10129

Diagram No. 1206-2

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT

Type of Survey Hydrographic

Field No. HFP-5-1-83

Office No. H-10129

LOCALITY

State New Hampshire

General Locality Hampton Beach

Locality Hampton Harbor

1983

CHIEF OF PARTY
LCDR R.W.Jones

LIBRARY & ARCHIVES

DATE October 3, 1984

☆U.S. GOV. PRINTING OFFICE: 1980—766-230

10129

Area 1
CHTS
13278 INSET } to Reg. of Rec.
13274A } Record of Application

NOAA FORM 77-28 (11-72)

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

REGISTER NO.

H-10129

HYDROGRAPHIC TITLE SHEET

INSTRUCTIONS - The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

FIELD NO.

HFP-5-1-83-1 (OPR-S-A906-HFP-83)

State New Hampshire

General locality ~~Atlantic Coast~~

Locality Hampton Harbor ~~New Hampshire~~

Scale 1:5000 Date of survey 30 Aug - 8 Sept 1983

Instructions dated ~~10 June 1983~~ 29 July 1983 Project No. S-A906-HFP-83

Vessel NOAA Launch 0519

Chief of party LCDR Ronald W. Jones

Surveyed by Hydro Field Party #2

Soundings taken by echo sounder, hand lead, pole Echo Sounder and Sounding Pole

Graphic record scaled by JWH, BAL, JMR, CSW, RFT

Graphic record checked by JWH BAL

Protracted by ---------- Automated plot by Field Sheet PDP8/e
Smooth Sheet: XYNETICS 1204 Plotter(AMC)

Verification by

Soundings in ~~fathoms~~ feet at MLW ~~MLLW~~ ~~Feet at Mean Low Water~~

REMARKS: LT(jg) John W. Humphrey Jr., Officer-in-Charge
Brian A. Link, Assisstant OIC
James M. Robinett
Charles S. Weisner
Randy F. Trefethen

• Notes in the Descriptive Report were made in red during office processing.

AWOIS + SURF 1/7/85 MBM

STANDARDS CK'D 10-9-84

SC 4-16-97 C.Loy

NOAA FORM 77-28 SUPERSEDES FORM C&GS-837.

☆ U.S. GOVERNMENT PRINTING OFFICE: 1978-665-010-1174

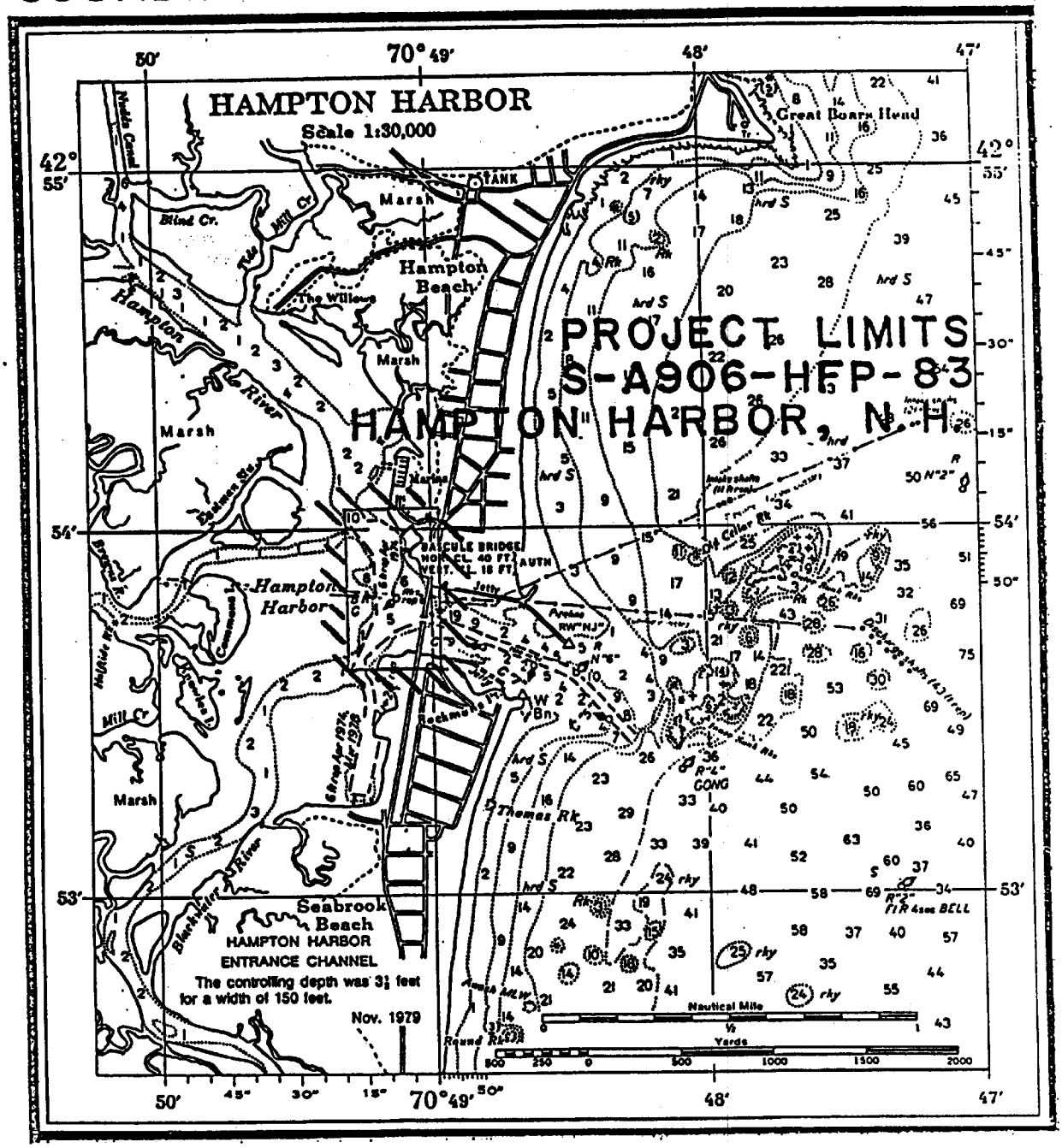
INDEX

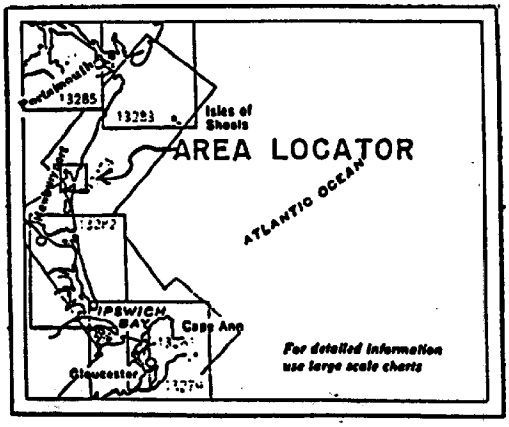
* Removed from the body of the original Descriptive Report and filed with original survey records.

SOUNDINGS IN FEET

13278

LORAN-C OVERPRINTED





DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SURVEY S-A906-HFP-83

A. PROJECT

This survey was conducted in accordance with project instructions S-906-HFP-83, dated ~~10 June 1983~~ 29 July 1983. No ammendments were made to the project instructions. The purpose of this survey was to resolve reports of dangerous rocks and to delineate the navigable channels within Hampton Harbor west of the bridge crossing the entrance.

B. AREA SURVEYED

This survey was conducted in Hampton Harbor, N.H. west of the bridge crossing the harbor entrance at 70° 49' 00"W. The area surveyed is bounded by the following geographic limits:

North:	42° 54' 15"
South:	42° 53' 15"
East:	70° 49' 00"
West:	70° 50' 00"

The shoreline along the eastern limit of the survey is charaterized by sand beaches and dunes south of 42°53'45"N and predominently bulkheaded and rip-rap shoreline with numerous private and commercial fishing wharfs north of 42°53'45"N. The entire western shore is marshland and uncovered areas.

The survey was conducted from Aug. 30, 1983 (J.D. 242) to Sept. 8, 1983 (J.D. 251) inclusive.

C. SOUNDING VESSEL

Soundings for this survey were obtained using NOAA Launch 0519.

D. SOUNDING EQUIPMENT AND CORRECTIONS TO ECHO SOUNDINGS.

Raytheon Model DE-719C fathometer, S/N 9955 was used for all echo soundings. A sounding pole was used in shoal areas to obtain soundings by hand. No problems were encountered with the fathometer.

Velocity corrections were determined from bar checks taken on each day of hydrography. Any necessary adjustments were made and noted on the fathogram. Any departure of the trace from the calibration was corrected during the scanning process.

A transducer draft of 1.2 feet was applied to all echo soundings. Settlement and squat correctors were determined by the level method and will be applied based on results shown on the appended abstract and graph in Appendix D.

E. HYDROGRAPHIC SHEETS

All survey data were plotted on two mylar field sheets using a PDP8/e and a Houston Instrument automated plotter Model DP3-5.

Sheet Scale	Type	Skew
1 : 5,000	Mainscheme Crosslines Bottom Samples Detached Positions	90,21,35
1 : 2,500 (Blow-up)	Development of dangerous rock area	90,8.5,11

Soundings on the final field sheets are corrected for vessel draft and unverified actual tides. Program AM 500 was used with actual heights scanned from ADR tide tape insert in place of predicted values. Velocity correction tape was not used due to the limitations of Hydroplot Program RK216 (Range/Azimuth Non-Real Time Plot) Version 2/09/81. The final smooth sheet will be plotted at the Atlantic Marine Center, Norfolk, Virginia. All field records and the following tapes have been forwarded to Atlantic Marine Center, Hydrographic Surveys Branch:

Generated Master Range/Azimuth Tapes
Electronic Corrector Tapes
Velocity Corrector Tape
Parameter Tape
ASCII Signal Tapes
TC/TI Tape

Refer to section H. (Shoreline) for a discussion of shoreline source for the field sheet and the alignment of the field sheet shown thereon.

F. CONTROL STATIONS

Two third-order control stations were used to control this survey. Positions used on the signal tape were unadjusted field computed positions supplied by HFPS Field Support Section pending entry into the NGS terminal. A signal list is appended to this report.

G. HYDROGRAPHIC POSITION CONTROL

Range/Azimuth position control was used with Del Norte equipment and a Nikon NT2D theodolite for all hydrography. On J.D.'s 243, 244 and 250 a Hewlett-Packard 3808A modified with theodolite yoke, was used for shoreline change positioning and shoreline verification. The following equipment was used:

Equipment	Serial Number
Del Norte DMU	123
Del Norte Master	263

G. (CONT.)

Del Norte Remote	1322
Nikon NT2D Theodolite	031033
Hewlett-Packard 38008A	1723A00727

Baseline calibrations were conducted on 08/29/83 prior to starting hydrography and again on 9/9/83 upon completion of hydrography over a baseline distance determined by repetitive observations with a Hewlett-Packard 3808A EDM.

Static point calibrations for daily checks were made by laying alongside signal 002 (at bulkhead corner) and using the inverse distance from signal 001, which was used as the range station for all hydrography.

H. SHORELINE - See also section 2.b of the Evaluation Report

Source for the shoreline shown on the field sheet was taken from a 1:5000 scale chart blow-up of the inset of Chart 13278, 19th. Ed. MAR 5/83. The registered shoreline map (T11149, dated 1952-53) furnished with the project instructions was inadequate since many natural and man-made changes have occurred to the shoreline since 1953, most of which appear on the 19th. Ed. of Chart 13278. Shoreline shown in brown on the field sheet was applied for orientation purposes only, and was visually inspected for charted accuracy. Areas shown in solid red on field sheet are discrepancies found and located using an HP-3808A. Areas shown dashed ~~read~~ red on field sheet were determinations of the HWL located using the HP-3808A as a cursory check of charted shoreline.

Major revisions found are as follows:

1) A New Hampshire Public Service Commission pier facility was located. This change is centered at LAT:42/53/28.7N. LONG:70/49/12.7W.- concur - and is outlined by pos. 340-349.

2) The shoreline centered at LAT:42/53/54.3N. LONG:70/49/03.6W has been bulkheaded for commercial fishing purposes and is outlined by pos. 72-75. concur

3) A charted pier was revised with pos. 77-78 and 357 centered at LAT:42/53/56.5N, LONG:70/49/06W. concur

4) A charted pier was revised with pos. 350-351 at LAT:42/53/58.8N. LONG:70/49/06.5W. concur

5) A pier was located with pos. 352-353 at LAT:42/54/00.9N, LONG: 70/49/09.9W concur

6) The HWL in an area subject to continual change was defined with pos. 79-87. This shoreline area is centered at LAT:42/53/39.9N, LONG:70/49/07.9W.- concur

H. (CONT.)

To assist verifiers aligning the field sheet on the distorted chart blow-up, the following table lists the relationship of field sheet grid H. lines to chart blow-up grid lines.

GRID LINE	RELATIONSHIP OF FIELD SHEET ON BLOW-UP
42°53'00"	4.0mm N.
42°53'15"	2.5mm N.
42°53'30"	1.5mm N.
42°53'45"	1.0mm N.
42°54'00"	centered on grid line
42°54'15"	1.0mm S.
42°54'30"	2.0mm S.
42°54'45"	3.0mm S.
42°55'00"	4.5mm S.
70°48'45"	1.0mm W
70°49'00"	0.5mm W.
70°49'15"	centered on grid line
70°49'30"	0.5mm E.
70°49'45"	1.5mm E.
70°50'00"	2.0mm E.
70°50'15"	3.0mm E.

I. CROSSLINES

Crosslines were run at 90° to the mainscheme hydrography and accounted for 11.8% of the total sounding line mileage. Comparison of crossline hydrography to mainscheme shows excellent agreement in all areas where crosslines were run.

J. JUNCTIONS - See section 5 of the Evaluation Report

This survey does not junction with any prior or contemporary surveys, however it has a common area with the prior survey listed under section K. of this report.

K. COMPARISON WITH PRIOR SURVEYS - See also section 6 of the Evaluation Report.

This survey was compared with the following prior survey:

COMMON AREA	FIELD NO.	REG. NO.	SCALE	DATE
HAMPTON HBR.	ECFP-1353	H-8097	1:10,000	Aug. 53-July 54

Comparison of hydrography between the contemporary and prior surveys shows general agreement within 1-2 feet. Of special note are:

The area leading NNW from the centerspan of the bridge where depths were noted to be 2 to 3 feet deeper than prior soundings, especially adjacent to the eastern shoreline in the vicinity of the new bulkhead at 42/53/54.3N, 70/49/03.6W. - concur

K. (CONT.)

Generally deeper depths were found in the channel leading southward along the 70/49/15 meridian. - concur

A large area of rocks baring to 1 foot was found centered at 42/53/47.2N, 70/49/07.7W. Prior survey shows a least depth of ½ foot in this area. A more complete discussion of this area is found in Section L. The rocks range from awash to submerged five(5) feet as plotted on the processed smooth sheet

AWOIS 1/7/85 msm

Soundings in the mouth of the Blackwater River at 42/53/06N, 70/49/18W are 1-~~A~~5feet shoaler than prior soundings. See Section L. for a further discussion of this area.

No numbered pre-survey review items were included in the project instructions for this survey.

L. COMPARISON WITH THE CHART - See also section 7.a and 7.b of the Evaluation Report

Comparison of this survey was made with chart 13278, 19th Edition, March 5, 1983, 1:5,000-scale blow-up of Hampton Harbor Inset.

An area of rocks, charted on 13278 as rocks rep., was investigated as part of this survey. Detached positions were taken on the following single large rocks:

POS. NO.	GEO. POSITION	L.D.@MLW*
358	42/53/46.9N 70/49/04.9W	1.4 ~~0.8~~ ft.
359	42/53/47.1N 70/49/06.7W	1.4 ~~0.8~~ ft.
360	42/53/47.2N 70/49/07.7W	-0.2 ~~Bares 0.6~~ ft.
361	42/53/47.5N 70/49/07.8W	2.8 ~~2.4~~ ft.
362	42/53/47.8N 70/49/07.6W	2.3 ~~1.7~~ ft.
363	42/53/48.5N 70/49/06.9W	2.4 ~~2.0~~ ft.

* Note: Depths under 1.0 feet plotted on the field sheet by computer as zeroes. Depths were taken by pole sounding. The rock area should be charted as shown on the present survey smooth sheet.

This area of rocks is shown on the mainscheme field sheet as the zero foot contour. A 1:2,500-scale blow-up of this area is included as part of this survey to clarify soundings in this area. The cartographic symbol for a ledge is shown on the blow-up, which should ultimately be used as the

L. (CONT.)

correct chart representation. A danger to navigation report dated 20 Sept. 1983 was submitted to the Chief, Chart Information Section and the Commander, First Coast Guard District, and is appended to this report. Area shown as "Foul with rocks" on the smooth sheet.

A 2 Ft. Rep. Note at 42/53.1N and 70/49.2 W should be deleted from the chart. The area was found to uncover at MLW. - Recommend charting as shown on the smooth sheet.

A danger to navigation report dated 11 Jan. 1984 was also submitted on the following three items:

1. Severe shoaling to awash at MLW has occurred within the charted L. channel limits at 42/53/43.0 N. and 70/49/10.8 W. - Concur - recommend charting as shown on the smooth sheet.

2. The 6 Ft. Rep. March 1980 regarding the channel leading southerly along the 70/49/15 W. meridian should be changed to read 43 FT. Sept. 1983. This change is based on soundings south of 42/53/37 N. only.

3. The mouth of the Blackwater River appears to have shifted North approximately 200 meters. The currently charted mouth at 42/53.6 N and 70/49.3 W shows depths from 1-4 feet, but was found to uncover to 4 feet. An area charted as uncovers at 42/53.7 N and 70/49.3 W. was found to have depths from 1-5 feet. Complete hydrography was not run west and south of the mouth, however a crossline run along the 42/53.65 N parallel also indicated a shift of the river source. The Blackwater River is not a main channel within Hampton Harbor and very little traffic transits this area.

Charted Harbor Channel limits, if retained on future editions should be updated to reflect hydrography from this survey. The present chart depiction of Hampton Harbor shows the location of the maintained channel to the south of the Black over Red Junction buoy upon entering the channel from sea. This is in direct conflict with the interpretation of the Black over Red Junction buoy which indicates preferred channel to starboard or north of the buoy upon entering the harbor. The preferred channel northerly into Hampton Harbor follows a course from east thru the center-span of the bridge then immediately turning NNW along the eastern shoreline. Vessels transiting Hampton Harbor southerly rely heavily on local knowledge due to severe shoaling previously mentioned. This channel (currently charted as 6 Ft. Rep. March 1980 North of 42/53/45 N. and adjacent to the western uncovers shoreline) is rarely used by other than locals. It is recommended that the dashed channel delineation be deleated and only representative soundings be shown in this area. Other chart discrepancies are discussed in Section H. (Shoreline) of this report. Concur

M. ADEQUACY OF SURVEY

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

N. AIDS TO NAVIGATION - See also section 7.c of the Evaluation Report.

One floating aid is included within the limits of this survey.

N. (CONT.)

A black over red junction can buoy was located at LAT. 42/53/46.0 N, LONG. 70/49/03.8 W, at the intersection of the two main channels within Hampton Harbor, indicating the preferred channel is to starboard. While this aid serves its apparent purpose, a recommendation for three regulatory markers around dangerous rock area was made in the appended danger to navigation report to the U.S.C.G., First District.

No fixed aids to navigation or landmarks lie within the area surveyed (Section B).

O. STATISTICS

LINEAR NAUTICAL MILES OF HYDROGRAPHY	15.0
LINEAR NAUTICAL MILES OF CROSSLINES	2.0
TOTAL LINEAR MILES OF HYDROGRAPHY	17.0
TOTAL NO. OF POSITIONS	394
BOTTOM SAMPLES	3
BAR CHECKS	6

P. MISCELLANEOUS

Due to the continual changeable nature of Hampton Harbor in most areas, caused by sand movements from wind and tidal currents, and the lack of navigational aids, the hydrographer recommends a note on the Hampton Harbor Inset indicating the Harbor "be transitted with extreme caution or local knowledge." A similar notation appears under the Hampton Harbor Section of the U.S.C.G. light list Vol. 1, 1983.

The following were contacted during the course of the survey and provided information regarding harbor use, commercial and recreational, and user evaluation of present chart accuracy.

Mr. Ken Lang	Dept. of Resource and Economic Development P. O. Box 1355 Portsmouth, NH
Mr. Fred Clews Jr.	Hampton Harbor Harbormaster New Hampshire Port Authority 167 Ashworth Avenue Hampton Beach, NH 03842 (603) 926-2525
John Fitzpatrick	Hampton Marina Hampton Beach, NH 03842

P. (CONT.)

Mr. Dave Witham	Hampton Beach Village Precinct District Commissioner 32 Ashworth Avenue Hampton Beach, NH 03842 (603) 926-2431
Mr. Jack Clyde Mr. Steve Johnston	Survey Unit U.S. Army Corps of Engineers, NED 424 Trapelo Road Waltham MA 02154 (617) 647-8526
LT Michael Anderson	U.S. Coast Guard Merrimac Station Newburyport, MA (617) 465-5921

No current anomalies were observed during hydrography.

Q. RECOMMENDATIONS

The course of the Blackwater River should be addressed on future surveys, or revised from current or future photography if or when available. The river is very low volume traffic area and is not considered a critical change to the Hampton Harbor inset.

R. AUTOMATED DATA PROCESSING

PROGRAM		VERSION
RK 201	GRID, SIGNAL, LATTICE PLOT	04/18/75
RK 212	VISUAL TABLE LOAD	04/01/74
RK 216	R/AZ NON-REAL TIME PLOT	02/09/81
RK 300	UTILITY COMPUTATIONS	02/05/76
RK 330	DATA REFORMAT AND CHECK	05/04/76
AM 602	ELINORE	05/20/75
AM 500	PREDICTED TIDE GENERATOR	11/10/72

S. REFERENCE TO REPORTS

Horizontal Control Report for S-A906-HFP-83.

Respectfully submitted,

John W. Humphrey Jr.

John W. Humphrey
Lt. (jg) NOAA
OIC, HFP-2

APPROVAL SHEET
SURVEY (HFP-5-1-83 - OPR-S-A906-HFP-83)

The hydrographic records transmitted with this report are complete and adequate.

No direct supervision was given by me during field work and the survey sheet was inspected after field work ended.

This survey is complete and adequate within the project area and no additional field work is recommended.

Ronald W Jones

Ronald W. Jones
Lt. Cdr.,NOAA
Chief, Hydrographic Field Parties Section

SIGNAL LIST
OPR-S-A906-HFP-83
HAMPTON HARBOR, N.H.

001 4 42 53 38433 070 49 04820 250 0000 000000 HUMPHREY, 1983

002 4 42 53 53179 070 49 02687 250 0000 000000 PK HAMPTON, 1983

Signals 001 and 002 were located to NGS Third Order Standards by AMC,HFPS, Field Support Section. Positions used are unadjusted field positions, pending entry of field data into the NGS terminal.

Form Approved. Budget Bureau No. 41-R2455

ESSA FORM 77-6
(10-68)

U.S. DEPARTMENT OF COMMERCE
ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION

COAST PILOT REPORT

PLEASE MAIL TO:

Director
Coast and Geodetic Survey
Environmental Science Services Administration
ATTENTION: C325
Rockville, Maryland 20852

This record of your experience and observations when coasting, entering port, and/or following inside channels will be used to correct, amplify, or confirm the description now given in the Coast Pilot.

Please use additional sheets if more space is needed.

Additional report forms will be provided upon receipt of each report.

GEOGRAPHIC LOCATION

Hampton Harbor, N.H.

LATITUDE	LONGITUDE	CHART NUMBER	COAST PILOT NUMBER
42° 53.8'N	70° 49.0'W	13278	1

VESSEL	MASTER/COMMANDING OFFICER
NOAA Launch 519	LT.(jg) John W. Humphrey
DATE OF OBSERVATION	**OBSERVER**
8/30-9/8, 1983	Hydrographic Field Party 2

I. LANDMARKS: Mention those visible from seaward and useful for navigation (day and/or night); include natural ranges and indicate the pair of marks forming a range. Photographs of landmarks difficult to describe are solicited; each view should be labeled with the distance off and the direction towards which the camera was pointed.

TYPE	CHARTED YES	CHARTED NO	LATITUDE (Approximate)	LONGITUDE (Approximate)	DESCRIPTIVE INFORMATION HELPFUL IN IDENTIFICATION

II. RADAR: List best radar targets and, if known, give maximum useful radar range at which the object can be positively identified and used. Mention under remarks places you have observed radar returns to be misleading.

NAME OR TYPE OF FEATURE (Include approximate latitude and longitude if necessary to identify on chart)	MAXIMUM USEFUL RANGE

III. ROUTES: Where entrance and inside routes are not marked by aids to navigation, show recommended directions for Coast Pilot (latitude and longitude of entrance point, and distances and true courses made good); include natural steering ranges if available.

USCOMM-DC 36063-P68

IV. DANGERS: Mention those of concern to the navigator where special caution should be indicated in the Coast Pilot.

To replace under Caution (pg.205, L. 49-53) - A rocky ledge centered at 42° 53.8'N; 70° 49.1'W, awash at mean low water, exists 0.07 miles WNW of centerspan of State Rte. 1A bridge. Mariners are advised to head immediately North or WSW after passing through the centerspan of the bridge. The channel leading southward to Seabrook is unmarked and subject to shoaling, and should be used with local knowledge or extreme caution only.

V. CURRENTS: Indicate places you have experienced conditions of current where special caution should be mentioned in the Coast Pilot.

VI. ANCHORAGES: Mention best anchorage in the area and other secure anchorages having good holding ground.

LOCATION *(Include anchorage bearings and natural ranges if available)*

TYPE OF BOTTOM OBSERVED:

	EXCEL.	GOOD	FAIR	POOR	COMMENT
HOLDING QUALITY					
PROTECTION OFFERED					
ACCESSABILITY					

RECOMMENDED FOR VESSELS:

LENGTH	DRAFT
____ TO ____ FT.	____ TO ____ FT.

VII. REMARKS: Channels - To replace L.16-21, pg.205. The controlling depth in the channel leading southward to Seabrook should be 3ft. August 1983. The 2ft. rep in the spur channel to the barge pier should be deleted, as this area uncovers at mean low water. The channel northward should show a controlling depth of 5ft, August 1983.

Other than remarks made under sections IV and above in section VII, Chart 13278 for Hampton Harbor is adequately described in Coast Pilot 1, Nineteenth Edition, January 1983, on pages 204-205.

VIII. OTHER COAST PILOT CHANGES

U.S. COAST PILOT

NUMBER	EDITION	PAGE	LINE(S)

NOTE: Any chart(s) submitted with your report to show conditions will be replaced free of charge.

READ: STRIKE OUT: INSERT AFTER: *(Circle one)*

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Atlantic Marine Center
Hydrographic Field Parties Section

January 11, 1984 N/MOA233:RWJ

TO: N/CG222 - Norman E. Banks

FROM: N/MOA233 - Ronald W. Jones Ronald W Jones

SUBJECT: Advance Information - Dangers to Navigation - Hampton Harbor, New Hampshire (Chart 13278)

The enclosed copies of letter and overlay have been transmitted to the Commander, First Coast Guard District.

The items described are considered to be "Dangers to Navigation" and are located on contemporary field examination OPR-S-A906-HFP-83 accomplished by Hydrographic Field Party 2.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Atlantic Marine Center
Hydrographic Field Parties Section

January 11, 1984 N/MOA233:RWJ

TO: Commander
First Coast Guard District

FROM: Lt.Cdr. Ronald W. Jones Ronald W Jones
Chief, Hydrographic Field Parties Section

SUBJECT: Information Pertinent to Navigation in Hampton Harbor, NH
Chart 13278

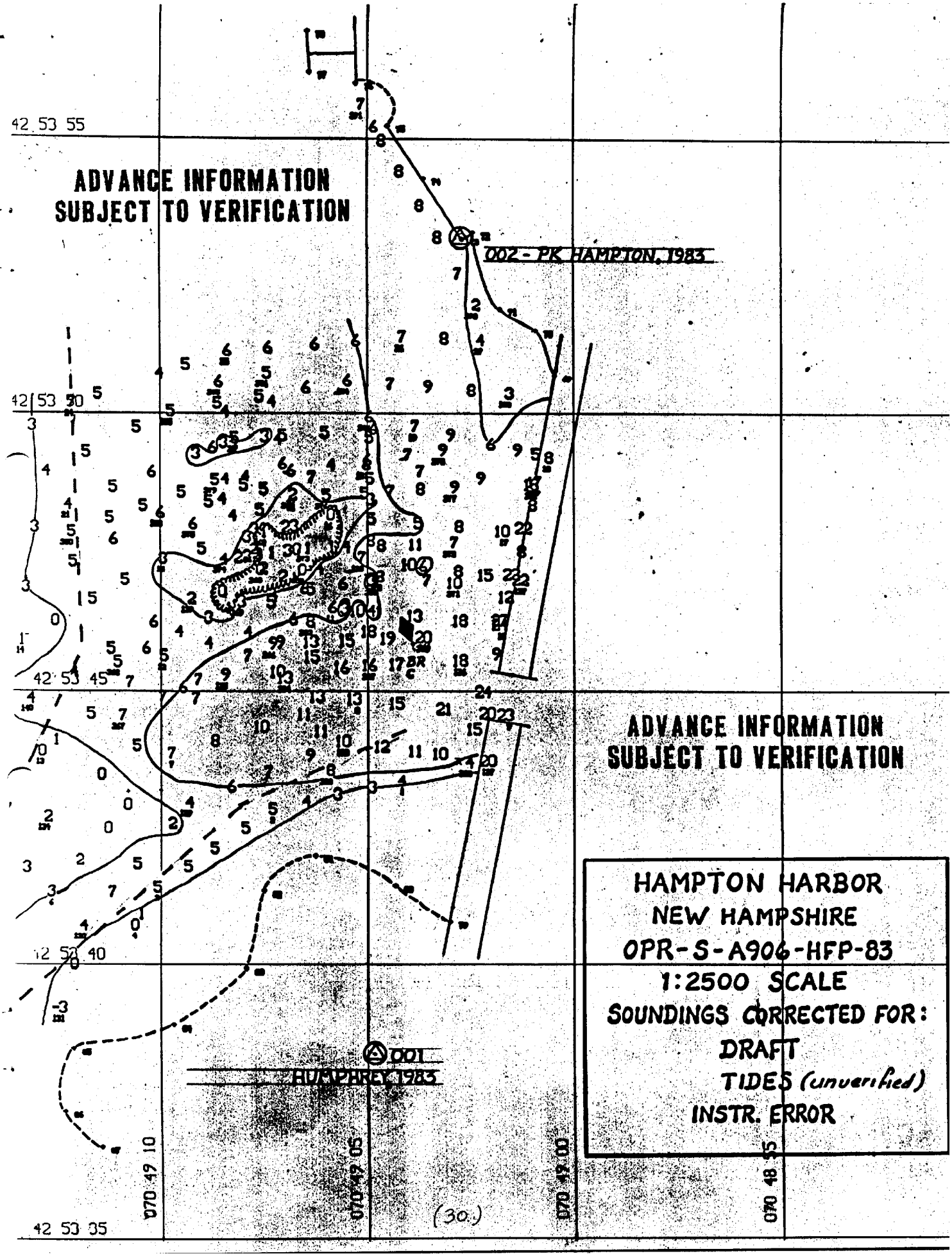
The following information is a result of a recent National Ocean Service hydrographic survey of Hampton Harbor, New Hampshire. This information is in addition to that previously transmitted, 20 September 1983, by Lt.(jg) J. W. Humphrey, Officer in Charge, HFP-2 pertaining to dangerous rocks in Hampton Harbor.

1. Severe shoaling awash at MLW has occurred within the charted channel limits at 42/53/43.0N and 70/49/10.8W.

2. The 6 ft. reported March 1980 regarding the channel leading southerly along the 70/49/15W meridian should be changed to read 3 ft. September 1983. This change is based on soundings south of 42/53/37N only.

3. The mouth of the Blackwater River appears to have shifted northerly approximately 200 meters. The currently charted mouth at 42/53.6N and 70/49.3W shows depths from 1-4 feet, but was found to uncover 4 feet at MLW. An area charted as uncovers at 42/53.7N and 70/49.3W was found to have depths from 1-5 feet. Complete hydrography was not run west and south of the mouth, however, a crossline run along the 42/53.65N parallel also indicated a shift of the river's mouth. The Blackwater River is not a main channel within Hampton Harbor and very little traffic transits this area.

The hydrography on this survey was controlled by Range/Azimuth techniques, a Del Norte distance/Nikon NT2D theodolite angle. Sounding data were obtained by a Raytheon Model 719B fathometer. Soundings on the copy of the field sheet appended have been reduced using unverified actual tides and are subject to change with the application of smooth tides.


ADVANCE INFORMATION
SUBJECT TO VERIFICATION
002 - PK HAMPTON, 1983
001
HUMPHREY 1983
42 53 55
42 53 50
42 53 45
42 53 40
42 53 35
070 49 10
070 49 05
070 49 00
070 48 55
ADVANCE INFORMATION
SUBJECT TO VERIFICATION
HAMPTON HARBOR
NEW HAMPSHIRE
OPR-S-A906-HFP-83
1:2500 SCALE
SOUNDINGS CORRECTED FOR:
DRAFT
TIDES (unverified)
INSTR. ERROR

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
439 W. York St.
Norfolk, VA 23510
MOA233

DATE : 20 September 1983
TO : Chief, Chart Information Section, N/CG222
THRU : LCDR R. W. Jones, Chief, Hydrographic Field Parties Section
FROM : LT(j.g.) J. W. Humphrey, OIC, Hydrographic Field Party - 2
SUBJECT : Danger to Navigation Report for Hampton Harbor, New Hampshire

Rocks, formerly reported in Chart Letter 1624/75 and currently charted as "rocks reported", which pose a serious danger to navigation within Hampton Harbor, have been found and positioned while conducting a basic hydrographic survey of the harbor.

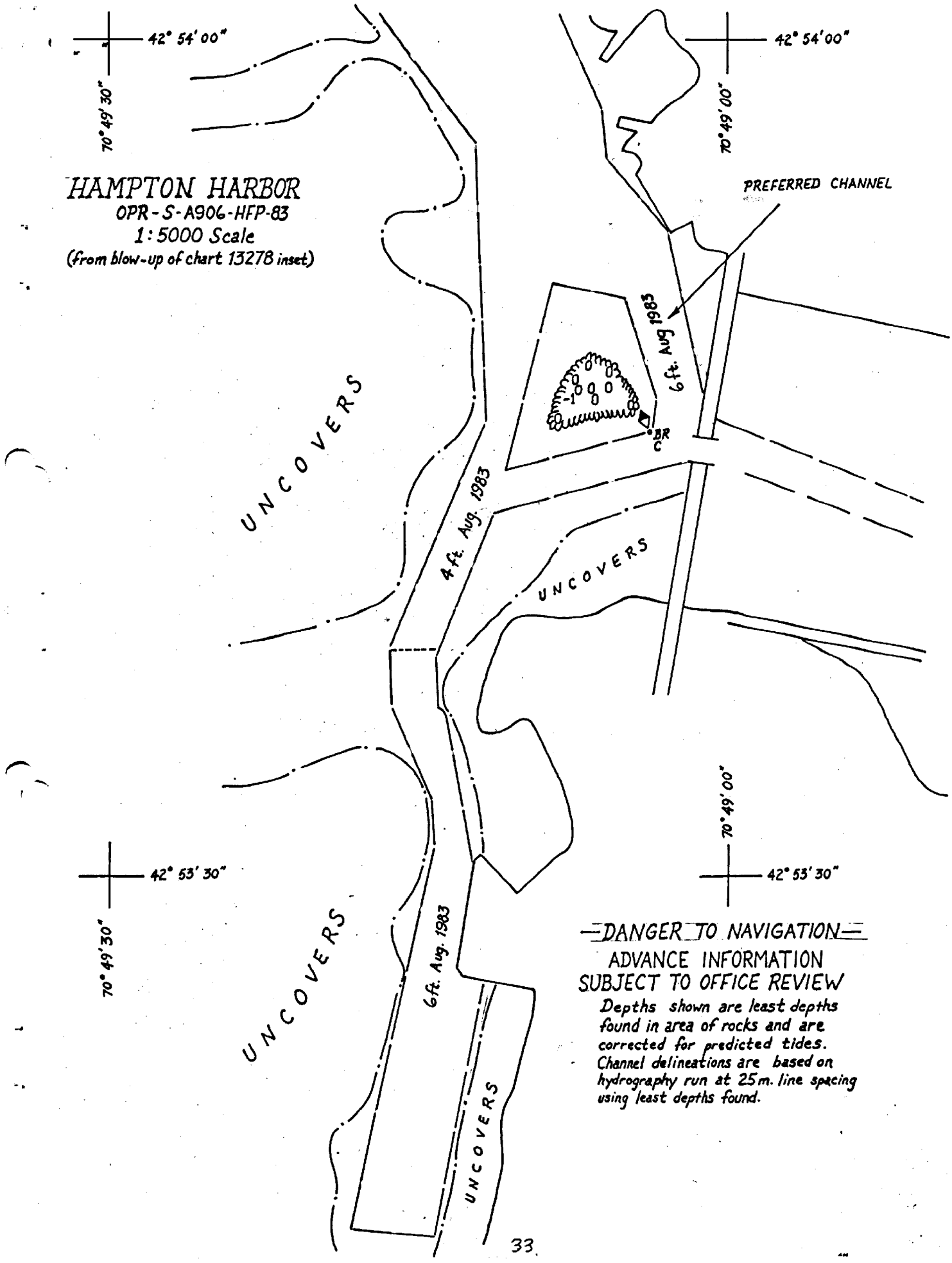
- Single large rock awash at Mean Low Water at position:
  42°53' 47.0"N
  70°49' 04.5"W
- Single large rock with 0.8' least depth at Mean Low Water at position:
  42°53' 48.7"N
  70°49' 07.0"W
- Single large rock wth 0.4' least depth at Mean Low Water at position:
  42°53' 46.5"N
  70°49' 08.0"W
- Single rock exposed 1.5' at Mean Low Water at position:
  42°53' 48.3"N
  70°49' 07.5"W

The triangular area formed by the first three positions is foul with rocks, 0' to 4' depths at Mean Low Water, and is marked by a junction can buoy (Black over Red, preferred channel to starboard) at 42°53' 46.0"N- 70°49' 03.8"W.
The hydrographer recommends three regulatory markers with "rock" notation to delineate the area of rocks.
Attached is chart section showing the area of rocks and correct channel limits for immediate chart correction pending verification of project OPR-S-A906-HFP-83.
All positions were obtained using Range/Azimuth control, third order

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
439 W. York St.
Norfolk, VA 23510

horizontal control stations, Nikon NT2D Theodolite and Del Norte electronic positioning system.

The above information was relayed by LT(j.g.) Humphrey via telephone to Chief Hoovler, Aids to Navigation Office, First Coast Guard District, Boston, MA, on 20 September 1983.


42° 54' 00"
70° 49' 30"
HAMPTON HARBOR
OPR-S-A906-HFP-83
1:5000 Scale
(from blow-up of chart 13278 inset)
42° 54' 00"
70° 49' 00"
PREFERRED CHANNEL
6 ft. Aug 1983
-10
BR
C
UNCOVERS
4 ft. Aug. 1983
UNCOVERS
70° 49' 00"
42° 53' 30"
42° 53' 30"
70° 49' 30"
UNCOVERS
6 ft. Aug. 1983
UNCOVERS
DANGER TO NAVIGATION
ADVANCE INFORMATION
SUBJECT TO OFFICE REVIEW
Depths shown are least depths found in area of rocks and are corrected for predicted tides.
Channel delineations are based on hydrography run at 25m. line spacing using least depths found.

February 8, 1984

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

TIDE NOTE FOR HYDROGRAPHIC SHEET

Marine Center: Atlantic

OPR: A 906

HYDROGRAPHIC SHEET: [redacted]255 H10129

Locality: Hampton Harbor, New Hampshire

Time Period: August 30 - September 8, 1983

Tide Station Used: 842-9489, Hampton Harbor, New Hampshire

Plane Of Reference (Mean [redacted] Low Water): 1.33 Ft.

Height Of Mean High Water Above Plane Of Reference: 8.7 Ft.

Remarks: Recommended Zoning:

Zone Direct

James R. Hubbard
Chief, Tidal Datum Section

NOAA FORM 76-155
(11-72)

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

GEOGRAPHIC NAMES

SURVEY NUMBER

H-10129

Name on Survey	A ON CHART NO.	B ON PREVIOUS SURVEY NO.	C ON U.S. QUADRANGLE MAPS	D FROM LOCAL INFORMATION	E ON LOCAL MAPS	F P.O. GUIDE OR MAP	G RAND MCNALLY ATLAS	H U.S. LIGHT LIST	K	
COMMONS ISLAND	X									1
HAMPTON HARBOR	X									2
HAMPTON HARBOR INLET	X									3
LOCKE POINT	X									4
NEW HAMPSHIRE (title)	X									5
EASTMAN SLOUGH										6
HAMPTON BEACH (locality)										7
SEABROOK BEACH (locality)										8
HAMPTON RIVER										9
										10
										11
										12
										13
										14
										15
										16
					Approved:					17
										18
					Charles L. Hutchinson					19
					Chief Geographer - N/CG2x5					20
					AUG 14 1984					21
										22
										23
										24
										25

NOAA FORM 76-155 SUPERSEDES C&GS 197

NOAA FORM 77-27 | U.S. DEPARTMENT OF COMMERCE | REGISTRY NUMBER

HYDROGRAPHIC SURVEY STATISTICS

H-10129

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET	1	SMOOTH OVERLAYS: POS., ARC, EXCESS	3
DESCRIPTIVE REPORT	1	FIELD SHEETS AND OTHER OVERLAYS	1

DESCRIPTION	DEPTH/POS RECORDS	HORIZ. CONT. RECORDS	SONAR-GRAMS	PRINTOUTS	ABSTRACTS/ SOURCE DOCUMENTS	
ACCORDIAN FILES	1					
ENVELOPES					2	
VOLUMES	2					
CAHIERS	1					
BOXES						

SHORELINE DATA

SHORELINE MAPS(List):

PHOTOBATHYMETRIC MAPS(List):

NOTES TO THE HYDROGRAPHER(List):

SPECIAL REPORTS(List):

NAUTICAL CHARTS(List):

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS		
	VERIFICATION	*EVALUATION*	*TOTALS*
POSITIONS ON SHEET			426
POSITIONS REVISED	23		23
SOUNDINGS REVISED	75		75
CONTROL STATIONS REVISED			
	TIME - HOURS		
	VERIFICATION	*EVALUATION*	*TOTALS*
PRE-PROCESSING EXAMINATION	8		8
VERIFICATION OF CONTROL	1		1
VERIFICATION OF POSITIONS	7		7
VERIFICATION OF SOUNDINGS	26		26
VERIFICATION OF JUNCTIONS			
APPLICATION OF PHOTOBATHYMETRY			
SHORELINE APPLICATION/VERIFICATION	4		4
COMPILATION OF SMOOTH SHEET	56		56
COMPARISON WITH PRIOR SURVEYS AND CHARTS		10	10
EVALUATION OF SIDESCAN SONAR RECORDS			
EVALUATION OF WIRE DRAGS AND SWEEPS			
EVALUATION REPORT		27	27
OTHER		10	10
DIGITIZING	12		12
TOTALS	114	47	161

Pre-processing Examination by C.D. Meador	*Beginning Date* 2 FEB 1984	*Ending Date* 6 FEB 1984
Verification of Field Data by R.L. Keene, D.V. Mason	*Time(Hours)* 114	*Ending Date* 12 JUN 1984
Verification Check by R.R. Hill, Jr.	*Time(Hours)* 21	*Ending Date* 13 JUN 1984
Evaluation and Analysis by R.G. Raberson	*Time(Hours)* 47	*Ending Date* 21 AUG 1984
Inspection by R.D. Sanocki	*Time(Hours)* 4	*Ending Date* 17 AUG 1984

ATLANTIC MARINE CENTER
EVALUATION REPORT

REGISTRY NO.: H-10129 FIELD NO.: HFP 5-1-83

New Hampshire, Hampton Harbor

SURVEYED: 30 August through 8 September 1983

SCALE: 1:5,000 PROJECT NO.: S-A906-HFP-83

SOUNDINGS: DE 719C Fathometer, Sounding Pole CONTROL: Del Norte/Theodolite (Range/Azimuth)

Chief of Party.....R. W. Jones

Surveyed by.....J. W. Humphrey, Jr.
.....B. A. Link
.....J. M. Robinett
.....C. S. Weisner
.....R. F.Trefethen

Automated Plot by.....Xynetics 1201 Plotter (AMC)

1. INTRODUCTION

a. No unusal problems were encountered during office processing of this survey.

b. Notes in the Descriptive Report were made in red during office processing.

2. CONTROL AND SHORELINE

a. Control is adequately discussed in sections F, G and S of the Descriptive Report.

b. Shoreline on the smooth sheet originates with three (3) sources. Black shoreline originates with an enlargement of Photogrammetric Manuscript T-11149 of 1952-53. Red and dashed red shoreline originates with the hydrographer's final field sheet and supersedes the currently charted shoreline. Brown shoreline originates with an enlargement of chart 13278 (19th Edition, MAR 5/83) and is for orientation purposes only.

3. HYDROGRAPHY

a. Soundings at crossings agree within the limits prescribed in sections 4.6.1 and 6.3.4.3 of the Hydrographic Manual and section 6.6 of the Project Instructions.

b. The standard depth curves could be drawn in their entirety. Supplemental and dashed curves were added to show additional bottom relief.

c. Development of the bottom configuration and determination of least depths is considered adequate except:

1) A more complete delineation of an apparent channel to the entrance of Hampton Harbor should have been completed in approximate Latitude 42°53'43.0"N, Longitude 70°49'08.25"W.

2) In the approximate Latitude 42°54'08"N, Longitude 70°49'08"W, additional lines of hydrography should have been run to delineate the entrance to the charted marina.

3) In approximate Latitude 42°53'25"N, Longitude 70°49'10"W, additional hydrography should have been run along the keel line and the wharf face at the New Hampshire Public Pier Facility.

4. CONDITION OF SURVEY

The smooth sheet and accompanying overlays, hydrographic records and reports are adequate and conform to the requirements of the Hydrographic Manual except:

a. Twice daily bar checks were not taken as required by section 1.4.2 of the Hydrographic Manual. Six (6) out of a possible eight (8) bar checks were taken.

b. The hydrographer did not submit the survey within the six (6) week time limit found in section 6.14 of the Project Instructions.

c. Baseline calibrations were completed over a 906 meter course. This distance is less than the suggested 1800-2500 meters found in AMC OPORDER 79, dated 25 February 1982, and the use of a 30dB attenuator was not documented in the Descriptive Report. In this case there does not appear to be any adverse impact on the survey results.

d. Several positions taken during the course of the survey were less than one hundred (100) meters from the Del Norte Trisponder. This is not an acceptable practice (see section I.6.h of AMC OPORDER 79, dated 25 February 1982).

e. The hydrographer should be commended for a well written and well organized Descriptive Report.

5. JUNCTIONS

There are no contemporary junctional surveys with this survey.

A comparison with the present survey and chart 13278 (19th Edition, MAR 5/83) in the junctional areas shows harmony at the bridge at the entrance to Hampton Harbor where the dredged channel and present survey depths are in substantial agreement. Inside Hampton Harbor where

extensive shifting of the bottom configuration has been brought about by either cultural or natural changes, charted hydrography and present survey depths are not in harmony.

6. COMPARISON WITH PRIOR SURVEY

H-8097 (1953-54) 1:10,000

The above prior survey covers the present survey in its entirety.

A comparison with H-8097 (1953-54) shows the present survey to be from five (5) feet shoaler to eight (8) feet deeper. Considerable cultural development has taken place in the survey area. The entrance to the Blackwater River has shifted to the north to Latitude 42°53'43.5"N, Longitude 70°49'00"W and the entrance to Browns River has shifted to the south to Latitude 42°53'45"N, Longitude 70°49'15"W.

The prior survey shows no indication of the area foul with submerged rocks shown in the inset on the present survey smooth sheet; however, a one-half (0.5) foot sounding and shoal are shown in Latitude 42°53'47"N, Longitude 70°49'05"W and Latitude 42°53'48"N, Longitude 70°49'06"W, respectively.

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

7. COMPARISON WITH CHART 13278 (19th Edition, MAR 5/83)

a. Hydrography

Charted soundings originate with the previously discussed prior survey and miscellaneous sources and require no further discussion.

The following should be noted:

1) The charted Rks rep originates with CL 1624/75 and is superseded by CL 995/83, dated 17 Oct 83, in Latitude 42°53'48.8"N, Longitude 70°49'04.5"W. The rocks were thoroughly investigated by the hydrographer and should be charted as shown on the inset on the smooth sheet for this survey.

2) The entrances of both Browns River and Blackwater River have shifted from their charted location to Latitude 42°53'45"N, Longitude 70°49'15"W and Latitude 42°53'43.5"N, Longitude 70°49'00"W, respectively. Additional shoreline mapping or hydrographic surveying beyond the scope of this project would be necessary to resolve this discrepancy.

3) The shoreline changes noted in red and dashed red on the smooth sheet should be charted as shown on the smooth sheet.

4) The approximate centerline of the charted channel in Latitude 42°53'37.5"N, Longitude 70°49'01"W with a reported depth of six (6) feet no longer applies. The present survey shows that the channel has shifted to Latitude 42°53'37.5"N, Longitude 70°49'00"W. It is

recommended that the present survey depths be used to better delineate this channel.

5) The two (2) charted piers in Latitude 42°53'30"N, Longitude 70°49'11.25"W were not investigated by the hydrographer; however, the shoreline revision in this area indicates that these piers may have been demolished for the construction of the New Hampshire Public Service Commission Pier Facility. It is recommended that the shoreline detail in this area be shown as found on the survey smooth sheet.

6) The charted pier, in Latitude 42°53'56.25"N, Longitude 70°49'01"W should be revised to reflect the configuration as shown on the survey smooth sheet.

7) An uncharted pier located by the hydrographer in Latitude 42°54'00.87"N, Longitude 70°49'09.96"W should be charted as shown on the survey smooth sheet.

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

b. Controlling Depths

The charted 6 ft. rep March 1980 inside Hampton Harbor is in conflict with hydrography in the vicinity of Latitude 42°53'43"N, Longitude 70°49'10"W where present survey depths are from minus one half (-0.5) to five feet in the charted channel limits. In this area the channel has migrated to the east.

A five (5) foot sounding in Latitude 42°53'53"N, Longitude 70°49'10"W is inside the limits of the 6 ft. limits.

In the vicinity of Latitude 42°54'00"N, Longitude 70°49'09"W shoal depths from one half (0.5) to two (2) feet fall within the charted 6 ft. limits.

It is recommended that the charted 6 ft rep March 1980 and the channel limits be removed from the chart and the hydrography from the present survey be charted in the common area.

c. Aids to Navigation

A single floating aid to navigation was located by the hydrographer and it appears adequate for its intended purpose. Attention is directed to section N (pages 8 and 9) of the Descriptive Report for the hydrographer's recommendations concerning additional aids to navigation. Additional recommendations are found in section L (page 8) of the Descriptive Report concerning the buoy located.

8. COMPLIANCE WITH PROJECT INSTRUCTIONS

This survey adequately complies with the Project Instructions; however, it would have been appropriate for the hydrographer to notify the Hydrographic Surveys Branch, Operations Section (N/CG241) through

the Atlantic Marine Center regarding expansion of this project. It is apparent from the survey data submitted that there were significant conflicts with the presently charted data. Sections 1.2 and 10.5 of the Project Instructions should have been given greater consideration.

9. ADDITIONAL FIELD WORK

This is considered a good survey; no additional field work is recommended insofar as the survey requirements for this project are concerned. Attention is directed to sections 5, 6, and 7 of this report where additional work may be desirable to resolve discrepancies with the charted data junctional with the present survey.

Reginald L. Keene
Cartographic Technician
Verification of Field Data

Robert G. Roberson
Cartographer
Evaluation and Analysis

Robert R. Hill, Jr.
Senior Cartographic Technician
Verification Check

Inspection Report
H-10129

The completed survey has been inspected with regard to survey coverage, delineation of depth curves, development of critical depths, cartographic symbolization, and verification or disproval of charted data. The digital data have been completed and all revisions and additions made to the smooth sheet during survey processing have been entered in the magnetic tape record for this survey. Final control, position, and sounding printouts of the survey have been made. The survey complies with National Ocean Service requirements except as noted in the Evaluation Report. The survey records comply with NOS requirements except where noted in the Evaluation Report.

Inspected

R. D. Sanocki
Chief, Hydrographic Surveys
Processing Section
Hydrographic Surveys Branch

Approved August 22, 1984

Wesley V. Hull, RADM, NOAA
Director, Atlantic Marine Center

DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
National Ocean Survey
Rockville, Maryland

Hydrographic Index No. 61 M

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

NAUTICAL CHART DIVISION

RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-10129

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
13278	2-4-85	W. J. Fry	Full ~~Part Before~~ After ~~Verification Review~~ Inspection Signed Via
			Drawing No. 32
13274A	2-5-85	W. J. Fry	Full ~~Part Before~~ After ~~Verification Review~~ Inspection Signed Via
			Drawing No. 16
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
			Drawing No.
			Full Part Before After Verification Review Inspection Signed Via
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