

# 9553

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-80-1-75 .....

Office No. .... H-9553 .....

### LOCALITY

State ..... NEW JERSEY .....

General Locality ..... OFFSHORE .....

Locality ..... OFF ATLANTIC CITY .....

19 75

CHIEF OF PARTY  
W. V. HULL

### LIBRARY & ARCHIVES

DATE ..... 8-24-76 .....

9553

DESCRIPTIVE REPORT

TO

ACCOMPANY

HYDROGRAPHIC SURVEY H-9553

MI-80-1-75

1:80,000 SCALE

CAPE MAY TO ATLANTIC CITY, N.J.

7 AUGUST 1975 TO 15 SEPTEMBER 1975

NOAA SHIP MT. MITCHELL (MSS-22)

Wesley V. Hull  
Commander, NOAA  
Commanding Officer

**HYDROGRAPHIC TITLE SHEET**

H-9553

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-80-1-75

State New Jersey

General locality Offshore

Locality off Cape May to Atlantic City, New Jersey

Scale 1:80,000 Date of survey 7 Aug. to 15 Sept. 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 LTJG. T. Russel, LTJG. E. Fields, LTJG. K. ODonnell, ENS. R. Marriner, ENS. S. Iwamoto, ENS. R. Mann

Soundings taken by echo sounder N/A

Graphic record scaled by rm, ps, dr, rw

Graphic record checked by rm, ps, dr, rw / by B.J. Stephenson AMC

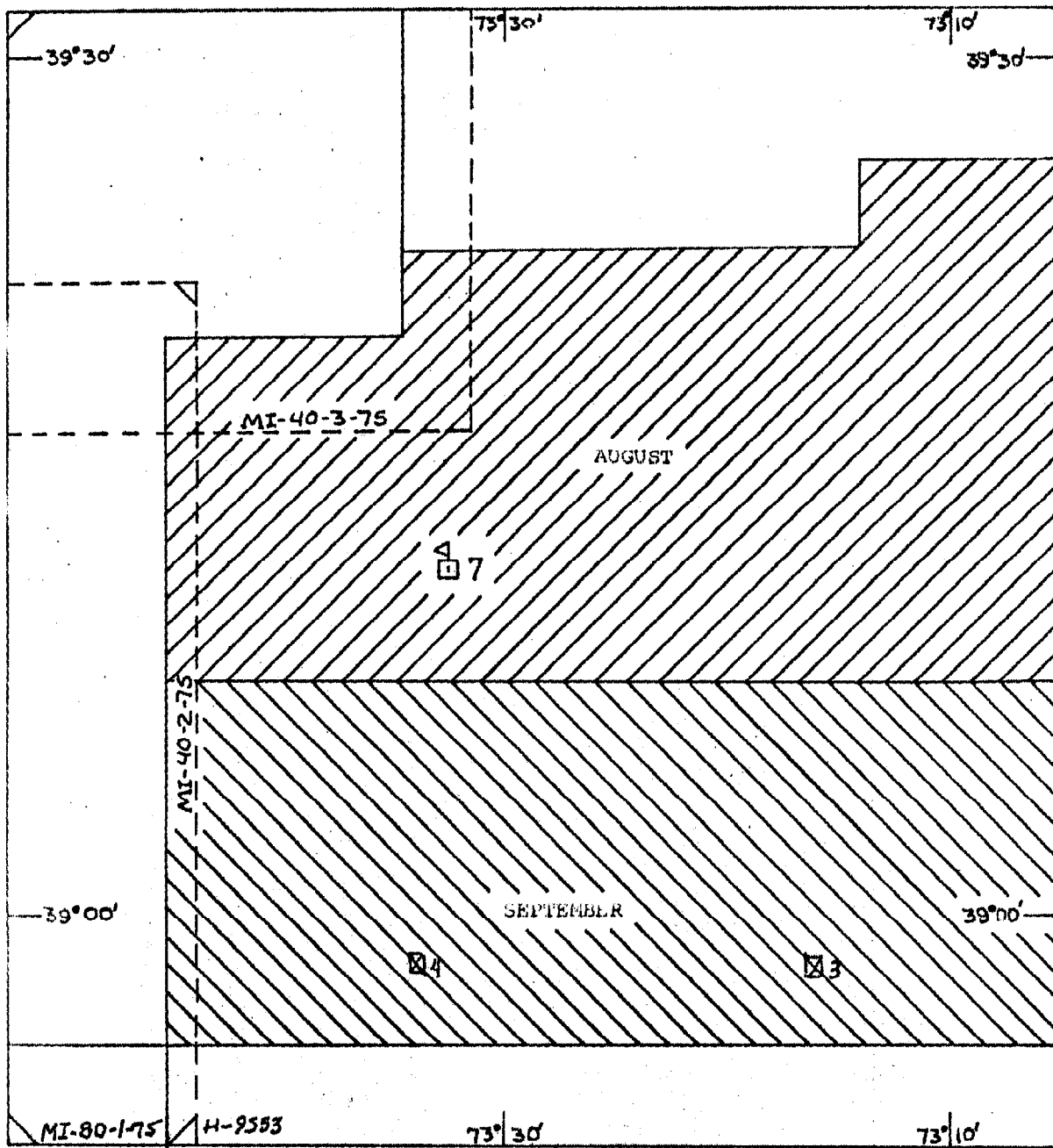
Protracted by N/A Calcomp-618 Automated plot by NOAA SHIP MT MITCHELL AMC-63 (CORP 818) Hydroplot System

Soundings penciled by N/A Verified by B.J. Stephenson AMC

Soundings in fathoms feet at MLW MLLW

REMARKS: notes in Red by BJS (AMC)

*Applied to stds 2-10-77*  
*[Signature]*



PROGRESS SKETCH

SHEET 1 of 5

PROJECT OPR - 517-MI-75

NEW JERSEY

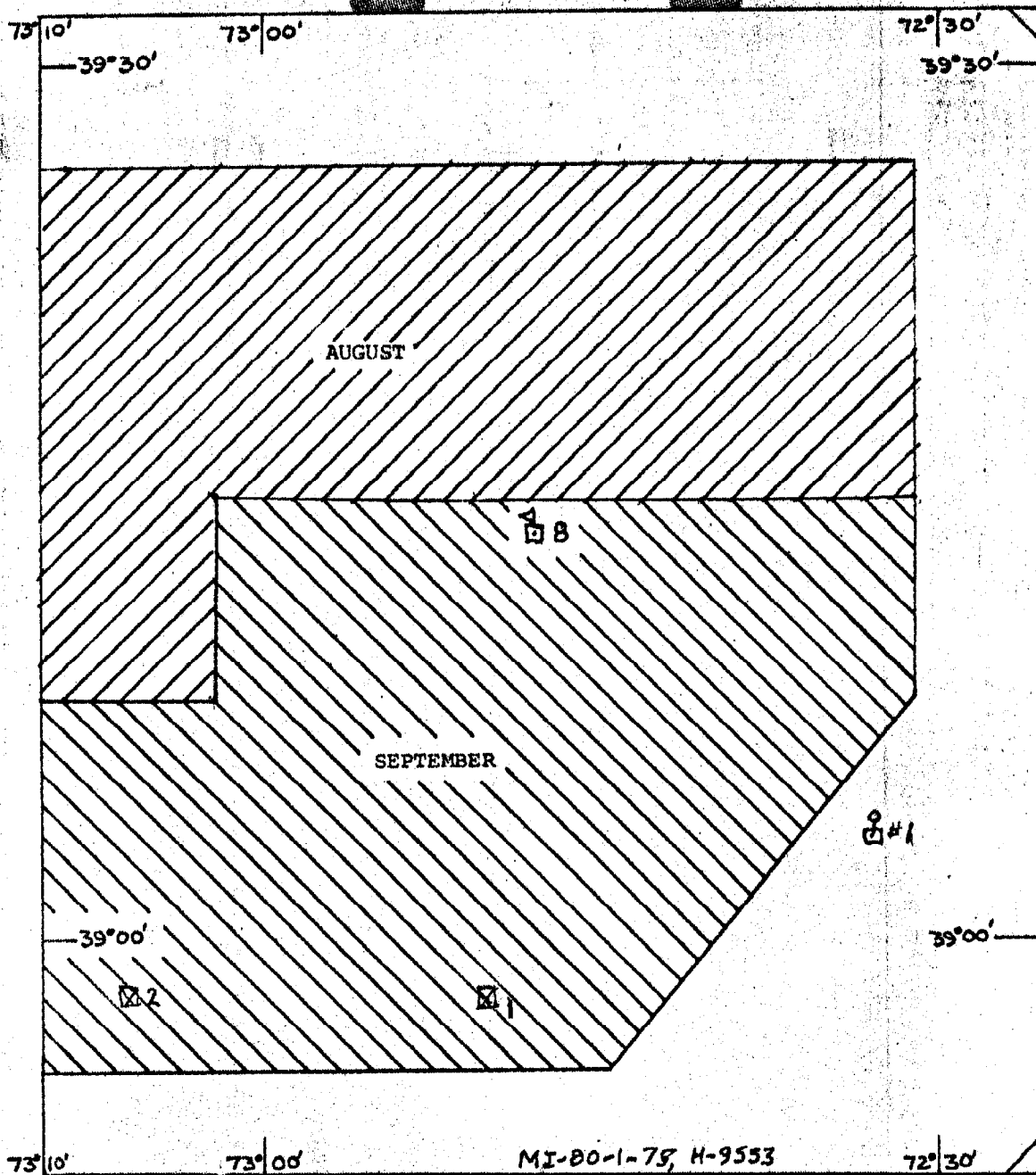
HYDROGRAPHIC OPERATIONS

AUGUST - SEPTEMBER 1975

NOAA SHIP IT. MITCHELL M35-22

AUGUST LEGEND

2,754.6	L.N.M. Ship Sounding Line
763.5	Sq.N.M. Ship Sounding Area
3	Nansen Cast (serial Temp.)



PROGRESS SKETCH

SHEET 2 of 5

PROJECT OPR-517-MI-75

SEPTEMBER 1975

NOAA SHIP MT. MITCHELL, MSS-22

SCALE OF NGS CHART # 1108

WESLEY V. HULL, CDR, NOAA, COMMANDING

SEPT. LEGEND

3,986.3	L.N.M. Ship Sounding line
1,500.0	Sq. N.M. Ship Sounding Area
5 XSTD	XSTD/Nansen
2 NANSEN	Cast/XBT
4 XBT	

A. Project

This survey, MI-80-1-75 (H-9553), was conducted by the NOAA Ship MT. MITCHELL, MSS-22, as a portion of Project "ASAP", OPR-517-MI-75, New York Bight Phase in accordance with project instructions dated 27 March 1975 and change No. 1 dated 14 April 1975.

B. Area Surveyed

This survey was conducted offshore of the Atlantic Coast between Cape May and Atlantic City, New Jersey generally between the 18 and 400 fathom curve. The limits of the survey are described by the lines connecting the following ~~corner~~ points in a clockwise direction:

Lat. 38 52.0 N	Long. 73 52.5 W
39 20.0 N	73 46.0 W
39 20.0 N	73 35.8 W
39 24.0 N	73 32.5 W
39 24.0 N	73 35.0 W
39 24.0 N	73 16.2 W
<del>39 32.0 N</del>	<del>72 26.0 W</del>
39 26.8 N	73 16.2 W
39 26.8 N	72 31.0 W
<del>38 52.0 N</del>	<del>72 26.0 W</del>
39 03.0 N	72 31.0 W
38 55.8 N	72 44.5 W

This survey was conducted on the following dates:

Aug 7 (JD 219)	thru	Aug 14 (JD 226)
Aug 26 (JD 238)	thru	Sept 4 (JD 247)
Sept 9 (JD 252)	thru	Sept 15 (JD 258)

C. Sounding Vessel

All soundings for this survey were taken by the NOAA Ship MT. MITCHELL, MSS-22, (VESNO 2220 for all survey records) using a fully automated hydroplot system.

#### D. Sounding Equipment and Corrections to Echo Soundings

All soundings were obtained either by a Ross Laboratories Model 5000 Fineline Recorder (s/n 1052) using one skeg mounted transducer and a Ross Model 4000 transceiver (s/n 1050 changed 9 Aug 1975 to s/n 1052) or by a McKiernan-Terry Precision Depth Recorder Mark XVa (s/n 325) with one skeg mounted transducer. The Ross Model 5000 Fineline was utilized down to approximately the 200 fathom limit while the McKiernan-Terry PDR was used in depths greater than 200 fathoms. All soundings obtained by the Ross were digitized to the nearest tenth of a fathom by a Ross 6000 Depth Digitizer (s/n 1039-2). All soundings obtained by the PDR were entered manually to the nearest fathom.

All records were scanned by trained Survey Department personnel and checked by the officer in charge. Peaks and deeps considered significant that occurred between soundings were inserted, digitized errors were corrected and the effects of seas were meaned and corrected on a corrector tape. Several soundings on the eastern edge of the sheet were missed due to inability to obtain a distinct trace on the PDR.

Phase calibration checks on the Ross fathometer were made at frequent intervals to ensure proper belt speed. Any necessary adjustments were made and noted in the sounding volume and on the fathogram. Also, any departures of the trace from the calibration due to phase differences were corrected during the scanning process.

Velocity corrections were obtained from three sources - two nansen

casts and one Plessey Environmental Systems Model 9090 Signal Processor XSTD Probe taken at the following locations:

Nansen Cast #7	Lat. 39 11.5 N	Long. 73 32.0 W	JD 242
Nansen Cast #8	39 14.2 N	72 47.6 W	JD 259
XSTD #1	39 03.5 N	72 33.0 W	JD 252

Also, four XBT's were taken to help determine the best locations for the nansen casts. These were at the following locations:

XBT #1	Lat. 38 58.0 N	Long. 72 50.0 W	JD 256
XBT #2	"	73 06.0 W	JD 256
XBT #3	"	73 16.0 W	JD 256
XBT #4	"	73 34.0 W	JD 256

Corrections for velocity were made from the salinity and temperature data obtained from the nansen casts and from the XSTD. A depth versus velocity correction curve was made for each and compared. The layer corrections from nansen cast #7 were applied to all depths down to 26 fathoms. The layer corrections from nansen cast #8 were applied to all depths between 26 and 42 fathoms while all depths greater than 42 fathoms had corrections from the XSTD applied to them. Printouts of the velocity tape and all tables are included with this report.

Several draft readings were taken throughout the work on this survey. A draft of 2.2 fathoms was applied to all soundings during the on-line process. Changes of the draft are in the TC/TI tape included with the survey data. A printout of this tape is included with this report.

A copy of the settlement and squat correctors versus engine RPM is



also included with this report. These corrections were determined on July 22, 1974 in Mayport, Florida.

This survey was conducted using predicted tides based on daily predictions for Sandy Hook, New Jersey as found in the TIDE TABLES for 1975. A copy of the request for the actual tides for the area surveyed is included with this report.

#### E. Hydrographic Sheets

This survey was plotted on two Complot Roll Plotter sheets by the MT. MITCHELL Hydroplot System. The skew used was 00,21,60. The survey was plotted off-line using an electronic corrector tape and a velocity corrector tape.

F. ~~The final~~ <sup>was</sup> smooth sheet ~~will~~ be plotted at the Atlantic Marine Center, Norfolk, Virginia. The following tapes and their printouts will be forwarded with the records to the Atlantic Marine Center:

- Master Range-Range Data Tapes
- Electronic Corrector Tapes
- Parameter Tapes
- ASCII Signal Tape
- Velocity Tape
- Transducer Corrector/Table Indicating Tape

#### F. Control Stations

Two control shore stations at the following locations were used:

Name	Signal #	Lat.	Long.
Cape May (H-AMC-1-NJ-75)	005	38 56 12.689	74 53 44.342
Barnegat Light (Zimm, 1975)	015	39 45 44.159	74 06 19.764

Both shore stations were located by the National Ocean Survey, Atlantic Marine Center, Operations Division Personnel.

G. Hydrographic Position Control

The following Decca HI FIX equipment was used on this survey:

Type	Serial #
Master MDU	078
Master Transmitter	A250
S <sub>1</sub> Receiver	265
changed 30 August 1975 to	267
S <sub>1</sub> Transmitter	066
S <sub>2</sub> Receiver	A278
changed 10 September 1975 to	251
S <sub>2</sub> Transmitter	075
Ship Receiver	A274
Ship Sawtooth Recorder	D254
Navigational Interface	200587

Calibration of HI FIX was accomplished using three point sextant fixes and comparing observed range values with the computed values using the Hydroplot calibration program <sup>BK</sup>~~AK~~561. A check fix was also taken with each calibration. Only those fixes with an inverse distance of less than 5 meters were used in the calibrations.

The calibrating area was located three miles off Atlantic City, N.J. While calibrating, it was found that the corrections varied with the ship's heading so fixes were taken with the ship heading in various directions. The results were meaned and these corrections were applied to all positions until the next calibration. Whenever it became nec-

essary for whole lane count to be established, one of three buoys deployed by the MT. MITCHELL was circled. These buoys were at the following locations:

Buoy	Lat.	Long.
"C-2"	39 26.2 N	73 <sup>0</sup> 42.0 W
"T-1"	39 11.8 N	73 33.2 W
"T-2"	39 00.4 N	73 14.7 W

The lane count was constantly monitored by the Survey Department by comparing the HI FIX goniometer with a running count on the sawtooth recorder. An abstract of the calibration data is included with the records accompanying this report.

During work on this survey much time was lost and many soundings rejected due to HI FIX malfunctions and atmospheric interference. Lane jump correctors were frequently misapplied which resulted in hydro lines having to be rerun. An abstract of the electronic correctors used is ~~in~~ inserted in the appendices.

#### H. Shoreline

There was no shoreline within the limits of this survey.

#### I. Crosslines

Crosslines were run at least 45<sup>0</sup> to the main scheme sounding lines. Most crosslines were scheduled to begin approximately one hour before predicted low water and end approximately one hour after. Crossline mileage was about 13% of the regular sounding lines.

#### J. Junctions

This survey junctions well with MI-40-2-75<sup>H-9542</sup> to the west and MI-40-3-75<sup>H-9552</sup> to the northwest. It also junctions well with WH-40-2-75<sup>H-9547</sup> and WH-80-1-75<sup>H-9548</sup>

H-9574

to the north and WH-80-2-75 to the east. All soundings were in general agreement. MI-40-2-75, MI-40-3-75, and WH-40-2-75 were all plotted in feet.

H-9542                  H-9552                  H-9547

K. Prior Surveys

The prior surveys conducted in the area are as follows:

H-6192	1:120,000	1936
H-6220	1:120,000	1938
H-6219	1:120,000	1937
H-6345	1:80,000	1938

The prior surveys compared well with this survey at most depths with the only discrepancies being in the southeast corner of the sheet. There were no pre-survey review items to be investigated.

L. Comparison With the Chart

This survey is covered by chart No. 12300 (C&GS No. 1108). All soundings compared very well with the chart.

M. Adequacy of Survey

This survey is complete and adequate to supersede all prior work in the area.

N. Aids to Navigation

There were no aids to navigation within the survey area.

O. Statistics

Linear Nautical Miles of Hydro	79 4171.2
Linear Nautical Miles of Crosslines	317.9
Total Linear Nautical Miles of Hydro	4489.1
Total Linear Miscellaneous Miles	708.3
Total Linear Nautical Miles Run	5197.4
Square Miles of Hydro	1625.5
Total Positions	2453
Nansen Casts	2
XBT	4
XSTD	1
Bottom Samples (Transferred to smooth sheet from samples taken by Kelez)	08

BJS

## P. Miscellaneous

None

## Q. Recommendations

None

## R. Automated Data Processing

The following Hydroplot programs were used to complete the processing of this survey:

	Name	Version Date
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
PM360	Electronic Tape Abstract	3/21/74
AM500	Predicted Tide Generator	11/10/72
RK530	Layer Corrections for Velocity	6/25/74
RK561	H/R Geodetic Calibration	2/19/75
RK602	Elinore Line Editor	5/21/75

## S. Reference to Reports

None

Respectfully submitted



Robert G. Mann  
Ens. NOAA


APPROVAL SHEET

MI-80-1-75

H-9553

The field work on this hydrographic survey was under my daily supervision.

The boatsheet and records have been reviewed and approved by me.

  
Wesley W. Hull  
Commander, NOAA  
Commanding

SIGNAL NAMES LIST

MI-80-1-75

H-9553

005	H-AMC-1-NJ-1975	AMC OPER DIV
015	ZIMM, 1975	AMC OPER DIV
130	OCEAN CITY FLANDERS HOTEL CUPOLA, 1962	VOL 2 P90
150	MARGATE CITY STANDPIPE, 1962	VOL 2 P86
160	MARGATE CITY WATER TANK, 1962	VOL 2 P86
170	RITZ AERO BEACON, 1931	VOL 2 P101
180	ATLANTIC CITY, CLARIDGE HOTEL, (DOME), 1932	VOL 1 P31
190	ABSECON LIGHT, 1931	VOL 2 P105
200	ATLANTIC CITY MUNICIPAL WATER TANK, 1962	VOL 2 P115
210	HOTEL, 1962	VOL 2 P108

SIGNAL TAPE PRINTOUT

MI-80-1-75

H-9553

005	7	38	56	12690	074	53	44342	250	0000	179960
015	7	39	45	44159	074	06	19764	250	0000	179960
130	7	39	16	27824	074	34	35883	139	0000	000000
150	7	39	19	28587	074	30	53706	139	0000	000000
160	7	39	20	03068	074	30	11664	139	0000	000000
170	7	39	21	09739	074	26	38701	139	0000	000000
180	7	39	21	26671	074	25	55913	139	0000	000000
190	7	39	21	58343	074	24	52376	139	0000	000000
200	7	39	22	14238	074	25	38434	139	0000	000000
210	7	39	23	58012	074	22	18905	139	0000	000000



VELOCITY CORPECTOP TAPE PPINTOUT

000240 0 0004 0001 001 222000 009553  
000260 0 0006  
000420 0 0008  
000480 0 0010  
000500 0 0012  
000540 0 0014  
000570 0 0016  
000650 0 0018  
000720 0 0020  
000790 0 0022  
000850 0 0024  
000900 0 0026  
000980 0 0028  
001050 0 0030  
001800 0 0040  
002550 0 0050  
003450 0 0060  
004000 0 0070  
000000 0 0080



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

11/12/75

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

Tide Station Used (NOAA Form 77-12): Atlantic City

Period: August 6 - September 15, 1975

HYDROGRAPHIC SHEET: H-9553

OPR: 517

Locality: Off the New Jersey Coast

Plane of reference (mean ~~lower~~-low water): 4.53 feet

Height of Mean High Water above Plane of Reference is 4.1 feet

Remarks: Recommended zoning:

(SEE ATTACHED SHEET)

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

Recommended zoning:

		<u>Time</u> <u>Correction</u>	<u>Range Ratio</u>
	<u>A. South of 39°20'</u>		
<i>Zone</i>	I (A1) West of 73°35'	-15 min.	x0.88
	II (A2) 73°35' to 73°20'	-20 min.	x0.80
	III (A3) 73°20' to 73°05'	-20 min.	x0.76
	<u>B. North of 39°20'</u>		
	IV (B1) West of 73°35'	-15 min.	x0.93
	V (B2) 73°35' to 73°20'	-15 min.	x0.88
	VI (B3) 73°20' to 73°05'	-20 min.	x0.80
	<u>VII C. East of 73°05'</u>	-25 min.	x0.73

H-9553

GEOGRAPHIC NAMES

Name on Survey	Source of Name											
	A	B	C	D	E	F	G	H	K			
	<small>                     A ON CHART NO.                      B ON PREVIOUS SURVEY NO.                      C ON U.S. QUADRANGLE MAPS                      D FROM LOCAL INFORMATION                      E ON LOCAL MAPS                      F P.O. GUIDE OR MAP                      G RAND MCNALLY ATLAS                      H U.S. LIGHT LIST                      K                 </small>											
BERKELEY CANYON												1
HENDRICKSON CANYON												2
MIDDLE TOMS CANYON												3
SOUTH TOMS CANYON												4
TOMS CANYON												5
												6
												7
												8
												9
												10
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												24
												25

APPROVED  
*Chas. B. Harrington*  
 STAFF GEOGRAPHER - CSIXZ  
 8 NOV. 1976

ATLANTIC MARINE CENTER  
APPROVAL SHEET  
FOR  
AUTOMATED SURVEY H- H-9553

- 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: June 17, 1976

Signed:

William J. 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: 17 June 1976

Signed:

C. MacArthur

Title: Chief, Processing Division

**HYDROGRAPHIC SURVEY STATISTICS**  
**HYDROGRAPHIC SURVEY NO. H-9553**

MI-80-1-75

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET & 2 overlays		1	BOAT SHEETS (2 parts)		1	
DESCRIPTIVE REPORT		1	OVERLAYS		<del>XX</del> 6	
DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES	1					
CAHIERS	2-with raw printouts		<del>XX</del>			
VOLUMES	2					
BOXES			1- final printout, PDR, fath., vols. & misc. data			
T-SHEET PRINTS (List)						
NONE						
SPECIAL REPORTS (List)						
NONE						

**OFFICE PROCESSING ACTIVITIES**

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				2453
POSITIONS CHECKED				
POSITIONS REVISED				
DEPTH SOUNDINGS REVISED				
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		2		
JUNCTIONS		8		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS		38		
SPECIAL ADJUSTMENTS				
ALL OTHER WORK		100		
<b>TOTALS</b>		148	31	
PRE-VERIFICATION BY		BEGINNING DATE	ENDING DATE	
J. Griffin, R.G. Cram		10-20-75	12-29-75	
VERIFICATION BY		BEGINNING DATE	ENDING DATE	
B.J. Stephenson		03-15-76	06-16-76	
REVIEW BY		BEGINNING DATE	ENDING DATE	
Hydrographic Inspection Team (AMC)		06-24-76	07/08/76	

9.c. Insp. D.J. Roesburg 9-13-76 25 hrs. B.K. Insp. V.P.S. 11/4/76 Baumgardner 4hrs 11/7/77  
G.P.O. 1972-769-562/439 REG.#6



REGISTRY NO. H-9553

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. \_\_\_\_\_

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-9553

Information for Future Presurvey Reviews

No significant changes are expected in this area.

Several nondangerous sunken wrecks charted in the present survey area were not verified.

Unexploded ordnance, charted in latitude 39°10', longitude 72°45.0' and latitude 39°10', longitude 72°52' may be dangerous to certain hydrographic operations.

Present survey depths are between 15 and 650 fathoms. The resurvey cycle is 50 years.

HYDROGRAPHIC INSPECTION TEAM

ATLANTIC MARINE CENTER

HYDROGRAPHIC SURVEY REVIEW

DATE: JUNE 24, 1976

REGISTRY NO.: H-9553

FIELD NO.: MI-80-1-75

GENERAL LOCALITY and SPECIFIC LOCATION:

New Jersey, Offshore New Jersey East Coast, off Atlantic City

SURVEYED: August 7, 1975 through September 15, 1975

PROJECT NO.: OPR-517

SCALE: 1:80,000

SOUNDINGS BY: Ross Fineline Recorder and  
Digitizer and McKierman-Terry  
Precision Depth Recorder

CONTROL: Decca HI-FIX  
Range-Range mode

Chief of Party ..... CDR W.V. Hull  
Surveyed by ..... LT(jg) T. Russell  
..... LT(jg) E. Fields  
..... LT(jg) K. O'Donnell  
..... ENS R. Marriner  
..... ENS S. Iwamoto  
..... ENS R. Mann  
Automated Plot by ..... Calcomp Plotter #618 (AMC)  
Verified and Inked by ..... B.J. Stephenson

1. Description of the Area

This area covers an area offshore of Atlantic City, New Jersey. Survey limits extend from approximately 18 fathoms on the west to the edge of the 500 fathom curve in the vicinity of Tom's Canyon. The bottom is predominantly sand and shell and has a gradual slope.

2. Control and Shoreline

The origin of control is adequately described in paragraph F of the Descriptive Report.

This is an offshore sheet and no shoreline is required.

### 3. Hydrography

- A. Crossings: Depths at crossings are in good agreement.
- B. Depth Curves: The usual depth curves are adequately delineated in the area surveyed.
- C. Developments: No developments on this sheet other than the close spacing in the areas of the 20 fathom curve.
- D. 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 exception: The bottom sampling is not considered adequate.

### 5. Junctions

An adequate junction has been effected with the following contemporary surveys:

H-9542 on the west  
 H-9547 and H-9552 on the northwest  
 H-9548 on the north  
 H-9574 on the northeast

There are no contemporary surveys on the south or southeast. Present survey depths are in harmony with charted depths in these areas.

### 6. Comparisons

#### A. Prior Surveys:

H-6192 (1936) 1:20,000  
 H-6220 (1938) 1:20,000  
 H-6219 (1937) 1:20,000  
 H-6345 (1938) 1:80,000

These surveys taken together cover the area of the present survey. A comparison between the prior and present surveys reveals only minor differences. Slight curve displacement and bottom configuration changes are evident. Such changes are considered to result from natural causes as the shifting of bottom material by ocean currents and numerous storms that have occurred in the area over the years. Survey depths differed by only one to three fathoms.

*See Quality Control Report*

B. Published Chart: C&GS 1108, 22nd edition, dated May 25, 1974.

(a) Hydrography

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

*See quality Control Report*

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

(b) Aids to Navigation

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

7. Compliance With Instructions

This survey does comply with the Project Instructions.

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-9553

Examined and Approved:  
Hydrographic Inspection Team  
Date: *June 24, 1976*

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

C352

September 13, 1976

*A. J. Patrick*  
TO: A. J. Patrick  
Chief, Marine Surveys Division  
THRU: Chief, Quality Control Branch  
FROM: D. J. Romesburg  
Quality Evaluator  
SUBJECT: Quality Control Report for H-9553 (1975), Offshore, Off  
Atlantic City, New Jersey

A quality control inspection of H-9553 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 survey H-9574 (1975) on the east has not been received from the field. Minor revisions to depth curves and soundings were made during quality control inspection in order to effect adequate junctions with H-9552 (1975) and H-9547 (1975) on the northwest and H-9542 (1975) on the west.
2. No indications of the nondangerous sunken wrecks charted in the following positions were found on the fathogram traces:

<u>Latitude</u>	<u>Longitude</u>
39°26.3'	72°50.0'
39°10.3'	73°20.5'
39°10.0'	73°07.0'
38°57.2'	73°06.0'

These wrecks should be retained on the chart. In addition, the Danger area and unexploded bomb charted in latitude 39°10.0', longitude 72°45.0', and latitude 39°10.0', longitude 72°52.0', respectively, should be retained.



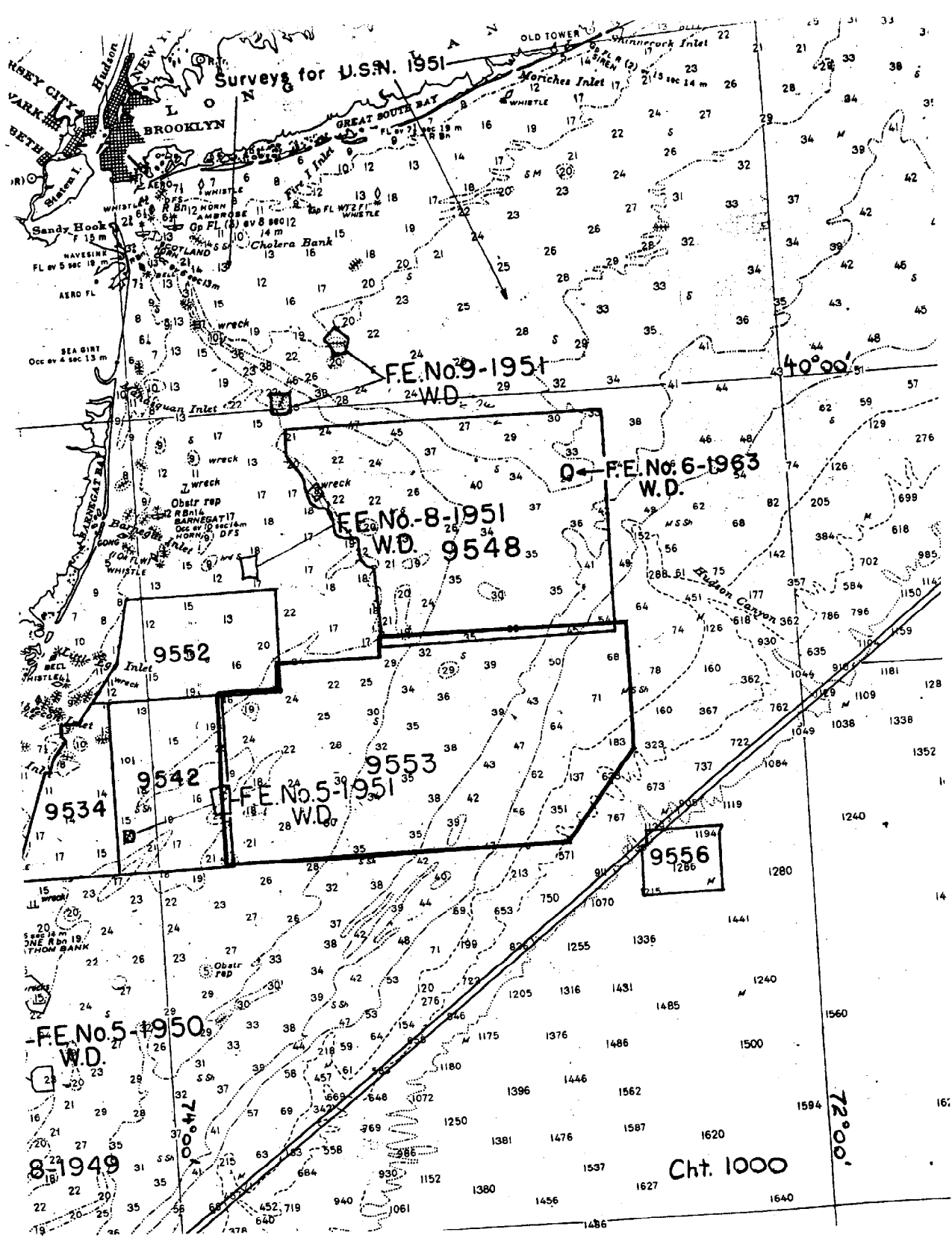
3. Differences in depths between the prior and present surveys are largely attributed to the methods of surveying. This statement should have been made by the verifier under the heading, Comparisons with Prior Surveys, in the review.

4. Some bottom characteristics and soundings from prior surveys have been carried forward to supplement the present survey during quality control.

Except as noted above, the present survey is considered to be complete and adequate and to conform to the standards of the National Ocean Survey.

cc:  
C351





Surveys for U.S.N. 1951

F.E. No. 9-1951  
W.D.

F.E. No. 8-1951  
W.D. 9548

F.E. No. 5-1951  
W.D.

F.E. No. 6-1963  
W.D.

F.E. No. 5-1950  
W.D.

8-1949

Cht. 1000

NEW YORK CITY  
BROOKLYN

Sandy Hook  
FL W 5 sec 19 m

SEA GIRT  
Occ av 4 sec 13 m

9534

9552

9542

9553

9556

