

9557

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.	MI-80-2-75
Office No.	H-9557
LOCALITY	
State	NEW YORK
General Locality	SOUTH OF LONG ISLAND
Locality	SOUTH OF MONTAUK POINT
1975	
CHIEF OF PARTY W. V. HULL	
LIBRARY & ARCHIVES	
DATE	2-15-77

Area 1 & 2
 Charts
 70 APP'd 5/2/75 [Signature]
 1000
 1108

9557

WM

HYDROGRAPHIC TITLE SHEET

H-9557

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.

MI-80-2-75

State New York

General locality South of Long Island
~~Offshore Atlantic Ocean~~

Locality South of Montauk Point
~~Long Island - Shinnecock to Montauk, New York~~

Scale 1:80000 Date of survey 16 Sept. - 5 Oct., 1975

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

Vessel NOAA SHIP MT MITCHELL, (MSS-22) Vesno 2220

Chief of party Wesley V. Hull, CDR NOAA

Surveyed by see remarks

Soundings taken by echo sounder, ~~hand lead, etc.~~

Graphic record scaled by rw, pws, dt

Graphic record checked by rw, pws, dt

Protracted by N/A Automated plot by ATC - Calcump 618
~~Atlantic Marine Center~~

Soundings penciled by N/A

Soundings in fathoms ~~feet~~ at MLW MLW

REMARKS: LCDR W. Daniels, LTJG T. Russel, LTJG E. Fields, Ens R. Marriner, Ens R. Mann,

Ens S. Iwamoto

Notes in red by R.G. Roberson

Applied to stds 6/29/77
CRS

RWW 9/10/92

DESCRIPTIVE REPORT

TO

ACCOMPANY

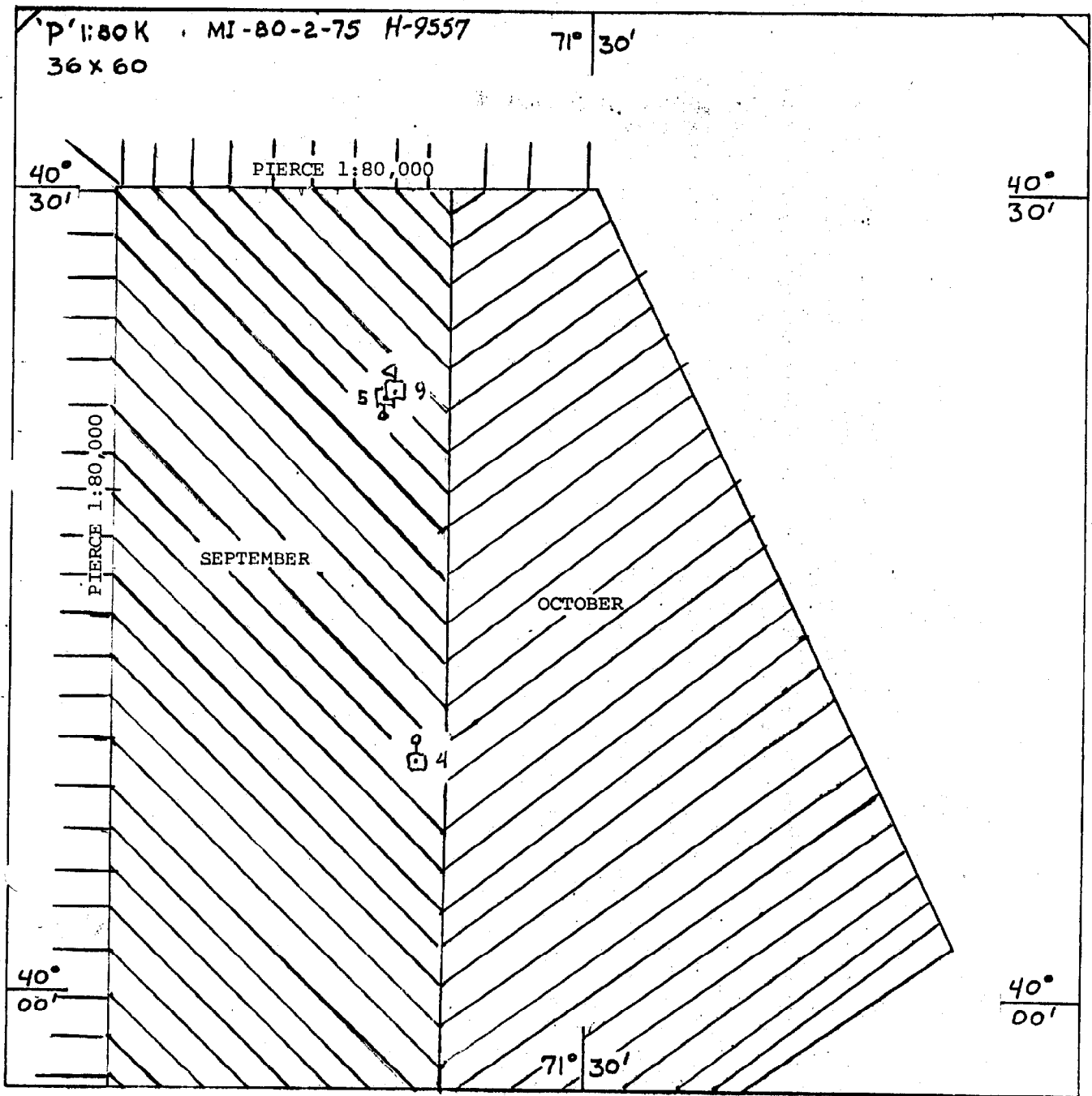
HYDROGRAPHIC SURVEY H-9557

MI-80-2-75

1:80,000 1975

NOAA SHIP MT. MITCHELL (MSS-22)

Wesley V. Hull
Commander, NOAA
Commanding Officer



PROGRESS SKETCH

SHEET 4 of 5

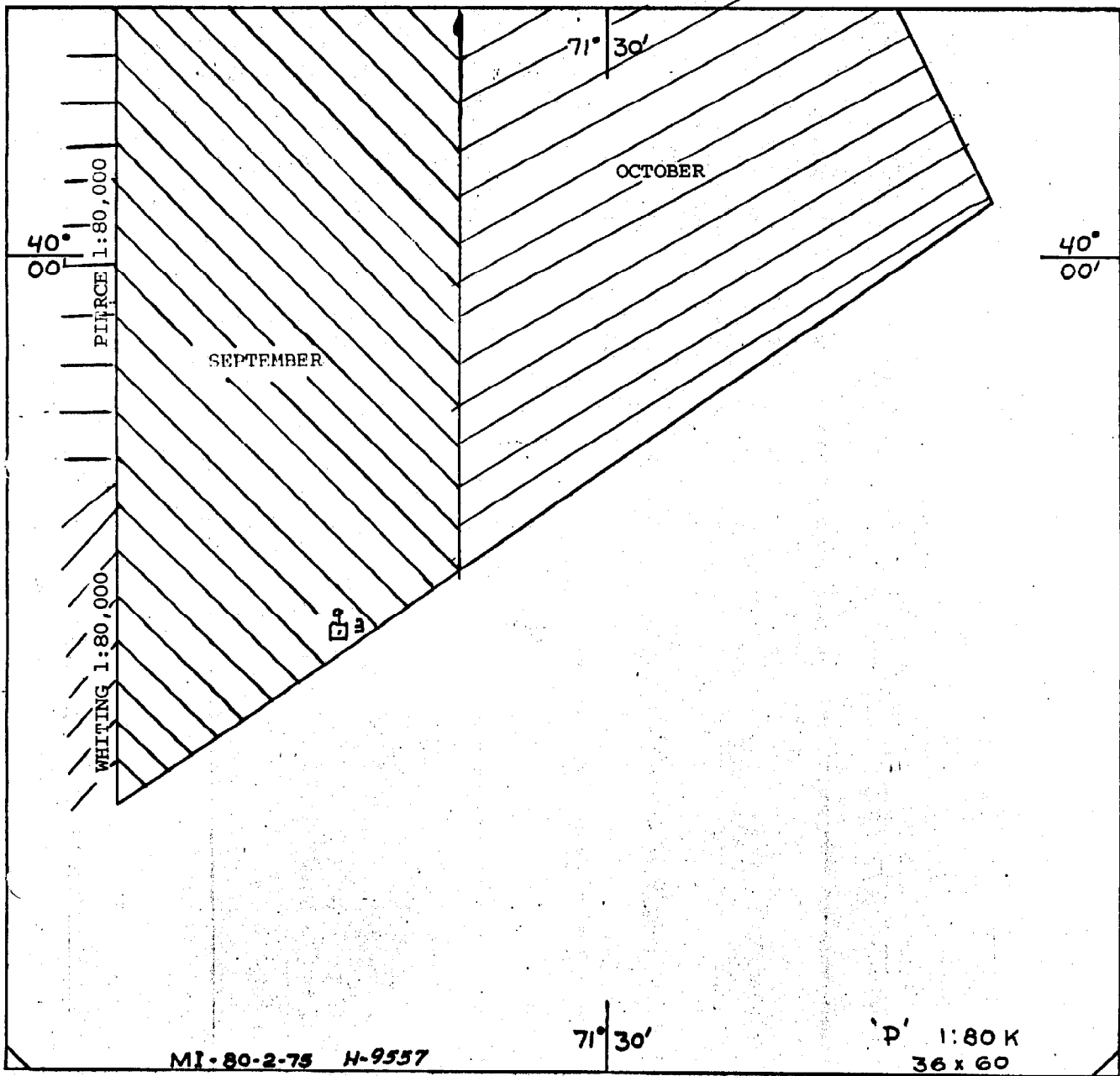
PROJECT OPR-517-MI-75 NEW YORK

SEPTEMBER

HYDROGRAPHIC OPERATIONS

NOAA SHIP MT. MITCHELL MSS-22

SCALE OF NOS CHART # 1108



PROGRESS SKETCH

SHEET 5 of 5

PROJECT OPR-517-MI-75 NEW YORK

SEPTEMBER

HYDROGRAPHIC OPERATIONS

NOAA SHIP MT. MITCHELL MSS-22

WESLEY V. HULL, CDR, NOAA, C.O.

SCALE OF NOS CHART # 1108

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Misc. items were removed from this D.R. and are filed in the cahier with the field records.

A. PROJECT

This survey was carried out in accordance with Project Instructions OPR-517-M1-75, issued 27 March 1975 as amended by change No. 1, dated 14 April 1975.

B. AREA SURVEYED

This survey, at a 1:80,000 scale, covered an area off-shore of the New York coast from the 36 fathom curve seaward. The survey area is described by the following points, connected clockwise:

Lat. 40° 30.0' N	Long. 71° 53.0' W
40° 30.0' N	71° 30.0' W
40° 02.5' N	71° 12.0' W
39° 40.0' N	71° 53.0' W

Survey operations were conducted between 17 September 1975 to 5 October 1975.

C. SOUNDING VESSEL

The NOAA Ship MT. MITCHELL (MSS-22, VESNO 2220) was used to obtain all soundings for this survey.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS

The following sounding equipment was used to obtain depth information for this survey:

Ross Model 5000 Fine-Line Depth Sounder
 Recorder SN 1050
 Digitizer SN 1039-2
 Transceiver SN 1050
 PDR SN 325 Transceiver SN 516

The digitizing feature of the Ross Depth Sounder was used during on-line sounding operations, except in rough seas. The action of the seas on the ship made necessary the correction of a large number of soundings. These corrections were applied using the Hydro Plot Corrector tape and were determined during off-line scanning of the graphic records.

Variations in the instrument initial were adjusted on-line after hourly phase comparison checks. Any uncorrected shifts were corrected by applying correctors during off-line scanning.

The presion Depth Recorder was used in depths generally greater than 200 fathoms.

Settlement and squat corrections were applied using the TC/TI tape and are not included in the data plotted on the field sheets.

Draft changes of the sounding vessel were measured on entering and leaving port. Also one comparison of draft along with a vertical cast was taken. The difference was found to be less than 0.2 fathoms. These corrections were applied on the TC/TI tape and are not included in the data plotted on the field sheets.

Velocity of sound through water corrections were applied to soundings using the Hydroplot System Velocity corrector tape. These corrections were determined using Hydroplot program RK 530, with temperature and salinity data taken from Nansen cast in shoal depths and XSTD for the deeper depths. The Nansen cast and XSTD were taken 16 September 1975. Data for the Nansen cast and the XSTD were processed separately to determine corrections. Comparison of the corrections showed negligible differences, so the correctors were measured graphically and applied to all soundings. The Nansen cast and XSTD were taken at the following locations:

Nansen cast #1	16 September 1975	Lat. 40°-27.5' N Long. 71°-40' W
XSTD #3	16 September 1975	Lat. 39°-46.2' N Long. 71°-43.0' W
XSTD #4	16 September 1975	Lat. 40°-08.5' N Long. 71°-38.0' W
XSTD #5	16 September 1975	Lat. 40°-27.5' N Long. 71°-40.0' W

The following instruments were used to analyze the temperature and salinity data from the Nansen cast and the water sample for the XSTD's.

Protected reversing thermometer Serial No.	Last calibration
12973	2 Jan. 1974
12982	2 Jan. 1974
13261	2 Jan. 1974
13263	2 Jan. 1974
13276	2 Jan. 1974
13300	25 Feb. 1974
13310	2 Jan. 1974
13315	25 Feb. 1974
13321	2 Jan. 1974
A58865	2 Jan. 1974
Salinometer: Beck Model RS-7B 28289	10 Dec. 1973

E. HYDROGRAPHIC SHEETS

Field sheets on this survey were prepared using the Hydroplot system aboard the NOAA Ship MT. MITCHELL. Field records will be forwarded to the Atlantic Marine Center for processing and verification.

Soundings on the field sheet are corrected for: velocity, draft, predicted tides, initial error and digitizer errors, but are not corrected for settlement and squat changes from the assumed draft of 2.2 fathoms.

F. CONTROL STATIONS

Control stations used for hydrography were:

<u>Signal</u>	<u>Name</u>	<u>Latitude</u>	<u>Longitude</u>
570	Riches Hi-Fix 1975	40°47'19.262"N	72°44'47.204"W
750	Tauk Hi-Fix 1975	41°04'13.251"N	71°51'29.524"W

Geodetic positions were provided by the Operations Division, Atlantic Marine Center, and Hi-Fix antennas were erected at the locations by ship's personnel.

G. HYDROGRAPHIC POSITION CONTROL

The Hi-Fix navigation system was used in the Range-Range mode for position control for this survey. The following equipment was used:

Shipboard:

Hi-Fix	Master DMU	SN 078
	Master Transmitter	SN A250
	Ship Receiver	SN A358
	Sawtooth Recorder	SN P266
	Navigation Interface	SN 200587

Station 1:

Hi-Fix	Transmitter	SN 066
	Receiver	SN 265
	(Changed to SN 267 3 Oct '75)	

Station 2:

Hi-Fix	Transmitter	SN A224
	(changed to SN 075 26 Sept '75)	
	Receiver	SN 273
	(changed to SN A278 25 Sept '75)	
	(changed to SN A273 26 Sept '75)	

Calibration of Electronic Control System:

Calibration of the Hi-Fix Range - Range system was accomplished using three point sextant fixes and comparing observed range values to the computed values. A simultaneous check fix was taken from each calibration and fixes with an inverse distance from the fix to the check fix of greater than 5 meters were rejected.

The calibration correction (difference between the observed Hi-Fix range values and the computed ones) was found to vary with the ship's heading so calibrations were taken at various headings. The resulting calibration corrections were meaned and applied to all positions taken during the survey. During on-line operations lane jumps were detected by operating personnel, using the saw-tooth recorder, and were corrected using the hydroplot controller.

A calibration buoy "P-1" was placed in the operating area, (lat. 40° 08.2'N, long. 71° 38'W) and the Hi-Fix positions established by circling the buoy. During the survey buoy "P-1" was used to check the whole lane count. An abstract of the calibration data is included in the material accompanying this survey. A Loran-C geographic position program made available by Canadian Hydrographic Office through Marine Data Systems Project was used with revisions by MT. MITCHELL personnel to establish a whole lane count. This program was used when problems occurred with the Hi-Fix which resulted in the complete loss of lane count and it would be an hour or more dead head time to the calibration buoy "P-1". After establishing the whole lane count with the program, a sounding line was run to the vicinity of the buoy to check the whole lane count and the whole lanes checked within one lane or less. Using this program eliminated some of the down time incurred due to loss of the calibration.

H. SHORELINE

There was no shoreline within the limits of this survey.

I. CROSSLINES

Crosslines for the survey were not run at predicted low water as requested in project instructions due to operational requirements. Agreement of the crosslines was generally good with only one fathom difference in few instances.

Crossline mileage was 6% of the regular sounding lines.

J. JUNCTIONS

This survey junctioned on the north and west with a 1975 survey by the NOAA Ship PEIRCE and on the southwest corner with a 1975 survey by the NOAA Ship WHITING. The junctions with these surveys were good and the differences of one (1) fathom that was found is probably because no velocity corrections were applied to the PEIRCE'S or WHITING'S work and velocity corrections were applied to these field sheets.

K. COMPARISON WITH PRIOR SURVEYS

This survey is in the area of the following prior surveys:

<u>Survey</u>	<u>Scale</u>	<u>Year</u>
H-6331	1:80,000	1938
H-6440	1:120,000	1939
H-6347	1:120,000	1938

Comparison was made with randomly chosen soundings. Agreement was generally good except for the area on the southern edge of the sheet in the region of the canyons where the bottom is very irregular. This difference was in some instances three (3) to four (4) fathoms and is probably due to the method used in obtaining the soundings in the year these prior surveys were completed.

L. COMPARISON WITH THE CHART

Chart No. 12300 (C&CG 1108) Scale 1:400,000 (22nd Ed., May 25/74) is the largest scale chart covering the survey area. The chart was found to be an adequate representation of the area's depth.

M. ADEQUACY OF SURVEY

This survey is considered complete and adequate to supersede prior surveys for charting.

N. AIDS TO NAVIGATION

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

O. STATISTICS

Total number of positions	1593
Total nautical miles of sounding line (excluding crosslines)	2601.2 NM
Total nautical miles of crosslines	164.5 NM
Total square nautical miles of hydrography	754.0 sq NM
Temperature and salinity stations	4
Bottom samples (not required by Project Instructions)	0

P. MISCELLANEOUS

None

Q. RECOMMENDATIONS

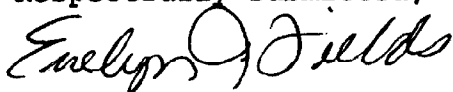
None

R. AUTOMATED DATA PROCESSING

The following Hydroplot programs were used for processing data for this survey:

	<u>Name</u>	<u>Version Date</u>
RK111	Range-Range Real Time System	8/7/74
RK201	Grid, signal and Lattice plot	2/19/75
RK211	Range-Range non-real time plot	8/16/74
AM300	Utility Computations	5/24/73
AM500	Predicted Tide Correctors	11/10/72
RK530	Velocity Corrections	6/25/74
RK561	Geodetic Calibration	7/1/74
AM602	Elinore	3/10/72

Respectfully submitted,



EVELYN J. FIELDS
Lt. (jg), NOAA

ATTACHMENTS

Atlantic Marine Center

Electronic Control Parameters

Project OPR- 517-MI-7 5 Reg. No. H- 9557 Field No. MI- 80-2 -7 5Type of Control HI - FIX (Sea-Fix, Hi-Fix, Raydist, etc.)Frequency 1799.60 KHz (for conversion of lanes to meters)

Mode of Operation (check one)

Range-Range Range-Visual

Range One (R1)

Station I.D. RICHES HI-FIX 1975Lat. 40 ° 47 ' 19 . 262 "N.Long. 072 ° 44 ' 47 . 204 "W.

Range Two (R2)

Station I.D. TAUK HI-FIX 1975Lat. 41 ° 04 ' 13 . 251 "N.Long. 071 ° 51 ' 29 . 524 "W.Hyperbolic (3-station) Hyper-Visual

Slave One

Station I.D. _____

Lat. _____ ° _____ ' _____ . _____ "N.

Long. _____ ° _____ ' _____ . _____ "W.

Master

Station I.D. _____

Lat. _____ ° _____ ' _____ . _____ "N.

Long. _____ ° _____ ' _____ . _____ "W.

Slave Two

Station I.D. _____

Lat. _____ ° _____ ' _____ . _____ "N.

Long. _____ ° _____ ' _____ . _____ "W.

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=∅Survey area is to observer's Left A=1Hyperbolic

Looking from survey area toward Master station:

Slave One must be to observer's LeftSlave Two must be to observer's Right

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.

More than one set of stations used to control hydrography on this boat sheet: _____ Yes _____ x _____ No (If Yes: See additional copy of this form)

From: T: _____ Jul. Day _____ to T: _____ Jul. Day _____

Remarks: _____

12/15/75

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 Form 362

Tide Station Used (NOAA Form 77-12): Montauk Point Light

Period: September 17 - October 5, 1975

HYDROGRAPHIC SHEET: H-9557

OPR: 517

Locality: Offshore, south of Block Island

Plane of reference (mean ~~lower~~ low water): 3.1 ft.

Height of Mean High Water above Plane of Reference:
 Montauk Pt. Light 2.6 ft.

Remarks: Recommended zoning:

Time Correction

-25 min.

Range Ratio

x1.15

James R. Hubbard
 Chief, Tides Branch

VELOCITY TAPE LISTING

H-9557

000020 0 0001 0001 001 222000 009557
000055 0 0002
000080 0 0003
000120 0 0004
000160 0 0005
000205 0 0006
000300 0 0008
000390 0 0010
000460 0 0012
000510 0 0014
000570 0 0016
000640 0 0018
000725 0 0020
000805 0 0022
000900 0 0024
000980 0 0026
001065 0 0028
001160 0 0030
001460 0 0040
002125 0 0050
002930 0 0060
003720 0 0070
004500 0 0080
999999 0 0090

22 July 1974

NOAA Ship MT MITCHELL MSS-22
Abstract of Settlement and Squat Correctors

RPM'S	S+S Correctors (ft)	S+S Correctors (ft)
105	0.0	0.0
110	0.045	0.0
120	0.140	0.1
130	0.225	0.2
140	0.300	0.3
150	0.356	0.4
160	0.403	0.4
170	0.440	0.4
180	0.472	0.5
190	0.500	0.5

Computed by: Evelyn J. Fields

Checked by: David Pasciuti

SIGNAL NAMES LIST - LONG ISLAND, NEW YORK

OPR-517-MI-75

MI-80-2-75(H-9557)

		QUAD NO.	STATION
570	RICHES HI-FIX 1975		AMC OPER DIV
610	WEST HAMPTON BEACH WATER TANK 1962	400724	1137
620	SHINCOCK INLET COAST GUARD LOOKOUT TOWER 1962	400721	1036
650	SOUTH HAMPTON WATER TANK 1932	400721	1047
680	EAST HAMPTON PRESBYTERIAN CHURCH SPIRE 1965	400721	1053
700	EAST HAMPTON LARGE WATER TANK 1965	400721	1051
710	AMAGANSETT WATER TANK 1962	400721	1055
720	NAPEAGUE RADIO STATION WSL WEST MAST 1962	400721	1059
730	NAPEAGUE RADIO STATION WSL EAST MAST 1965	400721	1058
750	TAUK HI-FIX 1975		AMC OPER DIV

-SIGNAL LIST-

570	7	40	47	19262	072	44	47204	250	0000	179960
610	7	40	49	39185	072	37	21894	139	0000	000000
620	7	40	51	02341	072	30	16943	139	0000	000000
650	7	40	53	31841	072	24	22302	139	0000	000000
680	7	40	57	36591	072	11	18857	139	0000	000000
700	7	40	58	14201	072	10	08377	139	0000	000000
710	7	40	58	44378	072	08	24199	139	0000	000000
720	7	40	59	50229	072	03	20416	139	0000	000000
730	7	40	59	53936	072	03	08199	139	0000	000000
750	7	41	04	13251	071	51	29524	250	0000	179960

APPROVAL SHEET

The field work and data processing for hydrographic survey were performed under my immediate daily supervision and are approved by me. This survey is considered adequate and complete for charting.



Wesley W. Hull
Commander, NOAA

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H- 9557

- 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 1, 1976

Signed: William J. ...

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 July 1976

Signed: Charles ...

Title: Chief, Processing Division

GEOGRAPHIC NAMES

H-9557

Name on Survey	Source of Name											1
	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 CANYON												1
LONG ISLAND (TITLE)												2
MONTAUK POINT (TITLE)												3
												4
												5
												6
												7
												8
												9
												10
												11
												12
												13
												14
											APPROVED	15
											<i>Chas. E. Harrington</i>	16
											STAFF GEOGRAPHER - CS 1/2	17
											22 MARCH 1977	18
												19
												20
												21
												22
												23
												24
												25

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9557

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & smooth PNO, excess (mylar) overlays	1	BOAT SHEETS (2 parts, mylar)	1 //
DESCRIPTIVE REPORT (original)	1	OVERLAYS (Preliminary)	5 //

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES	13		1-smooth			2
CAHIERS	1-with printouts					
VOLUMES	1					1*
BOXES						1

T-SHEET PRINTS (List)
NONE

SPECIAL REPORTS (List) *Volume (Operations Log)
1 envelope with Nansen Cast and XSTD Data

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				1569
POSITIONS CHECKED	0	175		
POSITIONS REVISED	0	1		
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		0		
JUNCTIONS		8		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS	5	10		
SPECIAL ADJUSTMENTS		0		
ALL OTHER WORK		38		
TOTALS	5	56		

PRE-VERIFICATION BY F.L. Saunders	BEGINNING DATE 11-18-75	ENDING DATE 11-18-75
VERIFICATION BY R.G. Roberson, L.G. Cram	BEGINNING DATE 12-10-75	ENDING DATE 06-02-76
REVIEW BY Hydrographic Inspection Team (AMC)	BEGINNING DATE 07-01-76	ENDING DATE

QUALITY CONTROL BY
H. W. Wellman
D. R. Enale

26 hrs
8475

3-16-77
* U.S. G.P.O. 1972-769-562/439 REG. NO. 6-20-77
3-18-77 *Baumgardner 449*
6-2-77

REGISTRY NO. _____

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:

REGISTRY NO. H-9557

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:

There were no revisions entered into the printouts during quality control inspection.

H-9557

Information for Future Presurvey Reviews

None

Position Index
Lat. Long.

Bottom Change
Index

Use
Index

Resurvey
Cycle

Depths exceed 20 fathoms in the survey area thereby obviating the need for a Resurvey Cycle listing.

HYDROGRAPHIC INSPECTION TEAM

ATLANTIC MARINE CENTER

HYDROGRAPHIC SURVEY REVIEW

DATE: 7/1/76

REGISTRY NO.: H-9557

FIELD NO.: MI-80-2-75

GENERAL LOCALITY and SPECIFIC LOCATION:

New York, South of Long Island, South of Montauk Point
~~Atlantic Ocean, offshore, Shinnecock to Montauk, Long Island, New York~~

SURVEYED: September 17, 1975 through October 5, 1975

PROJECT NO.: OPR-517-MI-75

SCALE: 1:80,000

SOUNDINGS BY: Ross Model 5,000 s/n 1050
Precision Depth Recorder s/n 325

CONTROL: HI-FIX (Range-
Range Mode)
Freq. 1799.60 KHz

Chief of Party CDR W.V. Hull
Surveyed by LCDR W. Daniels
..... LT(jg) T. Russel
..... LT(jg) E. Fields
..... ENS R. Marriner
..... ENS R. Mann
..... ENS S. Iwamoto
Automated Plot by Calcomp Plotter #618 (AMC)
Verified and Inked by Robert G. Roberson

1. Description of the Area

The area surveyed is in the Atlantic Ocean, offshore Long Island, New York, from Shinnecock to Montauk. Depths varied from 36 to 440 fathoms. The bottom slopes gently until reaching the 100 fathom curve; where the bottom drops off quickly. The bottom is composed of sand and mud where samples were obtained.

2. Control and Shoreline

Shoreline: There is no shoreline in the survey area.

Control: HI-FIX in the range-range mode was used for control. The frequency used was 1799.60 KHz. Stations were located at the following positions:

Riches HI-FIX, 1975	Tank HI-FIX, 1975
Latitude: 40° 47' 19.262"N	Latitude: 41° 04' 13.251"N
Longitude: 72° 44' 47.204"W	Longitude: 71° 51' 29.524"W

3. Hydrography

A. Crossings: Crosslines were in good agreement, crosslines were not run at predicted low water.

B. Depth Curves: Standard depth curves were adequate to show the bottom configuration. A 110 fathom (brown) curve was drawn. The 110 fathom (200 meter) curve is an international standard curve.

C. Developments: Developments were run to delineate two canyons in the survey area.

D. No Pre-survey Review Items fall on this sheet.

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

H-9574' (WH-80-2-75) joins on the southwest corner, and the junctions are in excellent agreement. H-9555' (PE-80-2-75) joins on the north edge and northwest side, agreement is excellent. There are no other contemporary surveys that junction with this survey. (See Q.C. Report-item 1)

6. Comparisons (See Q.C. Report-item 2)

A. Prior Surveys: (See Q.C. Report-item 3)

H-6331' (1938) 1:80,000 - This survey covers the north edge and northeast corner of the new survey. Agreement was good with differences of one (1) to two (2) fathoms.

H-6347' (1938) 1:120,000 - Agreement in less than 100 fathoms was excellent.* In deeper water depth varied more, possibly because of the more modern equipment used on the present survey and line spacing.
*(i.e. scattered indications of present depths generally 1 to 2 fathoms deeper.)

H-6440' (1939) 1:120,000 - Agreement was good in less than 100 fathoms.* In deeper water depths varied more because of the more modern equipment used during this survey and line spacing. (Depth differences as much as ± 20 fathoms)

B. Published Chart: #12300 (C&GS 1108), 23rd edition, June 7, 1975. (See Q.C. Report-item 4)

(a) Hydrography: Comparison with the chart is good. (See Q.C. Report-item 5)

(b) Aids to Navigation: There are no aids to navigation in the area of the present survey.

7. Compliance With Instructions

This survey does comply with the Project Instructions except the cross-lines were not run at low water (see note in Descriptive Report.)

8. Additional Field Work

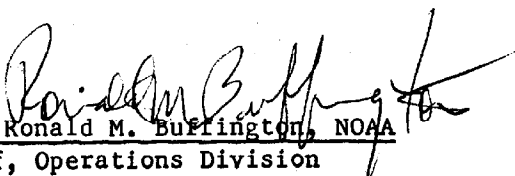
This is an excellent basic survey. Additional field work is not recommended.


9. Hydrographic Inspection Team Comments

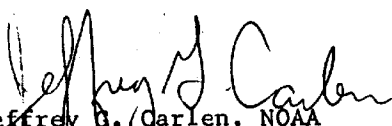
Hydrographic Inspection Team comments are included within this report and Verification deficiencies found, if any, have been corrected on the Smooth Sheet.

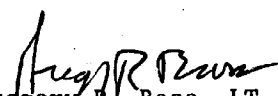
Approval Sheet for Survey H-9557

Examined and Approved:
Hydrographic Inspection Team
Date: July 1, 1976


CAPT Ronald M. Buffington, NOAA
Chief, Operations Division

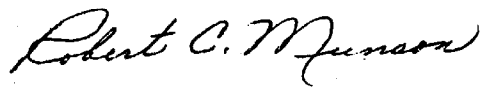

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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

C352

March 21, 1977

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

THRU: Chief, Quality Control Branch

FROM: K. W. Wellman *K. W. Wellman*
Quality Evaluator

SUBJECT: Quality Control Report for H-9557 (1975), New York, South of Long Island, South of Montauk Point

A quality control inspection of H-9557 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 navigation hazards, junctions, decisions and actions by the verifier, and cartographic presentation of data.

Bottom samples in the entire project area were taken by the NOAA Ship G. B. KELEZ in 1976 but were not available for application to the present survey at the time of verification. Bottom characteristics, therefore, were applied to the smooth sheet during quality control inspection.

In general, the present survey was found to conform to National Ocean Survey standards and requirements except as follows:

1. Section 5 of the Verifier's Report is supplemented by the following:

No contemporary surveys junction with the present survey on the east and south; however, charted soundings are in general harmony with the present survey in those areas.

2. Section 6 of the Verifier's Report (Comparisons) does not conform to the format contained in the provisional manual (sections 6.6(11) and 6.6(12)). The discussion of "Comparison with Prior Surveys" and "Comparison with Chart" should be contained in separate sections of the Verifier's Report rather than combined in one section.

3. Reference Verifier's Report - section 6-A:



a. Inasmuch as the same general statement concerning depth differences is applicable to all three of the prior surveys, it would have been satisfactory to have listed the three prior surveys and discuss the results of the comparison in one paragraph rather than three separate, but generally similar, statements. In addition, it is common practice to provide a general statement indicating the range of depth differences noted in the comparison with prior surveys.

b. The adequacy of the present survey to supersede the prior surveys was not stated as required (see provisional manual - section 6.6(11)). Section 6-A of the Verifier's Report is supplemented by the following:

The present survey is adequate to supersede the prior surveys within the common area.

4. The chart used for comparison with the present survey was not forwarded with the survey records (see provisional manual - section 8.3(12)).

5. Section 6-B(a) of the Verifier's Report (Comparisons - Published Chart) should contain specific recommendations for the disposition of significant charted items not verified or disproved by the present survey and, in addition, should be accompanied by a statement that the present survey is adequate to supersede the charted hydrography.

Section 6-B(a) of the Verifier's Report is superseded by the following:

(a) Hydrography

The charted hydrography originates with the previously discussed prior surveys which require no further consideration, supplemented by other sources specified below.

Attention is directed to the following:

(1) The unexploded ordnance Rep. 1967 charted in latitude 40°21.50', longitude 71°41.00' originates with NM 41/67. It is not disproved by the present survey and should be retained on the chart.

(2) The submerged wreck charted in latitude 40°27.00', longitude 71°50.00' originates with the U.S. Navy Wreck List of 1957. It is not disproved by the present survey and should be retained on the chart.

(3) The submerged wreck charted in latitude 39°58.50', longitude 71°27.40' originates with CL 794/69. It is not disproved by the present survey and should be retained on the chart.

Except as noted above, the present survey is adequate to supersede the charted hydrography within the common area.

cc:
C351

