

9528

Diag. Cht. No. 1229-2.

NOAA FORM 76-35A

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

DESCRIPTIVE REPORT (HYDROGRAPHIC)

Type of Survey HYDROGRAPHIC
Field No. AHP-05-3-75
Office No. H-9528

LOCALITY

State NORTH CAROLINA
General Locality PAMLICO SOUND
Locality DAVIS CHANNEL

19

CHIEF OF PARTY
J. O. ROLLAND

LIBRARY & ARCHIVES

DATE 3-1-76

82528

HYDROGRAPHIC TITLE SHEET

H-9528

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.

AHP-05-3-75

State North Carolina

General locality Pamlico Sound
~~Oregon Inlet~~

Locality Davis Slough Channel

Scale 1:5,000

Date of survey May-July 1975

Instructions dated 28 Feb 75

Project No. OPR-513-AHP-75

Vessel Launch 1277

Chief of party John O. Rolland

Surveyed by W.A. Wert, F.L. Kleinschmidt, J.S. Bradford, D.M. Bryant

Soundings taken by echo sounder, ~~beam~~ pole

Graphic record scaled by Launch Personnel

Graphic record checked by Launch Personnel

Plotted by N/A ~~Calcomp plotter 618~~ Automated plot by PDP 8/e AMC ^{Calcomp plotter 618}

Verification by PDP 8/e B.J. Stephenson

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

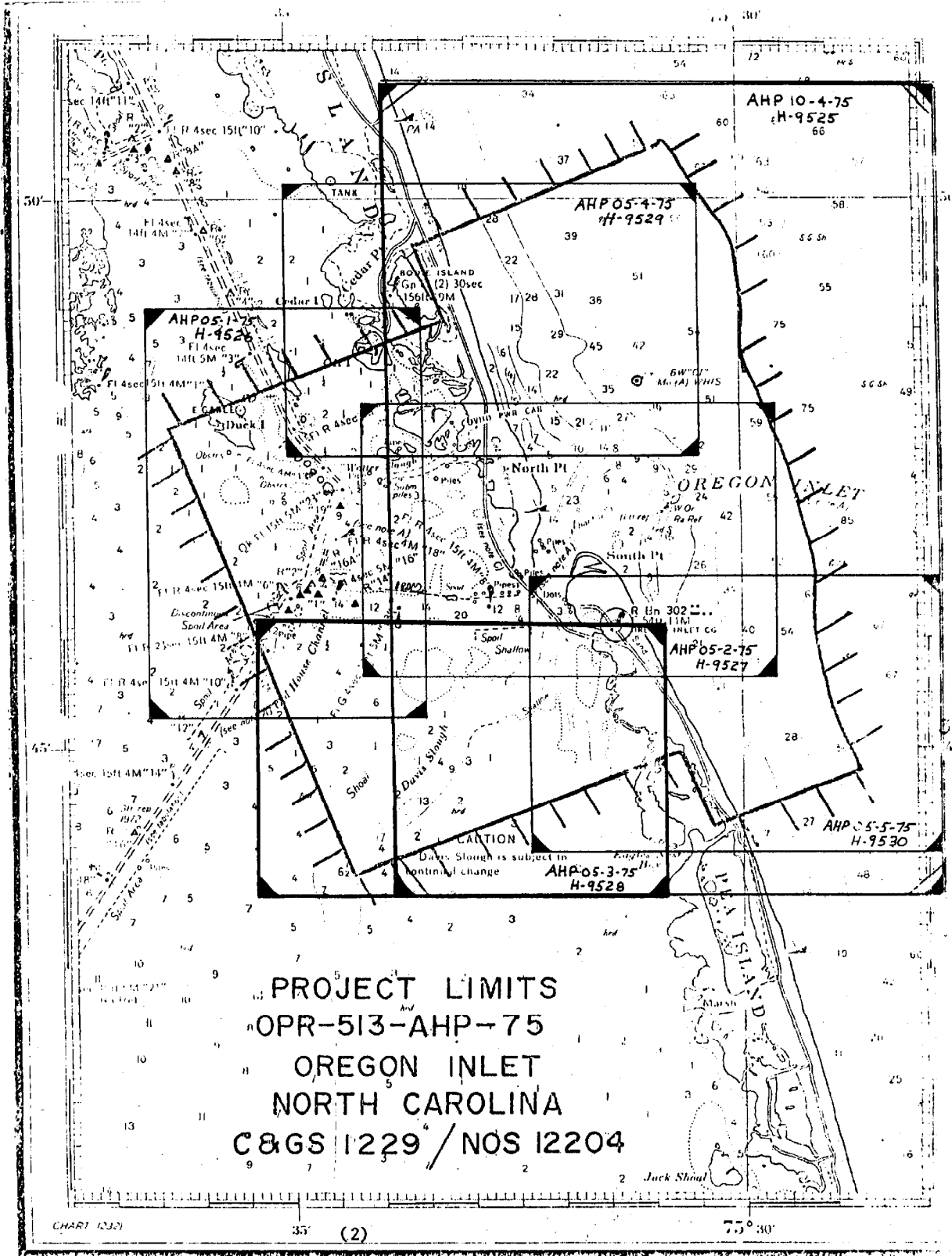
REMARKS: Red notes and changes by B.J. Stephenson AMC

The following data is filed with the field records.

1. Electronic Control Parameters
2. Electronic Corrector Abstract.

Applied to sheet 13/1/76
[Signature]

(1)



PROJECT LIMITS
 OPR-513-AHP-75
 OREGON INLET
 NORTH CAROLINA
 C&GS 1229 / NOS 12204

Descriptive Report
To Accompany
Hydrographic Survey H-9528 (AHP-05-3-75)

Scale: 1:5,000 1975
Vessel: Atlantic Hydrographic Party LCDR John O. Rolland, Chief of Party

A. Project

OPR-513 is a cooperative agreement between NOS and the U.S. Army Corps of Engineers to provide a new hydrographic data base for computer model studies of Oregon Inlet. The survey was accomplished in accordance with Project Instructions OPR-513-AHP-75 dated 28 February 1975, change number 1 dated 21 March 1975, the ~~Revised~~ Hydrographic Manual and Chapter 3 of the AMC Manual.

Provisional
RE

B. Area Surveyed

The area encompassed by Sheet ^{H-9528} AHP-05-3-75 is an irregular section extending from the shore of Pea Island westward approximately 3 miles to the project limit. The approximate limits of hydrography are bounded on the east by the shoreline of Pea Island, on the south and west by the project limits, and on the north by 35° 45' 50". Detailed prior surveys of the area are: H-3000, 1:20,000 scale 1909; and H-6228, 1:10,000 scale, 1937. All field work was accomplished during the period 8 May 1975 to 17 July 1975.
H-8765 (1962) 1:10,000.

C. Sounding Vessel

Launch 1277 was used exclusively to accomplish the survey work on AHP-05-3-75.

D. Sounding Equipment and Corrections to Echo Soundings

A Raytheon Fathometer, model number DE723D, serial number 1904 was used in Launch 1277. This fathometer often fails to sound (digital and analog) in depths under the transducer ranging from 2.4 feet or less and never sounds in depths less than 1.9 feet; therefore numerous pole soundings were necessary in shoal water. As a result undue time is spent inserting and logging long words on both the corrector and TC/TI tapes necessary for pole soundings. Depth corrections were obtained by averaging bar check values and excluding values which differed by more than 0.4 feet.

A graph was constructed and velocity correctors were scaled in accordance with Table 3 of the Revised Hydrographic Manual. Bar checks were taken on days 160, 184, 196, and 197. Hydrography began on day 128 and ended on day 198. One velocity table was used for the entire survey. The graph, corrector value abstract and bar check abstract are included with this report. Settlement and squat correctors were obtained as outlined in Section 4.9.4.2 of the Revised Hydrographic Manual. The graph and corrector value abstract are included with this report. Daily TRA corrections were determined as outlined in Section 4.9.4.1 of the Revised Hydrographic Manual to reflect Gain/Loss of fuel load. Frequent A to F scale checks were taken to insure correct stylus arm length. All initial settings were adjusted to zero. All fathograms were scanned to mean out sea swell action where applicable.

E. Hydrographic Sheets

Field sheets were constructed, raw master tapes were logged and data plotted on the field sheets by the launch's on board PDP 8/e Hydroplot System. Edited master and corrector tapes, velocity tape, and TC/TT tape were logged by launch personnel and submitted for smooth plotting by Processing Division, Atlantic Marine Center.

F. Control Stations

(Oregon Inlet)
Control stations Bodie Island Lighthouse/1875, Oregon Inlet Light "8", P-03 1975 (Bridge), P-02 1975 (Dolphin), CG Cupola 1974, and PD-06 1975 were established or verified by Coastal Mapping Division, Atlantic Marine Center. Refer to Horizontal Control Report OPR-513 Oregon Inlet, North Carolina for surveying methods, geodetic abstracts, and computations. Control station Bodie Island Lighthouse 1875 (ecc) was established by party personnel using a steel tape measure, magnetic compass and program RK407. Refer to Descriptive Report H-9525, AHP 10-4-75 for RK407 printout.

✓
G. Hydrographic Position Control

Del Norte positioning equipment, which operates in a range-range mode, was used to control all of the hydrography on sheet AHP-05-3-75. Four separate control networks were used on this sheet. All shore stations were located at or eccentric to established third-order triangulation or traverse stations. Whenever possible, calibration was established twice daily by positioning the launch at a known third-order traverse station. Del Norte ranges were compared to ranges calculated by PDP 8/e computer using the RK407 program. Any eccentricity from the traverse mark to the mobile antenna was taken into account at the time of calibration. Refer to daily raw data printouts for calibration data and see appendix for abstracts of correctors. Repeatability of calibration data was good, with a maximum observed difference of 4 meters between morning and evening calibrations of any unit; mean daily differences for the various stations ranged from 0.5 meters to 1.8 meters. The mean standard deviations over all calibrations of a particular station ranged from 1.3 to 2.5 meters. Performance of the Del Norte equipment during the project, however, was fair due to the presence of extensive skip zones throughout the project area, resulting in an excessive number of erroneous positions (approximately 3% of all soundings had to be plotted by time and course). The distance measuring unit (DMU), mobile transponder, and remote stations were all replaced at various times during the project in attempts to alleviate this problem, with no success. The height of the mobile antenna was raised 10 feet in an attempt to laterally shift the skip zones, but little effect was noted. Water seepage into the antennas was also a constant cause of difficulties. The following is a summary of equipment utilization during the project; refer to enclosed signal list for shore station names and locations:

Shore Stations

<u>Signal #</u>	<u>S/N</u>	<u>Julian Days Used</u>
2	181	128-129, 161-162, 197
6	188	175, 184, 196, 198
10	189	129, 132-162, 197
16	188	128, 132-162
16	216	175-198
Mobile Transponders:	<u>S/N</u>	<u>Julian Days Used</u>
	162	128-140
	159	150-198
Distance Measuring Unit:	<u>S/N</u>	<u>Julian Days Used</u>
	159	128-140, 160-198
	182	150-153

H. Shoreline

Shoreline, topographic details and photobathymetry were transferred from incomplete manuscripts TP-00888 thru TP-00891. The MLW line could not be delineated by hydrography due to the small tidal ranges encountered (usually less than 1 foot) west of the Oregon Inlet Bridge. The 3 foot curve was defined by hydrography.

I. Crosslines

Approximately 10.3 nautical miles or 12.8% of the main scheme hydrography run on sheet AHP 05-3-75 were crosslines. The agreement with main scheme lines was excellent and all soundings agreed to the nearest foot.

J. Junctions

Junction with photobathymetric data contained on incomplete manuscripts TP-00888 thru TP-00891 proved inconclusive. Soundings on sheet AHP 05-3-75 were reduced for predicted tidal ranges at Oregon Inlet whereas actual tidal ranges observed inshore were substantially less. In general soundings were from 1 to 3 feet shallower in shallow areas (3 feet or less) and agreed to the nearest foot in deeper areas (4 feet or greater). Discrepancies between 5 and 8 feet occurred in a small area centered at latitude 35° 45' 45", longitude 75° 32' 00". The majority of pole soundings and shallow water hydrography was run at or near high water where maximum depth errors exist between actual and predicted tides.

K. Comparison with Prior Surveys

Comparison with H-3000, 1:20,000 scale, 1909 shows little agreement. Comparison with H-6228, 1:10,000 scale, 1937 shows little agreement. Davis Slough has undergone considerable change. It is now much more extensive and has deepened. Davis Slough has shifted approximately 1100 meters east in the northern part of sheet AHP-05-3-75 and approximately 200 meters west in the southern part of sheet AHP 05-3-75. No presurvey review items were contained within the limits of AHP 05-3-75.

L. Comparison with the Chart

A comparison with C&GS chart 129-SC, 8th Edition, 23 February 1974 shows little agreement. Refer to section K of this report for further discussion.

M. Adequacy of Survey

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

N. Aids to Navigation

No fixed aids or floating aids to navigation are contained within the limits of AHP 05-3-75.

O. Statistics

Nautical Miles Sounding Line	90.6
Number of Positions	1639
Square Miles Surveyed	2.4
Number of Bottom Samples	21

P. Miscellaneous

Velocity corrections have not been applied to soundings due to the absence of the capability to off-line plot using a TC/TI tape.

Q. Recommendations

None

R. Automated Data Processing

<u>NAME</u>	<u>Number</u>	<u>VERSION DATE</u>
On-Line R/R R.T.S.	RK111	8/7/74
Grid, Signal Plot	RK201	2/19/75 and 4/18/75
Off-Line R/R Non R.T.S.	RK211	8/16/74
Utility	AM30C	5/24/73
Utility	RK300	5/22/75
Corrector Abstract	PM360	3/21/74
Geodetic Direct/Inverse	RK407	8/15/74
Predicted Tides	AM500	11/10/72
Calibration	RK561	2/19/75
Elimore	AM602	3/10/72 and 5/21/75

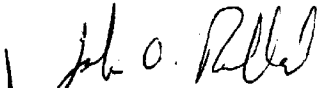
Detached Position List
H-9528 OPR-513

<u>Pos. #</u>	<u>Day</u>	<u>Yr.</u>	<u>Description</u>	<u>Position</u>
080	128	75	Pole sounding 1.9'	35° 45' 09.44" / 75° 32' 40.20"
602	161	75	Submerged pile	35° 44' 58.54" / 75° 31' 33.04" (1)
694	161	75	Platform, Davis Slough Tide Gauge	35° 44' 54.90" / 75° 33' 11.40"
1056	184	75	Pile, bares 8' MLW	35° 44' 46.25" / 75° 34' 15.64" (8)
1067	184	75	Remains of old Buoy	35° 45' 28.04" / 75° 34' 20.23" (2)
1435	197	75	Wood Structure, bares 3' MLW	35° 45' 45.54" / 75° 34' 21.14" (2)
1638	198	75	Piling, bares 6' MLW	35° 44' 12.23" / 75° 34' 04.98" (9)

S. References to Reports

1. Horizontal Control Report OPR-513, Oregon Inlet, N.C. 1975.

Respectfully Submitted


William A. Wert
LT, NOAA
OIC, Launch 1277

(light)

SIGNAL TAPE LISTING
OPR-513
ANP-05-3-75 H-9528

SIGNAL	LATITUDE		LONGITUDE		CODE	ELEV.	FREQ.	DESCRIPTION
002 5	35 49	06100	075 33	49225	254	0040	000000	BODIE IS. LIGHTHOUSE 1874 (ecc.)
005 3	35 46	16584	075 32	48495	254	0003	000000	P-02, 1975 (DOLPHIN)
006 3	35 46	03151	075 32	24845	254	0009	000000	R-03, 1975 (BRIDGE)
009 4	35 46	18151	075 31	55153	243	0004	000000	OREGON INLET CHANNEL LIGHT "B", 1971
010 2	35 46	03747	075 31	26724	250	0017	000000	C.G. CUPOLA 1974 (Oregon Inlet)
016 2	35 44	17202	075 30	05126	254	0010	000000	PD-06, 1975

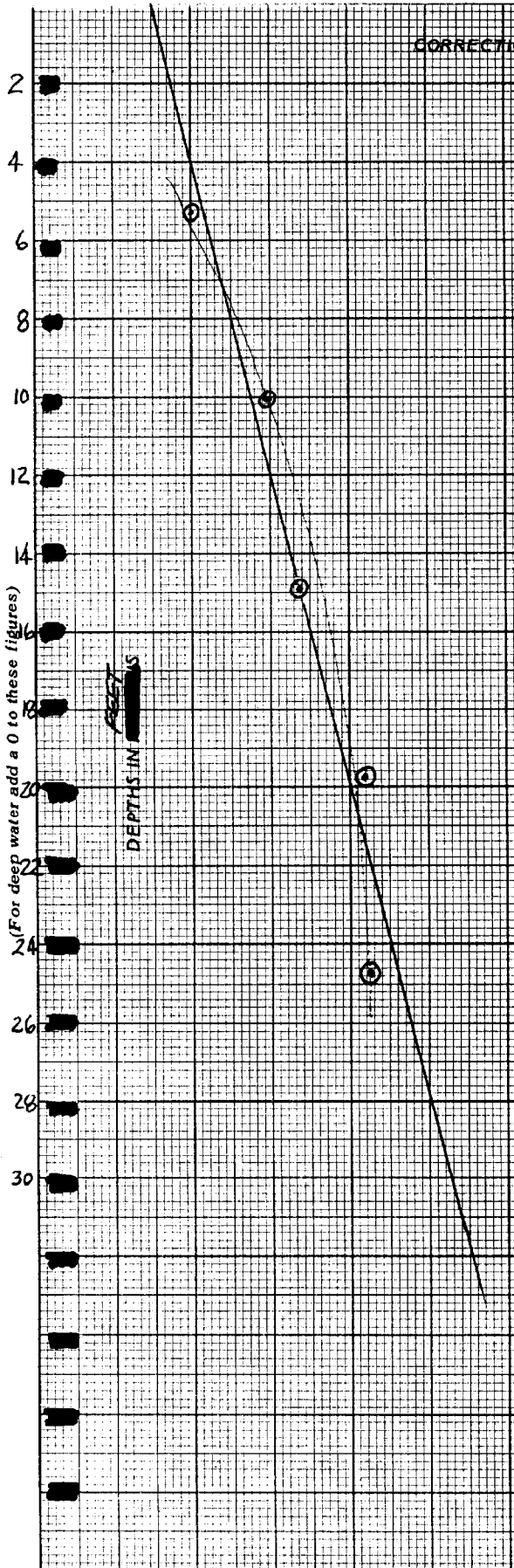
WORKSHEET

BAR CHECK ABSTRACT

AHP-05-3-75

DAY	5'	10'	15'	20'	25'				Day
160	-.20	+0.05	+0.15	+0.30					June 9
184	-.20	.00	.00	+0.20	+0.25				July 3
196	-.20	-.05	+0.05	+0.15	+0.25				July 15
197	-.25	-.05	+0.10	+0.30					July 16
AVE:	-.21	-.01	+0.07	+0.23	+0.25				

(For deep water add a 0 to these figures)



CORRECTIONS IN FEET, ~~APPROXIMATE~~

NOAA FORM 78-21 (10-72)	U.S. DEPARTMENT OF COMMERCE NATIONAL OCEAN SURVEY
VELOCITY CORRECTIONS	
Ship <u>NOAA AWP LAUNCH 1277</u>	
LTJG <u>W. A. WERT</u>	Comdg.
These corrections are to be used	
between <u>8 MAY 19 75</u> and <u>17 JULY 19 75</u>	
in the locality <u>OREGON INLET, N.C.</u>	
for hydrographic surveys Nos. <u>H-9528</u>	

DEPTH (FT)	CORRECTION
0.0 - 7.9	-0.2 FT
8.0 - 15.9	0.0 FT
16.0 - 23.8	+0.2 FT
23.9 - 31.7	+0.4 FT

SETTLEMENT & SQUAT

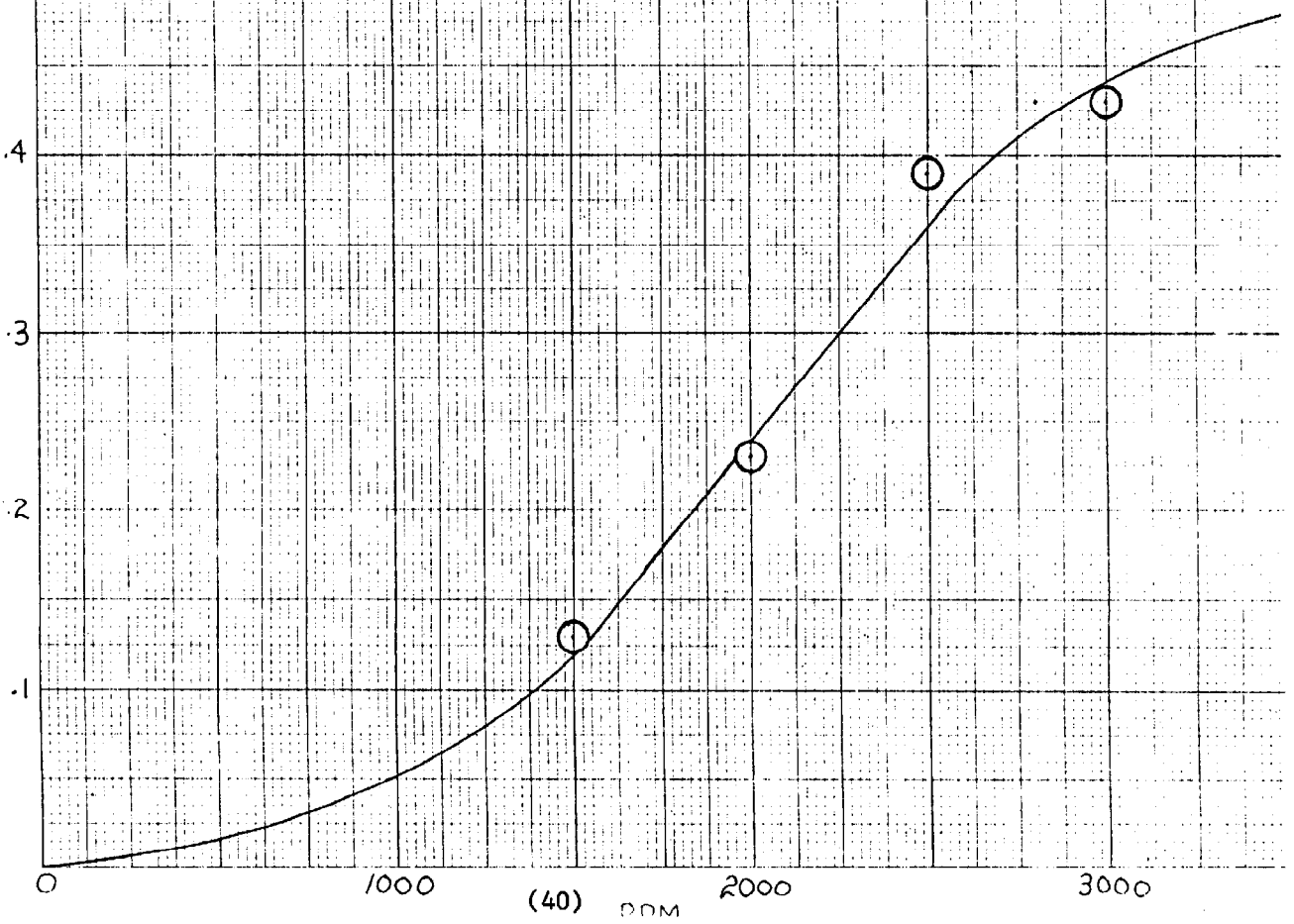
LAUNCH 1277

MAY 7, 1974

ABSTRACT OF SETTLEMENT & SQUAT

RPM	CORRECTION (FT)
0-1499	0.0
1500-2000	+0.2
2001-3000	+0.4

CORRECTION (FT)



(40) RPM

NO. 201-20 DISTZUM FR...
20 X SUPER
EISEN DISTZUM
MADE IN U.S.A.

Approval Sheet
Survey H-9528 AHP 05-3-75

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



J. O. Rolland

LCDR, NOAA

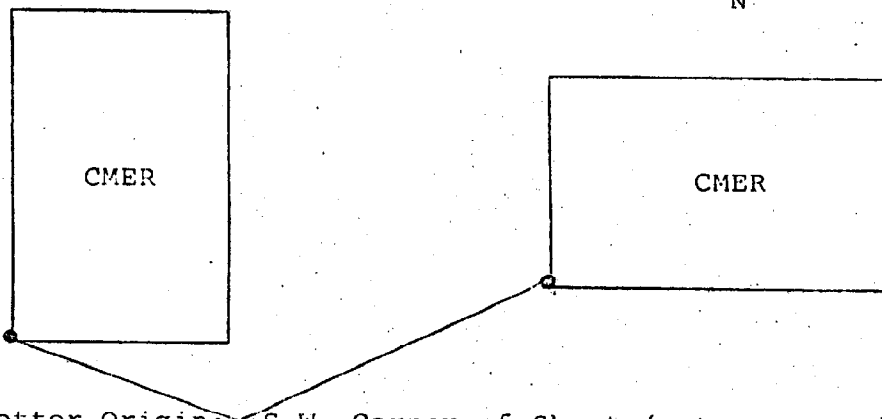
Chief, Atlantic Hydrographic Party

ATLANTIC MARINE CENTER

PROJECTION PARAMETERS

POLYCONIC OR MODIFIED TRANSVERSE MERCATOR

1. Project No. OPR-513 4. Requested By VERIFICATION BRANCH
 2. Reg. No. H-9528 5. Ship or Office AMC
 3. Field No. AHP-05-3-75 6. Date Required ASAP
 7. Polyconic Modified Transverse Mercator
 8. Central Meridian of Projection 75 ° 32 ' 00 "
 9. Survey Scale: 1:5,000
 10. Size of Sheet (check one):
 36 x 54 36 x 60 Other Specify _____
 11. Sheet Orientation (check one):
 NYX = 1 NYX = 0
 N N



12. Plotter Origin: S.W. Corner of Sheet (not necessarily a grid intersection)
 Latitude 35 ° 43 ' 48 "
 Longitude 75 ° 35 ' 27 "
 13. G.P.'s or Triangulation and/or signals attached
 14. Material Desired: Tracing Paper Mylar
 Smooth Sheet Other Specify _____
 15. Remarks: _____

9/23/75

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): Oregon Inlet Bridge, Oregon Inlet
Channel, Old House Channel, Davis
Slough, Pea Island, Level Platform #9

Period: May 8, July 17, 1975

HYDROGRAPHIC SHEET: H-9528

OPR: 513

Locality: Oregon Inlet Oregon In. Bridge 0.81 ft. Davis Slough 1.49 ft.
Oregon In. Channel 1.71 ft. Pea Island 3.7 ft.
Old House Channel 2.22 ft. Level Platform #9 1.9 ft.

Plane of reference (mean ~~lower~~ low water):

Height of Mean High Water above Plane of Reference: *

Remarks: Recommend the use of automatic zoning.

<u>*Station</u>	<u>MHW above Plane of Reference (ft)</u>
Oregon Inlet Bridge	1.9
Oregon Inlet Channel	1.2
Old House Channel	0.7
Davis Slough	1.0
Pea Island	1.3
Level Platform #9	1.2



Chief, Tides Branch

GEOGRAPHIC NAMES

H-9528

Name on Survey											
	A	B	C	D	E	F	G	H	I	K	
	ON CHART NO.	ON PREVIOUS SURVEY NO.	CON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP	GRAND McNALLY ATLAS	U.S. LIGHT LIST			
DAVIS CHANNEL											1
GREEN ISLAND CHANNEL											2
PAMLICO SOUND											3
PEA ISLAND											4
OREGON INLET											5
											6
											7
											8
											9
											10
											11
											12
											13
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											16
											17
											18
											19
											20
											21
											22
											23
											24
											25

Approved
Chas. E. Harrington
 STAFF GEOGRAPHER - CS1x2
 30 July 1976

HYDROGRAPHIC SURVEY STATISTICS
HYDROGRAPHIC SURVEY NO. H-9528
AHP-05-3-75

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

RECORD DESCRIPTION	AMOUNT	RECORD DESCRIPTION	AMOUNT
SMOOTH SHEET & 2-Overlays	1	BOAT SHEETS	2
DESCRIPTIVE REPORT	1	OVERLAYS	2

DESCRIPTION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS/SOURCE DOCUMENTS
ENVELOPES	*		1 *			
CAHIERS	1 & P/O.		*			
VOLUMES						
BOXES			1			

T-SHEET PRINTS (List)

TP-00888-00891

SPECIAL REPORTS (List)

OFFICE PROCESSING ACTIVITIES

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

PROCESSING ACTIVITY	AMOUNTS			
	PRE-VERIFICATION	VERIFICATION	REVIEW	TOTALS
POSITIONS ON SHEET				1639
POSITIONS CHECKED		165		
POSITIONS REVISED		10		
DEPTH SOUNDINGS REVISED		200		
DEPTH SOUNDINGS ERRONEOUSLY SPACED				
SIGNALS ERRONEOUSLY PLOTTED OR TRANSFERRED				
	TIME (MANHOURS)			
TOPOGRAPHIC DETAILS		2		
JUNCTIONS		10		
VERIFICATION OF SOUNDINGS FROM GRAPHIC RECORDS				
SPECIAL ADJUSTMENTS				
ALL OTHER WORK		131		
TOTALS		143	26	
PRE-VERIFICATION BY	BEGINNING DATE		ENDING DATE	
W.H. Tyndall, B.J. Stephenson	10-2-75		10-17-75	
VERIFICATION BY	BEGINNING DATE		ENDING DATE	
B.J. Stephenson	11-6-75		11-11-75	
REVIEW BY	BEGINNING DATE		ENDING DATE	
HIT	1-23-76		1-23-76	

D.C. Insp. R.W. Derkuzarian 8/27/76 24 hrs.

REGISTRY NO. H-9528

The Computer and Excess Sounding Cards for this survey have not been corrected to reflect the changes made to the Computer Card and Excess Card Printouts at this time of the review.

When the cards have been updated to reflect the final results of the survey, the following shall be completed:

CARDS CORRECTED

DATE _____ TIME REQUIRED _____ INITIALS _____

REMARKS:

pos. 34704

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-9528

Items for Future Presurvey Reviews

This survey is located in an area subject to great change from natural causes and dredging.

<u>Position Index</u>		<u>Bottom Change</u>	<u>Use</u>	<u>Resurvey</u>
<u>Lat.</u>	<u>Long.</u>	<u>Index</u>	<u>Index</u>	<u>Cycle</u>
354	0754	5	2	25 years

HYDROGRAPHIC INSPECTION TEAM
ATLANTIC MARINE CENTER
HYDROGRAPHIC SURVEY REVIEW

REGISTRY NO.: H-9528

FIELD NO.: AHP-5-3-75

GENERAL LOCALITY and SPECIFIC LOCATION

Channel
Pamlico Sound, Davis ~~Slough~~, North Carolina

SURVEYED: May 8, 1975 through July 17, 1975

PROJECT NO.: OPR-513-AHP-75

SCALE: 1:5,000

SOUNDINGS BY: Raytheon Depth Recorder
DE-723 Sounding Pole .

CONTROL: Electronic-
Del Norte

Chief of Party J.O. Rolland
Surveyed by W.A. Wert
..... F.L. Kleinschmidt
..... J.S. Bradford
..... D.M. Bryant
Automated Plot by Calcomp Plotter #618 (AMC)
Verified and Inked by B.J. Stephenson

1. Description of the Area

This survey covers an irregular section of the Pamlico Sound. The approximate limits of Hydrography are bounded on the East by the shoreline of Pea Island, on the South by Latitude $35^{\circ} 44' 15''$ North, on the West by Longitude $75^{\circ} 35' 00''$ West, and on the North by Latitude $35^{\circ} 45' 50''$ North. The predominant bottom characteristics are fine gray and brown sand with broken shells.

2. Control and Shoreline
Type-Source-Origin

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

The shoreline originates with Class I (unreviewed) Photogrammetric Bathymetry and topographic manuscripts TP-00888, 00889, 00890, and 00891, photography October 1974, field edit July 1975.

3. Hydrography

- A. Crossings: Depths at crossings are in excellent agreement.
- B. Depth Curves: The standard depth curves were adequately delineated. The three foot depth curve was added to emphasize the bottom features.
- C. Low-water Line: The MLW line could not be delineated by the Hydrographer due to the small range in tide.

4. Condition of the Survey

The sounding records, automated plotting and the Descriptive Report are adequate and conform to the requirements of the Hydrographic Manual, except that bar checks were not in accordance with Section 1.5.2 of the Provisional Hydrographic Manual. Compliance would have provided added support to the reliability of the depths in the areas of overlapping photobathymetric depths.

5. Junctions

Adequate junctions were effected with H-9526 (1975) on the Northwest and with H-9527 (1975) on the Northeast. There was no contemporary junctional survey to the South, West, or Southwest. Soundings in red were determined by Photobathymetric methods using Photographs of October 1974. These soundings were transferred from manuscripts TP-00888, TP-00889, TP-00890, and TP-00891 and provide supplemental information for unsurveyed area, however it is the opinion of the verifier that there is too much disagreement in some areas to consider the soundings as part of the hydrographic survey.

6. Comparisons

- A. Prior Surveys: H-6228 (1937) 1:10,000
The comparison between the present and prior survey reveals total disagreement. In some areas there is a difference as much as 20 feet. This survey is complete and is adequate to supersede all prior surveys for charting.
- B. Wire Drag: There are no wire drag surveys in the limits of this survey.
- C. Published Chart #12205 (formerly 129-SC), 9th Edition, dated March, 1975.

(a) Hydrography

Chart 129-SC and the present survey show little agreement. The present survey is adequate to supersede the charted hydrography in the common area.

(b) Aids to Navigation

There are no aids to navigation in 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

The Hydrographic Inspection Team comments are included in Section 4. Verification deficiencies found, if any, have been corrected on the Smooth Sheet.

Additional Notes:

The photobathymetric depths that did not agree with the hydrographic depths were not plotted on the Smooth Sheet. In most cases the photobathymetric depths were one to two feet deeper than the hydrographic depths. The difference between the photobathymetric and the hydrographic depths is contributed to the approximately six month time lag between the photobathymetric and hydrographic surveys in this area of highly changeable bottom.

ATLANTIC MARINE CENTER
APPROVAL SHEET
FOR
AUTOMATED SURVEY H- 9528

- 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: 2/9/76

Signed: C. Dale Nettie

Title: Chief, Processing Division

- B. The verified smooth sheet has been inspected by the Hydrographic Inspection Team, is complete, and meets the requirements of the Hydrographic and AMC Manuals. Exceptions are listed in the verifier's report.

Date: 2/19/76

Signed: Ronald M. Buffington

Title: Chief, Operations Division

- C. Approved and forwarded.

Date: 2/20/76

Signed: Alfred C. Johnson

Title: Director, Atlantic Marine Center



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

C352

August 27, 1976

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

THRU: Chief, Quality Control Branch

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

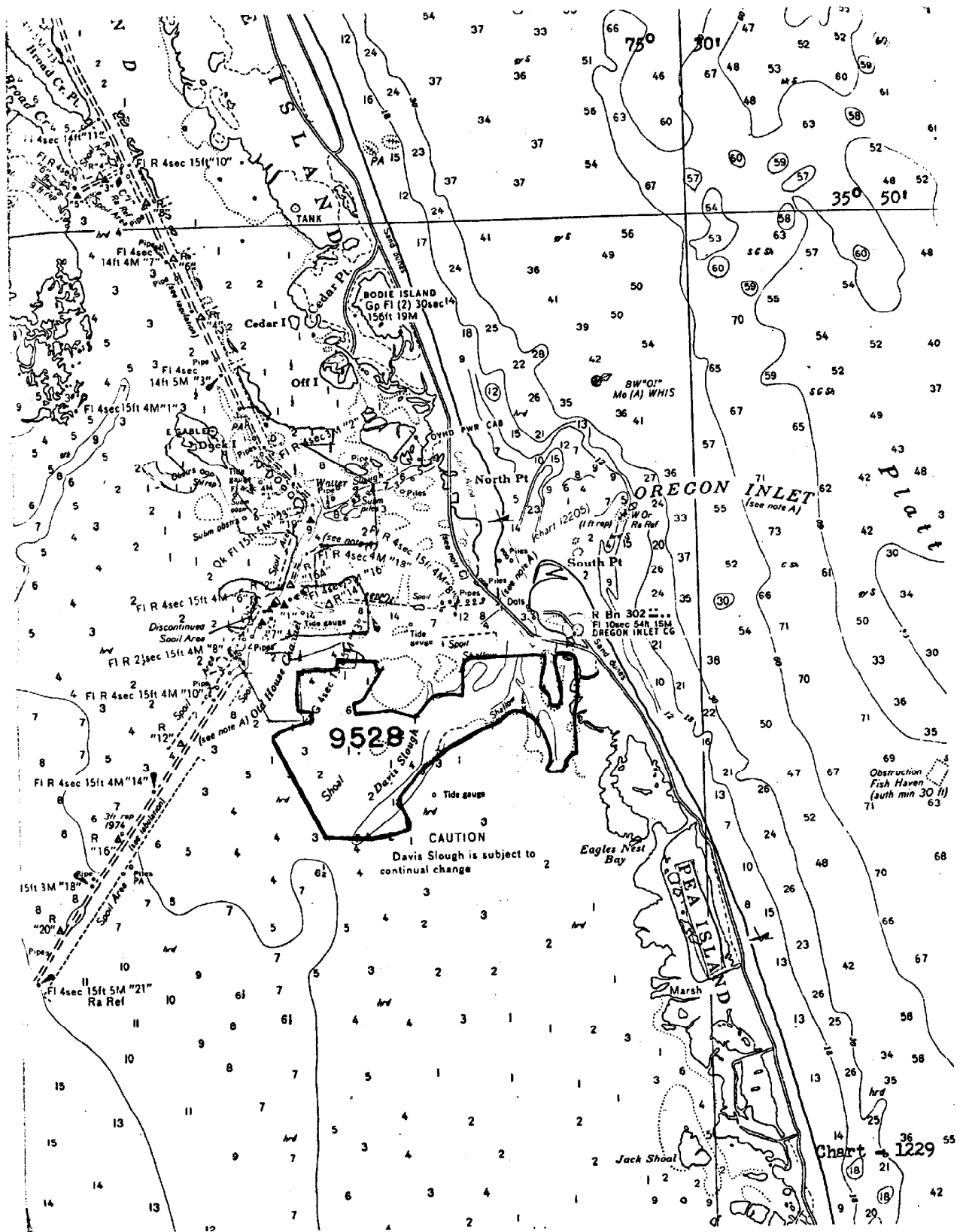
SUBJECT: Quality Control Report for H-9528 (1975), Davis Channel,
Pamlico Sound, North Carolina

Survey H-9528 was inspected with respect to data acquisition, development of least depths and bottom configuration, adequacy of junctions and sounding-line crossings, shoreline transfer, cartographic presentation, smooth plotting, verification, and review. In general, it was found to conform to the National Ocean Survey standards and requirements except as follows:

1. No reference need be made regarding a comparison with wire-drag surveys when none fall within the area of the present survey.
2. The low water line was revised where necessary to show an orange curve where the curve was adequately defined by photobathymetric soundings or hydrographic soundings and to show a black dotted line from the manuscripts where soundings were not adequate to define the curve. Within areas containing only photobathymetric soundings, the black dotted line from the manuscripts should be used as a guide in drawing the orange curve provided it does not conflict with the reduced soundings.
3. The note on the smooth sheet giving the source of photobathymetric depths should include the date of the photographs.

CC:
C351





RECORD OF APPLICATION TO CHARTS

FILE WITH DESCRIPTIVE REPORT OF SURVEY NO. H-9528

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
129d	10-31-77	Meguerite [unclear]	Full Part Before After Verification Review Inspection Signed Via Drawing No. 12
1229	12-14-77	MIKE PANAS	Full Part Before After Verification Review Inspection Signed Via Drawing No. FULLY APPLIED THRU #1229-X "D" ^{REV} _{12/20}
			Full Part Before After Verification Review Inspection Signed Via Drawing No.
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