

TP-00321

TP-00321

NOAA FORM 76-35

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

## DESCRIPTIVE REPORT

Type of Survey ..... Shoreline  
Job No. .... PH-7012 ..... Map No. .... TP-00321  
Classification No. .... Edition No. .... 1  
Field Edited Map

## LOCALITY

State .... Virginia - Maryland  
General Locality .... Potomac River  
Locality .... Dogue Creek

19 72 TO 19 73

## REGISTRY IN ARCHIVES

DATE .....

☆ U.S. GOVERNMENT PRINTING OFFICE: 1974-762-901

12285 (101) A - DK - 9-77

12289 (560) P/A - BW - 2-79

NOAA FORM 76-36A (3-72)		U. S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMIN.					
<b>DESCRIPTIVE REPORT - DATA RECORD</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">           TYPE OF SURVEY  <input checked="" type="checkbox"/> ORIGINAL  <input type="checkbox"/> RESURVEY  <input type="checkbox"/> REVISED         </td> <td style="width: 50%;">           SURVEY TP. <u>00321</u>             MAP EDITION NO. <u>1</u>            MAP CLASS <u>Final (FE)</u>            JOB PH. <u>7012</u> </td> </tr> </table>		TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	SURVEY TP. <u>00321</u>  MAP EDITION NO. <u>1</u> MAP CLASS <u>Final (FE)</u> JOB PH. <u>7012</u>		
TYPE OF SURVEY <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	SURVEY TP. <u>00321</u>  MAP EDITION NO. <u>1</u> MAP CLASS <u>Final (FE)</u> JOB PH. <u>7012</u>						
PHOTOGRAMMETRIC OFFICE  Coastal Mapping Division, Norfolk, VA		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2" style="text-align: center;"> <b>LAST PRECEDING MAP EDITION</b> </td> </tr> <tr> <td style="width: 50%;">           TYPE OF SURVEY  <input type="checkbox"/> ORIGINAL  <input type="checkbox"/> RESURVEY  <input type="checkbox"/> REVISED         </td> <td style="width: 50%;">           JOB PH. _____            MAP CLASS _____            SURVEY DATES:            19__ TO 19__         </td> </tr> </table>		<b>LAST PRECEDING MAP EDITION</b>		TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	JOB PH. _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__
<b>LAST PRECEDING MAP EDITION</b>							
TYPE OF SURVEY <input type="checkbox"/> ORIGINAL <input type="checkbox"/> RESURVEY <input type="checkbox"/> REVISED	JOB PH. _____ MAP CLASS _____ SURVEY DATES: 19__ TO 19__						
OFFICER-IN-CHARGE  Jeffrey G. Carlen, Cdr.							
<b>I. INSTRUCTIONS DATED</b>							
<b>1. OFFICE</b>		<b>2. FIELD</b>					
Aerotriangulation Jan. 9, 1973  Compilation Feb. 14, 1973		July 18, 1972					
<b>II. DATUMS</b>							
<b>1. HORIZONTAL:</b> <input checked="" type="checkbox"/> 1927 NORTH AMERICAN		OTHER (Specify) _____					
<b>2. VERTICAL:</b> <input checked="" type="checkbox"/> MEAN HIGH-WATER <input checked="" type="checkbox"/> MEAN LOW-WATER <input type="checkbox"/> MEAN LOWER LOW-WATER <input type="checkbox"/> MEAN SEA LEVEL		OTHER (Specify) _____					
<b>3. MAP PROJECTION</b>  Polyconic		<b>4. GRID(S)</b> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">STATE Virginia</td> <td style="width: 50%;">ZONE North</td> </tr> <tr> <td>STATE Maryland</td> <td>ZONE</td> </tr> </table>		STATE Virginia	ZONE North	STATE Maryland	ZONE
STATE Virginia	ZONE North						
STATE Maryland	ZONE						
<b>5. SCALE</b>  1:10,000							
<b>III. HISTORY OF OFFICE OPERATIONS</b>							
<b>OPERATIONS</b>		<b>NAME</b>	<b>DATE</b>				
<b>1. AEROTRIANGULATION</b> BY METHOD: Stereoplanigraph		D.M. Bryant	Feb. 1973				
<b>2. CONTROL AND BRIDGE POINTS</b> PLOTTED BY METHOD: Coradomat CHECKED BY							
<b>3. STEREOSCOPIC INSTRUMENT</b> PLANIMETRY BY COMPILATION CHECKED BY INSTRUMENT: Wild B-8 SCALE: 1:15,000 CONTOURS BY CHECKED BY		L.O. Neterer, Jr. F.P. Margiotta NA NA	Mar. 1973 Mar. 1973				
<b>4. MANUSCRIPT DELINEATION</b> PLANIMETRY BY CHECKED BY METHOD: Smooth Drafted CONTOURS BY CHECKED BY SCALE: 1:10,000 HYDRO SUPPORT DATA BY CHECKED BY		L.B. Foltz R.R. White NA NA L.B. Foltz R.R. White R.R. White	Apr. 1973 Apr. 1973 Apr. 1973 Apr. 1973 Apr. 1973				
<b>5. OFFICE INSPECTION PRIOR TO FIELD EDIT</b> BY		G.R. Vanderhaven	Mar. 1975				
<b>6. APPLICATION OF FIELD EDIT DATA</b> CHECKED BY		A.L. Shands	Mar. 1975				
<b>7. COMPILATION SECTION REVIEW</b> BY		A.L. Shands	Mar. 1975				
<b>8. FINAL REVIEW</b> BY		A.L. Shands	Feb. 1977				
<b>9. DATA FORWARDED TO PHOTOGRAMMETRIC BRANCH</b> BY		A.L. Shands	Mar. 1977				
<b>10. DATA EXAMINED IN PHOTOGRAMMETRIC BRANCH</b> BY		J.B. Phillips	Apr. 1977				
<b>11. MAP REGISTERED - COASTAL SURVEY SECTION</b> BY		R.T. Cafer	May 1977				

NOAA FORM 76-36B  
(3-72)TP-00321  
COMPILATION SOURCESU. S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SURVEY

## 1. COMPILATION PHOTOGRAPHY

CAMERA(S) Wild RC-8 "E" 35mm		TYPES OF PHOTOGRAPHY LEGEND (CI) COLOR INFRARED (C) COLOR (P) PANCHROMATIC (I) INFRARED		TIME REFERENCE	
TIDE STAGE REFERENCE: <input checked="" type="checkbox"/> PREDICTED TIDES <input type="checkbox"/> REFERENCE STATION RECORDS <input type="checkbox"/> TIDE CONTROLLED PHOTOGRAPHY				ZONE Eastern	<input checked="" type="checkbox"/> STANDARD
				MERIDIAN 75 W	<input type="checkbox"/> DAYLIGHT

NUMBER AND TYPE	DATE	TIME	SCALE	STAGE OF TIDE
72E(CI)1650	4/18/72	11:44	1:30,000	2.8 ft. above MLW
72E(CI)1660 - 1663	4/18/72	11:56	1:30,000	2.2 ft. above MLW

REMARKS

## 2. SOURCE OF MEAN HIGH-WATER LINE:

The Mean High Water Line was compiled from the color infrared photographs listed above.

## 3. SOURCE OF MEAN LOW-WATER OR MEAN LOWER LOW-WATER LINE:

None delineated. No Low Water photography available.

## 4. CONTEMPORARY HYDROGRAPHIC SURVEYS (List only those surveys that are sources for photogrammetric survey information.)

SURVEY NUMBER	DATE(S)	SURVEY COPY USED	SURVEY NUMBER	DATE(S)	SURVEY COPY USED

## 5. FINAL JUNCTIONS

NORTH	EAST	SOUTH	WEST
No Survey	TP-00322	TP-00325	TP-00320

REMARKS

NOAA FORM 76-36C  
(3-72)

TP-00321

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

## HISTORY OF FIELD OPERATIONS

1. ☒ FIELD INSPECTION OPERATION☐ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	R.D. Olson	Oct., 1972
2. HORIZONTAL CONTROL	RECOVERED BY R.D. Olson ESTABLISHED BY None PRE-MARKED OR IDENTIFIED BY R.D. Olson & C.V.U.	Oct., 1972
3. VERTICAL CONTROL	RECOVERED BY NA ESTABLISHED BY NA PRE-MARKED OR IDENTIFIED BY NA	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY None LOCATED (Field Methods) BY None IDENTIFIED BY None	
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY	
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY NA	

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

2. VERTICAL CONTROL IDENTIFIED

NA

PHOTO NUMBER	STATION NAME
72E(CI)1661 (U)	FERRY POINT, 1928
72E(CI)1650 (U)	GUM SPRINGS RADIO STATION WPIK MAST

PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

None

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

None

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME

5. GEOGRAPHIC NAMES: ☒ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

2 Form 152 - Control Station Identification

NOAA FORM 76-36C  
(3-72)



TP-00321  
HISTORY OF FIELD OPERATIONSI. ☐ FIELD INSPECTION OPERATION☒ FIELD EDIT OPERATION

OPERATION	NAME	DATE
1. CHIEF OF FIELD PARTY	J.W. Davis	Aug. 1973
2. HORIZONTAL CONTROL	RECOVERED BY J.W. Davis ESTABLISHED BY None PRE-MARKED OR IDENTIFIED BY NA	Aug. 1973
3. VERTICAL CONTROL	RECOVERED BY NA ESTABLISHED BY NA PRE-MARKED OR IDENTIFIED BY NA	
4. LANDMARKS AND AIDS TO NAVIGATION	RECOVERED (Triangulation Stations) BY J.W. Davis LOCATED (Field Methods) BY J.W. Davis IDENTIFIED BY J.W. Davis	Aug. 1973 Aug. 1973 Aug. 1973
5. GEOGRAPHIC NAMES INVESTIGATION	TYPE OF INVESTIGATION <input type="checkbox"/> COMPLETE <input type="checkbox"/> SPECIFIC NAMES ONLY <input checked="" type="checkbox"/> NO INVESTIGATION	
6. PHOTO INSPECTION	CLARIFICATION OF DETAILS BY J.W. Davis	Aug. 1973
7. BOUNDARIES AND LIMITS	SURVEYED OR IDENTIFIED BY NA	

## II. SOURCE DATA

1. HORIZONTAL CONTROL IDENTIFIED

None

2. VERTICAL CONTROL IDENTIFIED

PHOTO NUMBER	STATION NAME	PHOTO NUMBER	STATION DESIGNATION

3. PHOTO NUMBERS (Clarification of details)

72E(CI) 1661 and 72E(CI) 1662

4. LANDMARKS AND AIDS TO NAVIGATION IDENTIFIED

PHOTO NUMBER	OBJECT NAME	PHOTO NUMBER	OBJECT NAME
72E(CI) 1662	FORT BELVOIR MOORING DOLPHIN LIGHT "B"		

5. GEOGRAPHIC NAMES: ☐ REPORT ☒ NONE6. BOUNDARY AND LIMITS: ☐ REPORT ☒ NONE

7. SUPPLEMENTAL MAPS AND PLANS

None

8. OTHER FIELD RECORDS (Sketch books, etc. DO NOT list data submitted to the Geodesy Division)

- |                           |                                 |
|---------------------------|---------------------------------|
| 1 Field Edit Ozalid       | 2 Form 76-40 Landmarks and Aids |
| 1 Field Edit Report       |                                 |
| 1 Film Ozalid TP-00321    |                                 |
| 11 Form 526 Recovery Note |                                 |

## I. MANUSCRIPT COPIES

COMPILATION STAGES			DATE MANUSCRIPT FORWARDED	
DATA COMPILED	DATE	REMARKS	MARINE CHARTS	HYDRO SUPPORT
Compilation complete, pending field edit.	4/1973	Class III Manuscript	6/8/73	6/6/73
Field edit applied Compilation complete	3/1975	Class I Manuscript	4/18/75	
Final Review	2/1977			

## II. LANDMARKS AND AIDS TO NAVIGATION

## 1. REPORTS TO MARINE CHART DIVISION, NAUTICAL DATA BRANCH

NUMBER	CHART LETTER NUMBER ASSIGNED	DATE FORWARDED	REMARKS
1		7/16/75	Landmarks to be charted
1		7/16/75	Aids to be charted

2. ☒ REPORT TO MARINE CHART DIVISION, COAST PILOT BRANCH. DATE FORWARDED: 7/16/75  
3. ☐ REPORT TO AERONAUTICAL CHART DIVISION, AERONAUTICAL DATA SECTION. DATE FORWARDED: \_\_\_\_\_

## III. FEDERAL RECORDS CENTER DATA

1. ☒ BRIDGING PHOTOGRAPHS; ☒ DUPLICATE BRIDGING REPORT; ☐ COMPUTER READOUTS.  
2. ☒ CONTROL STATION IDENTIFICATION CARDS; ☒ FORM NOS ~~56~~ <sup>76-40</sup> SUBMITTED BY FIELD PARTIES.  
3. ☐ SOURCE DATA (except for Geographic Names Report) AS LISTED IN SECTION II, NOAA FORM 76-36C.  
ACCOUNT FOR EXCEPTIONS:  
4. ☐ DATA TO FEDERAL RECORDS CENTER. DATE FORWARDED: May 1977

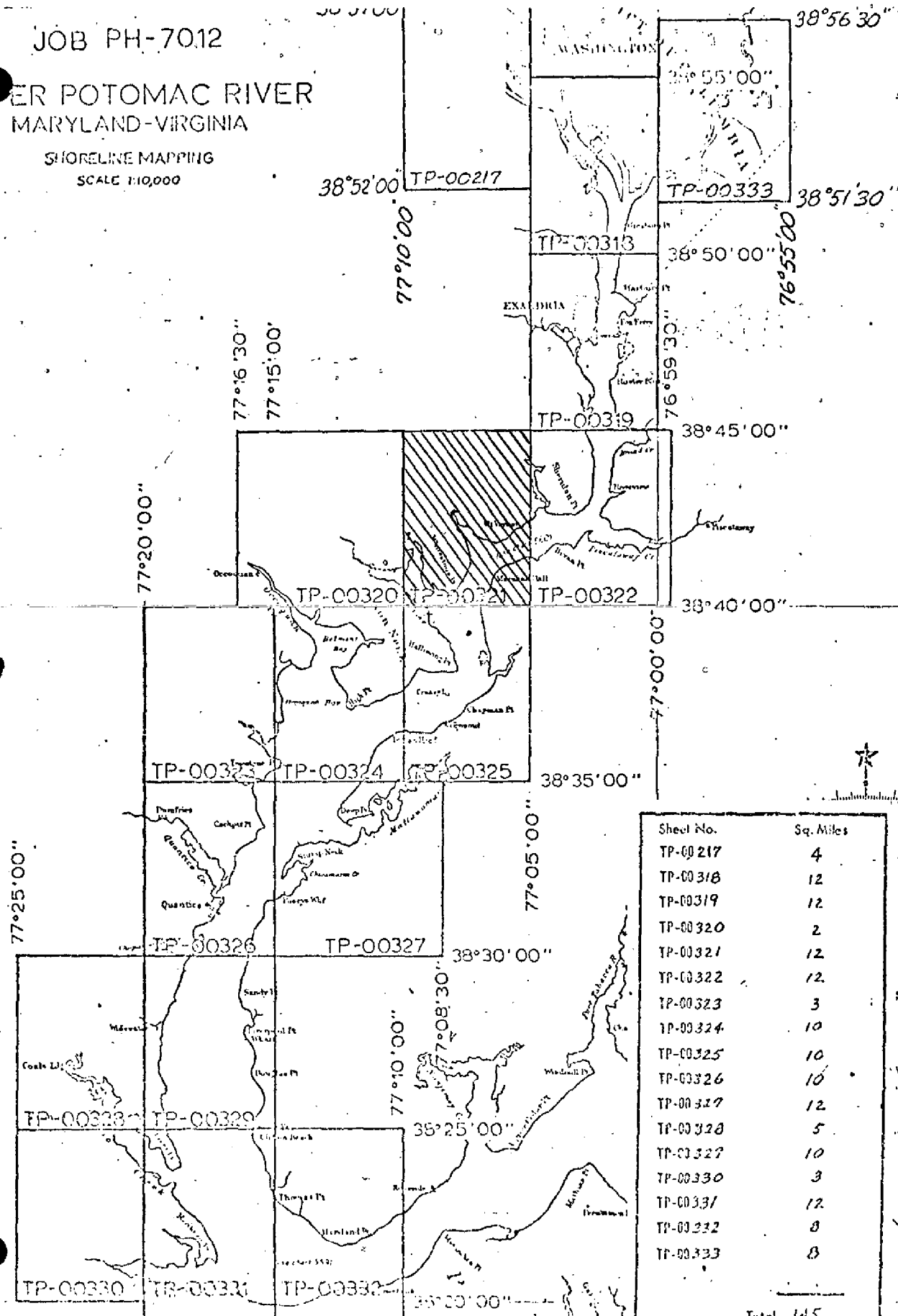
## IV. SURVEY EDITIONS (This section shall be completed each time a new map edition is registered)

SECOND EDITION	SURVEY NUMBER TP - _____ (2)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL	
THIRD EDITION	SURVEY NUMBER TP - _____ (3)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL	
FOURTH EDITION	SURVEY NUMBER TP - _____ (4)	JOB NUMBER PH - _____	TYPE OF SURVEY <input type="checkbox"/> REVISED <input type="checkbox"/> RESURVEY	
	DATE OF PHOTOGRAPHY	DATE OF FIELD EDIT	MAP CLASS <input type="checkbox"/> II. <input type="checkbox"/> III. <input type="checkbox"/> IV. <input type="checkbox"/> V. <input type="checkbox"/> FINAL	

JOB PH-7012

# UPPER POTOMAC RIVER MARYLAND-VIRGINIA

SHORELINE MAPPING  
SCALE 1:10,000



Sheet No.	Sq. Miles
TP-00217	4
TP-00318	12
TP-00319	12
TP-00320	2
TP-00321	12
TP-00322	12
TP-00323	3
TP-00324	10
TP-00325	10
TP-00326	10
TP-00327	12
TP-00328	5
TP-00329	10
TP-00330	3
TP-00331	12
TP-00332	8
TP-00333	8
Total 145	

SUMMARY TO ACCOMPANY  
DESCRIPTIVE REPORTS

TP-00318 thru TP-00322, TP-00217 and TP-00333

Project PH-7012 covers the upper Potomac River from Maryland Point north to Latitude  $38^{\circ} 57' 00''$  at Little Falls Dam. All tributaries emptying into the Potomac along this route were mapped to their headwaters.

There are seventeen 1:10,000 scale maps in this project, the purpose of which is to provide contemporary shoreline in support of hydrographic operations conducted in the area from 1972 to 1974. To better coordinate the shoreline compilation with the scheduling of hydrographic operations, compilation was divided into two parts. The southern half, consisting of ten manuscripts, TP-00323 through TP-00332, was compiled in the Rockville office in 1972. Field edit was applied and Final Review was performed on these manuscripts by employees of the Rockville office. Reference should be made to "Job Completion Report PH-7012 (Southern Part)" by J. B. Phillips for information concerning these manuscripts.

Compilation of Manuscripts TP-00217, TP-00318 through TP-00322 and TP-00333, comprising the northern portion of the project, was accomplished at the Atlantic Marine Center in March and April of 1973. The Wild B-8 stereoplotter was used. Tandem flights of color infrared and black and white infrared photography flown in April 1972 at 1:30,000 scale were provided. The color infrared photography was used for both compilation and hydro support purposes. They were the only set of photographs sent to the field. The black and white infrared photography was not used during any phase of compilation or field edit.

The stage of tide at the time of photography was one foot above the mean high water plane as determined from the hourly heights supplied by the Tides Branch (see attached). This circumstance may have resulted in a slight displacement of the shoreline in marsh and swamp areas. It is not felt, however, that this would materially affect the overall shoreline delineation. Cloudy water conditions coupled with the high tide level resulted in those features (rocks, wrecks, shoals, etc.) in the river at or below MHW not being visible on the photographs. As a result, many of the features picked up by the hydrographer could not be verified photogrammetrically.

Field work prior to compilation was limited to the recovery and identification of horizontal control necessary for bridging. This was done in August through September, 1972.

Field edit was accomplished in July 1973, November 1974, and February 1975. It was applied at AMC at various times between November, 1973 and April, 1975.

Final review of TP-00217, TP-00318 through TP-00322, and TP-00333 was done at AMC in January and February, 1977.

The original stabilene base manuscripts, each 1:10,000 scale, were forwarded to the Rockville office for reproduction of registration copies.

NATIONAL OCEAN SURVEY (NCAA)  
TIDES, HOURLY HEIGHTS (FEET)

PAGE 2

WASHINGTON D C

APR 1972 TM 75.00W

DAY OF MONTH

HOURL	12	13	14	15	16	17	18	19	20	21	22
0	4.20	5.16	5.61	6.15	6.87	8.05	7.88	8.11	7.13	4.85	7.18
1	3.98	4.87	5.22	5.62	6.28	7.44	7.39	7.80	7.27	5.80	7.95
2	4.19	4.85	4.96	5.24	5.74	6.88	6.83	7.28	7.06	6.37	8.17
3	5.22	5.55	5.01	5.01	5.33	6.39	6.30	6.73	6.62	6.64	8.00
4	6.41	6.85	6.06	5.30	5.06	6.04	5.89	6.23	6.06	6.60	7.66
5	7.15	7.94	7.43	6.57	5.16	5.75	5.57	5.85	5.59	6.22	7.24
6	7.45	8.33	8.26	7.79	6.25	5.64	5.41	5.56	5.18	5.66	6.79
7	7.41	8.44	8.62	8.44	7.52	6.35	5.72	5.44	4.90	5.11	6.37
8	7.01	8.18	8.59	8.71	8.25	7.36	6.87	5.67	4.76	4.72	6.01
9	6.41	7.53	8.18	8.61	8.57	7.98	7.94	6.50	4.83	4.54	5.72
10	5.76	6.86	7.51	8.15	8.49	8.22	8.48	7.42	5.45	4.76	5.52
11	5.19	6.22	6.78	7.50	8.07	7.95	<u>8.66</u>	7.97	6.38	5.65	5.68
12	4.73	5.76	6.13	6.86	7.46	7.47	8.51	8.16	7.01	6.74	6.50
13	4.45	5.47	5.64	6.30	6.82	6.89	8.06	7.99	7.22	7.38	7.53
14	4.47	5.19	5.25	5.82	6.27	6.35	7.49	7.55	7.24	7.65	8.23
15	5.25	5.18	4.94	5.51	5.90	5.88	6.92	7.01	6.85	7.67	8.56
16	6.53	5.94	4.84	5.21	5.60	5.51	6.46	6.46	6.19	7.43	8.57
17	7.43	7.10	5.61	5.17	5.40	5.25	6.11	6.02	5.64	7.05	8.22
18	7.91	7.85	6.89	5.97	5.74	5.12	5.86	5.67	5.13	6.59	7.66
19	8.01	8.15	7.78	7.20	6.97	5.41	5.70	5.41	4.70	6.17	7.09
20	7.68	8.08	8.12	7.98	8.11	6.43	5.89	5.18	4.28	5.83	6.62
21	7.01	7.58	8.01	8.26	8.55	7.42	6.69	5.18	3.97	5.58	6.25
22	6.29	6.86	7.53	8.09	8.84	7.96	7.63	5.67	3.79	5.62	5.96
23	5.65	6.20	6.83	7.57	8.61	8.07	8.10	6.55	3.95	6.21	5.71

DATUM IS .....

Subtract 4.26' to refer to MLW

$$\frac{8.66}{4.40} \text{ above MLW}$$

Field work prior to compilation was limited to the recovery and identification of horizontal control necessary for bridging. No report was submitted.

PHOTOGRAMMETRIC PLOT REPORT  
Job PH-7012  
Upper Potomac River, Maryland - Virginia (Part 2)  
February, 1973

21. Area Covered

This report covers an area of the Potomac and Anacostia Rivers south from latitude  $38^{\circ}57'00''$  to  $38^{\circ}40'00''$  where it joins Part 1 of this project. The job consists of seven (7) 1:10,000 scale sheets (TP-00318 thru TP-00322, TP-00217, and TP-00333).

22. Method

Six (6) strips of photographs (strip 1 and strips 3 thru 6) were bridged using the C-8 Stereoplainograph and adjusted on the IBM 1620. Strip 2 was bridged on the S.T.K. and adjusted by analytical aerotriangulation methods. All strips were adjusted to field-identified horizontal control stations with the exception of strips 3 and 5, where office-identified control stations were used to supplement the field-identified control. Ties were made between all strips. The sketch shows the location of the strips of photography and the horizontal control stations used in bridging. Common image points were located during bridging between the color infrared photography and the black-and-white infrared photography in order to determine a ratio for the enlargements used in compilation.

Data for the seven (7) 1:10,000 scale compilation sheets were plotted by the Coradomat 21 Plotter on the Maryland and Virginia (north zone) coordinate system.

23. Adequacy of Control

All horizontal control used in the adjustment was field identified except for the following stations:

WOODBIDGE Relay Mast 1957

BELLEVUE D.C. Fire Dept. Training Center Tank 1970

ALEXANDRIA Washington Masonic Nat. Memorial 1934

These office-identified stations were used only because they provided a better balance of control for the adjustment.

In general, the identification of horizontal control stations (sub points) was poor. Also, the mathematical solutions for the sub points were very poor because of small angles involved in computing azimuths. Horizontal control was adequate.

24. Supplemental Data

USGS quadrangles were used to provide vertical control for the strip adjustments.



2

25. Photography

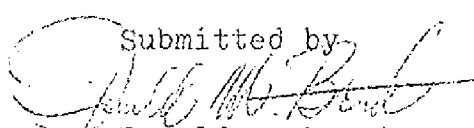
The following RC-8 color infrared photography (E camera) was used for bridging and the black-and-white infrared (K camera) was flown in tandem with the E camera:

1:30,000 scale photography

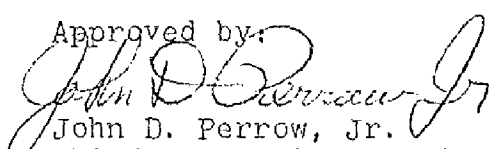
strip 1	72 E(c) 1624R	thru	1631R
	72 K 7254R		7262R
strip 2	72 E(c) 1615R	thru	1621R
	72 K 7245R		7252R
strip 3	72 E(c) 1594R	thru	1601R
	72 K 7225R		7232R
strip 4	72 E(c) 1644R	thru	1649R
	72 K 7275		7279R
strip 5	72 E(c) 1654	thru	1666R
	72 K 7285		7297R
strip 6	72 E(c) 1649R	thru	1655R
	72 K 7280R		7236R

Photography was adequate as to coverage, overlap, and identification.

Submitted by

  
Donald M. Brant

Approved by:

  
John D. Perrow, Jr.  
Chief, Aerotriangulation Section

## SHORELINE MAPPING

[illegible]

A HORIZONTAL CONTROL (USED IN BRIDGING)  
ON 50,000 SCALE COLOR INCREASED (FOR ORANGE)  
ON 50,000 SCALE BLACK & WHITE INCREASED  
KEY TO CONTROL ON PAGE 2

# JOB PH-7012

## KEY TO HORIZONTAL CONTROL USED FOR BRIDGING

1. OCCOQUAN PENAL INST. STAND PIPE 1959
2. OX 1959
3. WIG 1934
4. FERRY POINT 1959
5. BRYAN 2 1928
6. BEALLE RM 5 1957
7. UPPER POTOMAC RIVER LIGHT 77 1959
8. FORT 1928
9. RIVERVIEW WHARF LIGHT 82 1959
10. GUM SPRINGS RAD. STA. WPIK MAST 1969
11. QUEEN 2 1959
12. UPPER POTOMAC RIVER LIGHT 88 1959
13. TEMPLE 1934
14. ST. ELIZABETH'S INSANE ASYLUM RED STACK 1934
15. SE 154 A 1960
16. NE 146 C
17. HYATTSVILLE RAD. STA. KGA 361 MAST 1970
18. ROGER HEIGHTS STAND PIPE 1952
19. GATE 2 1970
20. MAP AMS 1952
21. INSANE 1912
22. ST. PATRICKS EPISCOPAL CHURCH BELL TOWER
23. WOODBRIDGE DELAY MAST 1957
24. ALEXANDRIA WASHINGTON MASONIC NAT. MEMORIAL 1924
25. BELLEVUE D.C. Fire Dept. Training center TANK 1970

## DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	STATION NAME	JOB NO.	GEODETTIC DATUM		AEROTRI- ANGULATION POINT NUMBER	COORDINATES IN FEET		GEOGRAPHIC POSITION		ORIGINATING ACTIVITY	
			PH-7012	STATE		ZONE	φ LATITUDE	λ LONGITUDE	Coastal Mapping Div. (Norfolk)		
TP-00321	MT. VERNON, DOCK, VANE ON CUPOLA, (VA), 1928	G.P.G-2888 P. 122 MD		X=		φ 38 42 16.912		521.5	(1328.6)	FORWARD	BACK
				Y=		λ 77 05 18.105		437.5	(1012.3)		
	MT. VERNON, MANSION, CUPOLA (VA), 1928	G.P.G-2888 P. 122 MD		X=		φ 38 42 28.27		871.7	(978.4)		
				Y=		λ 77 05 11.27		272.3	(1177.5)		
	ACCO, 1926	G.P.G-3643 P. 192 MD		X=		φ 38 40 59.978		1849.4	(100.7)		
				Y=		λ 77 09 57.192		1382.3	(67.9)		
	BOUNDARY MONUMENT NO. 52, (VA), 1929	G.P.G-3686 P. 167		X=		φ 38 40 26.291		810.7	(1039.4)		
				Y=		λ 77 07 59.503		1438.4	(12.0)		
	BOUNDARY MONUMENT NO. 53, (VA), 1929	G.P.G-3686 P. 167		X=		φ 38 41 06.998		215.8	(1634.3)		
				Y=		λ 77 07 22.854		552.4	(897.8)		
	BOUNDARY MONUMENT NO. 54 (VA), 1929	G.P.G-3686 P. 166		X=		φ 38 41 49.675		1531.7	(318.4)		
				Y=		λ 77 06 18.436		445.5	(1004.7)		
	GUM SPRINGS RADIO STATION WPIK MAST, 1969	G.P.G-14477 P. 14 VA		X=		φ 38 44 43.318		1335.8	(514.4)		
				Y=		λ 77 05 58.411		1410.6	(38.4)		
	FERRY POINT, 1902	G.P. VOL I P. 214 VA		X=		φ 38 41 49.735		1533.6	316.5		
				Y=		λ 77 06 18.326		442.9	1007.1		
	FT. BELVOIR BLDG. 704 TANK, 1957	G.P.G-14477 P. 14 VA		X=		φ 38 41 34.870		1075.2	(774.9)		
				Y=		λ 77 08 30.267		731.5	(718.5)		
	FT. BELVOIR BLDG. 509 TANK, 1957	P. 14 VA G.P.G-14477		X=		φ 38 41 06.484		199.9	(1650.2)		
				Y=		λ 77 08 06.412		155.0	(1295.2)		
COMPUTED BY			DATE	COMPUTATION CHECKED BY				DATE			
LISTED BY			DATE	LISTING CHECKED BY				DATE			
HAND PLOTTING BY			DATE	HAND PLOTTING CHECKED BY				DATE			

## DESCRIPTIVE REPORT CONTROL RECORD

MAP NO.	JOB NO.	PH-7012	SOURCE OF INFORMATION (Index)	AEROTRIANGULATION POINT NUMBER	GEODETTIC DATUM		ORIGINATING ACTIVITY	
					COORDINATES IN FEET STATE _____ ZONE _____	GEOGRAPHIC POSITION $\phi$ LATITUDE $\lambda$ LONGITUDE	Coastal Mapping Div. (Norfolk)	
TP-00321	DOGUE CREEK CONCRETE SEWER POST, (S. ENTRANCE), 1928	Quad 380771SE STA. 2058			X=	$\phi$ 38 41 17.40	REMARKS FORWARD 536.5 (1313.6)	
					Y=	$\lambda$ 77 07 18.53	BACK 447.8 (1002.3)	
					X=	$\phi$		
					Y=	$\lambda$		
					X=	$\phi$		
					Y=	$\lambda$		
					X=	$\phi$		
					Y=	$\lambda$		
					X=	$\phi$		
					Y=	$\lambda$		
					X=	$\phi$		
					Y=	$\lambda$		
					X=	$\phi$		
					Y=	$\lambda$		
					X=	$\phi$		
					Y=	$\lambda$		
					X=	$\phi$		
					Y=	$\lambda$		
					X=	$\phi$		
					Y=	$\lambda$		
COMPUTED BY	A. C. Rauck, Jr.				COMPUTATION CHECKED BY Susan Kumer		DATE 3/15/73	
LISTED BY	C. E. Blood				LISTING CHECKED BY Lowell O. Neterer, Jr.		DATE 3/15/73	
HAND PLOTTING BY					HAND PLOTTING CHECKED BY		DATE	

SUPERSEDES NOAA FORM 76-41, 2-71 EDITION WHICH IS OBSOLETE.

## COMPILATION REPORT

TP-00321

31. DELINEATION

Delineation was by the Wild B-8 stereoplotter. Photo coverage was adequate, and was at or near mean high water.

32. CONTROL

See Photogrammetric Plot Report, dated - Feb., 1973.

33. SUPPLEMENTAL DATA

None

34. CONTOURS AND DRAINAGE

Contours are inapplicable. Drainage was delineated from office interpretation of the photographs.

35. SHORELINE AND ALONGSHORE DETAILS

The mean high water line and alongshore details were delineated from office interpretation of the photographs.

36. OFFSHORE DETAILS

None

37. LANDMARKS AND AIDS

Appropriate copies of Forms 76-40, have been forwarded to the field editor for additions, deletion, and confirmations.

38. CONTROL FOR FUTURE SURVEYS

None

39. JUNCTIONS

See Form 76-36b, Item 5, of the Descriptive Report.

40. HORIZONTAL AND VERTICAL ACCURACY

No statement

46. COMPARISON WITH EXISTING MAPS

A comparison has been made with U.S. Geological Survey quadrangles Mount Vernon, MD-VA, 1:24,000 scale dated 1966 and Fort Belvoir, VA-MD, 1:24,000 scale dated 1965, photorevised, 1971.

47. COMPARISON WITH NAUTICAL CHARTS

A comparison has been made with National Ocean Survey charts 101 SC, Edition 15, dated December 30, 1972 and 560, Edition 32, dated February 26, 1972; each scaled 1:40,000.

ITEMS TO BE APPLIED TO NAUTICAL CHARTS IMMEDIATELY

None

ITEMS TO BE CARRIED FORWARD

None

Submitted by:

*L.B. Foltz*

L.B. Foltz

Carto. Aid, April 6, 1973

Approved:

*Albert C. Rauck, Jr.*

A.C. Rauck, Jr.

Chief, Coastal Mapping Section, AMC

ADDENDUM TO COMPILATION REPORT

TP-00321

The field edit was adequate. All questions asked were answered. However, the sextant fix data given on the Field Edit Ozalid for fixes number 1, 2, 3, and 6 required analysis, interpretation and assumptions of the office compiler. The following is an account of the problems encountered and their subsequent resolutions:

- Fix 1 - the check angle given is not measured between the center object and check object but between the left object and check object.
- Fix 2 - the check angle given would not fit any of the signal positions. The position was plotted with the check angle being ignored.
- Fix 3 - the given right angle was ignored because using it results in a plotted position far away from that spotted on the field edit ozalid by the field editor. The check angle was used for the right angle. Signal 506 was used as the center object and signal 427 became the right object. Making the assumption, that the left angle and check angles were correctly observed as reported and computing the differences Fix No. 3 is modified thusly:

175	Left Obj	104° 58'
506	Center Obj	
427	Right Obj	33° 29'

- Fix 6 - signal 348 located too far away to allow plotting with protractors available in compilation office. The check angle was used as the right angle.



## GEOGRAPHIC NAMES

## FINAL NAME SHEET

PH-7012 (~~Potomac~~ River)

TP-00321

Accotink Bay

Accotink Creek

Dogue Creek

Ferry Point

Gunston Cove

Little Hunting Creek

Marshall Hall

Maryland

Mount Vernon

Potomac River

Riverside Estates

Vernon Square

Virginia

Waldon Woods

Whitestone Point

Woodland Park

Yacht Haven

Approved by:

Staff Geographer-C51x2

Chas. E. Harrington

NOAA FORM 75-74 (7-75)		U.S. DEPARTMENT OF COMMERCE NOAA NATIONAL OCEAN SURVEY	
PHOTOGRAMMETRIC OFFICE REVIEW TP - 00321			
1. PROJECTION AND GRIDS RRW	2. TITLE RRW	3. MANUSCRIPT NUMBERS RRW	4. MANUSCRIPT SIZE RRW
CONTROL STATIONS			
5. HORIZONTAL CONTROL STATIONS OF THIRD-ORDER OR HIGHER ACCURACY RRW	6. RECOVERABLE HORIZONTAL STATIONS OF LESS THAN THIRD-ORDER ACCURACY (Topographic stations) NA		7. PHOTO HYDRO STATIONS X X
8. BENCH MARKS NA	9. PLOTTING OF SEXTANT FIXES	10. PHOTOGRAMMETRIC PLOT REPORT RRW	11. DETAIL POINTS
ALONGSHORE AREAS (Nautical Chart Data)			
12. SHORELINE RRW	13. LOW-WATER LINE X X	14. ROCKS, SHOALS, ETC. X X	15. BRIDGES RRW
16. AIDS TO NAVIGATION RRW	17. LANDMARKS RRW	18. OTHER ALONGSHORE PHYSICAL FEATURES RRW	19. OTHER ALONGSHORE CULTURAL FEATURES RRW
PHYSICAL FEATURES			
20. WATER FEATURES RRW	21. NATURAL GROUND COVER NA		22. PLANETABLE CONTOURS NA
23. STEREOSCOPIC INSTRUMENT CONTOURS NA	24. CONTOURS IN GENERAL NA	25. SPOT ELEVATIONS NA	26. OTHER PHYSICAL FEATURES RRW
CULTURAL FEATURES			
27. ROADS RRW	28. BUILDINGS RRW	29. RAILROADS X X	30. OTHER CULTURAL FEATURES RRW
BOUNDARIES			
31. BOUNDARY LINES NA		32. PUBLIC LAND LINES NA	
MISCELLANEOUS			
33. GEOGRAPHIC NAMES RRW	34. JUNCTIONS RRW		35. LEGIBILITY OF THE MANUSCRIPT RRW
36. DISCREPANCY OVERLAY RRW	37. DESCRIPTIVE REPORT RRW	38. FIELD INSPECTION PHOTOGRAPHS X X	39. FORMS RRW
40. REVIEWER Richard R. White 4/10/73		SUPERVISOR, REVIEW SECTION OR UNIT A.C. Rauck, Jr.	
41. REMARKS (See attached sheet)			
FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT			
42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.			
COMPILER G.R. Vanderhaven 3/1975 Re: A.L. Shands 3/1975		SUPERVISOR A.C. Rauck, Jr.	
43. REMARKS			

## FIELD EDIT REPORT

Sheet TP-00321

Dogue Creek

Upper Potomac River, Md.-Va.

PH-7012

August 1973

51. METHODS

All field edit work was done under the instructions of Photo-Hydro support and field edit, OPR-409-742-73, Potomac River, Maryland-Virginia, dated Jan. 9, 1973, and as amended, Feb. 15, 1973.

A visual inspection and verification was made of all shoreline and alongshore features. Details are indexed on the field edit ozalid in violet to indicate additions or corrections and in green to indicate deletions.

52. ADEQUACY OF COMPILATION

Compilation was generally adequate in shoreline delineation and alongshore features except as noted on the field edit ozalid. Significant "grass in water" exists in Accotink Bay and has been delineated by planetable cut and geodimeter distance from a photo-hydro signal. Two rows of piling and one pile were also cut in by the same methods.

54. RECOMMENDATIONS

None.

56. GEOGRAPHIC NAMES

No discrepancies in geographic names were found while editing this sheet.

57. LANDMARKS AND NONFLOATING AIDS TO NAVIGATION

Three nonfloating aids to navigation are recommended for charting on this sheet. Two of these, Fort Belvoir Mooring Dolphin Lights A and B were compiled correctly and were verified by theodolite. The other, Whitestone Point Light, was located by third order methods.

Four landmarks, three of which are recovered triangulation stations, are also recommended for charting.

58. MISCELLANEOUS

All times mentioned on the Field Edit Ozalid refer to Greenwich Mean Time.

Respectfully Submitted,

*James W. Davis*

James W. Davis  
LTJG NOAA  
Chief, Photo Party 61







orig. to charts  
7/11/75

NOAA FORM 76-40 (8-74) Replaces C&GS Form 567.										U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION									
NONFLOATING AIDS TO NAVIGATION FOR CHARTS										ORIGINATING ACTIVITY									
REPORTING UNIT (If field party, ship or office) Coastal Mapping Div. AMC - Norfolk, Va.					STATE Virginia					LOCALITY Potomac River					DATE Mar. 1975				
OPR PROJECT NO. 409					JOB NUMBER Ph-7012					SURVEY NUMBER TP-00321					The following objects HAVE <input checked="" type="checkbox"/> HAVE NOT <input type="checkbox"/> been inspected from seaward to determine their value as landmarks.				
CHARTING NAME	DESCRIPTION (Record reason for deletion of landmark or aid to navigation. Show triangulation station names, where applicable, in parentheses)	LATITUDE		LONGITUDE		POSITION		METHOD AND DATE OF LOCATION (See instructions on reverse side)		CHARTS AFFECTED									
		D.M. Meters	D.P. Meters	D.M. Meters	D.P. Meters	OFFICE	FIELD	OFFICE	FIELD										
DAY BEACON	Prv 37 (Not in 1975 Light List) Private aid	38-40	21.86	77-08	12.91			Field located	101SC 560										
DAY BEACON	Prv 38 (Not in 1975 Light List) Private aid	38-41	10.25	77-07	20.03			"	"										
DAY BEACON	Prm 26 (Not in 1975 Light List) Private aid	38-41	21.50	77-05	18.66			"	"										
LIGHT	Whitestone Point Light	38-41	04.09	77-07	24.54			F-2-6-L Aug. 2, 1973	"										
LIGHT	Fort Belvoir Mooring Dolphin Light A	38-40	20.93	77-08	25.44			F-2-6-L Aug. 2, 1973	"										
LIGHT	Fort Belvoir Mooring Dolphin Light B	38-40	24.43	77-08	31.67			V-Vis. Aug. 1, 1973 72E(C)(1) 1662	"										
* Positions field located, but the method of location not stated by the field editor.																			
Method of location stated on field edit ovalid. No date given.																			
A.L.Shands, Final Reviewer 2/19/77																			

14b

ack 7/11/75



## REVIEW REPORT TP-00321

## SHORELINE MAP

February 23, 1977

61. GENERAL STATEMENT:

See Summary, which is pages 6a and 6b of this Descriptive Report. A comparison print showing the differences noted in paragraphs 62 through 65 is submitted with the original of this report.

The image identified by the field editor on Matte Ratio Print 72E(CI)1662 as a "wood structure" is a blemish, visible only on that photograph. The field editor misidentified the wood structure which is actually, 248 meters southeast of the position identified. This reviewer has identified the correct image on the ratio print mentioned and attached an explanatory note. The structure is located in Dogue Creek.

Statements made on the field edit ozalid and Form 526 to the effect that the position of triangulation station, "Concrete Range Post," south of Mt. Vernon Dock, was verified but leaning and deteriorating, is contradictory. The post is 65 meters offshore, in 3 feet of water. The range of tide here is 3 feet. If the post is noticeably leaning, it is unlikely that it is any longer of value as a triangulation station. The feature is shown on the map at Latitude  $38^{\circ} 42.0'$ , Longitude  $77^{\circ} 05.8'$  and labeled "Conc. Pile." The height of the post is not known.

Sextant fixes, Numbers 1, 2, 3, and 6 could not be used by the compilation office as they were presented on the field edit ozalid. It was necessary, for the compilation office to analyze, interpret and in some instances, make logical assumptions about the fix data. See Addendum to Compilation Report, Page 10c of this Descriptive Report, for specific comments about the above mentioned fixes.

## 62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS:

A comparison was made with Topographic Surveys T-5758 and T-5759, each 1:10,000 scale, dated 1939 and 1938 respectively. Extensive differences in shoreline configuration resulting from the construction and demolition of cultural details at Dogue Creek, Accotink Bay and Whitestone Point were noted. Those and other differences considered to be significant to chart construction are noted on the comparison print in blue pencil.

For nautical chart construction purposes, TP-00321 supersedes T-5758 and T-5759 which are the latest registered surveys of the area.

## 63. COMPARISON WITH MAPS OF OTHER AGENCIES:

A comparison was made with U.S.G.S. Quadrangles Mount Vernon, MD-VA, 1:24,000 scale, dated 1966 and Fort Belvoir, VA-MD, 1:24,000 scale, dated 1965, photo-revised 1971. An unlabeled feature which appears to be a pier was noted at Lat.  $38^{\circ} 41.1'$ , Long.  $77^{\circ} 06.2'$ . This feature is not visible on the photographs. It is shown on the comparison print in brown pencil.

## 64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS:

A comparison was made with Preliminary Sounding Overlay H-9349 (742-10-4-73) and Boatsheet H-9479 (AHP-1250-10-6-74). Piles located by the hydrographer at Lat.  $38^{\circ} 42.2'$ , Long.  $77^{\circ} 07.6'$  - Lat.  $38^{\circ} 41.3'$ , Long.  $77^{\circ} 07.3'$  - Lat.  $38^{\circ} 41.1'$ , Long.  $77^{\circ} 09.6'$  and Lat.  $38^{\circ} 40.1'$ , Long.  $77^{\circ} 09.3'$  are not visible on the photographs. No data was submitted to the compilation office concerning these. They have been positioned on the comparison print in purple pencil.

## 65. COMPARISON WITH NAUTICAL CHARTS:

A comparison was made with Chart 12289, 1:40,000 scale, 36th edition, dated March 6, 1976. No differences in shoreline configuration were noted. Several wrecks, piles, piers and pier ruins shown on the chart are not visible on the photographs and are not shown on this map. The positions of these are shown on the comparison print in red pencil.



66. ADEQUACY OF RESULTS AND FUTURE SURVEYS:

This map complies with the project instructions and meets the requirements for Bureau Standards and the National Standards for Map Accuracy.

Submitted by:

*A.L. Shands*

A.L. Shands  
Cartographer

Approved for forwarding:

*Joseph W. Vonasek*

Joseph W. Vonasek  
Chief, Photogrammetric Branch, AMC

Approved:

*D.K. Harwood*

Chief, Photogrammetric Branch

*James B. [Signature]*

Chief, Coastal Mapping Div.

16a

72E(C1)1662

LDG 509 TANK, 1957

DOGUE CREEK, CONCRETE  
SEWER POST, S. ENTRANCE  
1928

Piles not visible  
on photos

MARKER  
PRV 38

BOUNDARY MONUMENT NO. 53 (VA), 1929

WHITESTONE  
POINT LIGHT

"The photogramme  
offshore from the  
may not be cor  
reviewed hydrograp  
should be cor

38° 41' 00"

Piling not visible  
on photos.

Piles not visible  
on photos

BOUNDARY MONUMENT NO. 52 (VA), 1929

Ruins not  
visible on photos

COMPARISON PRINT

TP-00321

Red lines from chart  
Blue lines from topo  
Purple lines from hydro  
Brown lines from USGS Quad

07° 30'

x = 765,000 FT. MD.

07'

x = 2,395,000

x = 2,390,000 FT. VA. N.



166

y = 375,000 FT. V.A.N.

y = 30,000

4'

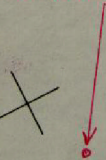
MARKER  
PRM 26

COMPARISON PRINT

TP-00321

- Red lines from chart
- Blue lines from topo
- Purple lines from hydro
- Brown lines from USGS Quad

Piles not visible  
on photos



CUPOLA  
ht = 32 (42)

221

Pier and pier ruins  
not visible on photos

Hall

Marshall

Bluff

Bluff

Pond

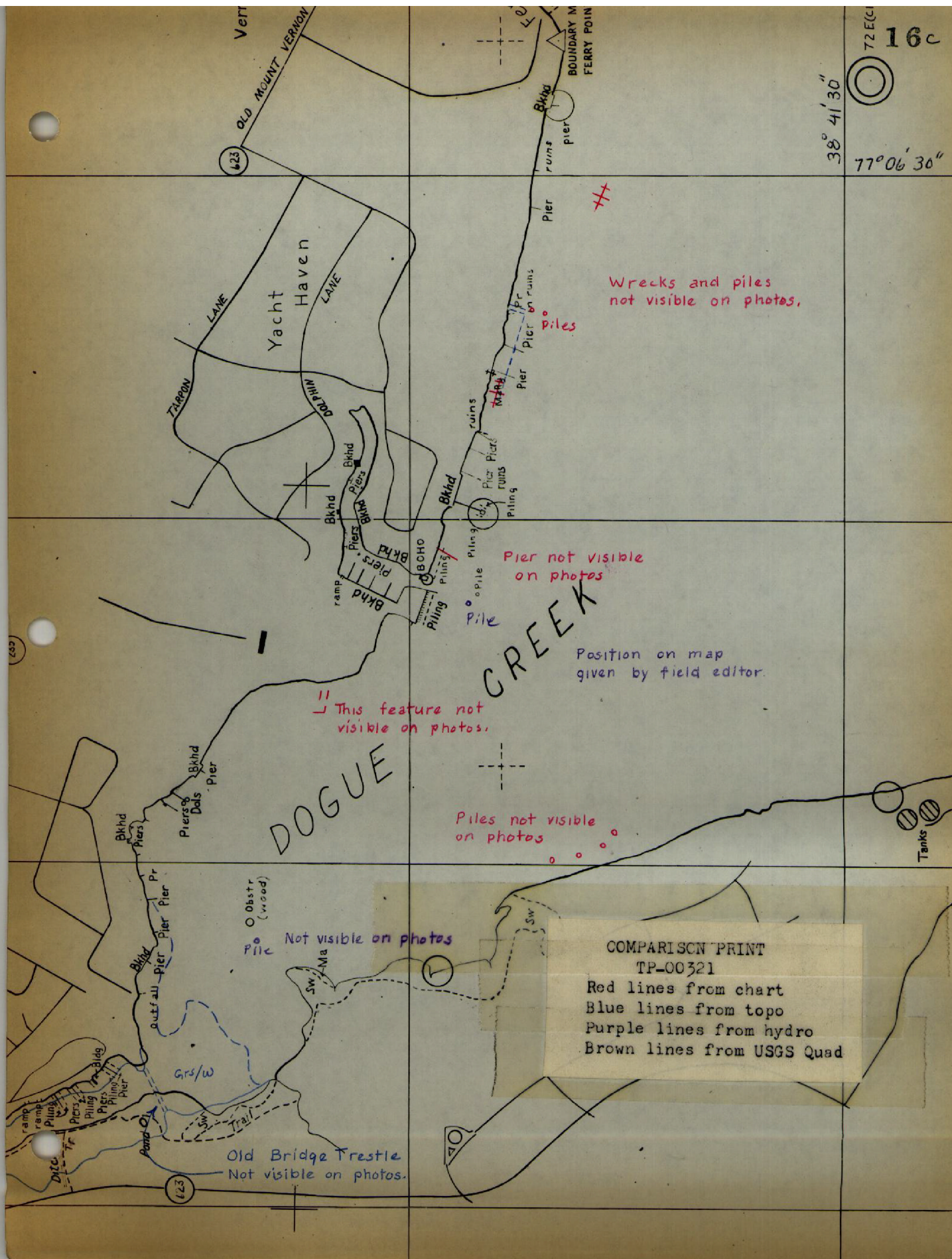
ROAD

MARYLAND

38° 40' 30"

77° 05' 30"







16d

FT.

0 FT. MD.

41'

ACCO, 1926

Piles not visible on photos

Pile (2)

Grs in water, Piers not visible on photos.

Piles displaced

Piles displaced

Piles not visible on photos

Wrecks not visible on photos.

Pile not visible. Confirmed by hydro.

COMPARISON PRINT

TP-00321

Red lines from chart  
Blue lines from topo  
Purple lines from hydro  
Brown lines from USGS Quad

72E(CI)1663

VA. N. 40° 30'

FT. MD.

VIRGINIA

COVE

BAY

ACCOTINK

GUNSTON

77° 09' 00"

38° 41' 00"

Marsh Islets

Pond

Dots

Str

Kiverap

Piling Pier Piling Rows of Piling

BKhd

Pier

Dots Dol Row of Piling

pier



