

9554

Diag. Cht. No. 1211-3

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT (HYDROGRAPHIC)

HYDROGRAPHIC

Type of Survey

PE-40-5-75

Field No.

H-9554

Office No.

LOCALITY

NEW YORK

State

LONG ISLAND

General Locality

SOUTH OF MONTAUK POINT

Locality

19 75

CHIEF OF PARTY
J. W. DROPP

LIBRARY & ARCHIVES

8-27-76

DATE

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

9554

Areas 1+2

Charts:

13006

- 70 App'd 5/1/76 *fid*

13215

- 271 App'd 11/1/76

13209

- 362 App'd 11/1/76

13003

- 1000

13205

- 1211 App'd 11/1/76

12360

- 1108 App'd 12/1/76

(2)

363

1212

1274

HYDROGRAPHIC TITLE SHEET

H-9554

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.

PE-40-5-75

State New York

General locality Long Island
North Atlantic

Locality South of Montauk Pt.
New York Bight

Scale 1:40,000

Date of survey 28 July - 12 August 75

Instructions dated 27 March 75

Project No. OPR-517-MI,WH,PE-75

Vessel NOAA Ship PEIRCE (CSS-28) VESNO 2830

Chief of party Commander Joesph W. Dropp, NOAA, Cmdg.

Surveyed by CDR J.W. Dropp, LCDR D. Suloff, LT K. Schnebele, LTJG B. Johnson
LTJG D. Dreves, ENS K. Santarelli, ENS T. Lillestolen

Soundings taken by echo sounder, ~~and other~~ Ross model 5000 and modified Model
200-A

Graphic record scaled by Hydroplot system and ship's personnel

Graphic record checked by Commissioned Officers and Survey personnel

Protracted by Hydroplot system ~~Galcom Plotter, AMC~~ Automated plot by NOAA Ship PEIRCE
^{WLB} ^{AMC}

Verification by A.G. Cram

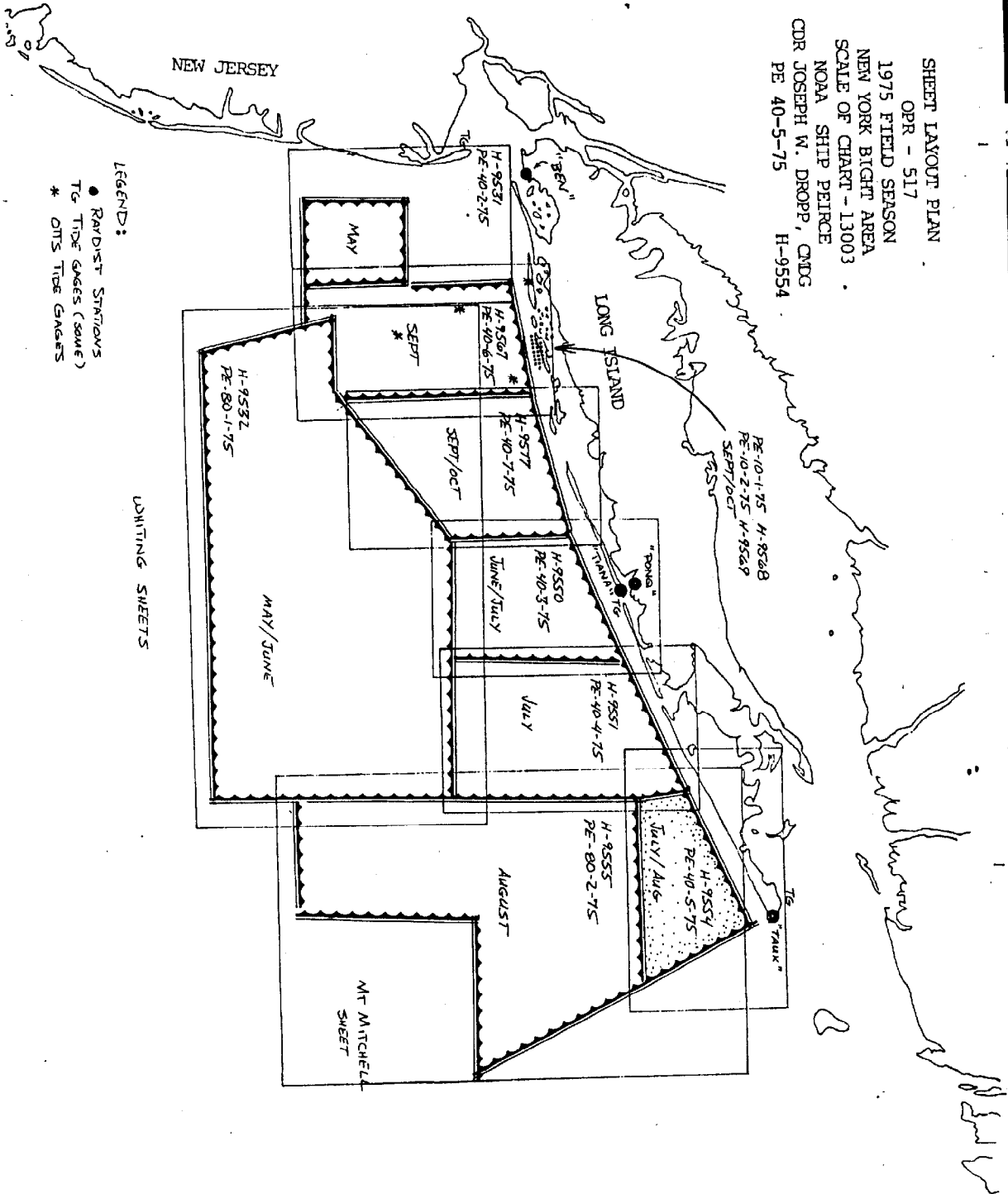
Soundings in ~~xxxxxx~~ feet at MLW ~~xxxxxx~~

REMARKS: All times are Greenwich Mean Time

Changes in red by RGC (AMC)

Applied to Standards 12/13/76
WLB

SHEET LAYOUT PLAN
 OPR - 517
 1975 FIELD SEASON
 NEW YORK BIGHT AREA
 SCALE OF CHART - 13003
 NOAA SHIP PEIRCE
 CDR JOSEPH W. DROPP, CDDG
 PE 40-5-75 H-9554



LEGEND:
 ● RAVINIST STATIONS
 ○ TIDE GAUGES (SOME)
 * OTS TIDE GAUGES

DRAWING SHEETS

DESCRIPTIVE REPORT

To Accompany
Hydrographic Survey H-9554
Field Number PE-40-5-75

OPR-517-PE-75
Atlantic Seaboard Area Project
New York Bight Phase
1975 Field Season

NOAA Ship PEIRCE (CSS-28)

Joseph W. Dropp
Commander, NOAA
Chief of Party

DESCRIPTIVE REPORT

OPR-517-PE-75
PE-40-5-75
H-9554

A. PROJECT

This survey is an integral part of the Atlantic Seaboard Area Project (ASAP), New York Bight Phase, conducted in accordance with Project Instructions OPR-517-PE-75, dated March 27, 1975. This survey was conducted primarily in support of the NOS nautical charting program and secondarily in support of the MESA program.

B. AREA SURVEYED

PE-40-5-75 ^(H-9554) lies in the vicinity south of Long Island from Bridgehampton to Montauk Pt. The area surveyed is bounded on the west by longitude $72^{\circ}13.4'W$, on the south by latitude $40^{\circ}47.4'N$, on the east by the line connecting latitude $40^{\circ}47.4'N$ longitude $71^{\circ}40.6'W$ with latitude $41^{\circ}01.9'N$, longitude $71^{\circ}49.6'W$, and on the north by the line connecting latitude $41^{\circ}01.9'N$, longitude $71^{\circ}49.6'W$ with latitude $40^{\circ}53.0'N$, longitude $72^{\circ}13.4'W$ or approximately the eleven (11) fathom curve. The surveyed area encompasses an area of approximately 233.5 square nautical miles. The area was surveyed from 28 July - 12 August.

C. SOUNDING VESSEL

All soundings were made by the NOAA Ship PEIRCE. The EDP vessel number is 2830.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDING

Echo sounding corrections are the algebraic sum of corrections input at 1) the Hydroplot Controller and hence on the master data tape, 2) TRA corrector tape, and 3) velocity corrector tape, each of which is discussed separately.

The PEIRCE made soundings with two Ross Fathometers. The first, Model 5000, S/N 1078, was used between 28 July 1975 (J.D.209) and 1812Z 6 August 1975 (J.D.218), while the second, Model 200-A, modified to operate as a Model 5000, S/N C-537-1039-5, was used between 1823Z 6 August 1975 (J.D.218) and 12 August 1975 (J.D.224).

The fathometers (Analog recorders) were changed because the motor controlling paper advance failed. No problems effect the accuracy of soundings.

1. TRA Correctors

TRA corrections are a combination of the following components.

- a) TRA draft
- b) Initial variation
- c) Settlements and squat

The sum of these factors range from 10.3 feet to 10.9 feet. The TC/TI tape reflects the difference between the actual depth of the transducer and the 11.0 feet maintained at the hydroplot controller.

2. TRA Draft

The draft of the vessel was determined by measuring rail to water distance above the transducer with a hand-held tape at the beginning and ending of each trip and proportioned for each day of the trip. To obtain the TRA draft, the rail to water height was subtracted from the rail to transducer height (20.37 ft.).

3. Initial Variation

Initial on the Ross units was maintained at zero by its built-in calibration circuitry.

4. Settlement and Squat

S&S correctors for the NOAA Ship PEIRCE were determined on 1 April 1974 off Point Comfort, Norfolk. The speed of the vessel was noted in the Daily Statistics sheets and appropriate S&S corrector applied on the TC/TI tape.

5. Velocity Corrections

Assumed sound velocity is 800 FMS/SEC. Corrections were derived from a Nansen cast on 11 August at 40°31.1'N, 72°14.5'W. Salinities were analyzed at the MESA facility, Floyd Bennett Field, N.Y. Results were input in program RK 530 (VER 6-25-74) to determine velocity correctors. Correctors were plotted and a velocity table constructed for 0.2 foot corrections. The assumed draft was 11.0 feet. There is one velocity table for this survey (copy attached).

6. Direct Comparisons

No corrections were derived from leadline comparisons; however, leadlines were taken infrequently throughout the project as a check on corrections determined by Nansen casts. Leadlines were taken during work on the surveys preceding and following this one with reasonably good agreement (see Descriptive Reports for H-9551 and H-9555).

E. HYDROGRAPHIC SHEETS

Field plotter sheets were prepared by the onboard Hydroplot system. Copies of the parameter tapes used are appended to this report. All data has been transmitted to the Atlantic Marine Center for smooth plotting.

F. CONTROL STATIONS

Control stations for Raydist operating in the Range-Range mode were located at:

Slave I - PONQ Lat. 40°50'55.904"N
Long. 72°30'12.962"W
Slave II - TAUk Lat. 41°04'13.251"N
Long. 71°51'29.524"W

Raydist operated a frequency of 3292.40 KHZ.

Station TAUk was located by Operations Division of AMC as a Hi-Fix station but used for Raydist during this survey. Station PONQ was located by ship's personnel using traverse techniques. All data has been transmitted to Operations Division, AMC.

G. HYDROGRAPHIC POSITION CONTROL

Positions were obtained through the HYDROPLOT system using the on-line Range-Range program. The Raydist was calibrated using three point sextant angles with check angles via program RK 561 (VER 2-19-75). The resulting partial lane correctors are abstracted and attached.

A taut-moored buoy was established to check the whole lane count of the Raydist when weather or other factors prevented a calibration on shore objects. To determine lane count, passes were made close to the buoy on heading perpendicular to the Raydist arc. The whole line count at the buoy's position was checked frequently. The buoy--identified as #4--was located at 40°43'05"N, 72°14'22"W. Raydist calibration data and results of passes on the buoy are included with survey records.

H. SHORELINE

There is no shoreline within ^{the} survey area.

I. CROSSLINES

Crosslines constituted 105.6 nautical miles of the total 943.4 miles of hydrography run for this survey. This constituted approximately eleven (11) percent of the total miles of hydrography. The crosslines depths were in excellent agreement with the regular line depths. All crosslines were run at MLW +/- 1.0 feet.

J. JUNCTIONS

The western limit of this survey formed a junction with PE-40-4-75, and the southern limit formed a junction with PE-80-2-75. ^{H-9551} The western limit of this survey was in good agreement with the junction of PE-40-4-75 ^(H-9551) as was the southern limit in good agreement with PE-80-2-75. ^(H-9551) Sounding agreements at the junctions were usually within one (1) foot. Junction was made with H-6330 (1938) during verification.

K. COMPARISON WITH PRIOR SURVEYS

A comparison with prior surveys H-6329, 1:40,000, H-6330, 1:40,000, and H-6331, 1:80,000 was made and the agreement was usually within three (3) feet except in the following exception:

<u>H-6329</u>	<u>H-9554</u>	<u>Latitude</u>	<u>Longitude</u>
95'	85'	40°59.2'N	71°48.3'W

There were two (2) pre-survey review items (PSR) encompassed within the limits of this survey. PSR #3 was a dangerous sunken wreck located at latitude 40°55.0'N, longitude 71°57.5'W. PSR #4 was a dangerous sunken wreck located at latitude 40°59.0'N, longitude 71°53.5'W. Fathograms of the lines in the areas adjacent to these locations were examined with no indication of these items found. See section Q for recommendation.

L. COMPARISON WITH CHART

This survey was compared with chart 13205, Block Island Sound and approaches, 20th Edition - 23 November 1974, and the agreement of the soundings was within one (1) foot.

M. ADEQUACY OF SURVEY

This survey is adequate to supersede prior surveys for charting purposes.

N. AIDS TO NAVIGATION

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

O. STATISTICS

Total number of positions	135 8 ⁷⁹
Total hydrography miles	943.4 n.mi.
Total crossline miles	105.6 n.mi.
Total square miles	233.5 sq.n.mi.
Bottom samples	0
TDC observations	0
Nansen casts	1
Leadline comparisons	0
Bottom samples by NOAA Ship KELEZ	21

P. MISCELLANEOUS

All times are in Greenwich Mean Time.

All plotting was done at a 1:40,000 scale.

Boatsheets and soundings were plotted and logged using a Hydroplot system in conjunction with a Complot Roll Plotter.

^{H-9554}
PE-40-5-75 was surveyed on Julian days 209-212, 217-218, 221, and 224.

All soundings were obtained using program RK 111, Range-Range Real Time Hydroplot (VER 8/7/74). The smooth plot was plotted using program RK 211, Range-Range Non-Real Time (VER 8/16/74). Velocity corrections were computed using program RK 530, layer corrections for velocity (VER 6/25/74). Tidal input was accomplished using program AM 500, Predicted Tide Generator (VER 11/10/72).

Q. RECOMMENDATIONS

It is recommended that this survey be considered adequate for charting purposes and that it supersede all prior surveys of this area. It is also recommended that pre-survey review items numbers 3 and 4, being those of dangerous sunken wrecks, remain on the chart even though verification of their existence and location could not be made.


R. REFERENCES TO REPORTS

None

Respectfully submitted,

Roger L. Parsons
ENS., NOAA

Approved:



Joseph W. Dropp
CDR., NOAA

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

- 1. Project No. OPR-517
- 2. Reg. No. H-9554
- 3. Field No. PE-40-5-75
- 4. Requested By R.G. Cram
- 5. Ship or Office Verification Branch
- 6. Date Required A.S.A.P.

7. Polyconic Modified Transverse Mercator

8. Central Meridian of Projection 71 ° 58 ' 00 "

9. Survey Scale: 1: 40,000

10. Size of Sheet (check one):

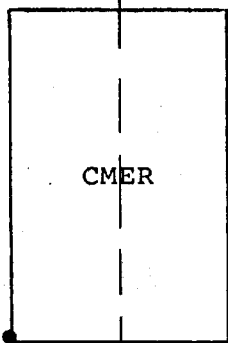
36 x 54 36 x 60 Other Specify _____

11. Sheet Orientation (check one):

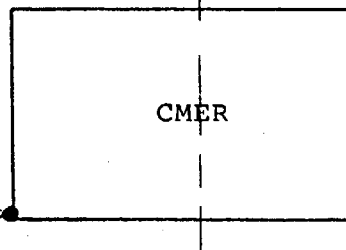
NYX = 1

NYX = \emptyset

N



N



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

Latitude 40 ° 45 ' 30 "

Longitude 72 ° 15 ' 50 "

13. G.P.'s of triangulation and/or signals attached

14. Material Desired: Tracing Paper Mylar

Smooth Sheet Other Specify _____

15. Remarks: _____

1. Project # OPR-517 2. Reg. # H-9554 3. Field # 40-5-75
 4. Type of Control RAYDIST - RANGE/RANGE (Hi-Fix, Raydist, EPI, etc.)
 5. Frequency 3292.40 kHz (for conversion of electronic lanes to meters)
 6. Mode of Operation (check one):

Range-Range

Range-Visual

Range One (R₁)
 Station I.D. POMQ
 Range Two (R₂)
 Station I.D. TAUK

Lat.	<u>40</u> °	<u>50</u> '	<u>55.904</u> "
Long.	<u>72</u> °	<u>30</u> '	<u>12.962</u> "
Lat.	<u>41</u> °	<u>04</u> '	<u>13.251</u> "
Long.	<u>71</u> °	<u>51</u> '	<u>29.524</u> "

Hyperbolic (3-station)

Hyper-Visual

Slave One
 Station I.D. _____
 Master
 Station I.D. _____
 Slave Two
 Station I.D. _____

Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"
Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"
Lat.	_____°	_____'	_____"
Long.	_____°	_____'	_____"

7. Location of Survey:

Range-Range

Imagine an observer is standing at R₁ Station and looking directly at R₂ (check one):

Survey area is to observer's Right A=0

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

Vessel EDP #	From		To		Position Numbers (inclusive)	
	Time	Day	Time	Day		
<u>2830</u>	<u>021104</u>	<u>209</u>	<u>003454</u>	<u>225</u>	<u>001</u>	to <u>1368</u>
_____	_____	_____	_____	_____	_____	to _____
_____	_____	_____	_____	_____	_____	to _____

9. Remarks:

4/2/76

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): Sandy Hook, N.J.

Period: July 28 - August 12, 1975

HYDROGRAPHIC SHEET: H-9554

OPR: 517

Locality: New York Bight

Plane of reference (mean ~~LOW~~ low water): 2.26 ft.

Height of Mean High Water above Plane of Reference:
2.8 ft.

Remarks: Recommended zoning:

	<u>Time corrections</u>		<u>Range ratio</u>
	<u>HW</u>	<u>LW</u>	
(1) North of 41° 00'	-20 min.	-40 min.	x0.56
ZONE I 1(2) South of 41° 00' East of 72° 00'	-35 min.	-55 min.	x0.61
ZONE II 2(1) South of 41° 00' West of 72° 00'	-45 min.	-70 min.	x0.65

WN

For James R. Hubbard
Chief, Tides Branch

VELOCITY TAPE PRINTOUT
PE-40-5-75
H-9554

000163 0 0000 0001 000 283000 040575
000252 0 0002
000317 0 0004
000375 0 0006
000423 0 0008
000481 0 0010
000514 0 0012
000552 0 0014
000633 0 0016
000848 0 0018
000980 0 0020
001109 0 0022
001230 0 0024
001352 0 0026
001479 0 0028
001602 0 0030
001725 0 0032
001849 0 0034
001970 0 0036
999999 0 0038

TC/TI TAPE PRINTOUT

021104 0 1005 0001 209 283000 001975
160529 0 1007
162800 0 1005
164520 0 1007
165915 0 1005
172925 0 1007
203153 0 1005
000001 0 1005 0001 210 283000 001975
000001 0 1005 0001 211 283000 001975
002741 0 1006 0001 212 283000 001975
235301 0 1001 0001 217 283000 001975
000001 0 1001 0001 218 283000 001975
032604 0 1002 0001 221 283000 001975
114500 0 1004 0001 224 283000 001975

CAM3-12
2-22-74

OPR 517

TRA. CORRECTION ABSTRACT

VESSEL 2830

SHEET PE-10-5-75

REGISTRY NO. H- 9554

Vol.	Jul. Day	GMT From	Time To	Velocity Table ft/ fms	Draft	Instru- ment Error Corr.	Initial Corr.	S&S Corr. ft/ fms	TRA Corr. ft/ fms	Remarks
	209	021104	160150		9.72			.8	-0.5	+11.0 ft.
		160529	161709		9.72			.55	-0.7	maintained in
		162800	163610		9.72			.8	-0.5	Hydroplot
		164520	165340		9.72			.55	-0.7	Controller
		165915	170315		9.72			.8	-0.5	
		172925	181040		9.72			.55	-0.7	
		203153	210000		9.72			.8	-0.5	
	210	000001	210000		9.69			.8	-0.5	
	211	000001	223235		9.67			.8	-0.5	
	212	002741	113000		9.64			.8	-0.6	
	217	235301	240000		10.11			.8	-0.1	
	218	000001	224201		10.07			.8	-0.1	
	221	032604	053043		9.95			.8	-0.2	
	224	114500	210000		9.82			.8	-0.4	(VKS)

ELECTRONIC CORRECTOR ABSTRACT

VESSEL : 2830

SHEET : PE-40-5-75

TIME	DAY	PATTERN 1	PATTERN 2
021104	209	+00006 ✓	+00041
064933		+00006	+00041
111712		+00006	+00041
122613	209	+00006	+00041
203153	209	+00007 ✓	+00041 ✓
000019	210	+00007 ✓	+00041
040000		+00010 ✓	+00032 ✓
085103	210	+00010	+00032
163120	210	+00010	+00032
205818	210	+00009 ✓	+00026 ✓
000000	211	+00009	+00026
000110	211	+00009	+00026
075720		+00009	+00026
093439	211	+00009 ✓	+00026 ✓
100000		+00005 ✓	+00023 ✓
122940		+00005	+00023
212115	211	+00005	+00023
002741	212	+00003 ✓	+00022 ✓
035301	217	-00036	+00023 ✓
000000	218	-00036	+00023
055940	218	-00036	+00023
084021	218	-00043 ✓	+00028 ✓
182324	218	-00043	+00028
032604	221	-00005 ✓	-00001 ✓
163851	224	-00029 ✓	+00018 ✓
232256	224	-00029	+00018
000037	225	-00029	+00018

SIGNAL LIST

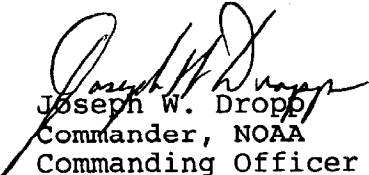
098	7	40	50	55904	072	30	12962	250	0000	329240
099	7	41	04	13251	071	51	29524	250	0000	329240
058	7	40	59	37511	072	10	18256	139	0000	000000
059	7	40	57	26511	072	11	30101	0039	0000	000000
060	7	40	57	36591	072	11	18857	139	0000	000000
061	7	40	58	14201	072	10	08376	139	0000	000000
062	7	40	58	44378	072	08	24199	139	0000	000000
063	7	40	59	28426	072	05	40155	139	0000	000000
064	7	40	59	53936	072	03	08199	139	0000	000000
065	7	40	59	50229	072	03	20416	139	0000	000000
068	7	40	57	40825	072	14	58142	139	0000	000000
069	7	41	04	15113	071	51	27291	139	0000	000000

098 POND
 099 TALK
 058 EAST HAMPTON BNPCO CABLE CO. MAST
 059 EAST HAMPTON VILLAGE FLAGSTAFF
 060 EAST HAMPTON CHURCH SPIRE
 061 EAST HAMPTON LARGE WATER TANK
 062 AMAGANSETT WATER TANK
 063 AMAGANSETT ELECTRIC LIGHT PLANT CHIMNEY
 064 NAPEAGUE RADIO STATION WSL EAST MAST
 065 NAPEAGUE RADIO STATION WSL WEST MAST
 068 AIRPORT BEACON EAST HAMPTON AIRPORT
 069 MONTAUK PT LIGHT

SIGNALS 098, 099, 058 THRU 066, 068 AND 069 ARE ALL LOCATED IN SUFFOLK COUNTY, NEW YORK.

Approval Sheet

Field work on PE-40-5-75, H-9554 was done under my immediate daily supervision. The Boat Sheet and all records have been reviewed and are approved by me.


Joseph W. Dropp
Commander, NOAA
Commanding Officer
NOAA Ship PEIRCE (CSS-28)

POSITION DATA SHEET

LAUNCH **PERICE (2839)**

SHEET **M "PE40-5-75"**

REGISTRY NO. H-9534

Sl.	Jul. Day	First Pos. No.	Time (GMT)	Last Pos. No.	Time (GMT)	Development Positions	Detached Positions	Rejected Positions	Duplicate Positions	Omitted Positions	Bole Samps
1	209	001	021104	77	072453			001 ⁺ 003 ⁺ 007 ⁺ 008 ⁺ 103 ⁺ 105 ⁺ 157, 158			
1	209	78	073121	136 ⁺ 13	114729						
1	209	136 ⁺ 14	114809	167	142146						
1	209	168	160220	192	181046						
1	209	193	203153	241	234139						
1	209	241 ⁺ 1	234139	301	033433						
1	210	301 ⁺ 1	033523	359 ⁺ 14	73002						
1	210	359 ⁺ 1	73042	420 ⁺ 2	114323						
1	210	420 ⁺ 3	114403	476	154512						
1	210	477	154931	518	185830						
1	210	519	205825	560	233936						
1	211	560 ⁺ 1	234016	621	033854						
1	211	621 ⁺ 1	033954	675	072531			681 ⁺ 682 ⁺ 5			
1	211	676	073201	737 ⁺ 5	114401						
1	211	738	114441	797.5	154135						
1	211	798	154215	850	195447						
1	211	851	190803	887	223237						

POSITION DATA SHEET

LAUNCH PERICE (2830)

SHEET "A" PE-40-5-75

REGISTRY NO. H- 9354

Col.	Jul. Day	First Pos. No.	Time (GMT)	Last Pos. No.	Time (GMT)	Development Positions	Detached Positions	Rejected Positions	Duplicate Positions	Omitted Positions	Bottom Sample
1	212	936	032657	979	063115	—	—	588, 889	—	—	—
1	217	980	235301	1038	034135	—	—	—	—	—	—
1	218	1039	034701	1098	024426	—	—	—	—	—	—
1	218	1098	074506	1154	113830	—	—	—	—	—	—
1	218	1155	113910	1207	153536	—	—	—	—	—	—
1	218	1207	153614	1366	194124	—	—	—	—	—	—
1	219	1267	194747	1309	224201	—	—	—	—	—	—
1	221	1316	032604	1317	035204	—	—	—	—	—	—
1	221	1318	035719	1342	053043	—	—	—	—	—	—
1	224	1343	17033	1353	174056	1343-1348	—	—	—	—	—
1	224	1354	232256	1368	003454	1354-1368	—	—	—	—	—

OCEANOGRAPHIC LOG SHEET - M
BOTTOM SEDIMENT DATA

U.S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

VESSEL		PROJ. NO.		YEAR		H-9554		CHECKED BY		DATE CHECKED	
GEORGE B. KELEZ		OPR-517		1975/6							
SERIAL NO.	DATE	SAMPLE POSITION		DEPTH (Feet)	WEIGHT OF SAMPLER	AP- PROX. FINE TRAM- TION	LENGTH OF CORE	COLOR OF SEDIMENT	FIELD DESCRIPTION	REMARKS (Unusual conditions, corals, seaweeds, dentures, cutters, etc.; type of bottom relief, etc.)	OBS. INIT.
		LATITUDE	LONGITUDE								
Pos 1370 KE 086	151	40 53.7	72 05.4	100.0	210#	8 in.		light brown	Fine sand with gravel		
Pos 1371 KE 087	151	40 55.7	72 05.4	79.0	210#	8 in.		light brown	Very fine sand		
Pos 1372 KE 089	151	40 52.7	71 51.6	127.2	210#	8 in.		light brown	Fine sand with gravel		
Pos 1373 KE 090	151	40 55.0	71 53.2	110.0	210#	8 in.		light brown	Coarse sand with gravel		
Pos 1374 KE 091	151	40 56.8	71 54.9	97.0	210#	8 in.		light brown	Coarse sand with gravel		
Pos 1375 KE 092	151	40 59.2	71 55.7	65.0	210#	8 in.		light brown	Fine sand		
Pos 1376 KE 383	057	40 51.9	72 10.7	113.0	80#	2 in.		brown	Fine sand with shell fragments and sand dollars		
Pos 1377 KE 384	057	40 49.5	72 10.7	124.0	80#	2 in.		brown	Fine sand with shell fragments and mud		
Pos 1378 KE 405	075	40 48.9	72 07.8	131.0	80#	3 in.		brown	Fine sand with shell fragments		
Pos 1379 KE 406	075	40 52.3	72 07.1	116.0	80#	3 in.		brown	Fine sand with shell fragments		
Pos 1380 KE 407	075	40 54.4	72 07.5	91.0	80#	3 in.		brown	Very fine sand		
Pos 1381 KE 408	075	40 51.8	72 04.0	123.0	80#	3 in.		brown	Medium-coarse sand with shell fragments		
Pos 1382 KE 409	075	40 49.5	72 04.3	129.0	80#	3 in.		brown	Medium-coarse sand with shell fragments		
Pos 1383 KE 413	076	40 52.0	72 02.0	124.0	80#	4 in.		brown	Medium sand with shell fragments		
Pos 1384 KE 414	076	40 54.0	72 01.0	92.0	80#	4 in.		brown	Fine sand with sand dollars		
Pos 1385 KE 415	076	40 55.4	71 57.0	88.0	80#	5 in.		brown	Fine sand with sand dollars		
Pos 1386 KE 416	076	40 54.0	71 57.5	108.0	80#	4 in.		brown	Fine sand with sand dollars		

Use more than one line per sample if necessary.

GEOGRAPHIC NAMES

H-9554

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	GRAND McNALLY ATLAS	U.S. LIGHT LIST				
BLOCK CHANNEL												1
MONTAUK SHOAL												2
												3
												4
												5
												6
												7
												8
												9
												10
												11
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												22
												23
												24
												25

Approved
 Char. E. Harrington
 STAFF GEOGRAPHER-C51x2
 8 Nov. 1976

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H-9554

- 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: July 9, 1976

Signed: William J. James

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: 14 July 1976

Signed: C. M. Hathorn

Title: Chief, Processing Division

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9554

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET & 2-Overlays		1	BOAT SHEETS		1	
DESCRIPTIVE REPORT		1	OVERLAYS		6 2	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
Accompanying ENVELOPES	2		2			
CAHIERS	1		1 2 Support Data			
VOLUMES	1					
BOXES			1			

T-SHEET PRINTS (List)

SPECIAL REPORTS (List)

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				1379
POSITIONS CHECKED		138		
POSITIONS REVISED		5		
DEPTH SOUNDINGS REVISED		100		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		0		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		0		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		0		
JUNCTIONS		8		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		17		
SPECIAL ADJUSTMENTS		0		
ALL OTHER WORK		80		
TOTALS		105	37	
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
J. Griffin, Harry R. Smith	02-17-75		05-20-76	
VERIFICATION BY	BEGINNING DATE		ENDING DATE	
L.G. Cram	06-09-76		06-15-76	
REVIEW BY	BEGINNING DATE		ENDING DATE	
Hydrographic Inspection Team (AMC)	07-09-76		07-27-76	

Ch. Insp. D.J. Romasburg 9-23-76 27 hrs. Passed by Mejus 5 hr. 11-05-76
Baumgardner 11-24-76 8 hrs * U.S. G.P.O. 1972-769-562/439 REG.#8

Reg. No. H-2554

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-9554

Information for Future Presurvey Reviews

No substantial changes are expected in the survey area.

Any future survey operations in this area should include the verification of the 28-foot sounding and its position in latitude 41°01.82', longitude 71°50.19'.

<u>Position</u>	<u>Index</u>	<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle</u>
404	0722	2	1	50 years
404	0721	0	1	50 years
404	0720	0	1	50 years
404	0715	0	1	50 years
405	0722	3	1	50 years
405	0721	3	1	50 years
405	0720	2	1	50 years
405	0715	1	1	50 years
410	0720	3	5	25 years
410	0715	3	5	25 years

HYDROGRAPHIC INSPECTION TEAM
ATLANTIC MARINE CENTER
HYDROGRAPHIC SURVEY REVIEW

DATE: July 9, 1976

REGISTRY NO.: H-9554

FIELD NO.: PE-40-5-75

GENERAL LOCALITY and SPECIFIC LOCATION:

New York Bight, Sandy Hook, New Jersey

SURVEYED: July 28, 1975 through August 12, 1975

PROJECT NO.: OPR-517

SCALE: 1:40,000

SOUNDINGS BY: Ross Model 5,000

CONTROL: Raydist
(Range-Range)

Chief of Party	CDR J.W. Dropp
Surveyed by	J.W. Dropp
.....	D. Suloff
.....	K. Schnebele
.....	B. Johnson
.....	D. Dreves
.....	K Santarelli
.....	T. Lillestolen
Automated Plot by	Calcomp Plotter #618 (AMC)
Verified and Inked by	L.G. Cram

1. Description of the Area

This survey lies approximately one mile offshore; from Bridghampton to Montauk Point Long Island, New York. The area extends seaward for approximately ten miles on the northern edge to seven miles on the southern edge. The bottom is predominantly sand with shells.

2. Control and Shoreline

The control is adequately described in the Descriptive Report.

This is an offshore survey and no shoreline is shown.

3. Hydrography

A. Crossings: Crosslines are in good agreement.

B. Depth Curves: The usual depth curves were adequately delineated. The 90 and 150 foot depth curves were added in brown to more adequately delineate the bottom configuration. *Other brown supplemental curves added to emphasize important features.*

C. Low-water Line: There was no low-water line on this survey.

D. Developments: Developments of bottom configuration and least depths appear to be adequate, with the exception of the 33 foot sounding at latitude $41^{\circ} 01.8'N$, longitude $71^{\circ} 49.5'W$. *see Quality Control Report*

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

4. Condition of the Survey

The sounding records, automated plotting and the Descriptive Report are adequate and conform to the requirements of the Provisional Hydrographic Manual, supplemented by the Atlantic Marine Center Manual with the following exceptions:

There was no mention of the dash-circled Pre-survey Review Items (60 and 63 feet) in the Descriptive Report; however, depths recorded during the regular sounding lines confirm the existence of the charted depths.

5. Junctions

Junctions were made with ^{two} ~~three~~ surveys; H-9551 (1975) to the west, H-9555 (1975) to the south, and ~~H-6330 (1938) to the east~~. ~~All three~~ ^Jjunctions were in excellent agreement.

6. Comparisons

A. Prior Surveys: Comparison was made with H-6330 (1938) ~~and H-6328 (1938), 1:40,000~~; agreement was good within two or three feet. Comparison was made with H-6331 (1938), 1:80,000 and is in good agreement with the current survey. Comparison was made with H-6329 (1938), 1:40,000; the soundings are in fair agreement. The 95 foot sounding from H-6329 at latitude $40^{\circ} 59.2'$, longitude $71^{\circ} 48.3'$ is in good agreement with the present survey. The soundings from the present survey are 91, 95, 96, and 84 feet in this area.

Recommend using the present survey for revisions to future charts of this area.

B. Wire Drag: There is no wire drag in the hydro area.
see Quality Control Report

(a) Hydrography

Most of the charted hydrography originates with the previously discussed prior surveys; H-6328, H-6330, H-6331, and H-6329.

Specific attention is directed to the following: Except for items noted below and in the Descriptive Report, the present survey supersedes the ~~charted information~~ in the common area.
charted hydrography

(b) Pre-survey Review Items

(1) The circled 60 foot sounding at latitude $41^{\circ} 01.8'$, longitude $71^{\circ} 52.3'$ was found to have a 57 foot depth on the present survey. Recommend charting the 57 foot depth.

(2) The circled 63 foot sounding at latitude $40^{\circ} 59.7'$, longitude $71^{\circ} 50.7'$ was found to have a ~~64~~ foot sounding on the present survey. Recommend ~~retaining~~ the ~~63~~ foot sounding.
as charted/ *charting*

PSR 4 (3) The charted sunken wreck charted "PA." at latitude $40^{\circ} 59.0'$, longitude $71^{\circ} 53.5'$ was not developed. The fathograms were examined in this area and no indication of the wreck was found. (Day 217 and 218, position 846-855 and position 1066-1076.) Recommend retaining wreck as charted.

PSR 3 (4) The charted sunken wreck, charted "PA." at latitude $40^{\circ} 55.0'$, longitude $71^{\circ} 57.5'$ was not developed. The fathograms were examined in this area and no indication of the wreck was found. (Day 210 and 211, position 610-618, Day 212 position 954-969.) Recommend retaining wreck as charted.

(c) Aids to Navigation

No aids to navigation lie in this area.

7. Compliance With Instructions

This survey does comply with the Project Instructions.

8. Additional Field Work

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

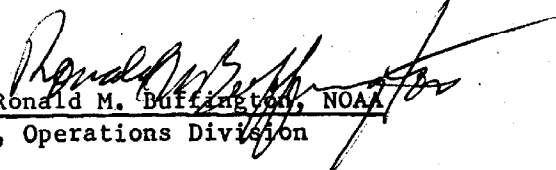
9. Hydrographic Inspection Team Comments


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

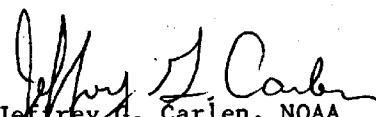
Approval Sheet for Survey H-9554

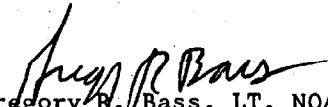
Examined and Approved:
Hydrographic Inspection Team

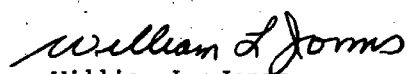
Date: July 9, 1976


CAPT Ronald M. Buffington, NOAA
Chief, Operations Division

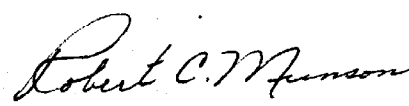

C. Dale North, Jr., LCDR, NOAA
Chief, Processing Division


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


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


William L. Jonns
Chief, Verification Branch

Approved/Forwarded


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 23, 1976

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

THRU: Chief, Quality Control Branch

FROM: D. J. Romesburg *D. J. Romesburg*
Quality Evaluator

SUBJECT: Quality Control Report for H-9554 (1975), South of Montauk Point, Long Island, New York

A quality control inspection for H-9554 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 were noted:

1. Junctional surveys H-9555 (1975) on the south and H-9551 (1975) on the west have not been received from the field. The junctions between these surveys and the present survey will be discussed during their quality control inspection. No contemporary surveys join the present survey on the north and east. However, present survey depths are in harmony with charted depths in these areas.
2. The name of the triangulation station used as the reference station on the present survey was misspelled. The correct spelling of the station name was entered on the smooth sheet and Hydrographic Survey Stamp No. 42 during quality control inspection. This station is a charted landmark and was described on the smooth sheet by the evaluator.
3. The only statements made under Section 6A, "Comparison with Prior Surveys," in the verifier's report were those which indicated the magnitude of the depth differences between the prior and present surveys and whether agreement was judged fair or good. What changes had occurred and whether the changes could be attributed to natural or artificial causes were not discussed. No mention was made as to the adequacy of



the present survey to supersede the prior surveys within the common area, thereby requiring an additional comparison be made during quality control inspection.

Only minor differences were noted in the comparison between the prior and present surveys. These minor changes can be attributed to shifting bottom material over the time span between surveys and to the more accurate control and modern fathometers utilized on the present survey versus the less accurate control methods and rudimentary flashing light type fathometers employed on the prior surveys.

Prior survey H-6328 (1938) was described in the verifier's report as being in good agreement, within 2-3 feet, with the present survey when in fact this survey falls outside the present survey area.

The verifier's report also contained the statement that no wire-drag surveys exist within the present survey area. H-3907 WD (1916), scale 1:40,000, covers the extreme northeast corner of the present survey. No conflicts were found between effective wire-drag clearances on the prior survey and present survey depths.

Although Montauk Shoal falls just outside the project limits on the northeast, a 28-foot sounding was found on the present survey in latitude $41^{\circ}01.82'$, longitude $71^{\circ}50.19'$. In addition, several soundings and bottom characteristics were carried forward from H-5534 (1933-34) in this area to supplement the present survey.

With the addition of the soundings and bottom characteristics noted above, the present survey is adequate to supersede the prior surveys within the common area.

4. The following findings were noted during quality control inspection and do not adversely affect the quality of the survey but should be brought to the attention of the hydrographer.

a. Initial errors appear excessive. The leading edge of the outgoing pulse did not coincide with the zero line on the chart paper. Operator adjustments can generally eliminate this error. The Descriptive Report indicated that this error was compensated for in the TRA correctors. This statement could not be verified by the field records.

b. The stylus belt length appeared to be in error on several days. Frequent checks should be made during the course of survey operations and adjustments made as soon as possible when errors are detected.

Except as noted above, the field surveying, smooth plotting, processing, and cartographic presentation of survey data are adequate and conform to the standards of the National Ocean Survey.

cc:
C351

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. HL-9554

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
362	12-30-76	H. Kadden	Full Part Before After Verification Review Inspection Signed Via Drawing No. 20 part applied at proof stage revised 30, 60 & 90 curves and a few soundings Full Part Before After Verification Review Inspection Signed Via
271	1-10-77	R. J. Winkfield	QC Drawing No. 8 Revised 60' & 90' curves & Added Soundings
1211	2-07-77	G. H. Healey	Full Part Before After Verification Review Inspection Signed Via Drawing No. 45 PROOF. APPLIED CRITICAL CORRS ONLY. QUALITY CONTROL
271	1-10-77	R. J. WINKFIELD	Full After Verification Review Inspection Signed Via Drawing No. 8 REVISED 60' & 90' CURVES AND ADDED SOUNDINGS.
362	10-17-77	David C. Ames	Full After Verification Review Inspection Signed Via Drawing No. 21 Revised sndgs & curves in part thru DWG 271 DWG # 8
1108	3/16/78	Dick Kille	Full Part Before After Verification Review Inspection Signed Via Drawing No. 47 EXAM FOR CRIT CORR NO CORR THRU CHT 1211
1211	8/14/78	R. J. Winkfield	Full Part Before After Verification Review Inspection Signed Via Drawing No. 47 Revised soundings & curves Quality Control
1108	12/13/78	B. W. Wambell	Full Part Before After Verification Review Inspection Signed Via Drawing No. 48
70 (1306)	5/7/79	R. J. Winkfield	Full Part Before After Verification Review Inspection Signed Via Drawing No. 43
1000 13003	5/20/79	R. J. Winkfield	Full Part Before After Verification Review Inspection Signed Via Drawing No. 56