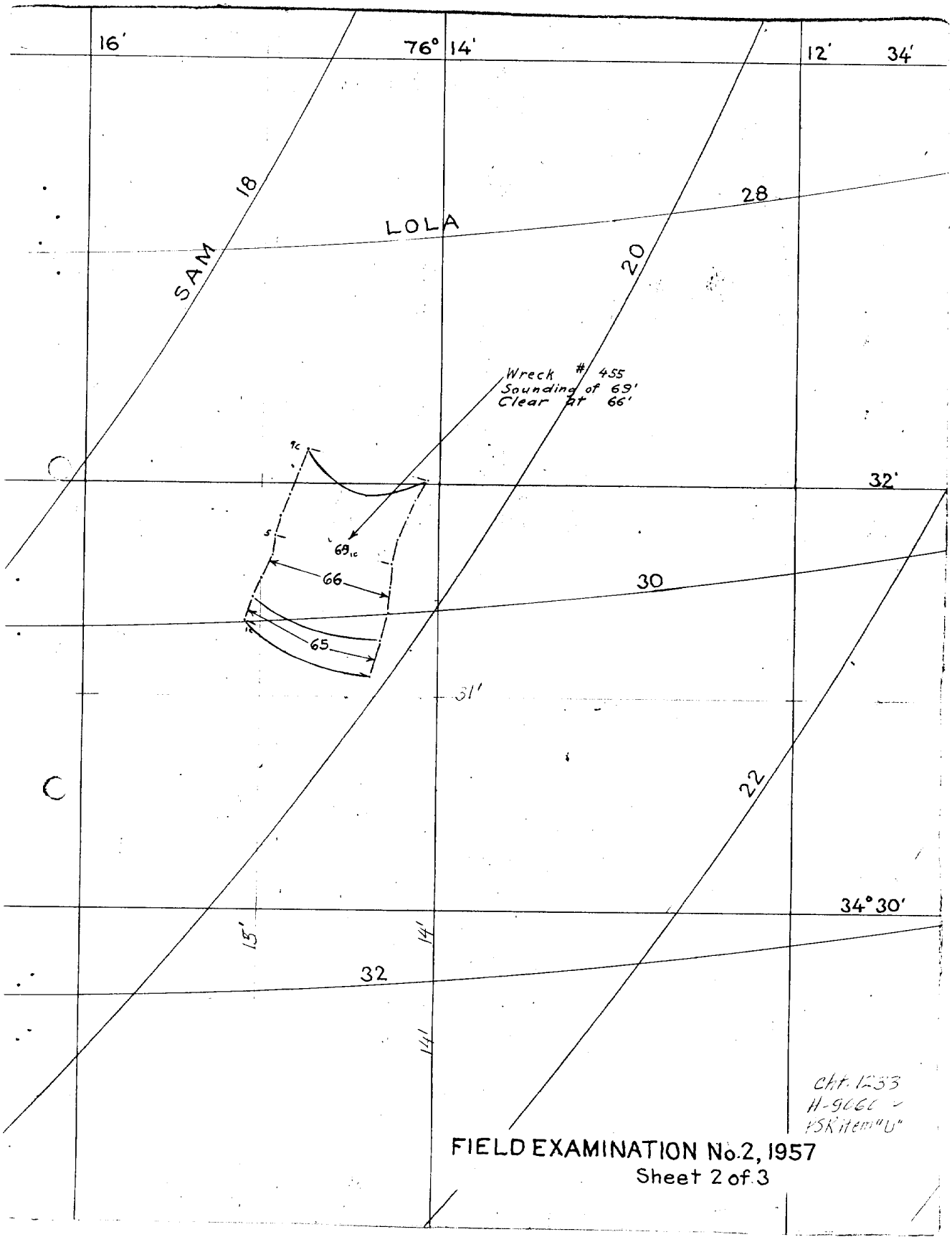


FIELD EXAMINATION No. 2 1957
WIRE DRAG
NORTH CAROLINA
ATLANTIC OCEAN
OFF CAPE LOOKOUT

Scale : 1 - 40,000

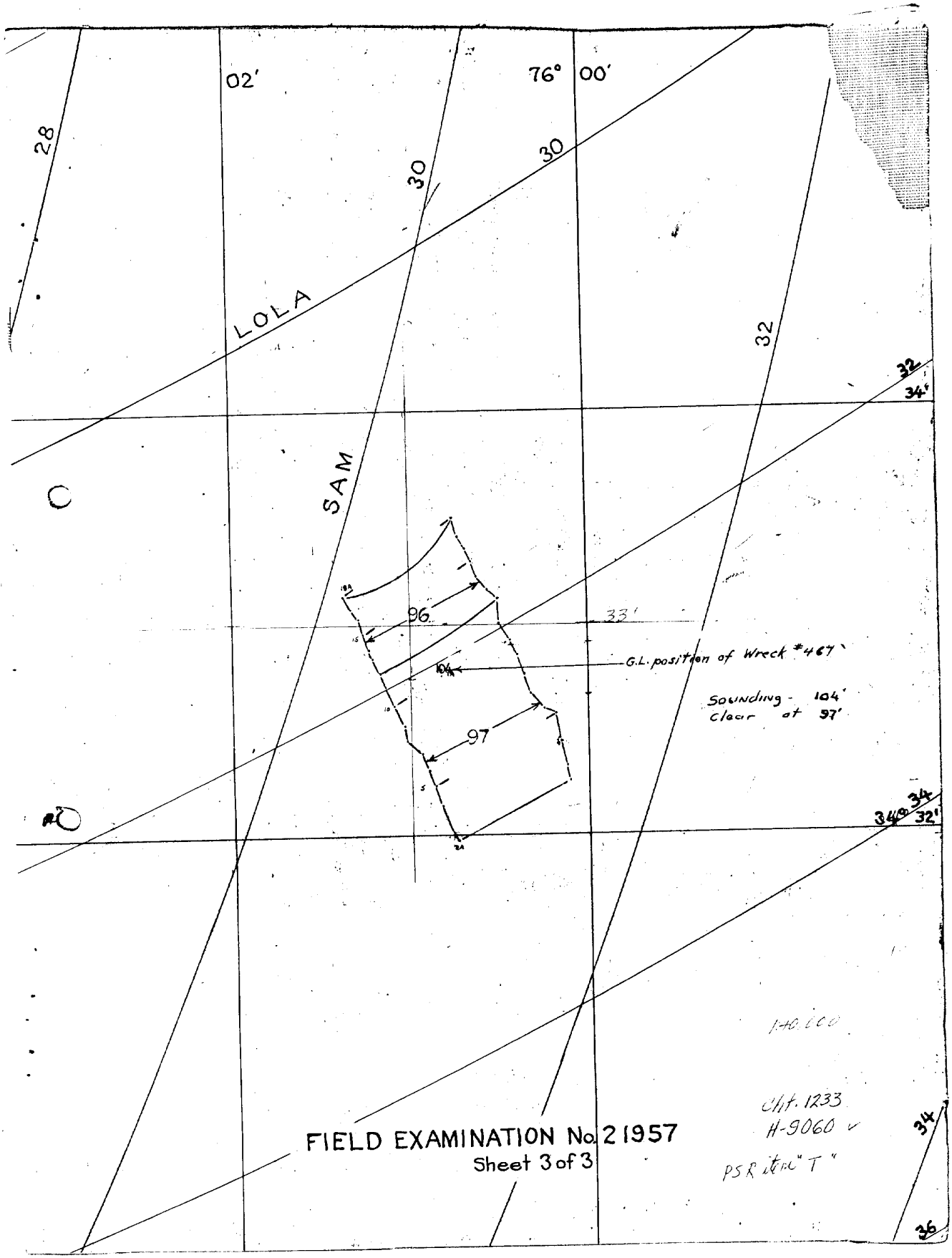
Effective depths in feet at M.L.W.

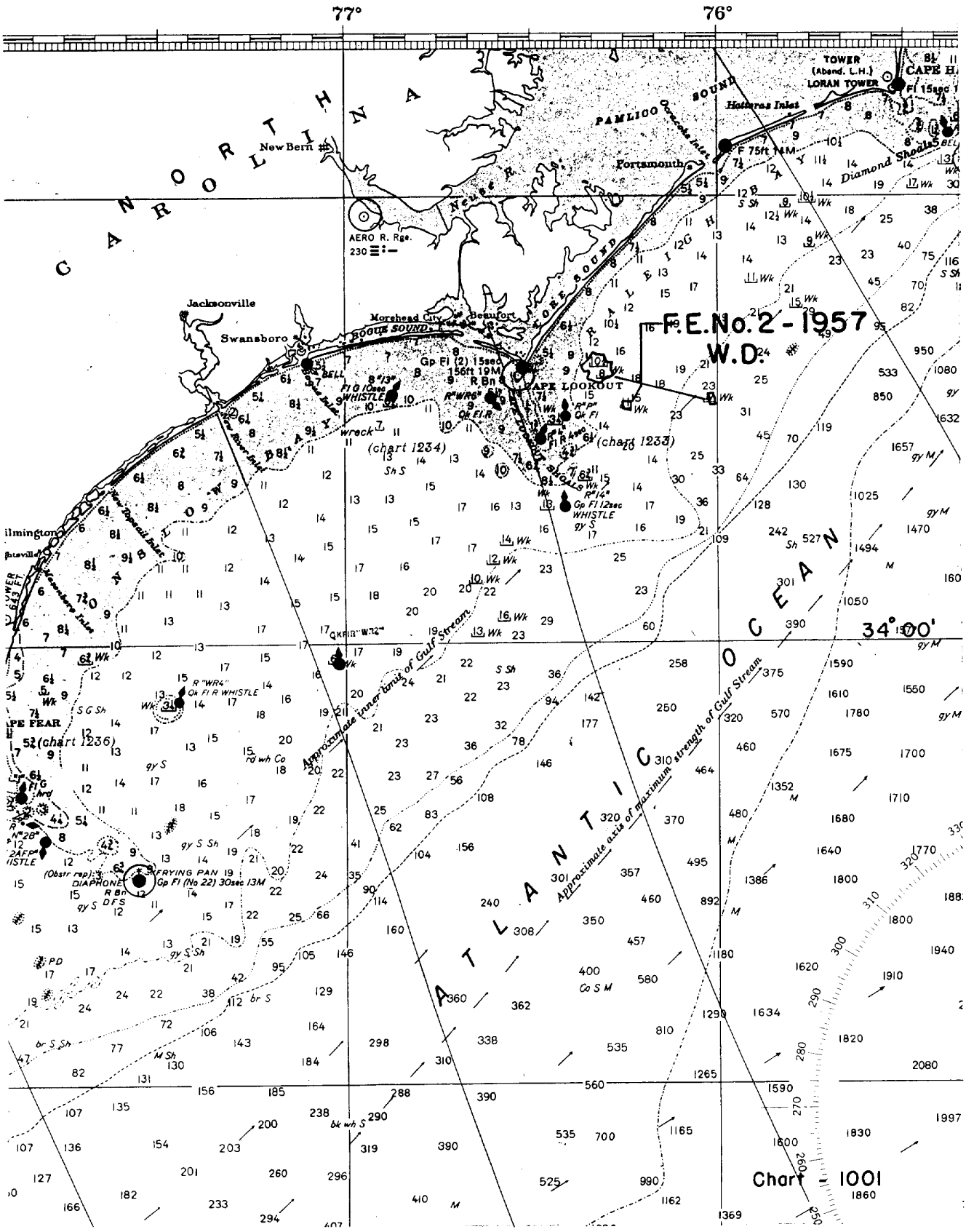
Sheet No. 1 of 3



FIELD EXAMINATION No. 2, 1957

Sheet 2 of 3


02'
76° 00'
28
30
30
LOLA
32
32
34'
SAM
C
96
33'
G.L. position of Wreck #467'
Sounding - 104'
Clear at 97'
97
34
34° 32'
FIELD EXAMINATION No. 21957
Sheet 3 of 3
Chf. 1233
H-9060
PSR item "T"
34
36


77°
76°
NORTH CAROLINA
New Bern
AERO R. Rge.
230
Jacksonville
Swansboro
Morehead City
Beaufort
Bogue Sound
Pamlico Sound
Neuse R.
Portsmouth
Ocracoke Inlet
Hatteras Inlet
TOWER
(Aband. L.H.)
LORAN TOWER
CAPE H.
Fl 15sec
F 75ft 14M
Diamond Shoals
Gp Fl (2) 15sec
156ft 19M
R Bn
CAPE LOOKOUT
Fl G 4sec
WHISTLE
Fl R
Gp Fl 12sec
WHISTLE
(chart 1234)
(chart 1233)
(chart 1236)
F.E.No.2-1957
W.D.
Approximate inner limit of Gulf Stream
Approximate axis of maximum strength of Gulf Stream
ATLANTIC OCEAN
34°00'
Chart - 1001

NAUTICAL CHARTS BRANCH

SURVEY NO. F.E.No.2-1957 W.D.

Record of Application to Charts

DATE	CHART	CARTOGRAPHER	REMARKS
2/5/57	1001	J.F. Walther	Before ~~After~~ Verification and Review
			Completely applied - Chart/work 467 from [17] to [16]
			Before After Verification and Review
3/14/57	1110	Le. A. McGann	Before ~~After~~ Verification and Review
			Completely applied. JMcG
4/1/57	1233	J.F. Walther	Before ~~After~~ Verification and Review Completely
4/30/57	1000	N.W. Burgoyne	Before ~~After~~ Verification and Review Applied
12/31/60	1233	E. Thomas	~~Before~~ After Verification and Review Completely
9/27/66	1001	W.H. Hall	~~Before~~ After Verification and Review Fully applied ✓
3/5/68	1000	Svendsen	~~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.