

# 9349

Diag. Cht. No. 77-3

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. .... 742-10-4-73  
Office No. .... H-9349

### LOCALITY

State ..... VIRGINIA - MARYLAND  
General Locality ..... POTOMAC RIVER  
Locality ..... ~~MARSHALL ISLAND~~ TO INDIAN  
HEAD

1973-74

CHIEF OF PARTY  
N.C. Austin, P.T. Smith

### LIBRARY & ARCHIVES

DATE ..... March 24, 1978

9349

*Area 2*

U.S. GOV. PRINTING OFFICE: 1976-669-441

560-12289  
101-12285 ME

HYDROGRAPHIC TITLE SHEET

H-9349

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.

742-10-4-73

State Virginia - Maryland

General locality Potomac River

Locality Mason Neck Marshall Hall to Indian Head *See other title sheet (74 work)*

Scale 1: 10,000 Date of survey 7/16 - 8/28/73

*Supp. Amend.* 9/20/74 - 10/2/74

Instructions dated 1/9/73 - 1/12/73 - 2/15/73 Project No. OPR-409

Vessel Hydrographic Field Party 742

Chief of party Ned C. Austin - Fidel T. Smith

Surveyed by Walter H. Piner WE George

Soundings taken by echo sounder, hand lead, pole All

Graphic record scaled by Party Personnel

Graphic record checked by Party Personnel

Protracted by ----- Automated plot by AMC - calcomp (618)

Soundings ~~plotted~~ *plotted* by Calcomp 618 (AMC)

*Verified* by H.R. Smith (AMC)

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

REMARKS: Time Meridian for hydrography is GMT

*Notes in red by the Verifier.*

*Applied to stb 4/11/79*  
*WES*

*ctb.*  
12285  
12289

Miscellaneous data filed with field records.

DISCRIPTIVE REPORT  
HYDROGRAPHIC SURVEY H-9349  
FIELD NO. 742 10-4-73

A. PROJECT

Sheet 742 10-4-73 (H9349) Project Number 409 was done in accordance with Project Instructions dated January 9, 1973 and Change No. 1 Supplement to Instructions dated January 12, 1973 and Change No. 2 Amendment to Instructions dated February 15, 1973.

B. AREA SURVEYED

This survey covers both sides of the Potomac River from south limits latitude  $38^{\circ} 36.00'$  longitude  $77^{\circ} 11.00'$  and to the north to approximate latitude  $38^{\circ} 41.30'$  longitude  $77^{\circ} 07.35'$  and part of Gunston Cove to latitude  $38^{\circ} 40.65'$  longitude  $77^{\circ} 09.00'$ . Hydrography began on July 16, 1973 (197 Day) and ended August 28, 1973 (240 Day). This survey made junctions with Sheet 742-10-2-73, H-9324 and Sheet 742-10-3-73, H99292 junctions were in good agreement.

C. SOUNDING VESSELS

The following sounding vessels were used on this survey:

<u>Launch</u>	<u>Color</u>	<u>Vessel Identification</u>
1259	Blue	742-2
1260	Violet	742-3
Skiff 570	Red	742-4

D. SOUNDING EQUIPMENT

Raytheon Fathometer number 806 DE 723 was used on Launch 1259 for depths greater than 4.0 feet.

Raytheon Fathometer number 1884 DE 723 was used on Launch 1260 for depths greater than 4.0 feet.

Raytheon Fathometer number 1885 DE 723 was used on Skiff 570 for depths greater than 4.0 feet. A pole sounding was taken for depths less than 4.0 feet.

Echo Sounding Corrections were determined by taking daily bar checks. Fathogram scanning was checked by the Hydrographer and found to be adequate.

E. SMOOTH SHEET

The Smooth Sheet will be prepared by the Atlantic Marine Center.

F. CONTROL

Del Norte Electronic Control was used on most of this sheet. Some visual control was used. Del Norte Electronic was used on the Hydro in the river in the area in Gunston Cove. Del Norte and one sextant angle was used for control. There were eight (8) Del Norte stations on this sheet. Visual control was located by Photo Party 61. For a complete signal list; see Control Report by Photo Party 61 included with this report.

G. SHORELINE See verifier's report.

Shoreline detail for this survey was obtained from shoreline manuscripts TP-00324, TP-00325 and TP-00321. Field edit was done by Photo Party 61. The low waterline was not defined by zero soundings. Shoreline hydrography was run as close as 10 meters from shore.

H. CROSSLINES

Crosslines were run at approximately 8% to 10% of regular system of hydrography lines with good agreement.

I. JUNCTIONS - see verifier's report.

JUN  
JUNCTIONS were made with Sheet 742-10-3-73 with good agreement. 4-9292

J. COMPARISON WITH PRIOR SURVEY - See verifier's report. Comparison with Prior Surveys &

PSI #29 Piles was investigated and was not found, this item was searched for by using two skiffs and dragging a 70 foot chain between them. Comparison with Chart

A pile was located close to shore at latitude 38° 37.52' longitude 77° 10.13 position 4002 volume 5. See Verifier's Report

PSI #32 Piles latitude  $38^{\circ} 36.49'$ , longitude  $77^{\circ} 08.75'$  *see Verifier's Report*  
was investigated - A Wooden Bulkhead is now at this position. ✓

PSI #31 was located at latitude  $38^{\circ} 36.38'$ , longitude  $77^{\circ} 09.35'$   
and found to be an old pier. ✓ *See Verifier's Report*

✓ PSI #30 wreck latitude  $38^{\circ} 36.40'$ , longitude  $77^{\circ} 09.80'$  was *see Verifier's Report*  
investigated - A Rock Jetty is now at this position. ✓ *Pos. 4107.*

✓ PSI #35 Pilings latitude  $38^{\circ} 39.51'$ , longitude  $77^{\circ} 08.90'$  *see Verifier's Report*  
was investigated and found to be as described. ✓ *Pos. 4303-4304.*

PSI #36 sunken wreck latitude  $38^{\circ} 40.15'$ , longitude  $77^{\circ} 09.28'$   
was investigated and found. ✓ *Wreck carried forward from T-5759 (1937-38)*  
*It is recommended that the wreck and piles remain charted as is.*

PSI # B PRV 37 was used as a calibration point. - *From updated PSI.*

✓ PSI #41 was investigated and not found, two (2) submerged *See 301.*  
pilings were found and located at latitude  $38^{\circ} 40.80'$ ,  
longitude  $77^{\circ} 07.58'$ , believed to be remains of old pilings. ✓

PSI # B PRV 38 was used as a calibration point for Del Norte. - *From updated PSI.*

PSI #4<sup>2</sup> concrete pile latitude  $38^{\circ} 41.29'$ , longitude  $77^{\circ} 07.32'$   
was found to be as described. *Pos. ~~4145~~ 4275a*

PSI #34 wreck and piling latitude  $38^{\circ} 38.46'$ , longitude *see Verifier's Report*  
 $77^{\circ} 06.64'$  was investigated - only motor was found to be  
left of this wreck, no piling was found. ✓ *Pos. 515A.*

#### K. COMPARISON WITH CHART *See Verifier's Report*

A comparison was made with chart C&GS 560 scale 1:40,000.

✓ A wreck shown on chart at latitude  $38^{\circ} 40.30'$ , longitude *this is PSI*  
 $77^{\circ} 09.15'$  was investigated by dragging a 70 foot chain *#37.*  
between two (2) skiffs, this wreck was not found. *see Verifier's Report.*

✓ A 6 foot charted sounding latitude  $38^{\circ} 39.75'$ , longitude *recommend*  
 $77^{\circ} 07.28'$  was investigated and was not found. *Present depths be charted.*  
*Origin H-2699 (1904)*

✓ A charted 6 foot sounding at approximately latitude  $38^{\circ} 38.20'$ ,  
longitude  $77^{\circ} 06.90'$  was investigated, this survey shows  
soundings of ~~5~~ and 6 feet as charted. ✓

✓ A 4 foot charted sounding latitude  $38^{\circ} 38.52'$ , longitude  
 $77^{\circ} 06.92'$ , this survey shows soundings of 36 feet. ✓ *Chart present depths.*  
*Origin H-2699 (1904)*

✓ A 3 foot charted sounding latitude  $38^{\circ} 37.45'$ , longitude  
 $77^{\circ} 08.22'$  - this survey shows soundings of ~~4~~ feet, *in vicinity.*  
*Chart present depths.*

A group of pilings latitude  $38^{\circ} 36.18'$ , longitude  $77^{\circ} 08.42'$  are not shown on chart these pilings were located position 458<sup>7</sup> volume 2, page 60. Also a subm. rock pos. 458 in Lat.  $38^{\circ} 37.21'$ , Long.  $77^{\circ} 07.45'$

Rocks latitude  $38^{\circ} 38.29'$ , longitude  $77^{\circ} 08.42'$  were located position 4168, volume 5, page 51 - these rocks are not shown on chart. \* <sup>62'</sup> wash of MLW

Rocks latitude  $38^{\circ} 39.91'$  longitude  $77^{\circ} 07.01'$  were located position 4222, volume 5, page 66 - these rocks are not shown on chart. \* cov. 1 ft. of MLW

L. ADEQUACY OF SURVEY

This survey is considered to be adequate to supersede prior surveys for charting. Western half of Gunston Cove not surveyed this season.

M. AIDS TO NAVIGATION

Within the limits of this survey there are 1<sup>3</sup>/<sub>2</sub> floating and 6 fixed aids to navigation, a check was made with light list volume 1, 1973 CG-158 these buoys adequately serve there purpose.

N. STATISTICS

<u>Launch</u>	<u>Total No. Positions</u>	<u>Miles or Sounding Line</u>
1259	788	83.7
1260	671	97.4
Skiff 570	488	37.8

Total square miles 9.8  
Number Bottom Samples 26

O. MISCELLANEOUS

Wire drag for piles and submerged objects was done by dragging a 70 foot chain between two skiffs. When the drag hung up on something, the skiffs were pulled back over the object and a lead line sounding was then taken.

P. RECOMMENDATIONS

None

Q. REFERENCES

I. Field Edit Report for TP-00324 - TP 00325 and TP 00321 to be submitted by Chief, Photo Party 61.

II. Control Report for Sheet 10-4-73 H 9349 to be submitted by Photo Party 61 and included in this report. Filed with F.R.C.

III. Hydrographic Field Party 742 field season report for OPR-409, 1973.

IV. Report of Corrections to Echo Soundings for OPR-409, 1973.

V. Electronic Control Calibration Report for OPR-409, 1973.

*Fidel Smith*  
Respectfully submitted,

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APPROVAL SHEET  
SURVEY H-9349 (742-10-4-73)

The hydrographic records and processing are complete and adequate. Additional field work remains to be done in Gunston Cove.



Fidel T. Smith

LCDR, NOAA, OIC HFP-742



DESCRIPTIVE TIDE NOTE

All soundings were reduced in the field using predicted tides computed from the reference tide station at Washington, D. C. From the Washington, D.C. reference station predicted tide correctors were generated for the following areas:

Gunston Cove, Virginia

Lat.  $38^{\circ} 40'$

Long.  $77^{\circ} 08'$

Fort Washington, Maryland

Lat.  $38^{\circ} 43'$

Long.  $77^{\circ} 02'$

Alexandria, Virginia

Lat.  $38^{\circ} 48'$

Long.  $77^{\circ} 02'$

The application of the predicted tides is shown on the following chartlet.

As work progressed, secondary tide ~~gauges~~, to control hydrography and update predictions were installed as per project instructions at:

Dogue Creek  
Lat.  $38^{\circ} 42' 17''$  ✓  
Long.  $77^{\circ} 07' 25''$  ✓

Gunston Cove, (Whitestone)  
Lat.  $38^{\circ} 40.37'$   
Long.  $77^{\circ} 08.08'$

Mt. Vernon  
Lat.  $38^{\circ} 42' 16''$   
Long.  $77^{\circ} 05' 17''$

Fort Washington  
Lat.  $38^{\circ} 42' 43''$   
Long.  $77^{\circ} 02' 15''$

All gauges were in service for not less than 30 days. All gauges were leveled in and out as per AMC Manual Instructions.

11/26/75

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): Whitestone, VA.

Period: July 31-August 29, 1973

HYDROGRAPHIC SHEET: H-9349

OPR: 409

Locality: Potomac River

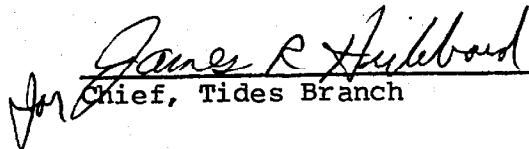
Plane of reference (mean ~~lower~~ low water): 2.8 ft.

Height of Mean High Water above Plane of Reference:

2.2 ft. north of  $38^{\circ}39'$   
1.8 ft. south of  $38^{\circ}39'$

Remarks: Recommended zoning:

- (1) North of  $38^{\circ}38'.1$  zone direct.
- (2) South of  $38^{\circ}38'.1$  apply a -20 minute time correction and range ratio x0.90

  
\_\_\_\_\_  
Chief, Tides Branch

HYDROGRAPHIC TITLE SHEET

H-9349

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.

742-10-4-73

State Maryland and Virginia

General locality Potomac River

Locality Mason Neck, Virginia Marshall Hall to Indian Head

Scale 1:10,000 Date of survey Sept. 20 - Nov. 21, 1974  
7/16 - 8/28, 1973

Instructions dated 2 August 1974 Project No. OPR-409-AHP-74

Vessel Launch 1260, Skiff 570

Chief of party Lt. Cdr. Fidel T. Smith, NOAA N.C. Austin

Surveyed by Lt.(jg) Wm. E. George, NOAA Walter H. Piner

Soundings taken by echo sounder, hand lead, pole

Graphic record scaled by Walter H. Piner, Wm. E. George, Lloyd C. Gilden

Graphic record checked by Wm. E. George

Protracted by Wm. E. George, Lloyd C. Gilden Automated plot by AMC-Cg/comb 618

Verification by H.R. Smith (AMC)

Soundings in ~~meters~~ feet at MLW ~~MLW~~ All times GMT

REMARKS: This hydrographic data is to complete the survey H-9349, 742-10-4-73.

This descriptive report and boat sheet are to be considered an addendum to earlier survey.

Notes in red by the verifier.

1.

Addendum to the Descriptive Report  
of Hydrographic Survey  
H-9349 (742-10-4-73)

A. Project

This survey is part of Project OPR-409-AHP-74 with project instructions dated 2 August 1974. Change No. 1 to project instructions, OPR-409-AHP-74, were issued on 5 September 1974. ✓

B. Area Surveyed

This survey's purpose was to complete the survey H-9349, (742-10-4-73). Channel lines were run to develop the entire length of the channel on the boatsheet; also, the areas of Gunston Cove and Dogue Creek were completed. ~~The precise areas covered by this survey are shown on the chartlet.~~ ✓

C. Sounding Vessels

Launch 1260, a 28 foot Mon-Ark, was used to survey the main body of the river. Its position number color was blue. ✓

Skiff 570, a 16 foot fiberglass skiff, was used to survey the shallow creeks and tributaries of the survey area. Its position number color was red. ✓

D. Sounding Equipment

Raytheon Fathometer, type DE 723, serial number 1888 was used to obtain all echo soundings on Launch 1260. Raytheon Fathometer, type DE 723, serial number 1885 was used on skiff 570 to obtain all echo soundings. ✓

A sounding pole was used for all soundings under 3 feet. ✓

Corrections to soundings obtained for the DE 723 fathometers were as follows:

1. Velocity corrections were obtained by bar checks. An abstract of reduced bar checks, graphs of reduced bar checks, and the velocity tables are included in the appendix of this report.

2. Settlement and Squat corrections for the survey vessels were determined by previous tests. The test data and graphs are in the appendix to this report. The settlement and squat corrections will be applied to all soundings in the TRA abstract which is in the appendix to this report. ✓
3. Frequent A-F scale checks were made. ✓
4. Frequent Phase checks were made by use of the Digital Phase Checker. ✓
5. The initial was set to zero (0.0). All fathograms were scanned for index (initial) error by party personnel. The index error is marked in the sounding volumes and on the TRA correction abstract in the appendix of this report. ✓
6. A draft of a TG/TI Tape was compiled from the TRA Abstract and is included in the appendix of this report. ✓

#### E. Smooth Sheet

The smooth sheet for this survey will be plotted at the Atlantic Marine Center, Norfolk, Virginia. ✓

Data tapes of this survey will be compiled at the Atlantic Marine Center also. ✓

#### F. Control

Horizontal control was from existing triangulation, from traverse, or from photo points established by Photo Party 61. A signal list has been compiled and is in the Appendix of this report. ✓

Launch positions were determined by either range-range or range-visual method. Ranging was by Del Norte (SHF) equipment. Calibration and calibration checks were by the following procedures:

1. Del Norte was calibrated against a base line established by Photo Party 61 and the error was zeroed out.
2. The calibration was checked twice daily at known positions such as day beacons. These known positions were established by Photo Party 61. ✓

The launch was maneuvered alongside these points and the Del Norte readings were noted and recorded in the sounding volume and compared to the inverse distance computed by Photo Party 61. ✓

The Del Norte note lists equipment used and is in the appendix. The abstract of daily calibration corrections is included in the appendix. From the abstract of calibrations the daily corrections were determined and are also listed in the appendix. ✓

The Control Report prepared by Photo Party 61 will be included in the appendix to this report. ✓

#### G. Shoreline

Shoreline details were from prior boatsheet ozlids. All hydrography run near shoreline was run to try to determine the MLW line. ✓

Locations where the MLW line was not developed was due to a combination of steep banks, heavy vegetation, and a small tidal range. ✓

#### H. Crosslines

Crosslines were run at approximately 10% of the regular system of sounding lines. The agreement between the regular sounding lines and the crosslines could be described as good. ✓

#### I. Junctions - see Verifier's report.

This survey junctions with H-9479 (1:10,000) 1974<sup>Northeast.</sup> It also junctions with work prior to this work on the same sheet H-9349 (742-10-4-73).

The agreement between soundings can be described as good.

#### J. Comparison with Prior Survey - see Verifier's report.

No comparison was made. No prior survey was furnished to the field unit.

A comparison was made with the survey H-9349, (10,000), 1973. The channel-lines that were run over the regular system of soundings provided, had an adequate junction. ✓

The following Pre-survey Review Items were investigated in the area surveyed:

PSI #38

Described as: three groups of pilings:

Lat.  $38^{\circ} 41' 03''$   
Long.  $77^{\circ} 09' 35''$

Lat.  $38^{\circ} 41' 02''$   
Long.  $77^{\circ} 10' 32''$

Lat.  $38^{\circ} 40' 41''$   
Long.  $77^{\circ} 09' 20''$

Instructions: the present existence of these piles should be verified or disproved.

Results of investigation:

Lat.  $38^{\circ} 41' 03''$ , Long.  $77^{\circ} 09' 35''$  verified, leave on chart. ✓  
Lat.  $38^{\circ} 41' 02''$ , Long.  $77^{\circ} 10' 32''$  disproved, delete from chart. ✓  
Lat.  $38^{\circ} 40' 41''$ , Long.  $77^{\circ} 09' 20''$  numerous piling at this position,  
See Q.C. Report verified, leave on chart. ✓ correct.

PSI #39

Described as: Submerged stakes in Pohick Bay.

Instructions: Locate and define the limits of stakes

Results of investigation: numerous submerged stakes were found. The area involved is indicated on the boatsheet at: Lat.  $38^{\circ} 40.78'$ , Long.  $77^{\circ} 10.5'$ . ✓ the limits of foul area was transferred from the boat sheet. It is recommended that the area be charted as shown.

PSI #40

Described as: dredged channel, 5 ft. 1966 and 6 ft. 1966.

Instructions: present controlling depth of this channel should be determined.

Results of Investigation:

Controlling depth east of Long.  $77^{\circ} 09.45'$  is  $\frac{5}{2}$  ft. The controlling depth west of  $77^{\circ} 09.45'$  is  $\frac{1}{2}$  ft. ✓



PSI #94

Described as:

An obstruction covered by 7 ft. of water at Lat.  $38^{\circ} 40.92'$ , Long.  $77^{\circ} 07.00'$

Instructions:

Verify or disprove, and if found, its position and least depth determined.

Results of Investigation:

Hydrography was preformed within 35 meters of the given position no obstruction was found. It is felt that further investigation should be preformed because hydrography was preformed prior to report of the obstruction in question. Notification of this PSI was given to hydro party after the project was completed. A comparison of the chart 560 34th Edition, March 74 does not show this obstruction. If it is not charted it should be until verified or disproved. This item is located outside the buoyed channel. ✓ *USNCGC.*

K. Comparison with the chart

A comparison was made with chart 560, 34th Edition, dated 2 March 1974. Good general agreement was found between this survey and the chart.

PSI #94 reports an obstruction at Lat.  $38^{\circ} 40.92'$  and Long.  $77^{\circ} 07.00'$ . The least depth reported was 7 ft. at MLW. This item was reported as a NM No. 29, 1974 after the chart was printed. This item is located outside of the buoyed channel. ✓ *Not disproved*

L. Adequacy of the Survey

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

M. Aids to Navigation

The aids to navigation adequately serve the purpose for which they are intended. ✓

N. Statistics ✓

Launch 1260

Total Number of Positions	613
Total Number of Miles of Sounding Lines	69.9

Skiff 570 ✓

Total Number of Positions	208
Total Number of Miles of Sounding Lines	35.1

Project ✓

Total Number of Square Nautical Miles	5.8
Total Number of Bottom Samples	7

O. Miscellaneous ✓

A formal request should be made to the Commanding Officer, U.S. Army, Fort Belvoir, Virginia, concerning the Restricted Area in Gunston Cove.

It appears to the hydrographer that the limits of the restricted area should be updated. This observation was made after talking to personnel at Fort Belvoir, and local personnel off the base.

P. Recommendations ✓

Presurvey Review Item #94 should be investigated at the earliest possible date. The location of the item is Lat.  $38^{\circ} 40.92'$ , Long.  $77^{\circ} 07.00'$ . ✓

Q. Reference to Report ✓

The following records are necessary for a complete record of the survey records.

\*Report on Horizontal Control by Photo Party 61

Report on Field Edit by Photo Party 61.

\*Electronic Control Report, by AHP - Launch 1260

\*Reports can be found in the appendix to this report.

Descriptive Report for Hydrographic Survey H-9479, (1:10,000), 1974.

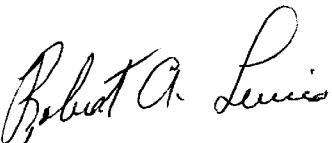
This report is required for corrections to depth for Skiff 570.

Descriptive Report for Hydrographic Survey H-9349, (1:10,000), 1973. ✓

*Robert R. Lewis*

Approval Sheet

This boatsheet and records were inspected for completeness and no additional work is considered necessary.

*For*   
F. T. Smith  
Lt. Cdr., NOAA  
Chief, AHP

## ELECTRONIC CONTROL REPORT

Electronic control of hydrography on Project OPR 409, Potomac River, Maryland, 1974 was by the Del Norte System. This report discusses the calibration of the system during the project.

The Del Norte model 202A transponder system consists of the following units:

- (a) Distance Measuring Units #202-R01 Serial #122 & Serial #123
- (b) Base Units, (Master Transmitter-receiver), #202-TR02B,  
Serial #162 and Serial #163
- (c) Remote Units, (Shore Station), #202-TR02R
  - Serial #163 Channel A
  - Serial #164 Channel B
  - Serial #165 Channel C

Launch personnel calibrated the Del Norte equipment twice daily in the field. The method of calibration was to place the launch (base station) as close as possible to a "known point", the position of which was determined by Photo Party 61. The methods of location and lists of positions for calibration points may be found in the Control Report furnished by Photo Party 61.

An abstract of inverse distance that Photo Party 61 supplied to the hydrographic party is included in the appendix of this report.

All calibrations were recorded in the sounding volumes during the survey. An abstract of daily calibration taken from the sounding volume is included in the appendix of this report.

From the abstract of daily calibration an Abstract of Calibration Volumes for this survey was compiled and is included in the appendix to this report.

In addition to the daily in-the-field calibration the Del Norte equipment was calibrated and set to zero on a known base line provided by Photo Party 61 before, during, and after the survey was completed. No discrepancies were found with the systems calibration during the survey.

H-9349

HFP 742-10-4-73

VELOCITY	TABLES	Table #	UNIT	Ves I.D.	Sheet
Depth	ID #	Vel	Corr		
000042	0	0002	0001	000	742200 010473
000043	0	0004			
000060	0	0006			
000210	0	0008			
000300	0	0010			
000330	0	0012			
000410	0	0014			
000434	0	0016			
000464	0	0018			
000500	0	0020			
000520	0	0013			
000600	0	0016			
001000	0	0013			
999999	0	0013			
000020	0	0002	0002	000	742300 010473
000040	0	0004			
000060	0	0006			
000094	0	0008			
000264	0	0010			
001000	0	0012			
999999	0	0012			
000040	1	0006	0003	000	742400 010473
000043	1	0004			
000054	1	0002			
000130	0	0008			
000240	0	0002			
001000	0	0004			
999999	0	0004			

# Signal List

OPR 409

H-9349 (742-10-4-73)

Tape in seconds

	<sup>0</sup>	<sup>1</sup>	<sup>''</sup>	<sup>0</sup>	<sup>1</sup>	<sup>''</sup>
007 ✓	38	40	1718	77	06	5322
008 ✓	38	41	1193	77	06	0186
<del>150</del>	38	37	0091	77	12	2050
160 ✓	38	38	0339	77	06	3978
161 ✓	38	38	0516	77	07	5059
162	38	38	0616	77	07	4837
163 ✓	38	37	1776	77	10	5865
164 ✓	38	36	3776	77	08	2587
166	38	36	3992	77	08	1958
167 ✓	38	40	0714	77	06	5447
168 ✓	38	40	2421	77	08	0773
169 ✓	38	41	0409	77	07	2554
171 ✓	38	41	4974	77	06	1833
172	38	40	2186	77	08	1290
173 ✓	38	41	1023	77	07	2001
411	38	40	2802	77	09	5610
429	38	39	5182	77	08	5984
431	38	40	2092	77	08	2544
435	38	40	5954	77	09	2917
510	38	40	1380	77	09	0370
513	38	41	0966	77	09	0676
514	38	41	0004	77	09	1392
515	38	41	0065	77	10	0910
517	38	40	1541	77	10	1119
518	38	40	1289	77	10	0511
511	38	41	0065	77	09	3025
512	38	41	1555	77	09	1715
516	38	40	4940	77	10	5660

BOLT, 1974

MARSHALL HALL DOCK LT., 1974

MONK, 1973

HALLOWING RM 4 1928-1973

SHEP 1928

GLYMONT 2, 1928-73

GRASS, 1973

WHITE, 1973

WHITESTONE PT. LT. 1973

FERRY POINT 1902

	SECONDS	Meters
411	38 40 0364	77 09 1356
429	38 39 1598	77 08 1447
431	38 40 0645	77 08 0615
435	38 40 1836	77 09 0705

OPR-409  
Potomac River  
#-9349(742-10-4.73)

Vel. Table #4

Leh. 1260

000250 0 0006 0004 000 742300 010473  
000600 0 0008  
001000 0 0010  
999999 0 0010

OPR. 409

Potomac River

H-9349 (742-10-4-73)

Vel. Table #5

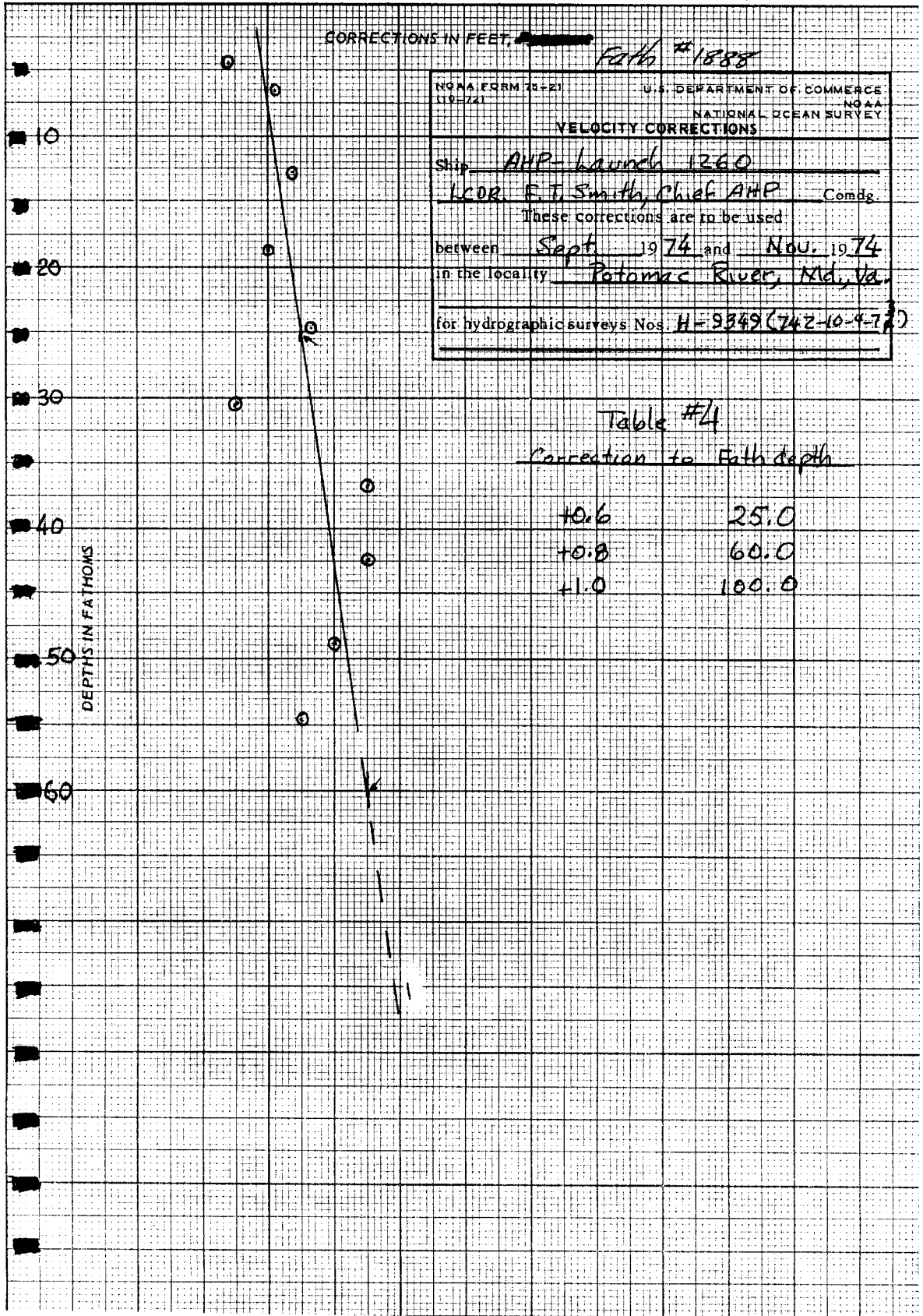
SK. RF 570

001000 0 0000 0005 000 742400 010473  
999999 0 0000



0.0 +0.2 +0.4 +0.6 +0.8 +1.0  
 (Let 1 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathom for shoal.)

1260 Table #4



20 X 20 TO THE INCH 46 1240  
 7 X 10 INCHES  
 KEUFFEL & ESSER CO.

- 0.0 + 0.2 0.4 0.6  
 (Let 1 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathom for shoal.)

SKIFF 570 #5

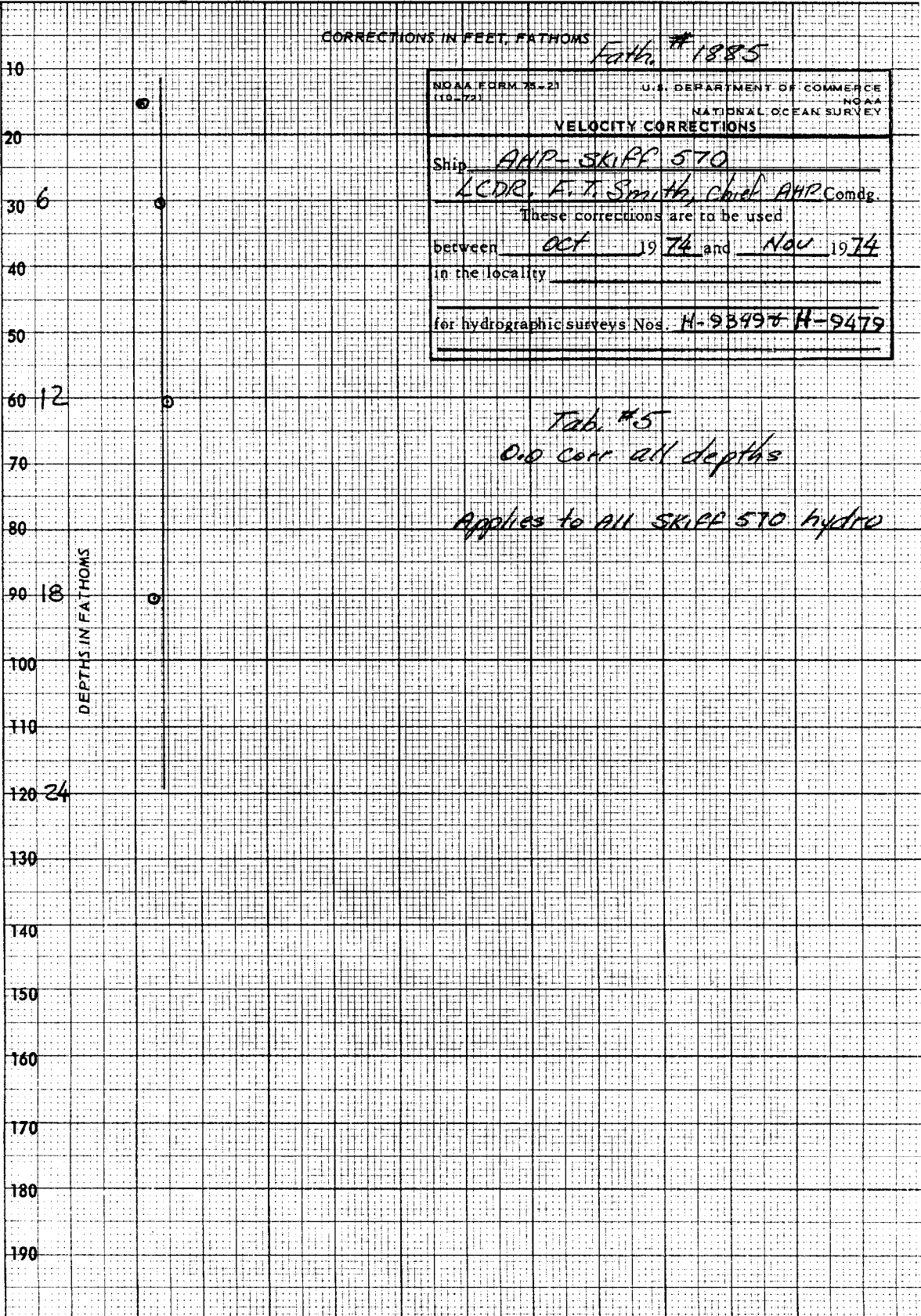
CORRECTIONS IN FEET, FATHOMS

Faths #1885

NOAA FORM 75-21 (10-72)	U.S. DEPARTMENT OF COMMERCE NOAA NATIONAL OCEAN SURVEY
<b>VELOCITY CORRECTIONS</b>	
Ship <u>AHP-SKIFF 570</u>	
by <u>LCDR. F. T. Smith, Chief AHP Comdg.</u>	
These corrections are to be used	
between <u>Oct</u> 19 <u>74</u> and <u>Nov</u> 19 <u>74</u>	
in the locality _____	
for hydrographic surveys Nos. <u>M-93498 H-9479</u>	

(For deep water add a 0 to these figures)

DEPTHS IN FATHOMS



(1.5 inch equal 4 fathoms for deep water and 1 inch equal 0.4 fathom for 200 ft.)

CORRECTIONS IN FEET, FATHOMS

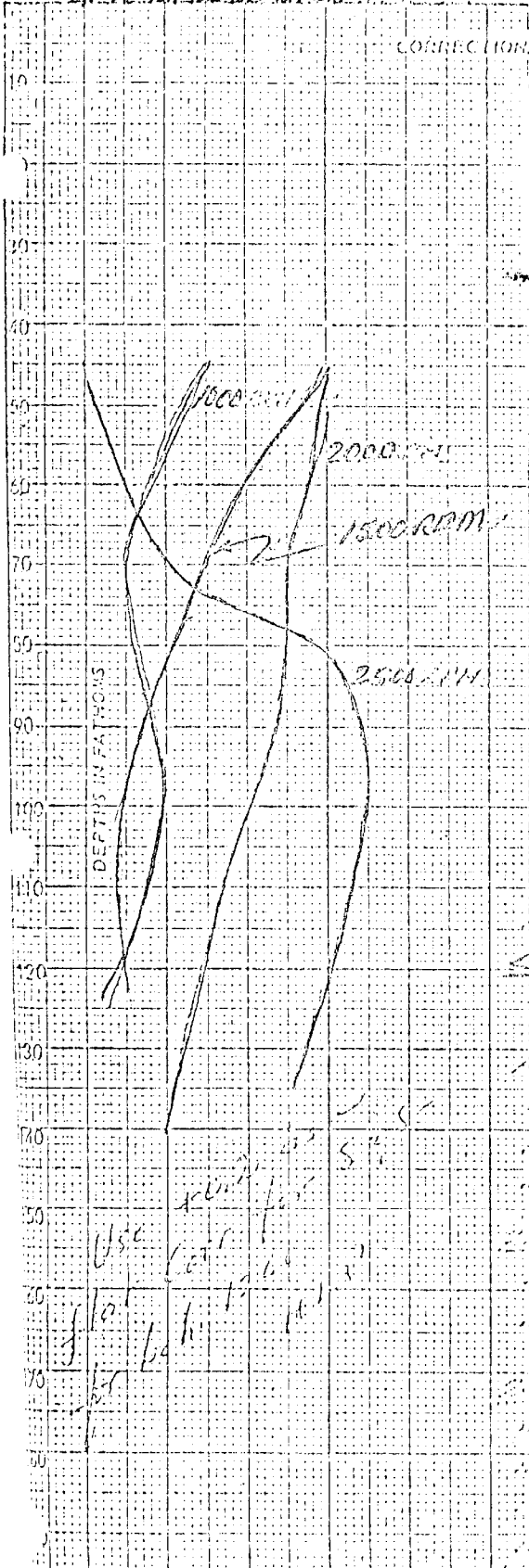
FORM C-55-117 U.S. DEPARTMENT OF COMMERCE  
COAST AND GEODETIC SURVEY

VELOCITY CORRECTIONS: *2/20*

Ship: **LAUNCH 1260**

**SETTLEMENT AND SQUAT**

These corrections are to be used between 19 and 19 in the locality of *Providence, R.I.* for hydrographic surveys Nos.



*rpm corrected (average)*

DEPTH	1000	1500	2000	2500	RPM
75	13.2	10.5	10.5	-0.1	FT
6.0	—	—	10.6	0.0	
7.0	0.0	10.2	10.4	10.1	
8.0	—	—	10.4	10.5	
9.0	10.1	0.0	10.2	10.6	
12.0	0.0	0.0	10.3	10.5	
14.0	—	—	10.1	10.4	
					FT

TABLE OF CORRECTIONS

RPM	DEPTH	CORR	AVG CORR
1000	25.5	10.2	10.2
	75.5	0.0	
1500	24.5	10.6	10.4
	10.5 to 6.0	10.1	
	6.0 to 0.5	10.2	
2000	7 0.5	0.0	10.4
	24.5	10.6	
2500	1.5 to 10.0	10.4	10.4
	7 10.0	10.2	
1000	24.5	-0.2	10.4
	7.5 to 7.0	0.0	
	7.0 to 7.5	10.3	
	7.5 to 8.0	10.4	
1500	8.0 to 12.0	10.6	10.4
	7 12.0	10.4	

CORRECTIONS IN FEET, FATHOMS

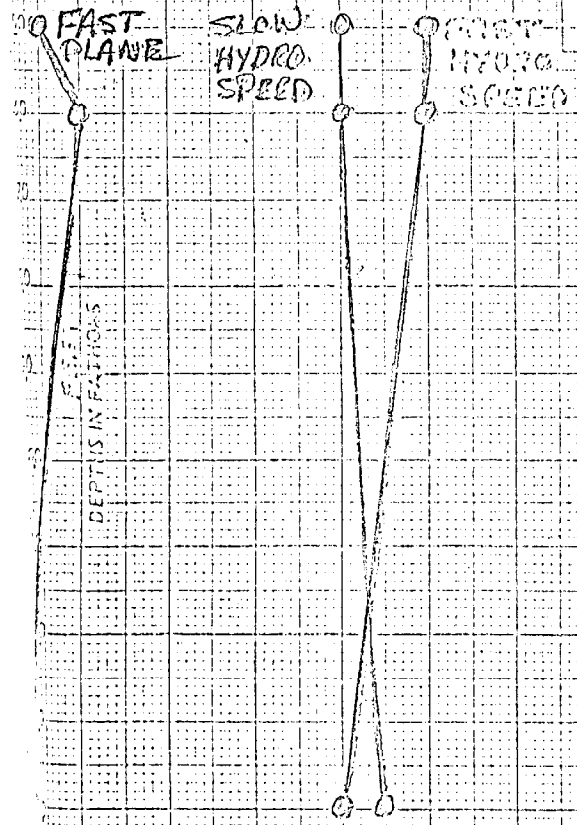
10 -0.4 -0.2 -0.0 +0.2 +0.4

FORM CGS-117 U.S. DEPARTMENT OF COMMERCE  
 COAST AND GEODETIC SURVEY  
 VELOCITY CORRECTIONS

Slip, **SKIFF 570** Condp. \_\_\_\_\_

These corrections are to be used  
**SETTLEMENT & SQUAT** 10  
 in the locality \_\_\_\_\_

for hydrographic surveys Non-\_\_\_\_\_



AVE. CORRECTION FOR  
 SKIFF 570 =  $\pm 0.3$  FT.  
 FOR ALL SOUNDINGS  
 TAKEN AT HYDRO  
 SPEEDS (I.E. NOT  
 PLANNING)

4/22/75

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): Whitestone; Dogue Creek;  
Mt. Vernon

Period: September 20 - November 21, 1974

HYDROGRAPHIC SHEET: H-9349

OPR:

Locality: Potomac River

2.0 ft. -Whitestone

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

1.4 ft. -Dogue Creek

1.8 ft. -Mt. Vernon

Height of Mean High Water above Plane of Reference is

2.2 ft. - north of  $38^{\circ}39'$

1.8 ft. - south of  $38^{\circ}39'$

Remarks: Recommended zoning:

North of  $38^{\circ}40'.4$  and east of  $77^{\circ}06'.3$ : zone direct on  
Mt. Vernon.

North of  $38^{\circ}40'.4$  and west of  $77^{\circ}06'.3$ : zone direct on  
Dogue Creek.

$38^{\circ}40'.4$  to  $38^{\circ}38'.1$ : zone direct on Whitestone Point.

South of  $38^{\circ}38'.1$ : apply the following corrections to  
Whitestone Pt.

Time: -20 minutes      Range Ratio: X0.90

*James R. Hubbard*  
for Chief, Tides Branch

GEOGRAPHIC NAMES

H-9349

Name on Survey	Source of Name											
	A	B	C	D	E	F	G	H	K			
	ON CHART NO.	ON PREVIOUS SURVEY NO.	ON U.S. QUADRANGLE MAPS	FROM LOCAL INFORMATION	ON LOCAL MAPS	P.O. GUIDE OR MAP	GRAND McNALLY ATLAS	U.S. LIGHT LIST				
ACCOTINK BAY ✓												1
CHAPMAN LANDING ✓												2
CHAPMAN POINT ✓												3
CRANEY ISLAND ✓												4
DOGUE CREEK ✓												5
FENWICK ✓												6
FERRY POINT ✓												7
GREENWAY FLATS ✓												8
GUNSTON COVE ✓												9
GUNSTON HALL ✓												10
HALLOWING POINT ✓												11
INDIAN HEAD (Community) ✓												12
MARSHALL HALL ✓												13
MASON NECK ✓												14
POHICK BAY ✓												15
POMONKEY CREEK ✓												16
POMONKEY POINT ✓												17
POTOMAC HEIGHTS ✓												18
POTOMAC RIVER ✓												19
RIVERVIEW VILLAGE ✓												20
SYCAMORE POINT ✓												21
WHITESTONE POINT ✓												22
YACHT HAVEN ✓												23
												24
												25

APPROVED

*Chas. E. Harrington*


CHIEF GEOGRAPHER-C3x8

28 JUNE 1978

APPROVAL SHEET  
FOR  
SURVEY H-9349

- 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.
- B. The verified smooth sheet has been inspected, is complete, and meets the requirements of the Provisional Hydrographic Manual. Exceptions are listed in the Verifier's Report.

Date: 3-14-78

Signed:   
Title: <sup>for</sup> Chief, Verification Branch

## HYDROGRAPHIC SURVEY STATISTICS

H-9349

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

RECORD DESCRIPTION		AMOUNT	RECORD DESCRIPTION		AMOUNT	
SMOOTH SHEET		1	BOAT SHEETS & PRELIMINARY OVERLAYS		85	
DESCRIPTIVE REPORT Addendum		1	SMOOTH OVERLAYS: POS. ARC, EXCESS		2	
DESCRIP- TION	DEPTH RECORDS	HORIZ. CONT. RECORDS	PRINTOUTS	TAPE ROLLS	PUNCHED CARDS	ABSTRACTS SOURCE DOCUMENTS
ENVELOPES						1-misc. data
CAHIERS	2 -with	printouts				
VOLUMES	15					
BOXES						

T-SHEET PRINTS (List)

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	TOTALS
POSITIONS ON SHEET			2768
POSITIONS CHECKED		300	
POSITIONS REVISED		175	
SOUNDINGS REVISED		335	
SOUNDINGS ERRONEOUSLY SPACED		0	
SIGNALS (CONTROL) ERRONEOUSLY PLOTTED		2	
	TIME - HOURS		
CRITIQUE OF FIELD DATA PACKAGE (PRE-VERIFICATION)	15		
VERIFICATION OF CONTROL		4	
VERIFICATION OF POSITIONS		108	
VERIFICATION OF SOUNDINGS		78	
COMPILATION OF SMOOTH SHEET		70	
APPLICATION OF TOPOGRAPHY		8	
APPLICATION OF PHOTOBATHYMETRY			
JUNCTIONS		6	
COMPARISON WITH PRIOR SURVEYS & CHARTS		24	
VERIFIER'S REPORT		16	
OTHER			
TOTALS	15	314	329
Pre-Verification by C. Meekins	Beginning Date 01/30/74	Ending Date 02/05/74	
Verification by J. Murphy, J. Bradford, H. Smith	Beginning Date 04/25/75	Ending Date 03/03/78	
Verification Check by B. J. Stephenson, R. D. Sanocki	Time (Hours) 8	Date 03/13/78	
Marine Center Inspection by Hydrographic Inspection Team (AMC)	Time (Hours) 10	Date 03/13/78	
Quality Control Inspection by RW Derkarian	Time (Hours) 92	Date 5/26/78	
Requirements Evaluation by J. Baumgardner	Time (Hours) 8	Date 8/22/78	

No Insp



Reg. No. 9349

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 REQ'D \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:

Reg. 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 REQ'D \_\_\_\_\_ INITIALS \_\_\_\_\_

REMARKS:

H-9349

Information for Future Presurvey Reviews

Future surveys will probably indicate further shoaling. A future survey of the area should include the investigation of the piles, piers, and ruin, and the Presurvey Review item not disposed of by the present survey.

<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>
383	0771	2	4	50 years
383	0772	2	4	50 years
384	0771	2	4	50 years
384	0772	2	4	50 years

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ATLANTIC MARINE CENTER  
VERIFIER'S REPORT

REGISTRY NO. H-9349

FIELD NO. 742-10-4-73

Virginia - Maryland, Potomac River, Vicinity of Mason Neck

SURVEYED: July 16 through August 28, 1973 and  
September through November, 1974

SCALE: 1:10,000

PROJECT NO.: OPR-409

SOUNDINGS: Raytheon Fathometer  
DE-723 and Pole

CONTROL: Del-Norte  
(Range-Range and  
Range-Visual)  
and Visual

Chief of Party ..... N. C. Austin  
..... F. T. Smith  
Surveyed by ..... W. H. Piner  
..... W. E. George  
..... L. C. Gilden  
Automated Plot by ..... CALCOMP-618 Plotter (AMC)  
Verified and Inked by ..... H. R. Smith  
March 3, 1978

1. Introduction

a. This survey was done in two seasons - 1973 and 1974.  
The 1974 work is considered an addendum to the 1973 work.

b. Control type was added to the electronic control parameters during verification. This control type was required for the CPARS program. *Filed with Field records*

2. Control and Shoreline

a. The source of the control is adequately described in Section F of the Descriptive REport.

b. The shoreline was taken from the following final reviewed shoreline manuscripts:

<u>Number</u>	<u>Photograph</u>	<u>Field Edit</u>
TP-00320	April 1972	August 1973
TP-00321	April 1972	October 1974
TP-00324	----- 1971	----- 1973

A snag bearing 4 feet at MHW is shown on TP-00324 in latitude 38° 37.12', longitude 77° ~~05.70'~~<sup>05.87'</sup>. This snag is not charted nor included in the Presurvey Review. An examination of the fathogram of the area gives no indication. The source of the snag is not on hand at the Atlantic Marine Center. The final disposition of the snag is referred to the Washington office.

*See Q.C. Report*

### 3. Hydrography

- a. Depths at crossings are in good agreement.
- b. The standard depth curves were adequately delineated.  
*The charted 24 foot curve*
- c. The development of bottom configuration and the investigation of least depths are considered adequate, with the following exception: channel development in latitude 38° 40.3' is minimal. Spacing was not in accordance with the Provisional Hydrographic Manual.

### 4. Condition of Survey

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

- a. The 1973 Descriptive Report has no index.
- b. The hydrographer did not make specific recommendations for the Presurvey Review on the 1973 work.
- c. It would have been desirable for the hydrographer to have determined how much water can be carried up Pomonkey Creek.

### 5. Junctions

Adequate junctions were effected with the following surveys:

- ✓ H-9479 (1974) on the northeast
- ✓ H-9292 (1973) on the southwest
- ✓ H-9324 (1972) on the southwest

*See Q.C. Report*

### 6. Comparison With Prior Surveys

- a. H-2692 (1904) 1:10,000
- H-2699 (1904) 1:10,000
- H-2705 (1905) 1:10,000

A comparison between the above prior surveys and the present

*Dogue Creek has shoaled 1 to 2 feet.*

survey reveals minor changes. The shoreline has been altered in Dogue Creek, where a basin has been dredged and a marina has been constructed. Also, at Whitestone Point dredging and construction has taken place; the prior survey (H-2699) contains no shoreline on the west side from latitude 38° 41' 00", longitude 77° 37' 00". A channel has been dredged in Gunston Cove at Whitestone Point, with depths from 12 to 19 feet deeper on the present survey. A 2-foot depth in latitude 38° 40.60' 35", longitude 77° 08.10' on H-2699 has been dredged to 19 feet on the present survey. The shoreline has filled in about one-third mile on the present survey in the marsh area centered around latitude 38° 38' 00", longitude 77° 10' 00". There has been shoaling between the 30- and 6-foot curves on the east side of the river from about latitude 38° 40' 30", to 38° 38' 20". There appears to have been ~~dredging~~ <sup>scouring and sedimentation</sup> in this area. ~~The bottom is irregular.~~ Several shoal depths charted in the area from prior survey H-2699 were not found on the present survey. These depths are considered superseded because of the improved surveying methods of the present survey. Depths on the present survey are generally 1 to 4 feet shoaler in shallow water and as much as 12 feet shoaler in the deep channel. Changes are attributable to natural and artificial causes.

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

b. H-4591 (1926) 1:10,000

The above survey covers the Gunston Cove area of the present survey. This survey was not available for comparison at the time of this report. A comparison with the charted depths in the area reveals the present survey to be in general agreement, with some areas a foot <sup>to two feet</sup> shoaler on the present survey. A more detailed comparison is deferred to Quality Control Branch, Marine Surveys Division. *See Q.C. Report*

7. Comparison With Chart 560 (34th Edition, March 2, 1974)

a. Hydrography

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

Attention is directed to the following:

- (1) PSI #29 - The piles awash charted in latitude 38° 37' 27", longitude 77° 10' 04", reported in a 1935 Coast

and Geodetic Survey Coast Pilot report (BP-29692). The present survey investigated this item and located 1 pile close to shore. ✓ The investigation is considered to be adequate and the piles awash are considered disproved. It is recommended that the piles awash note and the 5 piles be removed from the chart and that this item be charted as shown on the present survey.

(2) PSI #30 - The visible wreck charted in latitude 38° 36' 23", longitude 77° 09' 46" originates with T-5761 (1937-38). ✓ The present survey located a rock jetty in this area. The T-sheet shows a groin (with a light on the offshore end) slightly inshore and to the west of the survey position. Recommend wreck be removed and present survey information charted.

(3) PSI #31 and 92 - The piles charted in latitude 38° 36' 23", longitude 77° 09' 25", reported in a 1935 Coast and Geodetic Survey Coast Pilot report (BP-29692) and CL-1045 of 1974, which reported the piles no longer visible. ✓ The present survey found an old pier in this area. The T-sheet shows a floating pier in ruins. It is recommended that this item be charted as shown on the present survey.

(4) PSI #32 and 92 - The piles charted in latitude 38° 36' 27", longitude 77° 08' 46", originate with a 1935 Coast and Geodetic Survey Coast Pilot report (BP-29692) and CL-1045 of 1974, which reports the piles not visible. ✓ The present survey investigated and reports a wooden bulkhead to be in this location. These piles are described as above high water in the Presurvey Review, but they are not shown on the T-sheet. The charted piles fall in present survey depths of 3 to 4 feet. It is recommended the charted piles be retained as submerged piles on the chart because the present survey investigation did not verify or disprove that possibility.

(5) PSI #33 - The piles charted near Craney Island in latitude 38° 37' 30", longitude 77° 08' 19" originate with T-5761 (1937-38). ✓ The field did not report an investigation for this item; however, a D.P. was taken on a submerged obstruction at this location, position 4000. The T-sheet does not show a pile. The obstruction located by the field is considered to be the item described in PSI #33. It is recommended that this item be charted as shown on the present survey.

(6) PSI #34 - The sunken wreck charted in latitude 38° 38' 27", longitude 77° 06' 40" and the piles charted immediately to the southwestward - both originate with Chart Letter No. 193 of 1939, and T-5761 (1937-38)

The present survey investigated this item and located a motor as the only remains of the wreck, position 5154. There were no piles. The T-sheet (TP-00325) notes a sunken wreck. The T-sheet and present survey positions are in disagreement. Also the piles are charted as submerged. The submerged piles are considered disproved by the present survey. The T-sheet and present survey locations are considered to be the remains of the same wreck, and the T-sheet's location was used on the present survey and indicated as a submerged obstruction. The present survey information should be charted.

(7) PSI #35 - The two lines of dots charted in latitude  $38^{\circ} 39' 30''$ , longitude  $77^{\circ} 08' 58''$  originate with H-4591 (1926). The present survey located the offshore end of each of the lines of dots, with a note that they extended to shore. The T-sheet shows three pilings near the shoreline with the note, "piling". The offshore and the nearshore pilings were connected by dashed lines during verification. It is recommended that this item be charted as shown on the present survey.

(8) PSI #37 - The sunken wreck, P.A., charted in latitude  $38^{\circ} 40' 20''$ , longitude  $77^{\circ} 09' 07''$  originates with Notice to Mariners No. 50 of 1967. This item was investigated by the present survey but was not located. (The boat sheet indicates that the field picked the wrong item for PSI #37.) This is the first item mentioned under Section K of the Descriptive Report. It is recommended that this item remain charted as is.

(9) PSI #40 - The dredged channels 5 feet - 1966 and 6 feet - 1966 charted in about latitude  $38^{\circ} 41' 01''$ , longitude  $77^{\circ} 09' 28''$  originates with a 1966 Corps of Engineers survey (BP-70621-22). The present survey determined the controlling depths to be 1-foot in the 5-foot area and 4 feet in the 6-foot area.

(10) PSI #41 - + symbols with note "piles" charted in latitude  $38^{\circ} 40' 39''$ , longitude  $77^{\circ} 07' 42''$  was originally a pier reported in ruins in a 1935 Coast and Geodetic Survey Coast Pilot report (BP-29692). The present survey investigated this item and did not locate the piles. It is recommended that the piles remain charted as is.

(11) PSI #42 - The three piles, one charted in latitude  $38^{\circ} 41' 18''$ , longitude  $77^{\circ} 07' 19''$  (the two other piles are beyond the limits of this survey) originate with Chart Letter No. 80 of 1929, a Coast and Geodetic Survey landmark report.

The present survey located the above pile, position <sup>4275a</sup> ~~3165~~, but is listed in the Descriptive Report as PSI #45. It is recommended that this pile be charted as shown on the present survey. <sub>Pos 3165, rejected</sub>

(12) PSI #89 - The pier -in- ruins charted in approximate latitude 38° 36' 40", longitude 77° 08' 15", reported to have been washed away with only piles remaining. Source is Chart Letter No. 1654 of 1972 from U. S. Power Squadron. The present survey did not investigate this item. The T-sheet shows dolphins in ruins in 6 feet of water. The dolphins do not extend to the shoreline. It is recommended that this item be charted as shown on the present survey.

(13) PSI #36 - the sunken wreck charted in latitude 38° 40' 09", longitude 77° 09' 28", although investigated and confirmed by the hydrographer, was not located by a detached position or its condition described. <sub>Position of wreck carried Forward From T-5759</sub>

(14) PSI #38, 39, and 94 were discussed and properly disposed of in Section J of the 1974 Descriptive Report. Several items in Section K of the 1973 Descriptive Report have been discussed and properly disposed of.

(15) In Pomonkey Creek there is a charted overhead power cable. It is not indicated on the appropriated shoreline manuscript, but was shown on one of the field sheets. No mention is made of the cable in the survey records. Based on the information available, this item should be retained; however, examination of the source photography might resolve the conflict.

(16) PSI #93 - A reported piling awash in latitude 38° 37.49', longitude 77° 07.17' by Chart Letter No. 1052 of 1974, has not been investigated by the present survey and is not considered disproved.

With the exception of items listed above and in Sections J and K of the Descriptive Reports, the present survey is considered adequate to supersede the charted data within the common area.

b. Aids to Navigation

The positions of aids to navigation are in substantial agreement with the chart and adequately mark the intended features.

c. Controlling Depths

See para 9. above.



8. Compliance With Instructions

The survey adequately complies with the Project Instructions.


9. Additional Field Work

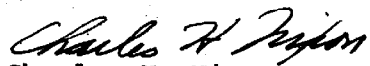
This is considered to be a good basic survey (see the hydrographer's recommendations in Section P of the 1974 Descriptive Report) and additional field work is not necessary.


Inspection Report  
H-9349

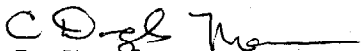
Any verification errors regarding procedures and presentation of survey data detected during inspection by the Hydrographic Inspection Team have been corrected before submission for administrative approval. HIT comments regarding quality of field work, compliance with instructions, and adequacy of the survey have been incorporated within the Verifier's Report.

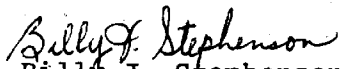
Examined and Approved:  
Hydrographic Inspection Team  
Date: 3/13/78

  
Robert A. Trauschke, CDR, NOAA  
Chief, Processing Division

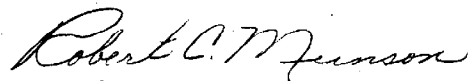
  
Charles H. Nixon, CAPT, NOAA  
Chief, Operations Division

  
R. D. Sanocki  
Technical Assistant  
Processing Division

  
C. Douglas Mason, LT, NOAA  
Chief, Electronic Data  
Processing Branch

  
Billy J. Stephenson  
Team Leader  
Verification Branch

Approved/Forwarded

  
Robert C. Munson  
RADM, NOAA  
Director, Atlantic Marine Center



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

C352/RWD

May 26, 1978

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

THRU: Chief, Quality Control Branch

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

SUBJECT: Quality Control Report for H-9349 (1973-74), Marshall Hall  
to Indian Head, Potomac River, Virginia-Maryland

A quality control inspection of H-9349 was accomplished to monitor the survey for obvious deficiencies with respect to data acquisition, delineation of the bottom, determination of least depths, navigational hazards, junctions, sounding line crossings, shoreline transfer, smooth plotting, decisions and actions taken by the verifier, and the cartographic presentation of data.

In general, the survey was found to conform to the National Ocean Survey's standards and requirements except as stated in the report by the verifier and the Hydrographic Inspection Team and as follows:

1. Five station names were added to the smooth sheet during the quality evaluation in accordance with the Hydrographic Manual, appendix B-1, code 254.
2. The signal list did not provide a complete listing; three signals used on the present survey were added. Also, the source for several signals as outlined in accordance with the Hydrographic Manual, figure 5-9, were added. The signal list did not comply with the accepted format.
3. A position value noted for position 3342 in the smooth position print-out did not plot in the given position on the smooth sheet. This would indicate that a pseudo position value was given and plotted. The Descriptive Report indicates that a new smooth position printout has been made. This statement is not justified.
4. Signal 431, Fort Belvoir Mooring Dolphin Light "A", which is shown in black on the smooth sheet should more appropriately be shown in red. See Hydrographic Manual, table B-8, cartographic code 243.



5. In reference to the snag discussed in paragraph 2 of the Verifier's Report, the statement as to the source of the snag is inconsistent as the snag appears on the shoreline manuscript. The snag should be shown as indicated on the present survey.

6. During the quality evaluation it was necessary to reject a segment of line in latitude  $38^{\circ}37.37'$ , longitude  $77^{\circ}10.8'$  that was in conflict with junctional survey H-9292 (1973). It appears that erroneous tidal data were applied to that day's work as no tidal data were provided for that day in the printout. This situation should have been resolved during verification as the Verifier's Report indicates that an adequate junction was effected.

7. The following information supplements the Comparison with Prior Surveys of the Verifier's Report:

b. H-4591 (1926) 1:10,000

A pier in latitude  $38^{\circ}39.15'$ , longitude  $77^{\circ}08.45'$  and a pier ruin in the vicinity of latitude  $38^{\circ}41.05'$ , longitude  $77^{\circ}09.48'$  have not been investigated but are considered nonexistent. A pier in latitude  $38^{\circ}40.90'$ , longitude  $77^{\circ}09.28'$  and a pier ruin in latitude  $38^{\circ}40.35'$ , longitude  $77^{\circ}08.10'$  have evidently been removed by dredging and are considered nonexistent.

c. T-5759 (1937-38) 1:10,000  
T-5761 (1937-38) 1:10,000

The following charted items have not been investigated by the present survey but are considered nonexistent:

<u>Item</u>	<u>Latitude</u>	<u>Longitude</u>	
piles	$38^{\circ}41.88'$	$77^{\circ}06.75'$	PSI #45
piles	$38^{\circ}41.05'$	$77^{\circ}10.26'$	
piles	$38^{\circ}39.41'$	$77^{\circ}08.83'$	
pier ruin	$38^{\circ}39.08'$	$77^{\circ}08.33'$	
pier ruin	$38^{\circ}39.51'$	$77^{\circ}09.03'$	
pier	$38^{\circ}38.47'$	$77^{\circ}07.99'$	
pier ruin	$38^{\circ}38.81'$	$77^{\circ}07.84'$	
catwalk ruin	$38^{\circ}38.42'$	$77^{\circ}06.60'$	

Piling located in latitude  $38^{\circ}39.03'$ , longitude  $77^{\circ}08.05'$  some of which appear on H-4591 were not verified on the present survey. These features were carried forward to the present survey as submerged piling during quality control.

Four piling (Presurvey Review item 38) located in latitude 38°40.7', longitude 77°09.35' that were verified but not specifically identified on the present survey were carried to the smooth sheet during quality control.

With the addition of the items carried forward, the present survey is adequate to supersede the prior surveys in the common area.

8. The following information supplements the Verifier's Report, Comparison with Chart:

a. Hydrography

The charted hydrography originates with the previously discussed prior surveys in paragraph 7 of the Verifier's Report and paragraph 7 of this report, which require no further consideration, supplemented by various blueprints and several Presurvey Review items from chart letters, blueprints, and local notices to mariners that were adequately verified or disproved and discussed in paragraphs J and K of the Descriptive Report and Verifier's Report.

Attention is directed to the following:

(1) The note, submerged stakes, charted in Dogue Creek, latitude 38°41.75', longitude 77°06.9' (Presurvey Review item 44) from a Coast Pilot Revision were not investigated by the present survey. Retain the charted information.

(2) Two sunken wrecks charted in latitude 38°41.9', longitude 77°06.8' and latitude 38°41.76', longitude 77°06.53' (Presurvey Review item 45), respectively, were not verified or disproved. Retain as charted. See paragraph 7.c above for further information of Presurvey Review item 45.

(3) All charted piles, piers, ruins, etc., not originating from NOS surveys that are not specifically addressed or disposed of in the Descriptive Report or Verifier's Report shall be further considered for charting by the chart compiler.

The present survey is adequate to supersede the charted information with the exceptions as listed above.

b. Aids to Navigation

The charted fixed and floating aids to navigation adequately mark their intended features except for channel buoys "55," "57," "58," "62," "64," "66," and "67." These buoys do not mark the channel depths as outlined in the published Light List, of 1973 and 1974.

CC:  
C35  
C351

