

# 9551

Diag.Cht.No. 1214-2

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. .... PE-40-4-75  
Office No..... H-9551

### LOCALITY

State ..... NEW YORK  
General Locality ..... SOUTH OF LONG ISLAND  
Locality ..... OFF SHINNECOCK INLET

19 75

CHIEF OF PARTY  
J. W. DROPP

### LIBRARY & ARCHIVES

DATE ..... 10-14-76

# 9551

Area 2

Chart:

- 1108.
- 1000
- 120 SC/A.
- 1214.
- 1211
- 1212 ? N.C. (area cleared)
- 363 }
- 70

NOAA FORM 77-28 (11-72) <p style="text-align: center;">U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION</p> <p style="text-align: center;"><b>HYDROGRAPHIC TITLE SHEET</b></p>	REGISTER NO.  <p style="text-align: center;">H-9551</p>
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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.  <p style="text-align: center;">PE-40-4-75</p>
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State New York

General locality South of Long Island, south shore

Locality <sup>OFF</sup> Shinnecock Inlet to East Hampton

Scale 1:40,000 Date of survey 14 July - 31 Oct 75

Instructions dated 27 March 1975 Project No. OPR-517-MI, WH, PE-75

Vessel NOAA Ship PEIRCE (CSS-28) VESNO 2830

Chief of party Cdr. Joesph W. Dropp, NOAA

Surveyed by Cdr J.W. Dropp, Lcdr D. Suloff, Lt Schnebele, Ltjg Johnson, Ltjg Dreves, Ens Santarelli, Ens Lillestolen

Soundings taken by echo sounder, ~~hand lead, etc~~ Ross digital model 5000

Graphic record scaled by Digital soundings checked by survey department

Graphic record checked by Commissioned Officers and Survey personnel

Plotted by Hydroplot system Calcomp-618 (AMC) Automated plot by CalComp-618 (AMC) Hydroplot System

Verification by Robert R. Hill

Soundings in ~~Meters~~ feet at MLW ~~NEEW~~

REMARKS: All times are Greenwich Mean Time

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*Added to plot 12/10/76*  
*CRS*

*XWW 9/10/92*

PE-40-4-75

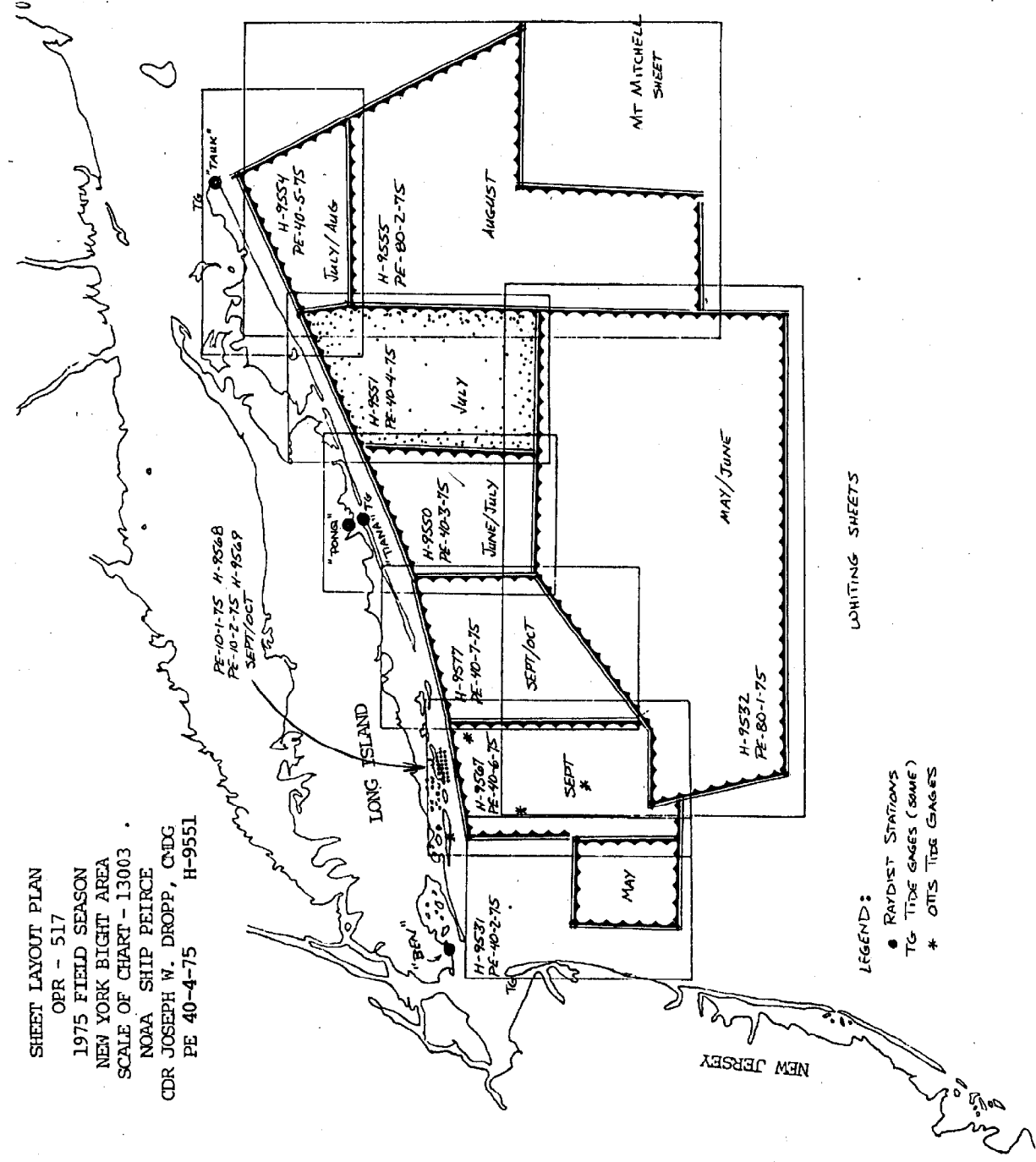
H-9551

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* Bottom Characteristics	
* <i>The following data is filed with the field records.</i>	

UC V

SHEET LAYOUT PLAN  
 OPR - 517  
 1975 FIELD SEASON  
 NEW YORK BIGHT AREA  
 SCALE OF CHART - 13003  
 NOAA SHIP PEIRCE  
 CDR JOSEPH W. DROPP, CMDG  
 PE 40-4-75 H-9551



LOTTING SHEETS

LEGEND:  
 ● RAYDIST STATIONS  
 TG TIDE GAUGES (SAME)  
 \* OTIS TIDE GAUGES

DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SURVEY H-9551

Field Number PE-40-4-75

A. PROJECT

This survey was one of several conducted in the New York Bight Phase of the Atlantic Seaboard Area Project, OPR-517-MI,WH,PE-75. The Project Instructions were dated March 27, 1975, and ammended by Change No. 1, dated April 14, 1975.

B. AREA SURVEYED

The area surveyed is figuratively shown on the preceeding index of sheets. It extends from the eleven fathom curve seaward along the southern shore of Long Island in the vicinity of Shinnecock Inlet and the town of East Hampton. The corners of the survey limits are given more precisely as:

40°53.3'N	72°13.4'W
40°46.2'N	72°34.7'W
40°25.3'N	72°34.7'W
40°25.3'N	72°13.4'W

Survey operations were conducted between July 14 and October 31, 1975; however, the majority of the work was accomplished during the period of 14-28 July.

C. SOUNDING VESSEL

All soundings were obtained by the NOAA Ship PEIRCE, EDP VESNO 2830.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

Two (2) Ross digital echo sounders were used. A Model 200A (modified to operate as a 5000) S/N C537-1039-5 was used 14-27 July 1975. During the period July 27 to October 31, 1975, a Model 5000 S/N 1078 was used for those days spent on this survey. No unusual problems were observed which would affect the accuracy of the soundings obtained.

Sound velocity corrections were determined from Nansen Cast data. A station was occupied on July 24 at 40°42.8'N, 72°14.3'W from which temperature and salinity data were taken. Layer corrections were calculated in the usual manner using program RK530 (6/25/74). The results were plotted and a velocity table scaled from the graph at 0.2 foot intervals. There is one table for this survey and a copy is listed following this text.

The Ross units are maintained at zero initial by their built-in calibration circuitry and no other instrument errors were observed.

Several leadlines were taken as a check on the corrections determined by the Nansen Cast data. No corrections were calculated from direct comparison data. The leadlines at depths of approximately 50, 60 and 70 feet agree to within one (1) foot of the corrected echo sounding depth. At about eighty (80) feet the differences approach two (2) feet with some scatter. Considering the inaccuracies of the leadline technique in deep open water, it was felt that these differences were within a reasonable margin of error and the results of the Nansen Cast accepted. Subsequent check showed the leadlines to be in poor condition, contributing to the decision to accept the calculated corrections.

Settlement and squat corrections and draft corrections are applied on the TC/TI tape. The draft was measured at the beginning and end of each trip and the difference linearly apportioned for each day of the trip. The draft was measured by subtracting the taped rail-to-water distance from the previously determined rail to transducer distance. S&S correctors were measured for the PEIRCE off Point Comfort, Virginia in April 1974. The appropriate correction was applied for the different speeds used during survey operations. An estimated correction of 11.0 feet was applied to the field sheets, hence, the TC/TI tape shows the difference between the actual TRA correction and 11.0 feet.

#### E. HYDROGRAPHIC SHEETS

Field sheets were prepared using the on-board HYDROLOT system and programs listed in Section R.

The field records will be sent to the Atlantic Marine Center for verification and smooth plotting.

#### F. CONTROL STATIONS

Two (2) Raydist chains operating in the Range/Range mode were used during this survey. The western half of the field sheet was controlled by stations "BEN" and "TIANA" -- the eastern half by "PONQ" and "TAUK." All stations except "PONQ" were located by Operations Division of AMC. "PONQ" was cut-in by T-2 observations to known objects by ship's personnel. Copies of all the abstracts and computations are available at Operations Division for verification. Geodetic positions and frequencies used are shown on the attached Electronic Control Parameter Sheet. The North American Datum of 1927 was used to establish the stations.

#### G. HYDROGRAPHIC POSITION CONTROL

Hydrography was controlled by Raydist operating in the Range/Range mode. Lane counts were acquired via the real-time hydroplot program. As noted above, there were two (2) raydist chains used. The

BEN/TIANA chain controlled positions 0001 thru 1002 and positions 2117 thru 2142. The PONQ/TAUK chain controlled positions 1003 thru 2116.

For both chains the Raydist was calibrated and partial lane correctors determined by three-point sextant fixes with check angles on known shore objects using program RK 561 (5/21/75), H/R Geodetic calibration. A list of signals and an abstract of partial lane correctors used are appended.

When shoreside calibration was impractical the Raydist whole lane count was checked and/or reset at a taut-moored "calibration" buoy. Two (2) such buoys were utilized during this survey and are referred to as buoys #3 and #4 in the field records. Note that the partial lane correctors were determined only by shoreside sextant fixes, never bypasses on the buoy. Results of the calibrations and buoy observations are included with field records.

On July 25-26, it was difficult to maintain Raydist lane count while operating with the PONQ/TAUK chain. All questionable hydrography was rejected and rerun later. This problem probably resulted from a combination of poor atmospheric conditions and the use of a "high-speed" Raydist Navigator. The Navigator used with this chain was designed to operate on a high-speed platform and hence had lower inertia built into the tracking mechanism. It was found that the rolling of the ship and swaying of the antenna caused the Raydist to fluctuate substantially. If this combined with a moment of poor atmospherics, then the Raydist would tumble freely and the lane count was lost.

#### H. SHORELINE

No shoreline was included within survey limits.

#### I. CROSSLINES

Crosslines accounted for 15% of hydrography. The agreement at crossings was good -- usually within one (1) foot. All crosslines were run near times of MLW to assist in identifying tidal correction problems.

#### J. JUNCTIONS

This survey adjoins contemporary surveys by the same ship on its eastern, western and southern sides: H-9554, H-9555; H-9550<sup>(1975)</sup> and H-9532 respectively (see index of sheets). The agreement at all these junctions is good.

The survey area is rounded to the north by prior surveys H-6328 and 6329; 1:40,000; 1938. In the region of overlap these surveys show excellent agreement with differences rarely exceeding one (1) foot on smooth bottom.

K. COMPARISON WITH PRIOR SURVEYS

The field sheet was compared with surveys:

H-6328; 1:40,000, 1938  
 H-6329; 1:40,000, 1938  
 H-6331; 1:80,000, 1938

With few exceptions the soundings agreed to within three (3) feet. The prior surveys described quite accurately the general shape of the bottom. This survey adds detail but does not radically change the information on the bathymetry of the area. Three (3) significant discrepancies were observed and are discussed under Section "L" below.

L. COMPARISON WITH THE CHART

The field sheet was compared with chart 12353, 11th Edition, 24 August 74, 1:80,000 scale. As with the prior survey the soundings agreed very well with the following exceptions:

<u>Latitude</u>	<u>Longitude</u>	<u>Chart Sndg.</u> (feet)	<u>Smooth Field Sheet</u> (feet)
40°40.8'N	72°24.8'W	134	124 ✓
40°36.3'N	72°33.3'W	146	1387 ✓
40°34.7'N	72°33.2'W	136	1232 ✓

It is recommended that the charted soundings be changed to show these shallower depths.

There were no <sup>numbered</sup> pre-survey review items on this sheet.

M. ADEQUACY OF SURVEY

This survey is adequate to supersede prior surveys for charting purposes. Bottom samples were not taken by the field party as per project instructions. See Review para. 3E.

N. AIDS TO NAVIGATION

One floating aid was located on this sheet. A lighted whistle buoy designated "NA" which marks the traffic separation zone was located at 40°26.4'N, 72°20.0'W (D.P. #1997) which is approximately 0.3 nautical miles south of its charted position. Because this buoy only serves to separate ship traffic and does not mark a channel or obstruction, the discrepancy is not significant to the mariner.



O. STATISTICS

Electronic Hydro . . . . .	1315.6 NM
Crosslines . . . . .	196.1 NM
Developments . . . . .	25.0 NM
To/From . . . . .	307.8 NM
Miscellaneous . . . . .	197.6 NM
Square Nautical Miles . . .	408 square NM
Nansen Casts . . . . .	1
Bottom Samples . . . . .	50

P. MISCELLANEOUS

None of the developments are to be smooth plotted. The developments were run to locate possible obstructions seen of the graphic records (see sounding volume). None of the several "strays" seen could be duplicated when the ship returned to that position. Divers were sent to investigate one and could not find anything.

Positions 2117 thru 2142 run on 31 October filled in two (2) holidays found during processing. Because of the delay in returning to run these holidays, the adjacent lines were also run though not plotted. If in smooth plotting, these positions do not match well with the surrounding depths, then it may be possible to adjust the soundings based on the overlap with the earlier lines. Note that the field sheet shows good agreement at these positions.

Q. RECOMMENDATIONS

It is recommended that this survey <sup>S</sup>supercede prior surveys for charting purposes. Also note recommendation for changes to charted soundings under Section "L".

R. AUTOMATED DATA PROCESSING

The following programs were used in collecting and processing the data for this survey:

RK 111	Range-Range Real Time Hydroplot	8/7/74
RK 201	Grid, Signal, Lattice Plot	4/18/75
RK 211	Range-Range None-real-time Plot	8/16/74
RK 300	Utility Computations	5/22/75
PM 360	Electronic Corrector Abstract	3/21/74
AM 500	Predicted Tide Generator	11/10/72
RK 530	Layer Corrections for Velocity	6/25/74
RK 561	H/R Geodetic Calibration	2/19/75
AM 602	Elinore Line Editor	5/21/75

S. REFERENCE TO REPORTS

None, all information is included in this report or accompanying field records. ✓

Respectfully submitted for approval,



Kurt J. Schnebele  
LT., NOAA

Approved:



Joseph W. Dropp  
CDR., NOAA  
Commanding Officer  
NOAA Ship PEIRCE

VELOCITY TAPE PRINTOUT  
PE-40-4-75  
H-9551

*old testing method  
used with new program -  
error not significant  
disregard*

000025 0 0000 0001 000 283000 040475  
000084 0 0002  
000150 0 0004  
000233 0 0006  
000314 0 0008  
000400 0 0010  
000485 0 0012  
000570 0 0014  
000660 0 0016  
000850 0 0018  
000974 0 0020  
001035 0 0022  
001102 0 0024  
001317 0 0026  
001480 0 0028  
001643 0 0030  
001840 0 0032  
001970 0 0034  
002138 0 0036  
002300 0 0038  
999999 0 0040

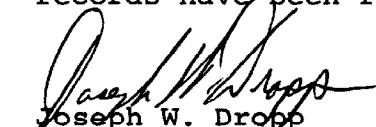
SIGNALS USED PE-40-4-75 H-9551

002-----BEN (ELECTRONIC)  
 003-----TIANA (ELECTRONIC)  
 098-----PONQ (ELECTRONIC)  
 099-----TAUK (ELECTRONIC)  
 028-----LONG BEACH JCP & L CO. CONCRETE STACK  
 030-----MOMOUTH BEACH COAST GUARD RADIO TOWER  
 031-----SANDY HOOK LIGHT  
 033-----WEST TWIN TOWERS  
 035-----FIRE ISLAND LIGHT HOUSE  
 038-----NAVISINK LIGHT SOUTH  
 055-----OCEAN BEACH WATER TANK  
 056-----SEAVIEW WATER TANK  
 057-----POINT OF WOODS TANK  
 060-----EAST HAMPTON CHURCH SPIRE  
 061-----EAST HAMPTON LARGE WATER TANK  
 062-----AMAGANASETT WATER TANK  
 063-----AMAGANASETT ELECTRIC LIGHT PLANT CHIMNEY  
 064-----NAPEAGUE RADIO STATION WSL EAST MAST  
 065-----NAPEAGUE RADIO STATION WSL WEST MAST  
 e

002	7	40	34	58430	073	52	45107	250	0000	329649
003	7	40	50	13969	072	29	40176	250	0000	329649
098	7	40	50	55904	072	30	12962	250	0000	329240
099	7	41	04	13251	071	51	29524	250	0000	329240
028	7	40	18	29025	073	59	04371	139	0000	000000
030	7	40	20	32350	073	58	29956	139	0000	000000
031	7	40	27	41799	074	00	08813	139	0000	000000
033	7	40	35	04896	073	38	14084	139	0000	000000
035	7	40	37	56442	073	13	08442	139	0000	000000
038	7	40	23	45240	073	59	09203	139	0000	000000
055	7	40	38	39253	073	09	23135	139	0000	000000
056	7	40	38	48910	073	08	55875	139	0000	000000
057	7	40	38	59331	073	07	52447	139	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

Approval Sheet

Field work on PE-40-4-75, H-9551 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)

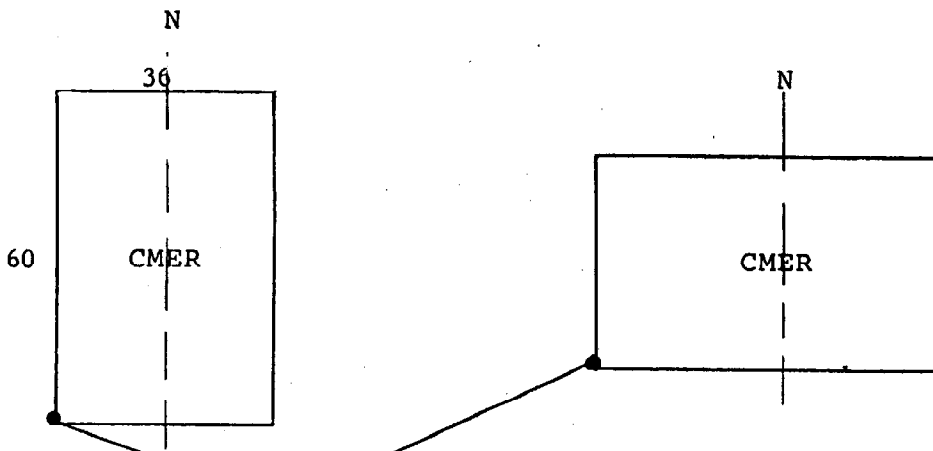
1/31/74

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

- 1. Project No. OPR-517
- 2. Reg. No. H-9551
- 3. Field No. PE-40-4-75
- 4. Requested By Office
- 5. Ship or Office Verification Branch
- 6. Date Required A.S.A.P.
- 7. Polyconic  Modified Transverse Mercator
- 8. Central Meridian of Projection 72 ° 24 ' 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 = 0



- 12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)  
 Latitude 40 ° 22 ' 00 "  
 Longitude 72 ° 36 ' 30 "
- 13. G.P.'s of triangulation and/or signals attached
- 14. Material Desired: Tracing Paper  Mylar   
 Smooth Sheet  Other  Specify \_\_\_\_\_
- 15. 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 14-October 31, 1975

HYDROGRAPHIC SHEET: H-9551

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:  
3.3 ft.

Remarks: Recommended zoning:

	<u>Time corrections</u>		<u>Range Ratio</u>
	<u>HW</u>	<u>LW</u>	
(1) North of 40°35'	<del>-55 min.</del>	<del>-80 min.</del> -1 hr 10 min.	x0.72
(2) South of 40°35'	<del>-50 min.</del>	<del>-60 min.</del> - 55 min.	x0.72

Note: The high and low water time corrections were measured for each zone

*RA*

*James R. Hubbard*  
\_\_\_\_\_  
Chief, Tides Branch

GEOGRAPHIC NAMES

H-9551

Name on Survey	Source of Name											
	A	B	C	D	E	F	G	H	K			
ATLANTIC OCEAN												1
												2
												3
												4
												5
												6
												7
												8
												9
												10
												11
												12
												13
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												21
												22
												23
												24
												25

APPROVED  
*Chas. E. Hamilton*  
 STAFF GEOGRAPHIC CS12  
 15 OCT 1976



ATLANTIC MARINE CENTER  
APPROVAL SHEET  
FOR  
AUTOMATED SURVEY H- 9551

- 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: August 26, 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: 8-30-76

Signed: Robert A. Prunick

Title: Chief, Processing Division

**HYDROGRAPHIC SURVEY STATISTICS**  
**HYDROGRAPHIC SURVEY NO. H-9551**

PE-40-4-75

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET & excess, position overlays		1	BOAT SHEETS (2 parts)		1	
DESCRIPTIVE REPORT		1	OVERLAYS		4-prelim. 2-junct.strips	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES	xi		2			
CAHIERS	1-with raw printouts					
VOLUMES	1					
BOXES			1-smooth printouts, sndg. Vol., sawtooth rec.			
T-SHEET PRINTS (List)						NONE
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				2158
POSITIONS CHECKED		250		
POSITIONS REVISED		10		
DEPTH SOUNDINGS REVISED		70		
DEPTH SOUNDINGS ERRONEOUSLY SPACED		--		
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED		--		
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		4		
JUNCTIONS		6		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		--		
SPECIAL ADJUSTMENTS		--		
ALL OTHER WORK		101		
<b>TOTALS</b>		<b>111</b>	<b>21</b>	
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
J.S. Bradford and C. Meekins	03-25-76		06-28-76	
VERIFICATION BY	BEGINNING DATE		ENDING DATE	
Robert R. Hill, Jr.	08-02-76		08-25-76	
REVIEW BY	BEGINNING DATE		ENDING DATE	
Hydrographic Inspection Team (AMC)	08-26-76		08-30-76	

Q.C. 1/5/76 RW DeKazarian 24hrs 10/29/76

R.D. Sanochi 1 Dec 76 6 hrs  
\* U.S. G.P.O. 1972-769-562/439 REG.#6

Do not type

REGISTRY NO. 9551

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 REQUIRED \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:

Pos.	05503	76105
	07304	76106
	51104	79505
	51105	79600
		93705

REGISTRY 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 REQUIRED \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:

H-9551

Information for Future Presurvey Reviews

No significant features exist which require investigation, and only minor changes can be expected in this area.

<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>
402	0722	0	2	50 years
402	0723	0	2	50 years
402	0724	0	2	50 years
403	0722	0	2	50 years
403	0723	0	2	50 years
403	0724	0	2	50 years
404	0722	2	1	50 years
404	0723	2	1	50 years
404	0724	3	4	25 years
405	0722	3	1	50 years
405	0723	3	4	25 years

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HYDROGRAPHIC INSPECTION TEAM

ATLANTIC MARINE CENTER

HYDROGRAPHIC SURVEY REVIEW

DATE: Aug 25, 1976

REGISTRY NO.: H-9551

FIELD NO.: PE-40-4-75

GENERAL LOCALITY and SPECIFIC LOCATION:

Long Island, New York, Shinnecock to East Hampton

SURVEYED: July 14, 1975 through October 31, 1975

PROJECT NO.: OPR-517

SCALE: 1:40,000

SOUNDINGS BY: Ross Digital Depth Recorder  
Model 5000

CONTROL: Raydist  
(Range-Range)

Chief of Party ..... CDR J.W. Dropp  
Surveyed by ..... LCDR D. Suloff  
..... LT Schnebele  
..... LTJG Johnson  
..... LTJG Dreves  
..... ENS Santarelli  
..... ENS Lillestolen  
Automated Plot by ..... Calcomp Plotter #618 (AMC)  
Verified and Inked by ..... Robert R. Hill

1. Description of the Area

This survey covers an area which extends from the eleven fathom curve seaward along the southern shore of Long Island in the vicinity of Shinnecock Inlet and the town of East Hampton.

The general bottom composition of the survey area is sand, mud and broken shells.

The depths range from approximately 58 feet to 198 feet.

2. Control and Shoreline

Two Raydist chains operating in the Range-Range mode were used during this survey. The western half of the field sheet was controlled by stations "BEN" and "TIANA"; the eastern half by "PONQ" and "TAUK".

All stations except "PONQ" were located by Operations Division of Atlantic Marine Center. "PONQ" was cut-in by T-2 observations to known objects by Ship's personnel. *See Q.C. Report*

This survey is offshore and no shoreline has been applied.

### 3. Hydrography

- A. Crossings: Depths at crossings are in good agreement.
- B. Depth Curves: The standard depth curves are adequately delineated. *See Q.C. Report*
- C. Low-water Line: None
- D. Developments: The developments run on this survey adequately delineate the area. *No specific developments were run during this survey.*
- 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 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.

### 5. Junctions

An adequate junction was effected with H-9550 (1975) to the west, H-9532 (1975) to the south and H-9554 (1975) and H-9555 (1975) to the east. *See Q.C. Report*

There is no contemporary survey north of the survey's limits; however, hydrography in this area is in general agreement with charted depths.

### 6. Comparisons

- A. Prior Surveys: H-6328 1:40,000, 1938 ✓  
                   H-6329 1:40,000, 1938  
                   H-6331 1:80,000, 1938 ✓

These prior surveys cover the area of the present survey. A comparison between the present and prior surveys reveals minor random changes in bottom topography.\* The more completely developed present survey is adequate to supersede the prior surveys within the common area.\* Several isolated areas show variable depths of 1-4 feet.

B. Published Chart: #12300, 23rd edition, dated June 1975.

(a) Hydrography

The charted hydrography originates with the previously discussed prior surveys, which require no further consideration.

The present survey is adequate to supersede the charted information within the common area.

(b) Attention is directed to the following:

(1) The Pre-survey Review listing for this entire project show only three dashed-circled unnumbered items within the boundaries of this survey. These three items are charted soundings and coincide with the field's hydrography.

101 feet - Latitude 40° 45' 10", Longitude 72° 26' 48"  
 105 feet - Latitude 40° 41' 12", Longitude 72° 29' 12"  
 107 feet - Latitude 40° 38' 42", Longitude 72° 34' 03"

(2) An investigation of a <sup>minor feature (107 ft depth)</sup> ~~possible obstruction~~ located in the vicinity of Latitude 40° 48' 28", Longitude 72° 16' 22" revealed no concrete evidence of its existence. - the fathogram was not marked in the prescribed manner - no date or fix information noted, no raw data printouts, no tape or any positional reference and there was a lack of complete information recorded within the sounding volume.\*

See Vol. 1 pos. 207304 day 224; pos. 211503 day 233

(c) Aids to Navigation

The aids from the present survey are in substantial agreement with the charted position and adequately mark the feature intended.

See Des. Report para N.

\* Not intended for plotting.

7. Compliance With Instructions

This survey does comply with the Project Instructions.

8. Additional Field Work


This is a good basic survey. Additional field work is not recommended.

9. Hydrographic Inspection Team Comments

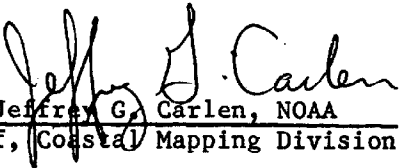
Hydrographic Inspection Team comments are included within this report and Verification deficiencies found, if any, have been corrected on the Smooth Sheet.

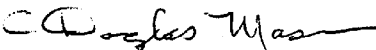
Approval Sheet for H-9551


Examined and Approved:  
Hydrographic Inspection Team  
Date: **26 August 1976**

  
CAPT Ronald M. Buffington, NOAA  
Chief, Operations Division

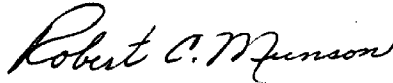
  
CDR Robert A. Trauschke, NOAA  
Chief, Processing Division

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

  
C. Douglas Mason, LT(jg), 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

October 29, 1976

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

THRU: Chief, Quality Control Branch

FROM: R. W. DerKazarian *R. W. DerKazarian*  
Quality Evaluator

SUBJECT: Quality Control Report for H-9551 (1975), Off Shinnecock Inlet,  
South of Long Island, New York

Survey H-9551 was inspected to evaluate the accuracy and adequacy of the survey with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, junctions, sounding line crossings, smooth plotting, decisions and actions taken by the verifier, and the cartographic presentation of data. In general, it was found to conform to the National Ocean Survey's standards and requirements except as follows:

1. Under "Control" in the Verification Report, a statement that "the origin of control is adequately covered in Part I of the Descriptive Report" is sufficient if no new information is given.
2. The brown curve was added to emphasize the bottom configuration more distinctly.
3. Several bottom characteristics are not shown according to convention. The description should be arranged in the following order: size, color, and noun. See Provisional Hydrographic Manual page 4-159, section 4.7.2.
4. Junctional surveys H-9555 (1975) on the southeast and H-9532 (1975) on the south have not been received at Headquarters. The adequacy of the junction between these surveys and the present survey will be discussed in their Quality Control inspection.
5. Rescanning of the fathograms by the verifier was not always conducted to define the bottom configuration adequately. Odd interval peaks, taking into consideration the sea condition, should be evaluated and added to the survey, if significant. Many such peaks, in some instances 3-4 feet shoaler than surrounding depths, have not been plotted.



H-9551

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6. A chart markup showing the source of the charted information was not forwarded as desired for use at Headquarters.

cc:  
C351

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