9548

Diag. Cht. No. 1000-3

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT
(HYDROGRAPHIC)

Type of Survey ..... HYDROGRAPHIC

Field No. ..... WH 80-1-75

Office No. H-9548

LOCALITY

State ..... NEW JERSEY

General Locality ..... OFF NEW JERSEY COAST

Locality ..... EAST OF BARNEGAT INLET

19 75

CHIEF OF PARTY
R. A. TRAUSCHKE

LIBRARY & ARCHIVES

DATE 7-28-76

☆ U.S. GOV. PRINTING OFFICE: 1975—668-353

Area 2
Chart:
1108
1000
70

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

H-9548

HYDROGRAPHIC TITLE SHEET

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.

WH-80-1-75

State NEW JERSEY ~~COAST~~

General locality OFF NEW JERSEY COAST

Locality ~~70 MILES~~ EAST OF BARNEGAT INLET

Scale 80,000 Date of survey June 3, 1975 to Sept. 1, 1975

Instructions dated ~~February 18, 1975~~ MARCH 27, 1975 Project No. OPR-517-WH-75

Vessel NOAA SHIP WHITING CSS-29 (2930)

Chief of party CDR. ROBERT A. TRAUSCHKE

Surveyed by Cdr. R.A. Trauschke, Lt. Cdr. Daniels, Lt. Cdr. Theberge, Lt. Yeager, ~~Lt~~(jg) Potok, Lt(jg) Perrin, Lt(jg) Kuhl, Lt(jg) Bennett, Ens. Terry, Ens. Gofus

Soundings taken by echo sounder, [redacted]

Graphic record scaled by Ship's personnel

Graphic record checked by Ship's personnel

Protracted by _____ Automated plot by ~~WHITING System~~ Calcomp - 618 - AMC

Verification by H.R. Smith - AMC

Soundings in fathoms ~~feet~~ at MLW [redacted]

REMARKS: Notes in red by Verifier

Applied to Stds 12/10/76

CHB

NOAA FORM 77-28 SUPERSEDES FORM C&GS-537.

☆ U.S. GPO: 1974-0-768-081/1203

DESCRIPTIVE REPORT

TO ACCOMPANY HYDROGRAPHIC SURVEY

REGISTRY NO. H-9548

FIELD NUMBER WH-80-1-75

COAST OF NEW JERSEY

SCALE 1:80,000

NOAA SHIP WHITING

CDR. ROBERT A. TRAUSCHKE, COMMANDING

A. PROJECT

H-9548

This hydrographic survey WH-80-1-75 was conducted under project instructions OPR-517, dated February 18, 1975, as part of the joint efforts of the NOAA Ships WHITING (CSS-29), MT. MITCHELL (MSS-22), and PEIRCE (CSS-28). No changes, supplements or amendments to the original project instructions were issued during the field season. The survey was conducted in accordance with the hydrographic manual and provisional hydrographic manual. Instructions dated March 27, 1975 and Change No. 1, dated April 14, 1975.

B. AREA SURVEYED

The area surveyed is located approximately offshore from the mid latitudes of the New Jersey coastline. Figure number one shows the general locality of the survey. The area limits of the survey are defined by the following points (Ref Fig. No. 1).

	LATITUDE (NORTH)	LONGITUDE (WEST)
1.	39°57.0'	73°32.2'
2.	39°57.0'	72°33.0'
3.	39°26.0'	72°33.0'
4.	39°26.0'	73°15.5'
5.	39°37.0'	73°15.5'
6.	39°52.5'	73°32.2'

The survey was conducted during the period June 3 (J.D. 154) thru September 23 (J.D. 266), 1975. Approximately 1856 square miles of area were covered and 3008 nautical miles of hydrography were run in completing hydrographic survey WH-80-1-75.

C. SOUNDING VESSEL

All soundings on hydrographic survey WH-80-1-75 were obtained by

the NOAA Ship WHITING (CSS-29), vessel number 2930.

The following table is a summary of all data compiled on this survey. ✓ see bottom Comp/us.

JULIAN DAY	NUMBER OF POSITIONS	SOUNDING VESSEL	REJECTED POSITIONS	NOT USED POSITIONS	*DUPLICATED POSITIONS
154	1-128	2930			
155	129-260	2930	129-134, 167		
156	261-347	2930	261-279		
157	347-484	2930	455		
158	485-641	2930			
159	642-798	2930			
160	799-~~854~~ 967	2930			
161	968 ~~855-967~~ 1164	2930			
162	1165 ~~968-1164~~ 1355	2930			
163	1358 ~~1165-1355~~ 1411	2930	1356-1357		
266	2245-~~2253~~ 2271	2930			
236	1426-1590	2930	1412-1425, ~~1553-1561~~		
237	1491-1721	2930	1446-1466		* 1672
238	1722-1912	2930	1814, 1840-1841		
239	1917-2114	2930	(1945-1946, 1984, 1995-1996, 2071)		
240	2115-2244	2930	2156		* 2245-2253
244	2245-2262	2930			

*Note: Rejected positions not to be smooth plotted.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

All soundings were obtained in fathoms. A Ross Fine Line Model 5000, serial number 1055, fathometer was used to obtain all soundings. Initials were reset at each scale of the fathometer. Corrections to instrument initial were applied during visual scanning of the analog trace. The transducer draft was determined to be 1.7 fathoms during the survey. Settlement and squat characteristics of the WHITING, as determined in 1973 will be applied by TC/Tl tape.

Velocity corrections were not applied during final plotting of the field sheet. Velocity correction data was obtained from TDC observations conducted by the NOAA Ship PEIRCE (CSS-28) on May 29, 1975 at 1556 GMT at position 39°59'.0N, 72°59'.1W. ✓

However, the velocity corrections obtained from this TDC cast

were proven to be inaccurate and, at the time of construction of the final field plot, no accurate velocity correction data was available. Proper velocity correction data is to be submitted by the NOAA Ship PEIRCE and will be transmitted when received to allow for incorporation into the smooth sheet.

Responsibility of Ship CO. Very Poor Practice to depend on someone else to provide important data. RB, Agree RCM

Corrections for tide were applied on the final field plot using predicted tides at Sandy Hook, New Jersey. Average tidal zone correctors of -50 minutes and 0.72 were applied over the area of the survey to the time and range of tide respectively.

E. HYDROGRAPHIC SHEETS

For ease in plotting, hydrographic survey WH-80-1-75 was divided into two field sheets at longitude 73°03'00West. Field sheets WH-80-1E-75 and WH-80-1W-75 were plotted by the Ships PDP-8E computer systems and complot Model DP-3 drum plotters. See Appendix 1 at the end of this descriptive report for projection parameters and electronic control patterns used in manufacturing field sheets WH-80-1E-75 and WH-80-1W-75.

F. CONTROL STATIONS

The stations used for raydist electronic control stations in surveying WH-80-1-75 are:

NAME	TYPE OF STATION	POSITION
BEN, 1974	3rd order Traverse	ϕ 40 34 58.43N λ 73 52 45.10W
TIANA, 1974	3rd order traverse	ϕ 40 50 13.970 λ 72 29 40.176

The two stations were established by AMC support personnel using third-order methods.

G. HYDROGRAPHIC POSITION CONTROL

Hydrographic positioning of the sounding vessel was accomplished using Hastings-Raydist Electronic Control System operating on a frequency of 3296.400 KHZ. The positioning system was at times shared by NOAA Ship PEIRCE, operating on 4th party, as well as the WHITING.

Calibration of the Raydist control system was obtained by visual sextant fixes taken periodically throughout the survey operations. The sextant fixes were taken using various intersection stations as listed in the signal list in Appendix 6 of this descriptive report.

To supplement visual calibrations, lane counts were taken at various navigation bouys established in the area. In addition, a temporary bouy was established within the survey limits of WH-80-1E-75 and a lane count was established on it. A list of all bouys used to obtain whole lane counts is shown below.

NAME OF BOUY	LATITUDE	LONGITUDE	P1	P2
HA	40° 07.8' N	73° 21.6' W	1470.3	2363.5
RB	39° 45.9' N	73° 46.1' W	2007.6	3540.0
BA	40° 20.7' N	73° 47.8' W	600.3	2705.6
SPAR (Temp)	39° 51.6' N	72° 42.3' W	2819.14	2418.88

Calibrations were taken throughout the various trips during which the work was accomplished and average partial lane correctors for several days of a particular trip were used on the corrector tapes for the days within these periods. Whole lane correctors were also applied, based on strip chart records during periods of lane jumps. The validity of the whole lanes applied was checked by either visual calibration or lane counts on bouys.

Some problems were encountered when attempting to use the bouys established as navigation aids to obtain a whole lane calibration. Apparently the scope of the anchor chains on these bouys was great enough to cause a whole lane discrepancy in position depending on the sea and tidal current conditions at the time of day that lane counts were attempted. Discrepancies were resolved by close monitoring of the strip chart records and closing out with a visual fix calibration whenever there was doubt.

A copy of the abstract of corrections to electronic position control is contained in appendix #5 at the end of this descriptive report.

H. SHORELINE

This hydrographic survey H9548 WH-80-1-75 is an offshore survey and as such, does not contain any shoreline details.

I. CROSSLINES

Crosslines were run at predicted times of low tide as per project instructions OPR-517. Crosslines generally began one hour before predicted time of low tide and ended approximately one hour after low tide. A total of 82 miles or 7.0 per cent of miles run on WH-80-1W-75 and 125 miles or 6.8 per cent of miles run on WH-80-1E-75 was composed of crosslines.

In general the comparison soundings of crosslines to main scheme hydrography was good with the maximum discrepancy being less than one fathom.

JUNCTIONS

This survey WH-80-1-75 junctioned with the following contemporary surveys.

WH-80-2-75 (H-9574), on the East
WH-40-2-75 (H-9547), on the West
PE-80-1-75 (H-9532), on the North
MI-80-1-75 (H-9553), on the South
WH-40-1-75 (H-9546), on the NorthWest

Junction soundings with contemporary surveys conducted by the NOAA Ships WHITING and MT. MITCHELL were generally good with a maximum of one fathom discrepancy occuring at two different locations of the MT. MITCHELL soundings of all those compared. Soundings obtained by NOAA Ship WHITING at the junction with contemporary survey PE-80-1-75 (H-9532) were consistently one fathom shoaler than those obtained by the PEIRCE. No explanation was determined for this difference, but the NOAA Ship MT. MITCHELL also had the same difficulty in junctioning with the PEIRCE work in some areas. - No difficulty with Junction during Verification.

K. COMPARISON WITH PRIOR SURVEYS

This survey WH-80-1-75 was compared to the following prior surveys.

SURVEY NO.	DATE OF SURVEY	SCALE
H-6223	1937	40,000
H-6192	1936	120,000
H-6346	1938	40,000

PE No. 6, 1963 w D

No bottom samples or current observations were taken by the WHITING in completion of this survey.

60 bottom samples were added to this survey by verifier. They were taken from the ship George B. Kelez data.

Comparisons with survey H-6192 generally agreed to the nearest fathom with some soundings being one fathom shoaler. Comparisons with survey H-6223 generally proved to be one fathom shoaler. Comparisons to survey H-6346 also showed to be one fathom shoaler. The shoaler soundings of each survey compared generally occured to the west and north portions of the survey. Whereas the soundings agreed more closely to the south and east.

L. COMPARISON WITH THE CHART

The only chart available for comparison was N.O. 12120 at a scale of 1:400,000. Due to a difference in scales between the field sheets and the chart, accurate comparisons are difficult. However, comparison of the two revealed reasonable agreement with a maximum discrepancy of less than one fathom.

M. ADEQUACY OF SURVEY

This survey is considered sufficiently complete and adequate to warrant its use to supersede prior surveys for charting.

N. AIDS TO NAVIGATION

No floating or non floating aids to navigation were identified within the limits of this survey.

O. STATISTICS

The summary of statistics for survey H-9548 WH-80-1-75 is shown below. All statistics were compiled by Ship WHITING (Vessel No. 2930).

DATES OF SURVEY	NO. OF POSITIONS	NUMBER OF NAUTICAL MILES	SQUARE MILES OF SURVEY
154-244	2244	3008	1856
007-324	2304		

60 bottom samples added from the ship George B. Kelez.

P. MISCELLANEOUS

H-9548

Data concerning velocity corrections relating to this survey WH-80-1-75 was obtained by the NOAA Ship PEIRCE, and velocity corrections listed in appendix to this report should be applied to this survey. An investigation of the submerged tower charted at approximately 39 47.5'N, 74 40.0°W (PSI No. 3), was conducted, however no indication of the object was observed. Since the existence of this object was confirmed during previous wire drag surveys, the hydrographer recommends retaining this item on existing charts.

Texas Tower No. 4

Q. RECOMMENDATIONS

This survey is considered complete and it is recommended that the data obtained be incorporated into the most recent chart of the area.

R. AUTOMATED DATA PROCESSING

H-9548

This survey, WH-80-1-75 was final field plotted using the WHITING'S PDP-8 computer and complot plotter systems. The following list of programs was used to accomplish the final field plot.

PROGRAM NO.	VERSION	DESCRIPTION
RK111	8-7-74	Range-Range Real Time Plot
RK201	6-2-75	Grid, Lattice and Signal Plot
RK211	8-16-74	Range-Range Non Real Time Plot
AM500	11-10-72	Predicted Tide Generator
RK561	2-19-75	HR Geodetic Calibration
AM602	5-21-75	Elinor Editor

S. REFERENCES TO REPORTS

The following reports are related to the work accomplished on field sheet WH-80-1-75: Velocity correction report, Descriptive Report PI-80-1-75, NOAA Ship PEIRCE.

H-9548

H-9548

* APPROVAL SHEET *

Submitted by:

Alan J. Potok, NOAA
Lt.(jg)

Supervision of field and office work on this hydrographic survey was continous on a day to day basis to ensure completeness of the survey and that all work was done in accordance with the Project Instructions.

Approved/Forwarded

Robert A. Trauschke
Cdr., NOAA
Commanding Officer, NOAA Ship WHITING

SIGNAL LIST

OPR 517-WH-75

100	0	39	32	06286	074	15	47098	139 HOLGATE, WATERTANK
101	0	39	33	46764	074	14	31479	139 BEACH HAVEN, WATERTANK
102	0	39	35	10198	074	13	29143	139 LONG BEACH WATERTANK,STANDPIPE
103	0	39	37	24578	074	11	50235	139 BRANT BEACH, WATERTANK
104	0	39	39	49041	074	09	55912	139 SURF CITY, STANDPIPE
105	0	39	41	25500	074	08	37090	139 HARVEY CEDARS,C.G., CUPOLA
106	0	39	42	27724	074	08	05856	139 HIGH POINT, STANDPIPE
107	0	39	45	24355	074	06	31927	139 BØRNEGAT LIGHT, NEW TANK
108	0	39	45	46162	074	15	47098	139 BØRNEGAT LIGHT,#3
109	0	39	45	51179	074	06	23919	139 BØRNEGAT LIGHTHOUSE
110	0	39	54	22000	074	04	57765	139 SEASIDE PARK SHORE, WATER CO.
111	0	39	56	06577	074	04	43169	139 SEASIDE PARK, NEW WATER TANK
112	0	39	56	36957	074	04	44488	139 SEASIDE HEIGHTS, WATERTANK
113	0	39	58	07114	074	04	18747	139 LAVALLETTE, STANDPIPE
114	0	39	59	53370	074	03	46974	139 NORMANDY BEACH, WATERTANK
115	0	40	04	06607	074	02	44160	139 BAYHEAD WATERTANK
116	0	40	05	09760	074	02	49974	139 PT. PLEASANT,MUNICIPAL TK.APEX
117	0	40	07	13267	074	03	27386	139 MANASQUAN, STANDPIPE
118	0	40	08	11500	074	01	40397	139 SEA GIRT, LIGHTHOUSE
119	0	40	08	48343	074	01	29390	139 SPRING LAKE, FLAGPOLE
120	0	40	10	38795	074	01	46694	139 BELMAR, BLACK STANDPIPE
121	0	40	11	37193	074	01	21295	139 AVON, WATERTANK
122	0	40	12	06249	074	01	15631	139 BELMAR, SILVER TANK
123	0	40	13	30340	073	59	59663	139 ASBURY PARK, FLAGPOLE
124	0	40	14	05620	074	00	30810	139 ALLENHURST, STANDPIPE
125	0	40	15	23412	074	00	11586	139 DEAL STACK
126	0	40	18	29025	073	59	04371	139 LONG BEACH CONCRETE STACK

```
127 0   40 18 38280 073 58 51010  139 LONG BRANCH, TANK
128 0   40 20 32350 073 58 29956  139 MONMOUTH C.G. RADIO TOWER
129 0   40 35 05191 073 38 12366  139 LIDO EAST TWIN TOWER
130 0   40 35 46814 073 30 30627  139 JONES BEACH TOWER
131 0   40 37 56443 073 13 08442  139 FIRE ISLAND LIGHTHOUSE
132 0   40 34 58430 073 52 45107  250 BEN RAYDIST
133 0   40 50 13970 072 29 40176  250 TIANA RAYDIST
134 0   39 32 51112 074 15 12847  250 HAVEN RAYDIST
135 0   40 27 34385 073 59 41012  250 SANDY HOOK RAYDIST
136 0   40 27 41798 074 00 08811  139 SANDY HOOK
137 0   40 23 47250 073 59 10544  139 NAVISINK (N)
138 0   40 23 45240 073 59 09203  139 NAVISINK (S)
```

ABSTRACT OF POSITIONS H-9548

Vessel: 2980

DAY	POSITIONS	CONTROL	S1	M	S2	REMARKS
154	0001-0128	04	132		133	Hydro
155	0129-0260	04	132		133	Hydro
156	0261-0347	04	132		133	Hydro
157	0347A-0484	04	132		133	Hydro
158	0485-0641	04	132		133	Hydro
159	0642-0798	04	132		133	Hydro
160	0799-0854	04	132		133	Hydro
161	0855-0967	04	132		133	Hydro
162	0968-1164	04	132		133	Hydro
163	1165-1355	04	132		133	Hydro
236	1356-1411	04	132		133	Hydro
237	1426-1590	04	132		133	Hydro
238	1591-1721	04	132		133	Hydro
239	1722-1916	04	132		133	Hydro
240	1917-2114	04	132		133	Hydro
244	2115-2244	04	132		133	Hydro
266	2245-2253	04	132		133	Hydro

Vessel: George B. Kelez

DAY	Positions						
140 –	2272 – 2276	—	—	—	—	—	Bottom Samples
141 –	2277 – 2282						
142 –	2283 – 2286						
310 –	2287 – 2299						
322 –	2300 – 2303						
323 –	2304 – 2229						
324 –	2330						
007 –	2331						

VELCITY CORRECTOR TAPE PRINTOUT

```
000021 0 0000 0001 001 293000 009574
000081 0 0002
000166 0 0004
000260 0 0006
000405 0 0008
000500 0 0009
999999 0 0000
```

VELOCITY CORRECTION TABLE OPTIONS:
0) NO TABLE
1) IN FEET
2) IN FATHOMS
3) IN METERS
2
DRAFT = 01.7

TRUE DEPTH (SURFACE) (FA)	FATHOMETER DEPTH (FA)	VELOC CORRECTION (FA)
0001.09	0000.00	0000.00
0002.19	0000.47	0000.02
0003.28	0001.51	0000.07
0004.37	0002.56	0000.11
0005.47	0003.61	0000.16
0006.56	0004.66	0000.20
0007.66	0005.72	0000.24
0008.75	0006.78	0000.27
0009.84	0007.84	0000.30
0010.94	0008.91	0000.33
0012.03	0009.98	0000.35
0013.12	0011.05	0000.37
0014.22	0012.12	0000.40
0015.31	0013.19	0000.42
0016.40	0014.27	0000.44
0017.50	0015.34	0000.46
0018.59	0016.41	0000.48
0019.69	0017.48	0000.51
0020.78	0018.55	0000.53
0021.87	0019.62	0000.55
0022.97	0020.69	0000.58
0024.06	0021.76	0000.60
0025.15	0022.83	0000.62
0026.25	0023.90	0000.65
0027.34	0024.97	0000.67
0028.43	0026.04	0000.69
0029.53	0027.11	0000.72
0030.62	0028.18	0000.74
0031.71	0029.26	0000.76
0032.81	0030.33	0000.78
0033.90	0031.41	0000.80
0035.00	0032.48	0000.81
0036.09	0033.56	0000.83
0037.18	0034.64	0000.84
0038.28	0035.72	0000.86

0039.37	0036.80	0000.87
0040.46	0037.89	0000.88
0041.56	0038.97	0000.89
0042.65	0040.06	0000.89
0043.74	0041.14	0000.90
0044.84	0042.23	0000.91
0045.93	0043.32	0000.91
0047.03	0044.41	0000.91
0048.12	0045.50	0000.92
0049.21	0046.60	0000.92
0050.31	0047.69	0000.92
0051.40	0048.78	0000.92
0052.49	0049.88	0000.91
0053.59	0050.98	0000.91
0054.68	0052.08	0000.90

CHM3412
3-7-74

OPR-517

TRA CORRECTION ABSTRACT

VESSEL WHITING II SHEET WH-80-1-75 REGISTRY NO. H-9548

Vol.	Jul. Day	GMT From Time	GMT To Time	Velocity Table ft/fms	Draft	Initial Corr.	S&S Corr.	TRA Corr. ft/fms	Remarks
1	154	031009	181229		1.7	0.0	.1	1.8	
1	155	090600	234940		"	"	"	"	
1	156	152946	235902		"	"	"	"	
	157	000002	235900		"	"	"	"	
	158	001501	195529		"	"	"	"	
	159	033101	235949		"	"	"	"	
	160	000535	235910		"	"	"	"	
	161	00357	235838		"	"	"	"	
	162	000209	235917		"	"	"	"	
	163	010300	074544		"	"	"	"	
	236	002402	235633		"	"	"	"	
	237	000321	235800		"	"	"	"	
	238	000200	235800		"	"	"	"	
	239	000129	235900		"	"	"	"	
	240	00209	174300		"	"	"	"	
	244	164252	182231		"	"	"	"	
	266	071202	102501		"	"	"	"	

TC/ØI

CORRECTOR TAPE

OPR 517-WH-75

WH 80-1-75

000000 1 0001 154 293000 001975

HYDROGRAPHIC SHEET PROJECTION

AND ELECTRONIC CONTROL PARAMETERS

CAM3-1
1/31/74

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

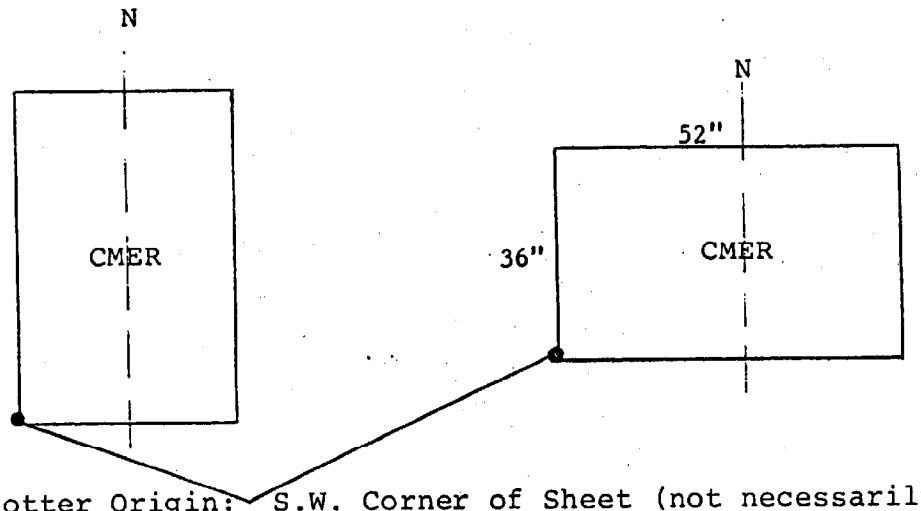
1. Project No. OPR-517
2. Reg. No. H-9548
3. Field No. WH-80-1-75
4. Requested By AMC
5. Ship or Office Verification
6. Date Required

7. Polyconic [X] Modified Transverse Mercator [ ]
8. Central Meridian of Projection 73 ° 00 ' 00 "
9. Survey Scale: 1: 80,000
10. Size of Sheet (check one):

36 x 54 [ ] 36 x 60 [ ] Other [X] Specify 36 x 52

11. Sheet Orientation (check one):

NYX = 1 [ ] NYX = Ø [X]



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)

Latitude 39 ° 22 ' 00 "

Longitude 73 ° 36 ' 30 "

13. G.P.'s of triangulation and/or signals attached [ ]
14. Material Desired: Tracing Paper [ ] Mylar [X]

Smooth Sheet [X] Other [ ] Specify _____

15. Remarks: _____

CAM3-2
2-22-71

ATLANTIC MARINE CENTER

ELECTRONIC CONTROL PARAMETERS

1. Project # OPR-517 2. Reg. # H-9548 3. Field # WH-80-1-75

4. Type of Control: Raydist (Hi-Fix, Raydist, EPI, etc.)

5. Frequency 3296.4 (for conversion of electronic lanes to meters)

6. Mode of Operation (check one):

Range-Range [X] Range-Visual [ ]

Range One (R_1) Station I.D. BEN — Lat. 40° 34' 58.430" N; Long. 73° 52' 45.107" W

Range Two (R_2) Station I.D. TIANA — Lat. 40° 50' 13.970" N; Long. 72° 29' 40.176" W

Hyperbolic (3-station) [ ] Hyper-Visual [ ]

Slave One Station I.D. _____ — Lat. ___° ___' ___" ; Long. ___° ___' ___"

Master Station I.D. _____ — Lat. ___° ___' ___" ; Long. ___° ___' ___"

Slave Two Station I.D. _____ — Lat. ___° ___' ___" ; Long. ___° ___' ___"

7. Location of Survey:

Range-Range [X] Imagine an observer is standing at R_1 Station and looking directly at R_2 (check one):

Survey area is to observer's Right [X] A=∅

Survey area is to observer's Left [ ] A=1

Hyperbolic [ ] Looking from survey area toward Master Station:

Slave One must be to observer's Left;

Slave Two must be to observer's Right.

8. [ ] This form is submitted as an aid in preparing a boat sheet.

[X] This form applies to all data on this survey.

[ ] This form applies to part of the data on this survey.

Vessel EDP #	From Time	From Day	To Time	To Day	Position Numbers (inclusive)
2930	031009	154	182231	244	_____ to _____
					_____ to _____
					_____ to _____

9. Remarks:

2/24/76

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): Atlantic City

Period: June 3 - September 23, 1975

HYDROGRAPHIC SHEET: H-9548

OPR: 517

Locality: New York Bight

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

Height of Mean High Water above Plane of Reference:
4.1 ft. Atlantic City

Remarks: Recommended zoning:

		Time Correction	Range Ratio
(1)	West of 73°20'	-15 min.	x0.95
(2)	73°20' to 73°00'	-20 min.	x0.88
(3)	East of 73°00'	-25 min.	x0.80

James R Hubbard
for Chief, Tides Branch

NOAA FORM 76-155
(11-72)

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

SURVEY NUMBER

H-9548

GEOGRAPHIC NAMES

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	
BARNEGAT INLET	(Title)									1
										2
										3
										4
										5
										6
										7
										8
										9
										10
										11
										12
										13
										14
										15
										16
					Approved					17
					Chas. E. Harrington					18
					STAFF GEOGRAPHER - C51X2					19
					1 Nov. 1976					20
										21
										22
										23
										24
										25

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H-9548

A. All revisions and additions made on the smooth sheet during verification have been entered in the magnetic tape records for this survey. A new final position printout has/~~has not~~ been made. A new final sounding printout has/~~has not~~ been made.

Date: 14 July 1976

Signed: William L Jones

Title: Chief, Verification Branch

B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: 15 July 1976

Signed: C Dearhouth

Title: Chief, Processing Division

NOAA FORM 77-27
(9-72)
(PRESC. BY HYDROGRAPHIC MANUAL 20-2, 6-94, 7-13)

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

HYDROGRAPHIC SURVEY STATISTICS

HYDROGRAPHIC SURVEY NO. H-9548

WH-80-1-75

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & 2-Overlays	1	BOAT SHEETS (2 parts)	1
DESCRIPTIVE REPORT	1 *	OVERLAYS	3

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/ SOURCE DOCUMENTS
ENVELOPES			*			
CAHIERS	2 & P/O. *					
VOLUMES	3 *					
BOXES			1	1		

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	REVIEW	TOTALS
POSITIONS ON SHEET				2304
POSITIONS CHECKED		200		
POSITIONS REVISED		28		
DEPTH SOUNDINGS REVISED		103		
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS				
JUNCTIONS		16		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		16		
SPECIAL ADJUSTMENTS	24			
ALL OTHER WORK		150		
TOTALS		206	21	

	BEGINNING DATE	ENDING DATE
PRE-VERIFICATION BY Harry R. Smith	05/20/76	06/10/76
VERIFICATION BY Harry R. Smith	05/20/76	06/10/76
REVIEW BY Hydrographic Inspection Team (AMC)	07/15/76	07/15/76

Q.C. Insp. D. J. Romesburg 9-7-76 35 hrs. R. D. Sanocki 30 Nov 76 8 hrs
G Myers 10-29-76 8 hrs

* U.S. G.P.O. 1972-769-562/439 REG.#6

Reg. No. H-9548

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey the following shall be completed:

CARDS CORRECTED

DATE_____ TIME REQ'D_____ INITIALS_____

REMARKS:

Reg. No. _____

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 REQ'D._____ INITIALS_____

REMARKS:

H-9548

Information for Future Presurvey Reviews

No significant changes have been noted since the time of the latest prior surveys.

The several nondangerous sunken wrecks charted in the present survey area were not verified by the hydrographer nor was the obstruction (tower ruins) charted in latitude 39°47.87', longitude 72°40.2'.

All depths are near 20 fathoms in this area and the resurvey cycle is 50 years.

HYDROGRAPHIC INSPECTION TEAM

ATLANTIC MARINE CENTER

HYDROGRAPHIC SURVEY REVIEW

DATE: 15 July 1976

REGISTRY NO.: H-9548 FIELD NO.: WH-80-1-75

GENERAL LOCALITY and SPECIFIC LOCATION:

Offshore New Jersey Coast
~~Seventy miles~~ East of Barnegat Inlet

SURVEYED: June 3, 1975 through September 1, 1975

PROJECT NO.: OPR-517 SCALE: 1:80,000

SOUNDINGS BY: Ross Fathometer
Model 5,000 s/n 1055

CONTROL: Raydist
(Range-Range)

Chief of Party ..... R.A. Trauschke
Surveyed by ..... R.A. Trauschke
..... W.L. Daniels
..... A.E. Theberge
..... D.W. Yeager
..... A.J. Potok
..... K.W. Perrin
..... D.M. Kuhl
..... J.H. Bennett
..... D.L. Terry
..... J.G. Gofus
Automated Plot by ..... Calcomp Plotter #618 (AMC)
Verified and Inked by ..... H.R. Smith

1. Description of the Area

The area covered by this survey is about 70 miles off Barnegat Inlet, New Jersey, extending from the 20 fathom curve on the east to just west of the Hudson Canyon.

The bottom is mostly sand with shell and gravel.

2. Control and Shoreline

The source of the control is adequately described in the Descriptive Report.

There is no shoreline within the limits of this offshore survey.

3. Hydrography

A. Crossings: Depths at crossings are in good agreement.

B. Depth Curves: The standard depth curves adequately delineate the area.

C. Low-water Line: There is no low-water line within the limits of this survey.

D. Developments: There were three investigations made to determine least depths and one submerged tower. See Item '6', "Comparison with Chart."

E. Bottom Samples: Bottom samples on this survey were obtained from an "Oceanographic Log Sheet-M" submitted by the NOAA Ship GEORGE B. KELEZ. Since this sheet is the only source of data on hand, the geographic positions were not verified. The depths were changed to "missed depths."

4. Condition of the Survey

The sounding records, automated plotting and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, supplemented by the Atlantic Marine Center Manual.

5. Junctions

An adequate junction was effected with the following surveys:

H-9532 (PE-80-1-75) on the north
H-9574 (WH-80-2-75) on the east
H-9553 (MI-80-1-75) on the south
H-9547 (WH-40-2-75) on the west
H-9546 (WH-40-1-75) on the northwest

6. Comparisons see quality Control Report

A. Prior Surveys: H-6223 (1937) on the northwest corner 1:40,000
H-6346 (1938) on the southwest corner 1:40,000
H-6192 (1936) 1:120,000
FE No. 6 (1963) Wire Drag

A comparison between the above prior surveys and the present survey shows good agreement with little change. The present survey generally agrees within one fathom of the ~~charted~~ prior survey depths.

The present survey is adequate to supersede the prior surveys in the common area. See below for discussion of FE No. 6, 1963

B. Contemporary Surveys: The junctions with the contemporary surveys were effected without any major difficulty. All soundings are in good agreement.

C. Wire Drag: The charted submerged tower ruins (Texas Tower No. 4) at latitude 39° ~~48~~ 47.87', longitude 72° 40.~~2~~ was not found during the hydrographic development accomplished during this survey. The chart indicates clearance to ~~9~~6.75 fathoms by wire drag. The source of this wire drag is ~~unknown~~ F.E. 6, 1963 ~~by this office~~, and was ~~not~~ carried forward on this survey. It is recommended that this feature be retained as charted. 63 ft. carried forward on survey. cleared by 59 ft.

D. Published Chart: #12300, formerly 1108 (formerly 12120), 23rd edition, dated June 7, 1975.

(a) Hydrography:

A comparison between the above chart and the present survey shows good agreement, with differences of about one fathom, mostly on the west side of the survey.

(b) Attention is directed to the following:

The following features or soundings shown on the above chart were neither proved nor disproved on the present survey:

Sunken Wrecks

(1) 39° 55' 00"
73° 32' 00"

(2) 39° 5~~0~~1' 00"
73° 12' 00"

(3) 39° 49' 00"
72° 49' 00"

(4) 39° ~~38~~ 41' ~~00~~ 30"
72° 45' 00"

(5) 39° 39' ~~00~~ 30"
73° 13' 00"

(6) 39° 38' ~~05~~ 30"
73° 03' 00"

(7) 39° 36' ~~00~~ 15"
73° 01' ~~03~~ 30"

(8) 39° 32' ~~00~~ 30"
73° 02' ~~05~~ 30"

(9) 39° ~~26~~ 40' ~~05~~ 00"
72° ~~50~~ 34' ~~00~~ 30"

The unexploded bomb (Dec 1960) charted at lat. 39°35', long. 73°22.1' from HH 5/60 was neither proved or disproved on the present survey and should be retained on the chart.

(10) 39°49'50"
72°53'00"

It is recommended that these features be retained as charted.

(c) Aids to Navigation

There are no aids to navigation within the limits of this survey.

7. Compliance With Instructions

This survey does comply with the Project Instructions, except for the following:

Sufficient simultaneous comparisons were not accomplished in accordance with Project Instructions, Sections 2.8 and 2.9c.

8. Additional Field Work

This is an excellent basic survey. Additional field work is not recommended.

9. Hydrographic Inspection Team Comments

Hydrographic Inspection Team comments are included within this report and Verification deficiencies found, if any, have been corrected on the Smooth Sheet.

Additional Notes for H-9548

The difficulty in junctioning with the NOAA Ship PEIRCE's work mentioned in Section J of the Descriptive Report was not encountered during verification and no significant disagreement in depths between this survey and H-9532 (PE-80-1-75) was found.

Approval Sheet for Survey H-9548

Examined and Approved:
Hydrographic Inspection Team
Date: 15 July 1976

CAPT Ronald M. Buffington, NOAA
Chief, Operations Division

C. Dale North, Jr., LCDR, NOAA
Chief, Processing Division

CDR Jeffrey G. Carlen, NOAA
Chief, Coastal Mapping Division

Gregory H. Bass, LT, NOAA
Chief, EDP Branch

William L. Jonns
Chief, Verification Branch

Approved/Forwarded

In my opinion, more development should have been done in the area of the tower ruins. It is the single most important item on this sheet and received only "token" development.

Robert C. Munson
RADM, NOAA
Director, Atlantic Marine Center

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

C352

September 7, 1976

TO: A. J. Patrick
Chief, Marine Surveys Division

THRU: Chief, Quality Control Branch

FROM: D. J. Romesburg
Quality Evaluator

SUBJECT: Quality Control Report for H-9548 (1975), New Jersey, Off New Jersey Coast, East of Barnegat Inlet

A quality control inspection of H-9548 has been accomplished to evaluate the accuracy and adequacy of the survey with respect to data acquisition, delineation of the bottom, determination of least depths and navigational hazards, junctions, decisions and actions taken by the verifier, and cartographic presentation of data.

The following deficiencies are noted:

1. Junctional surveys H-9574 (1975) on the east, H-9532 (1975) on the north, H-9546 (1975) on the northwest, and H-9547 (1975) on the west have not been received from the Marine Center. The adequacy of a junction between these surveys and the present survey will be evaluated during their respective quality control inspections.

2. Field Examination No. 6 of 1963 was omitted from the prior survey comparison in section 6 of the verifier's report. A depth of 63 feet on the obstruction (tower ruins) located on FE NO. 6, 1963, in latitude 39°47.87', longitude 72°40.2' was carried forward to the present survey during quality control inspection. This feature was subsequently cleared by an effective drag depth of 59 feet.

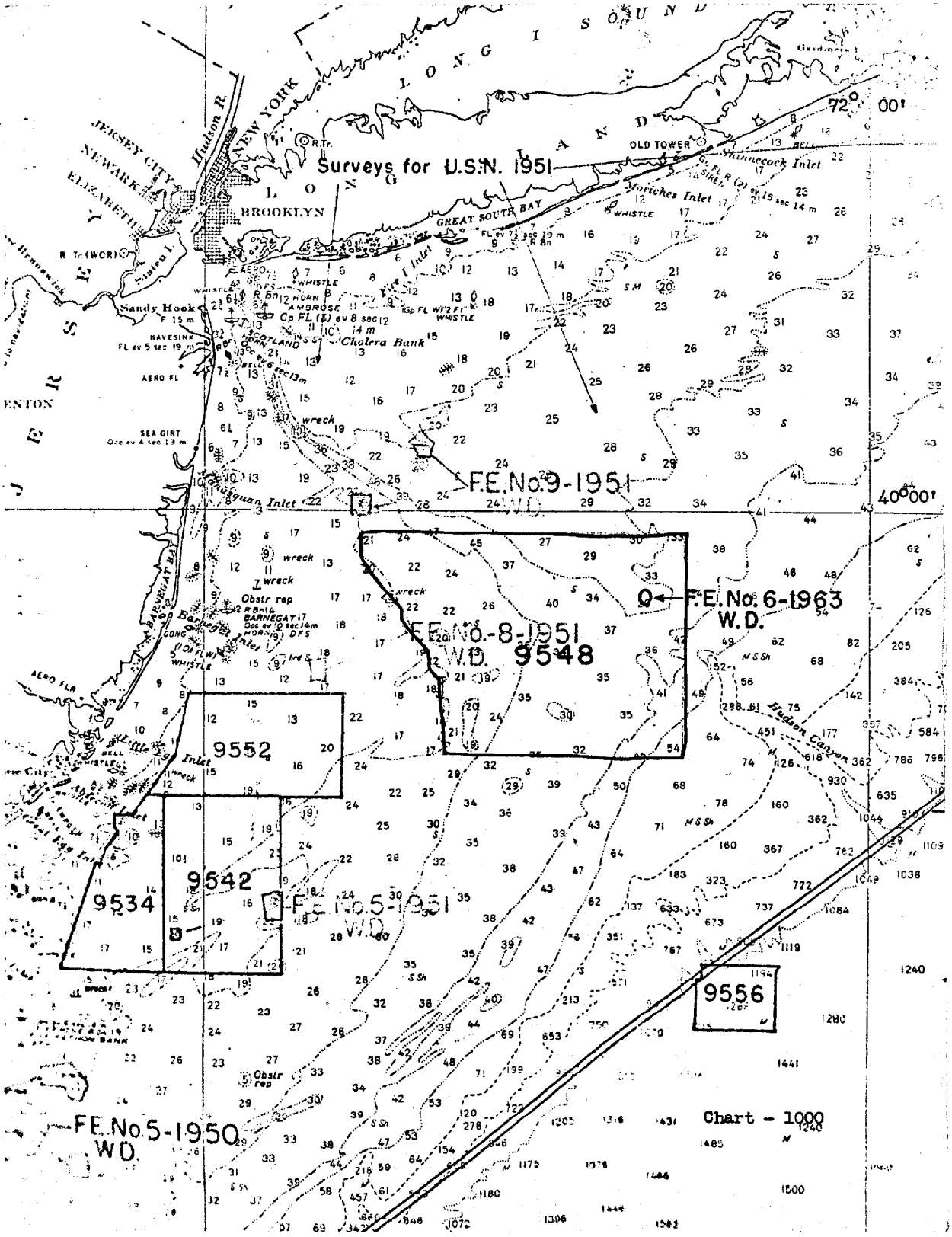
No evidence of the obstruction was found on traces of the fathograms available in this area. However, the fathograms for Julian Day 238, positions 1772-1916 are missing from the survey records. These missing fathograms include soundings which are close to the charted position of the obstruction.

No conflicts between present depths and effective wire-drag depths were found during quality control.

3. No statement was made in the verifier's report to indicate that the present survey was adequate to supersede the charted hydrography. An additional comparison with the chart was made during quality control inspection. With the exception of the nondangerous sunken wrecks and unexploded bomb listed in section 6D and the obstruction discussed in section 6C of the verifier's report, the present survey is adequate to supersede the charted hydrography within the common area. Refer to section 6.6, paragraphs 11 and 12, of the Provisional Manual for the proper subdivisions of the Comparison with Prior Surveys and Comparison with Charts sections of the verifier's report.

With the above exceptions, the present survey is considered to be complete and adequate and to conform to the standards of the National Ocean Survey.

cc:
C351


Surveys for U.S.N. 1951
F.E.No.9-1951
F.E.No.6-1963
W.D.
F.E.No.8-1951
W.D.
9548
9552
9542
9534
F.E.No.5-1951
W.D.
9556
F.E.No.5-1950
W.D.
Chart - 1000
72° 00'
40° 00'
LONG ISLAND
NEW YORK
BROOKLYN
JERSEY CITY
NEWARK
ELIZABETH
Hudson R.
Sandy Hook
Cholera Bank
Barnegat Inlet
Little Egg Inlet
Great South Bay
Shinnecock Inlet
Moriches Inlet
OLD TOWER

FORM C&GS-8352
(3-25-63)

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9548

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	CARTOGRAPHER	REMARKS
1108	3-11-77	Richard L. Hogan	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. FULLY APPLIED
			FINAL
1000	7-20-77	R. J. Winkfield	~~Full Part Before~~ After Verification Review ~~Inspection~~ Signed Via
			Drawing No. #54 Applied Soundings
70	5-26-78	R. J. Winkfield	Full ~~Part Before~~ After Verification Review Inspection Signed Via
			Drawing No. 42 Applied Soundings and curves thru
			cht 1108
			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.
			Full Part Before After Verification Review Inspection Signed Via
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