5705

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey Planimetric

~~Field~~ No. T-5705 Office No.

LOCALITY

State Maryland

General locality Eastern Bay

Locality Crab Alley Bay

Photographs taken in 1937. Supplemented by other surveys to 1939

1940

CHIEF OF PARTY

L. W. Swanson

LIBRARY & ARCHIVES

DATE

B-1870-1 (1)

5705

Applied	to	drawing	of	chart	550	(before	review)	Feb. 4, 1941 J.T.W.
"	"	"	"	"	1225	"	"	Feb. 6, 1941 J.T.W.
"	"	Reconstruction			548	"	"	Aug. 15, 1941 J.T.W.

Form 537a
Ed. Nov. 1929

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY

REG. NO.

TOPOGRAPHIC TITLE SHEET

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

Field No. T-5705

REGISTER NO.

State Maryland

General locality Eastern Bay

Locality ~~Kent Island~~ CRAB ALLEY BAY

Scale 1:10,000 Date of ~~survey~~ photographs-May 1, 1937 June 24, 1937 July 8, 1937 19

~~Vessel~~ Air Photographic Survey Party No. 2

Chief of party L. W. Swanson

Surveyed by Field inspection by W.C. Russell and D.A. Jones ~~Additional Hydro. Signals-L.W. Swanson-August, 1940~~

Inked by W.E. Schmidt (rough draft)

Heights in feet above ..... to ground to tops of trees

Contour, Approximate contour, Form line interval ..... feet

Instructions dated May 13, 19 38

Remarks:

DATA RECORD T-5705

PHOTOGRAPHS

Number	Date	Time	Scale	Altitude	Stage of tide*
1463-64	5/1/37	2:18	1:10,000	6,875 ft	0.2 ft. above M.L.W.
1476-77	"	2:32-33	"		"
1487-89	"	2:43-45	"		"
1638-40	7/8/37	10:18-24	"		0.3 ft. above M.L.W.
**7-33	6/24/37	2:10	"		0.7 ft. above M.L.W.

*Tide from predicted tables for Tilghman Point, Eastern Bay, Md. mean range 1.1 ft., spring range 1.3 ft.

Camera: U.S. Coast & Geodetic Survey nine lens camera.
Focal length 8¼ inches.
Negatives on file in Washington Office.
**U.S. Dept. of Agriculture- single lens(focal length unknown)

SUPPLEMENTAL SURVEYS

Graphic control surveys.....None
Hydrographic surveys.....None
Field inspection...W.C. Russell & D. A. Jones..Fall, 1939
Name investigation...J.N. Jones.....March, 1940

The details on T-5705 are of the date of the photographs.

GENERAL INFORMATION

Chief of Party.....L.W. Swanson
Projection by.....Washington Office....Ruling machine...March, 1940
Projection checked by....Washington Office.....Date unknown
Control plotted by.....J.N. Jones.....4/1/40
Control checked by.....W.E. Schmidt.....4/1/40
Hydrographic radial points pricked by..J.N.Jones.....March, 1940
Additional hydrographic points by.....L.W. Swanson....August, 1940
Radial points pricked by..J.N. Jones & W.E. Schmidt....March, 1940
Radial plot by.....J.N.Jones & W.E. Schmidt.....4/3/40
Additional radial points pricked by..W.E. Schmidt.....March, 1940
Shoreline inked by.....W.E.Schmidt.....4/15/40-4/30/40
Detail(rough draft) inked by...W.E. Schmidt....9/30/40-10/12/40

STATISTICS

Area (land).....13.0 sq. statute miles
Shoreline(more than 200 meters from opposite shore) 36.0 statute miles
Shoreline(less than 200 meters from opposite shore) 7.0 statute miles
Roads, streams, trails & railroad.....41.0 statute miles
Total time required for detailing.....24.0 working days

REFERENCE STATION

The following reference station is from the field computations of 10/23/38(North American) ~~and adjusted to N.A. 1927~~ corrected Unadjusted.

	Latitude:-	38°	56.0'	29.959"	~~912.8 m.~~ 923.8
Bonnet-1909-1938	Longitude:-	76°	14.0'	06.994"	~~174.1 m.~~ 168.4

Maryland system of plane coordinates: x = 1,017,491.95 ft. y = 404,501.32 ft.

Corrected to N.A. 1927 datum

latitude =	38°	56'	29.603"	912.8 m.	(unadj)
longitude =	76°	14'	07.231"	174.1 m.	

DESCRIPTIVE REPORT
to accompany
AIR PHOTOGRAPHIC SURVEY SHEET No.T-5705
STATE OF MARYLAND
EASTERN BAY-KENT ISLAND

Date of this report.....October 21, 1940

INSTRUCTIONS:

This map drawing is a part of project HT-215, the instructions for which are dated May 13, 1938.

FIELD INSPECTION:

Field inspection and investigation of names(in part) of this sheet were made by W.C. Russell and D.A. Jones in the Fall of 1939. An investigation of names was also made by J.N. Jones in March,1940.

PHOTOGRAPHS:

The nine lens photographs were taken with the U.S. Coast & Geodetic Survey nine lens camera. The single lens photographs were taken by the AAA Survey. These single lens photos were originally on a scale of 1:20,000 and were then enlarged to a scale of 1:10,000 for use by this party.

CONTROL:

The control consists of ~~16~~ 15 stations shown on this sheet by the triangulation symbol. The following is a list of the control and its sources:

U.S. Coast & Geodetic Survey	M.S.F.S.
TAN-1932	THIN-1909-1932
BUFF-1932	KIRWAN-1909
PEAK-1932	BONNET-1909
PINK-1932	DULL-1909
E. Gable of Red Barn-1932	~~TULL-1909~~
Cupola on Red Barn-1932	ALLEY-1909
RED-1899	TURKEY-1909
WINDMILL-1938	
BODKIN-1933	

Station RED-1899 could not be used due to uncertainty of pricking.

RADIAL PLOT:

The radial plot of this sheet was made in conjunction with sheet No. T- 5706. These two sheets were plotted by the usual template method with the use of dummy sheets. The radial points in the areas covered by the center masks were wherever possible, cut in from adjoining pictures whose centers did not fall in these areas. This was due to the fact that a slight twist was suspected in the center masks of some of the photos. Tilt was noted in picture No. 1476. This tilt was figured and a new center plotted. Due to some uncertainty with which a few of the triangulation stations were pricked on the photos because of marsh areas changing between the date of the taking of the photos and the date of recovery of the stations, all control could not be held. Where the correctness of ~~the~~ pricking

of the control station was doubtful it was noted by a ?.

Single lens photo No. 7-33 was used in laying the plot.

The plot was weak near the northern limits of sheet No. 5706. The lack of control and photos were the contributing causes of this weakness. Any error due to poor junctions of the masks of the photos, was taken into account when the radial points were cut in and also in the detailing of the sheet. Additional points were added where necessary. The use of the projector eliminated the necessity of pricking points close together and because of very little difference in elevation in a great percentage of the area covered by the map drawing.

SCALE:

The scale of this sheet is 1:10,000

DETAIL:

All buildings ~~that~~ which could be plainly distinguished were shown on the map drawing.

Roads etc. were detailed according to the field inspector's notes shown on the field inspection sheets.

COMPARISON WITH PREVIOUS SURVEYS:

T-2294, 1899

The following changes were noted.

Lat. 38 54.5' & Long. 76 15.0': The shoreline of Parson Island has receded about 10 to 100 meters, especially at the S.W. end of the island.

Lat. 38 54.05' & Long. 76 15.05': Small island just south of Parson Island has disappeared.

Between Lat. 38 56.3' and Lat. 38 56.6 on Long. 76 15.1': West shoreline of Prospect Bay-has receded about 10 to 30 meters.

Lat. 38 55.4' & Long. 76 15.0' : North and east shoreline and southern tip of marsh land at Narrow Pt. and vicinity has receded about 10 to 100 meters.

Lat. 38 57.35' & Long. 76 14.9': S.E. tip of Hog Island has receded about 50 meters.

Lat. 38 57.2' & Long. 76 15.1' : Point on west shoreline of Prospect Bay and south of Hog Island has receded about 40 meters.

Lat. 38 57.0' & Long. 76 15.25': Point at entrance to a small cove, west shoreline of Prospect Bay has receded about 40 meters. South shoreline of this cove has also receded about 20 to 80 meters.

Lat. 38 55.15' & Long. 76 15.45' : Shoreline at Normans Pt. has receded about 30 meters.

Lat. 38 56.1' & Long. 76 15.5' : Shoreline has receded about 40 meters.

Lat. 38 56.15' & Long. 76 16.3': Small island east side of Crab Alley Bay has been almost washed away. The island is just off a prominent point.

Lat. 38 56.45' & Long. 76 16.1' : 1st creek N. of Crab Alley Neck. South shoreline has receded about 80 meters. The north shoreline has made out about 60 meters.

Lat. 38 56.2' & Long. 76 16.9' : S.E. Shoreline of strip of land between Crab Alley Bay & Little Creek has receded about 10 to 30 meters.

Lat. 38 55.8' & Long. 76 17.4' : South end of Johnson Island has receded about 50 meters.

Lat. 38 55.7' & Long. 76 17.2' : South end of Little Island has receded about 30 to 120 meters.

Lat. 38 55.5' & Long. 76 17.3' : Small island just south of Little Island has disappeared.
Lat. 38 55.0' & Long. 76 18.0' : Beginning at the narrow part of Cox Neck to the southern tip, all of the shoreline on the three sides of this strip of land has receded about 10 to 50 meters.
Lat. 38 53.9' & Long. 76 18.4' : The shoreline of Long Marsh Island has receded about 10 to 30 meters. The very small parts of this island which lay just N.E. of the main island have disappeared.
Lat. 38 53.9' & Long. 76 16.9' : The shoreline of Bodkin Island has receded about 10 to 120 meters and is gradually being washed away. The island is now in two parts.
This comparison shows for the most part a receding of the shoreline in general. The inland features were in fair agreement.

T-4746a, 1932

Lat. 38 59.05' & Long. 76 15.5' : Extreme N. pt. of marsh between Piney Creek & Chester River has receded about 30 meters.
Lat. 38 58.7' & Long. 76 13.8' : Strip of marsh between Muddy Creek & Jackson Creek at pt. on the west shoreline of Jackson Creek has made out about 40 meters.

No inland features shown on T-4746a.

JUNCTIONS:

Sheet No. T-5705 joins T-5721 on the west and T-5706 on the east. Junctions could not be made with these sheets because they have not been completed. Sheet No. 5705 also joins T-5323 on the lower west side. This is water area and therefore no land junction involved.

NAMES:

The geographic names as shown are listed on form M-234 in the appendix.

LANDMARKS:

Landmarks have not been submitted for this sheet due the fact that a hydrographic party is now working in the area and should submit same with the description of the hydrographic sheet.

RECOVERABLE HYDRGRAPHIC AND TOPOGRAPHIC STATIONS:

These stations are indicated by the proper symbol on the rough draft sheet.

REMARKS:

This sheet is believed to be complete in all detail of importance for charting and no additional surveys are required.

The probable error is not greater than five meters for radial points shown in blue or red as the case may be on the back of this sheet and well defined objects along the water front. The error of other detail is not greater than 10 meters.

Respectfully submitted,

W.E. Schmidt,
Photogrammetric Aide (field)

Approved: 10/23/40

L.W. Swanson,
Chief of Party.

GEOGRAPHIC NAMES

Survey No. T5705

No. 1.

Name on Survey	T-4746a, 1932	On Chart No. 548 A,	On previous survey No. 2294-1891 B,	On U. S. quadrangle Maps C,	From local information D	Chart 550 On local Maps E	State Plan. Bor. ~~P. O. Guide or Map~~ Highways F	Atlas, Kent, ~~Rand McNally Atl.~~ Queen Anne Co G	H	U. S. Light List K	Chart 1225
Macum Creek	ø	x	x	*	x			x			1
Piney Creek	x	x	x	x	x			x		x	2
Kent I. Narrows		x	x		x			x		x	[illegible]
Muddy Creek	x	x		x	x			x			4
Narrows		x			x					x	5
Goodhands Creek		x	x	x	x						6
Hog Island	x	x	x	x	x			x		x	7
Marshy Creek	x	x		x	x			x		x	8
Hood Point				x	x			x	x	x	9
Piney Point				x	x			x		x	10
Kirwan Creek	ø		#	x	x					x	11
Dominion				x	x		x			x	[illegible]
Jackson Creek	ø	x		x	x			x			13
Crab Alley Neck			x	x	x			x		x	14
Normans Point			x	x	x					x	15
Narrow Point			x	x	x					x	16
Prospect Bay				x	x		x				17
Parson Island			#	x	x				x	x	18
Johnson Island			#	x	x						19
Little Island					x						20
Long Point		x		x	x			x			21
Crab Alley Bay			x	x	x					x	[illegible]
Crab Alley Creek			x	x	x						23
Turkey Point			x	x	x	x		x		x	24
Long Marsh Island					x						[illegible]
Bodkin Island			x	x	x			x	x	x	26
Chester		x		x	x		x			x	27

M 234

	Remarks	Decisions
1	¢ spelled "Macum" * spelled "Macum"	389762
2		389762
3		389762
4		389762
5		389762
6		389762
7		389762
8		389762
9		389762 U.S.G.B
10		389762
11	¢ spelled"Kirwans Creek" ~~x#xxxxxxxx~~ # spelled "Kirwans Creek"	389762 U.S.G.B
12		389762
13	¢ spelled " Jacksons Creek"	389762
14		389762
15		389762
16		389762
17		389762
18	# spelled "Parsons Island"	389762
19	# spelled "Johnsons Island"	389762
20		389762
21		389762
22		389762
23		389762
24		389762
25		388763
26		388762
27		389762

M 234

GEOGRAPHIC NAMES

Survey No. T5705#2.

Name on Survey	T-4464, 1932	On Chart No. 548 A,	On previous survey No. 2294, 1897 B,	On U. S. quadrangle Maps C,	From local information D	Chart 550 ~~on local Maps~~ E	State Plan Board ~~R. O. Bence or Map~~ Highways Map F	Atlas-Kent ~~Rand McNally Atlas~~ & Queen Anne Co. G	H	U. S. Light List Chart 1225 K	
Chester River	x	x		x			x	x		x	1
Cox Neck			#	x				@		x	2
~~Greenville~~			x								3
Little Creek					x						4
Balto. & Eastern R.R. Penn. R.R. System	x			&			x			∎	5
Note:- Indicates same on all sources of information noted.											6
Eastern Bay											7
Cox Creek											8
Wells Cove											9
Kent I											10
											11
											12
											13
											14
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											26
											27

M 234

	Remarks	Decisions
1		390762
2	# spelled "Coxes Neck" @ spelled "Coxes Neck"	389762 U.S.G.B.
3	This is former name of Dominion, Page 1, line	
4		389762
5	& "Queen Anne R.R. z "M.D.& V Ry."	
6		
7		388763
8		389763 U.S.G.B
9	Round cove to S.E. of S. end of Kent I. Narrows.	389762
10	Area W. of Kent I. Narrows.	389763 U.S.G.B
11		
13	Lines underlined in red approved	
14	L. Heck on 10/24/41	
15		
16		
17		
18		
19		
20		
21		
23		
24		
25		
26		
27		

M 234

REVIEW OF AIR PHOTO COMPILATION NO. T 5705

Chief of Party: L. W. Swanson

Compiled by: W. E. Schmidt

ROUGH DRAFT. Director's Letter 8/28/39

Project: H. T. 215

Instructions dated: May 13, 1938

1. The charts of this area have been examined and topographic information necessary to bring the charts up to date is shown on this compilation. (Par. 16a, b, c, d, e, ~~g~~ and ~~h~~; 26; and 64)

2. Change in position, or non-existence of wharfs, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 26; and 66 g, ~~n~~)

3. Ground surveys by plane table, sextant, or theodolite have been used to supplement the photographic plot where necessary to obtain complete information, and all such surveys are discussed in the descriptive report. (Par. 65; and 66 d, e)

None

4. Blue-prints and maps from other sources which were transmitted by the field party contain sufficient control for their application to the charts. (Par. 28)

None

5. Differences between this compilation and contemporary plane table and hydrographic surveys have been examined and rectified in the field before forwarding the compilations to the office and are discussed in the descriptive report.

No contemporary surveys.

6. The control and adjustment of the photo plot are discussed in the descriptive report. Unusual or large adjustments are discussed in detail and limits of the area affected are stated. (Par. 12b; ~~44~~; and 66 c, ~~h~~, ~~i~~)

7. High water line on marshy and mangrove coast is clear and adequate for chart compilation. (Par. 16a, 43, and ~~44~~)

NOTE: Strike out paragraphs, words or phrases not applicable and modify those requiring it. Paragraph numbers refer to those in the Topographic Manual. Refer also to the pamphlet "Notes on the Compilation of Planimetric Line Maps from Five Lens Air Photographs."

The representation of low water lines, reefs, coral reefs and rocks, and legends pertaining to them is satisfactory. (Par. 36, 37, 38, 39, 40, 41)

Recoverable objects have been located and described on Form 524 in accordance with circular 30, 1933, circular letter of March 3, 1933, and circular 31, 1934. (Par. 29, 30, and 57)

10. A list of landmarks was furnished on Form 567 and instructions in the Director's letter of July 16, 1934, Landmarks for Charts, complied with. (Par. 16d, e; and 60)

Will be submitted by hydrographic party.

11. All bridges shown on the compilation are accompanied by a note stating whether fixed or draw, clearance, and width of draw if a draw bridge. Additional information of importance to navigation is given in the descriptive report. (Par. 16c)

12. Geographic names are shown on the map drawing. The accepted local usage of new names has been determined and they are listed in the report, together with a general statement as to source of information and a specific statement when advisable. Complete discussion of place names differing from the charts and from the U. S. G. S. Quadrangles is given in the descriptive report, together with reasons for recommendations made. (Par. 64, and 5[illegible]c)

13. The geographic datum of the compilation is N. A. 1927 and the reference station is correctly noted.

14. Junctions with adjoining compilations have been examined and are in agreement. (Par. 66j)

15. The drafting is satisfactory and particular attention has been given the following:

1. Standard symbols authorized by the Board of Surveys and Maps have been used throughout except as noted in the report.

2. The degrees and minutes of Latitude and Longitude are correctly marked.

3. All station points are exactly marked by fine black dots.

4. Closely spaced lines are drawn sharp and clear for printing.

~~5.~~ Topographic symbols for similar features are of uniform weight.

6. All drawing has been retouched where partially rubbed off.

7. Buildings are drawn with clear straight lines and square corners where such is the case on the ground.

(Par. 34, 35, 36, ~~37~~, ~~38~~, ~~39~~, 40, ~~41~~, 42, 43, ~~44~~, 45, 46, ~~47~~)

16. No additional surveying is recommended at this time.

17. Remarks:

18. Examined and approved;

L W Swanson Oct 23, 1940
Chief of Party

19. Remarks after review in office:

DIVISION OF PHOTOGRAMMETRY

REVIEW OF PLANIMETRIC MAP T-5705

There are no contemporary graphic control surveys in this area.

Hydrographic Surveys:

The 1940 hydrographic survey of Chester River and vicinity has not been received in the office.

Previous Topographic Surveys:

Comparison with T-4746a (1932) 1:10,000

Besides the changes noted on page 4 of the descriptive report T-5705, a sand spit at latitude 38°59', longitude 76°16.8' on the west side of Macum Creek has shifted south 100 meters and is about 50 meters longer than formerly.

There are numerous changes of to 20 meters in the marshy shoreline areas on the sheet, but the general configuration of the shoreline is much the same.

There are discrepancies of 1 mm in position of the Baltimore and Eastern R.R. right of way. The position on T-5705 appears to be plotted correctly from the photographs and is accepted as the correct location of the railroad.

T-5705 supersedes T-4746a except for buoys and wrecks.

Comparison with T-4746b (1932) 1:5,000

There have been changes up to 20 meters in places along the marshy shoreline, but in general the configuration of the shoreline is the same.

There are several water areas shown on T-5705 in the vicinity of latitude 38°58', longitude 76°14.3' which were not distinguished from the marsh on T-4746b.

There have been a few changes in buildings and piers at the town of Narrows.

T-5705 supersedes T-4746b, except for such hydrographic features as wrecks and buoys, not shown on T-5705.

Comparison with T-5423 (Air Photo Compilation) 1:10,000

Only a narrow strip along the east side of T-5423 overlaps T-5705. The two sheets are in excellent agreement for the few common details, such as roads and wooded areas. T-5705 shows more detail (houses and roads) and supersedes T-5423 for the common area.

Comparison with	T-2240	(1896)	1:10,000
	T-2246	(1896	1:10,000
	T-2294	(1899-1915)	1:20,000
	T-2554	(1900-1901)	1:20,000
	T-223	(1847)	1:20,000
	T-222	(1847)	1:20,000
	T-200	(1846)	1:20,000

There have been numerous natural and cultural changes in the area since the above listed surveys were made. No detailed discussion of these changes appears necessary. T-5705 supersedes the sections of these surveys which it covers, except for contours.

Comparison with Nautical Charts 548, 550, and 1225:
(Note: Corrections to the above charts were made prior to this review)

548 (5-15-41)

The inset showing Kent Island Narrows (1:10,000) when laid under the compilation T-5705 showed numerous small variations in shoreline, the most important being on the east side of Long Point where the marsh has built out about 60 meters. There are also several ponds in the marsh in the vicinity of latitude 38°58', longitude 76°14.3' which were not shown on the chart. Several small piers at the town of Narrows have apparently been destroyed and several buildings have been added to the town. A slight adjustment to the alignment of the railroad is also indicated.

550 (6-16-41)

No important differences were noted. Only the west shore of Cox Neck and Long Marsh Island is involved in this comparison.

1225 (7-22-41)

No differences are apparent between T-5705 and Chart 1225, the sheet having been corrected from T-5705 before this review was made.

Radial Plot:

The radial plot for T-5705 and T-5706 was made as a unit, and is discussed on pages 2 and 3 of the descriptive report T-5705. Orienting of the photographs under the compilation did not disclose any noticeable faults in the plot. There was a sufficiency of triangulation on T-5705 to give a good plot and it is believed that the probable error for radial points and well defined objects is not greater than 0.5 mm.

Field Inspection and Detailing:

The field inspection and detailing are complete and good. A few buildings near Kent Island Narrows were added in the office.

Recoverable Hydrographic and Topographic Stations:

Hydrographic stations were marked on the compilation by circles 1.5 mm in diameter. Some of these are also suitable as recoverable topographic stations and the size of the circles was changed in the office to 2.5 mm in diameter.

Reviewed by D. H. Benson, Sept. 2, 1941

Review report prepared by B. G. Jones, July 1946, from reviewer's notes.

NOTE:

T-5705 was compiled in 1940 and reviewed in 1941, but processing in the Washington Office was not completed until 1946 because of war mapping work of the Bureau. Meanwhile, the Coast and Geodetic Survey produced for the War Department topographic quadrangles (manuscript scale 1:20,000) of this same area. Planimetric details from T-5705 were used as a base in preparing quadrangles T-8266 and T-8267, which were completed in 1943. These quadrangles are more recent and more complete as regards map details than T-5705, but are at a smaller scale.

APPROVED BY:

B. G. Jones 7/46

B. G. Jones, Technical Asst.
Div. of Photogrammetry

Robert W. Knox

Chief, Nautical Chart Branch
Division of Charts

K. T. Adams

Chief, Div. of Photogrammetry

Raymond R. Fisman

Chief, Div. of Coastal Surveys