5660

Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, Director

DESCRIPTIVE REPORT

Air Photographic
~~Topographic~~
Hydrographic

Sheet No. T-5660

State MARYLAND

LOCALITY

Chesapeake Bay

~~Headwaters of~~ Sassafras River

Fredericktown and Vicinity

Photographs taken April 1937

1939

CHIEF OF PARTY

L. W. Swanson

U. S. GOVERNMENT PRINTING OFFICE: 1934

5660

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 - 5660

REGISTER NO. T5660

State MARYLAND

General locality Chesapeake Bay, northern part

Locality ~~Headwaters of Sassafras River~~ Fredericktown and Vicinity

Scale 1:10,000 x 0.965 Date of survey ____, 19 1937

Vessel Air Photographic Party No. 2, Baltimore, Md.

Chief of party L. W. Swanson

Surveyed by Field inspection by J. C. Partington, D. A. Jones, and Ross A. Gilmore

Inked by Arthur L. Wardwell

Heights in feet above ____ to ground to tops of trees

Contour, Approximate contour, Form line interval ____ feet

Instructions dated May 13, 19 38

Remarks: Scale factor 0.965

6 P o

DATA RECORD, T - 5660

Photographs:

Nos.	Date	Time	Scale	Altitude	Stage of Tide
1182 - 1184	April 30, 1937	11:23	1:10,000	6,900 ft.	2.2 ft. above M.L.W.
1201 - 1203	" " "	11:40	1:10,000	"	2.2 ft. above M.L.W.
1209 - 1212	" " "	11:50	1:10,000	"	2.2 ft. above M.L.W.

Stage of Tide from predicted tides, Georgetown, Md., mean range 2.3 ft., spring range 2.4 ft.

Camera: U. S. Coast and Geodetic Survey nine lens, F = 8¼ inches.

Supplemental Surveys:

	Reg. No.	Field No.	Date(mo. & year)
Graphic Control Surveys	NONE		
Hydrographic Surveys	H 6369	& Supt.	1938 (Mikawe)

Field Inspection by:
J. C. Partington 1937
D. A. Jones 1938
R. A. Gilmore July 1939 -

The details on T-5660 are of the date of the photographs except for items which were located by supplemental surveys as ~~discussed in detail on the following pages.~~ follows

1. Revision of minor details of marsh and grass from H 6369 (1938
2. addition of several small piers from H 6369
3. addition of several small piers from field inspection July 1939.(1938

Chief of Party: L. W. Swanson
Projection by: Ruling machine, Nov. 1937
Projection checked: Washington office, Nov. 1937
Control plotted by: E. H. Kirsch, Dec. 1937
Control checked by: I. M. Zeskind, Dec. 1937
Radial plot by: L. C. Lande, Dec. 1937
Compiled by: A. L. Wardwell 1938 & 1939
Smooth drafted by:

Reference Station: POORE 1934 Datum: N. A. 1927

Latitude: 39 22 25.290 (779.9)
Longitude: 75 50 24.493 (586.3)
adjusted ✓

x = 1,127,895.6
y = 563,062.9

STATISTICS

Map Drawing T-5660.

AREA (land) ----------	34 square statute miles.
Shoreline (more than 200 meters from opp. shore)	10.8 statute miles.
Shoreline (less than 200 meters from opp. shore)	7.5 statute miles.
Roads and Trails ----------	60 statute miles.

Time required to complete the detailing by the rough draft method was 22 working days. Detailing was about 35% completed in 1938, but considerable time (probably 4 days) was spent in checking and revising it to agree with the field inspection notes now available.

DESCRIPTIVE REPORT

To accompany celluloid Map Drawing Sheet No. T-5660.

MARYLAND
Chesapeake Bay -- Headwaters of Sassafras River.

Date of this report: August 3, 1939

General Information:

The photographs were taken with the U. S. Coast and Geodetic Survey nine lens aerial camera on April 30, 1937.

Field inspection on this area was done by J. C. Partington in 1937, Don Jones in 1938, and Ross A. Gilmore in 1939.

Control:

The following-named triangulation stations fall within the tracing limits of this sheet:

Poore 1934
Woodall 1934

Rdaial Plot:

The radial plot for this sheet was partially done in the Washington office, completed by S. B. Grenell in Norfolk, Va. This sheet was plotted in connection with T5658 and T5659 see descriptive report T5658 for details Bgg

Scale:

The scale of this sheet is $\frac{1}{10,000} \times 0.965$

Detail:

The area within the tracing limits was well covered by the photographs except for a strip in the vicinity of longitude 75° 53', this being between two flights having an overlap of only 40%.

The shoreline and many of the roads and other detail near the river were inked in Norfolk, Va. in 1938. On that part several changes have been made to conform with the field inspection notes now available. Many of the roads are exaggerated in width and in weight of line, and have notes telling the correct width to be used on the finished drawing. Instructions were given to complete the

detailing by the rough draft method, so on the detail inked in 1939 the centerline only of all roads is shown, with notes as to type and width of road. Fences are shown as solid lines, and labeled.

An attempt was made to show all buildings, except sheds and small outbuildings on farms, and in the towns, where only the schools, churches, post-offices, and prominent buildings along the waterfront were shown. Due to the lack of clarity on some of these pictures, some of the buildings are only approximately correct as to size and shape of outline.

As the field inspection notes were in some places incomplete regarding location and height of bluffs along the shore, some of this information was obtained from and old survey (T-2381) made by planetable. No attempt was made to show, by the bluff symbol, the exact location of the top and bottom of the slope. The line of bluff symbols marks the general location of the steepest part of the slope, determined by field inspection notes, sterescopic examination of the pictures, and comparison with the old survey T-2381.

Two docks and a small marine railway which have been built at Fredericktown since the photographs were taken were put in from field inspection notes.

Comparison with Previous Survey T-2381:

For the most part, the shoreline and roads agree very well between the old survey and the new map drawing, but there are some places where what was shown as marsh on the old survey has grown up there to trees and brush, and so is now shown as fast land. Some of the points show a little erosion.

Junctions:

This sheet joins the following map drawings:

T-5659 on the west.
T-5655 (on the north .
T-5656
T-5694 on the south.

Sheet T-5659 was being detailed at the same time as this one, so the junction was checked at once.

Sheet T-5694 has not yet been detailed.

Comparison was made with the advance print of sheet T-5656, and a satisfactory junction effected.

Comparison was made with the completed print of sheet T-5655, and the junction was found to be satisfactory with the exception of

a fence at longitude 75° 51.6' which should be added to T-5655.

No sheet is as yet laid out to join this one on the east. There will be much work on the east. BGJ

Comparison with Chart No. 1226:

As nearly as could be ascertained, the shoreline agrees with that on chart 1226. However, due to the great difference in scale, there can be no good comparison made.

Two roads shown on the chart are not now of sufficient importance for charting. One of these is shown on the chart as going easterly from the highway between Georgetown and Galena, and crossing Mill (or Sawmill) Creek. That road is now only a trail. The second of these roads is a short section running nearly north and south between two side roads which leave the highway to the eastward about 1.5 miles north of Fredericktown. There is now only a fence there.

Names:

Geographic names shown on this sheet and listed on Form M 234.

Landmarks:

The water tank at Cecilton (red, elevated) is a recoverable topographic station, and is listed on Form 567, "Landmarks for Charts". This object was recommended by the airphotographic Party.

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 5 meters for radial points, well defined objects along the water front, and well controlled areas. The error of other detail of importance is believed to be not greater than 10 meters. Because of the lack of control for the radial plot for T 5656, 59 and 60 as discussed in the descriptive report for T 5658 where line details are considered as within 0 to 10 meters of correct geographic position and interior details within 0 to 15 meters. BGJ 5/31/39

Respectfully submitted

Arthur L. Wardwell
Arthur L. Wardwell,
Aid, U.S.C.& G. Survey.

Forwarded

8/16/39

James O. Jones Jr. USCGS

for L.W. Swanson, Chief of Party.

	Remarks.	Decisions.
1		393758
2		"
3	Called "Swan Creek" on State Highway Comm. maps " " " on U.S.G.S. quadrangle maps	393758 U.S.G.B
4	Called "Sawmill Creek" on State Highway Comm. maps " " " on U.S.G.S. quadrangle maps	" "
5	Called "Sawmill Creek" on Chart No. 1226	393758 U.S.G.B
6		393758 U.S.G.B
7	Called Frederick on old survey No. T-2381, and on Chart No. 77	" "
8		394758
9		393758
10	* Known locally as Dyer Creek (1+2)	"
11		393760
12	* " " " Fox Hole Wharf (1+2)	393758 U.S.G.B
13	" " " Hall Creek (1+2)	393759
14		393758
15		393758
16		393758
17		
18	Mr. Walter Woodall, Georgetown Md	} 1
19	Mr. Paul Pennington " "	
20	Mr John E Ross " "	
21		
22	Mr N.L Riggin " "	2
23		
24		
25		
26		
27		

M 234

GEOGRAPHIC NAMES

Survey No. T-5660

Name on Survey	On Chart No. 1226 A,	On previous survey No. T-2381 B,	On U. S. quadrang. Maps C,	From local information D	On local Maps E	P. O. Guide or Map F	Rand McNally Atlas G	U. S. Light List H	K	
. Hen Island				1-2						1
. Budd Landing			✓	1-2						2
. Jacobs Creek	✓	✓		2						3
. ~~Swan Creek~~ Swantown	✓	✓		2						4
. Mill Creek	saw-mill Cr	✓		2						5
. Georgetown	✓	✓	✓	Local Sign						6
. Fredericktown	✓	Fredrick	✓	Local Signs						7
. Cecilton	✓		✓	1-2	✓					8
. Galena	✓	✓	✓	✓	✓					9
. ~~Francy Creek~~ Dyer	✓	✓		*						10
. Sassafras River	✓		✓	✓	✓					11
. ~~Fiveys Wharf~~ Fox Hole Landing	✓		✓	*						12
. ~~Trail~~ Hall Creek	✓	15 ✓		*						13
. Duffy Creek			✓	1-2						14
. Wilson Pt. ~~Wharf~~	✓		✓	1-2						15
Olivet Hill										16
										17
			Names underlined in red approved							18
			by L. A. Heck on 6/7/40							19
										20
										21
										22
										23
										24
										25
										26
										27

M 234 VR

Form 567
Rev. March 1935

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

LANDMARKS FOR CHARTS

TO BE CHARTED
TO BE DELETED } STRIKE OUT ONE

Baltimore, Md. Aug. 3, 1939

I recommend that the following objects which ~~have~~ (*have not*) been inspected from seaward to determine their value as landmarks, be charted on (~~*deleted from*~~) the charts indicated.

The positions given have been checked after listing.

L. W. Swanson
Chief of Party.

GENERAL LOCALITY Chesapeake Bay
Sassafras River

NAME AND DESCRIPTION	POSITION				DATUM	METHOD OF LOCATION	DATE OF LOCATION	HARBOR CHART	INSHORE CHART	OFFSHORE CHART	CHARTS AFFECTED
	LATITUDE		LONGITUDE								
	° ′	D. M. METERS	° ′	D. P. METERS							
Elev. Water Tank (red) Cecilton.	39 21	379	75 52	65	1927 N.A.	Air Photographic Survey	7-38			1	1226
		12.240		02.717							
		30.834		23.924							
											1238
		12									

This form shall be prepared in accordance with 1934 Field Memorandum, "LANDMARKS FOR CHARTS." The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

U. S. GOVERNMENT PRINTING OFFICE

M-350

T-5260

PLANE COORDINATE GRID SYSTEM

Positions of grid intersections used for fitting the grid to this compilation were computed by Division of Geodesy and the computation forms are included in this report.

Positions plotted by H. D. REED, JR.

Positions checked by " ON RULING MACHINE

Grid inked on machine by "

Intersections inked by _____

Points used for plotting grid:

x = 1,135,000 FT y = 545,000 FT	x 1,125,000 y 560,000
x 1,115,000 y 545,000	x y
x 1,135,000 y 575,000	x y
x 1,115,000 y 545,000	x y

Triangulation stations used for checking grid:

X = 1,127,995.6 — Y = 563,062.9

1. Poore, 1934 (Ref. 54a.)

X = 1,119,300.1 — Y = 545,680.2

2. Woodall, 1934

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 725

PLANE COORDINATES ON LAMBERT PROJECTION

State Md Station Woodall, 1934

ϕ = 39° 19' 34.562 λ = 75° 52' 16.675

Tabular difference of R for 1" of ϕ =

R (for min. of ϕ)			y' (for min. of ϕ)			
Cor. for sec. of ϕ		−	Cor. for sec. of ϕ		+	
R		25,825,406.5	y'			543,706.24
			y'' ($=2R \sin^2 \frac{\theta}{2}$)		+	1973.96
θ (for min. of λ)		° ' "	y			545,680.2
Cor. for sec. of λ		−				
θ		+ 42 30.2814	$\frac{\theta}{2}$			° 21' 15.1407
θ''	For machine computation			For machine computation		
			log θ''			
log θ''			colog 2			9.69897000
S for θ			S for $\frac{\theta}{2}$			
log sin θ	sin θ	.0123637981	log sin $\frac{\theta}{2}$	sin $\frac{\theta}{2}$		.0061820172
log R				$R \sin \frac{\theta}{2}$		
log x'			log $\sin^2 \frac{\theta}{2}$	$R \sin^2 \frac{\theta}{2}$		986.978
x'	$R \sin \theta$	319,300.1 8	log R	$2R \sin^2 \frac{\theta}{2}$		
		2,000,000.00	log 2			0.30103000
x		1,119,300.1	log y''			

$x = 2{,}000{,}000.00 + R \sin \theta$,

$y = y' + 2R \sin^2 \frac{\theta}{2}$,

y' = the value of y on the central meridian for the latitude of the station.

S = log of ratio for reducing arc expressed in seconds to sine,

(See log tables.)

R, y', and θ are given in special tables.

U. S. GOVERNMENT PRINTING OFFICE 11—11515

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 725

PLANE COORDINATES ON LAMBERT PROJECTION

State Md Station Poore, 1934

$\phi = 39^\circ\ 22'\ 25.''290$ $\lambda = 75^\circ\ 50'\ 24.''493$

Tabular difference of R for 1″ of ϕ =

R (for min. of ϕ)			y' (for min. of ϕ)		
Cor. for sec. of ϕ		−	Cor. for sec. of ϕ		+
R		25,808,133.0	y'		560,979.8
			y'' $(=2R\sin^2\frac{\theta}{2})$		+ 2083.1
θ (for min. of λ)		° ′ ″	y		563,062.9
Cor. for sec. of λ		−			
θ		+ 43 40.6907	$\frac{\theta}{2}$		° 21′ 50.″34535
θ''	For machine computation			For machine computation	
			$\log\theta''$		
$\log\theta''$			colog 2		9.69897000
S for θ			S for $\frac{\theta}{2}$		
$\log\sin\theta$	$\sin\theta$	.012705 1252	$\log\sin\frac{\theta}{2}$	$\sin\frac{\theta}{2}$	.0063526908
$\log R$				$R\sin\frac{\theta}{2}$	
$\log x'$			$\log\sin^2\frac{\theta}{2}$	$R\sin^2\frac{\theta}{2}$	1041.53
x'	$R\sin\theta$	327,895.6	$\log R$	$2R\sin^2\frac{\theta}{2}$	
		8			
		2,000,000.00	$\log 2$		0.30103000
x		1,127,895.6	$\log y''$		

$x = 2{,}000{,}000.00 + R\sin\theta$.

$y = y' + 2R\sin^2\frac{\theta}{2}$.

y' = the value of y on the central meridian for the latitude of the station.

S = log of ratio for reducing arc expressed in seconds to sine.

(See log tables.)

R, y', and θ are given in special tables.

U.S. GOVERNMENT PRINTING OFFICE 11—11515

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 725

PLANE COORDINATES ON LAMBERT PROJECTION

x 1,125,000
y 560,000

State Md Station 4

$\phi = 39^\circ\ 21'\ 55.38$ $\lambda = 75^\circ\ 51'\ 01.85$

Tabular difference of R for 1″ of ϕ =

R (for min. of ϕ)			y' (for min. of ϕ)		
Cor. for sec. of ϕ		−	Cor. for sec. of ϕ		+
R		25,811,159	y'		557,953.6
			y'' ($=2R\sin^2\frac{\theta}{2}$)		+ 2046.2
θ (for min. of λ)		° ′ ″	y		559,999.8
Cor. for sec. of λ		−			
θ		0 43 17.2442	$\frac{\theta}{2}$		° 21′ 38.6221
θ''	For machine computation			For machine computation	
			$\log\theta''$		
$\log\theta''$			colog 2		9.69897000
S for θ			S for $\frac{\theta}{2}$		
$\log\sin\theta$	$\sin\theta$	.012 59 14625	$\log\sin\frac{\theta}{2}$	$\sin\frac{\theta}{2}$	.006 29 58560
$\log R$				$R\sin\frac{\theta}{2}$	
$\log x'$			$\log\sin^2\frac{\theta}{2}$	$R\sin^2\frac{\theta}{2}$	1023.10
x'	$R\sin\theta$	325 8	$\log R$	$2R\sin^2\frac{\theta}{2}$	
		2,000,000.00	$\log 2$		0.30103000
x		1,125,000	$\log y''$		

$x = 2{,}000{,}000.00 + R\sin\theta$.

$y = y' + 2R\sin^2\frac{\theta}{2}$.

y' = the value of y on the central meridian for the latitude of the station.

S = log of ratio for reducing arc expressed in seconds to sine.

(See log tables.)

R, y', and θ are given in special tables.

U.S. GOVERNMENT PRINTING OFFICE 11—11515

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 725

PLANE COORDINATES ON LAMBERT PROJECTION

x 1,135,000

State Md Station y 575,000

ϕ = 39° 24' 22.36" λ = 75° 48' 52.06"

Tabular difference of R for 1" of ϕ =

R (for min. of ϕ)			y' (for min. of ϕ)		
Cor. for sec. of ϕ		−	Cor. for sec. of ϕ		+
R		25,796,288	y'		572,824.6
			y'' ($=2R \sin^2 \frac{\theta}{2}$)		+ 2 175.3
θ (for min. of λ)		° ' "	y		574,999.9
Cor. for sec. of λ		−			
θ		+ 44 38.7048	$\frac{\theta}{2}$		° 22' 19.3524
θ''	For machine computation			For machine computation	
			$\log \theta''$		
$\log \theta''$			colog 2		9.69897000
S for θ			S for $\frac{\theta}{2}$		
$\log \sin \theta$	$\sin \theta$	.012986 3623	$\log \sin \frac{\theta}{2}$	$\sin \frac{\theta}{2}$	.0064933180
$\log R$				$R \sin \frac{\theta}{2}$	
$\log x'$			$\log \sin^2 \frac{\theta}{2}$	$R \sin^2 \frac{\theta}{2}$	1087.65
x'	$R \sin \theta$	335 / 8	$\log R$	$2 R \sin^2 \frac{\theta}{2}$	
		2,000,000.00	$\log 2$		0.30103000
x		1,135,000	$\log y''$		

$x = 2{,}000{,}000.00 + R \sin \theta$.

$y = y' + 2R \sin^2 \frac{\theta}{2}$.

y' = the value of y on the central meridian for the latitude of the station.

S = log of ratio for reducing arc expressed in seconds to sine.

(See log tables.)

R, y', and θ are given in special tables.

U.S. GOVERNMENT PRINTING OFFICE 11—11515

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 725

PLANE COORDINATES ON LAMBERT PROJECTION

X 1,135,000

State Md Station J Y 545,000

ϕ = 39° 19′ 25.87″ λ = 75° 48′ 57.02″

Tabular difference of R for 1″ of ϕ =

R (for min. of ϕ)			y' (for min. of ϕ)			
Cor. for sec. of ϕ		−	Cor. for sec. of ϕ		+	
R		25,826,286	y'			542,826.8
			y'' ($=2R \sin^2 \frac{\theta}{2}$)		+	2,172.8
θ (for min. of λ)		° ′ ″	y			544,999.6
Cor. for sec. of λ		−				
θ		44 35.5917	$\frac{\theta}{2}$			° 22′ 17.79585″
θ''	For machine computation			For machine computation		
			$\log \theta''$			
$\log \theta''$			colog 2			9.69897000
S for θ			S for $\frac{\theta}{2}$			
$\log \sin \theta$	$\sin \theta$	.01297127 08	$\log \sin \frac{\theta}{2}$	$\sin \frac{\theta}{2}$		.00648 57718
$\log R$				$R \sin \frac{\theta}{2}$		
$\log x'$			$\log \sin^2 \frac{\theta}{2}$	$R \sin^2 \frac{\theta}{2}$		1086.39
x'	$R \sin \theta$	335 8	$\log R$	$2 R \sin^2 \frac{\theta}{2}$		
		2,000,000.00	$\log 2$			0.30103000
x		1,135,000	$\log y''$			

$x = 2{,}000{,}000.00 + R \sin \theta$,

$y = y' + 2R \sin^2 \frac{\theta}{2}$,

y' = the value of y on the central meridian for the latitude of the station.

S = log of ratio for reducing arc expressed in seconds to sine.

(See log tables.)

R, y', and θ are given in special tables.

U.S. GOVERNMENT PRINTING OFFICE 11—11515

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DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 725

PLANE COORDINATES ON LAMBERT PROJECTION

x 1,115,000
y 575,000

State Md Station

ϕ = 39° 24' 24.85 λ = 75° 53' 06.84

Tabular difference of R for 1" of ϕ =

R (for min. of ϕ)			y' (for min. of ϕ)		
Cor. for sec. of ϕ		−	Cor. for sec. of ϕ		+
R		25,796,036	y'		573,076.5
		° ' "	y'' ($=2R \sin^2 \frac{\theta}{2}$)		+ 1,923 3
θ (for min. of λ)			y		574,999.8
Cor. for sec. of λ		−			
θ		+ 41 58.7962	$\frac{\theta}{2}$		° 20' 59.3981
θ''	For machine computation	"		For machine computation	
			log θ''		
log θ''			colog 2		9.69897000
S for θ			S for $\frac{\theta}{2}$		
log sin θ	sin θ	.012211651	log sin $\frac{\theta}{2}$	sin $\frac{\theta}{2}$	.006105 6964
log R				$R \sin \frac{\theta}{2}$	
log x'			log $\sin^2 \frac{\theta}{2}$	$R \sin^2 \frac{\theta}{2}$	961.66
x'	$R \sin \theta$	315 8	log R	$2R \sin^2 \frac{\theta}{2}$	
		2,000,000.00	log 2		0.30103000
x		1,115,000	log y''		

$x = 2{,}000{,}000.00 + R \sin \theta$.

$y = y' + 2R \sin^2 \frac{\theta}{2}$.

y' = the value of y on the central meridian for the latitude of the station.

S = log of ratio for reducing arc expressed in seconds to sine.

(See log tables.)

R, y', and θ are given in special tables.

U. S. GOVERNMENT PRINTING OFFICE 11—11515

3 000

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form No. 725

PLANE COORDINATES ON LAMBERT PROJECTION

X 1,115,000

State Md Station 4 545,000

$\phi = 39^\circ\ 19'\ 28.''36$ $\lambda = 75^\circ\ 53'\ 11.''50$

Tabular difference of R for 1″ of ϕ =

R (for min. of ϕ)			y' (for min. of ϕ)		
Cor. for sec. of ϕ		−	Cor. for sec. of ϕ		+
R		25,826,034	y'		543,078.8
			y'' $(=2R \sin^2 \frac{\theta}{2})$		+ 1,921.1
θ (for min. of λ)			y		544,999.9
Cor. for sec. of λ		−			
θ		41 55.8714	$\frac{\theta}{2}$		° 20′ 57.″9357
θ''	For machine computation			For machine computation	
			$\log \theta''$		
$\log \theta''$			colog 2		9.69897000
S for θ			S for $\frac{\theta}{2}$		
$\log \sin \theta$	$\sin \theta$	.0121969863	$\log \sin \frac{\theta}{2}$	$\sin \frac{\theta}{2}$	.0060986066
$\log R$				$R \sin \frac{\theta}{2}$	
$\log x'$			$\log \sin^2 \frac{\theta}{2}$	$R \sin^2 \frac{\theta}{2}$	960.55
x'	$R \sin \theta$	315 / 8	$\log R$	$2R \sin^2 \frac{\theta}{2}$	
		2,000,000.00	$\log 2$		0.30103000
x		1,115,000	$\log y''$		

$x = 2{,}000{,}000.00 + R \sin \theta$.

$y = y' + 2R \sin^2 \frac{\theta}{2}$.

y' = the value of y on the central meridian for the latitude of the station.

S = log of ratio for reducing arc expressed in seconds to sine.

(See log tables.)

R, y', and θ are given in special tables.

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DIVISION OF CHARTS

Section of Field Records

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5660 (1939) Scale 1:10,000

There are no contemporary plane table surveys in this area.

Contemporary Hydrographic Surveys.

H-6369 (1938) 1:10,000. T-5660 and H-6369 have been compared and minor discrepancies have been adjusted by the hydrographic reviewer.

Previous Topographic Surveys.

T-279 (1846) 1:20,000.
T-2381 (1900) 1:20,000.

Except for contours T-5660 supersedes, for charting, the sections of the above surveys which it covers.

Charts 572 and 1226.

T-5660 has not been applied to Chart 1226 but has been applied to Chart 572 at this date, August 14, 1940. No changes have been made in T-5660 since its application to Chart 572.

The landmark recommended on the attached Form 567 has been reported to the Nautical Chart Standards.

General.

The main radial plot for this sheet was made in a unit with T-5658 and T-5659 and is discussed in the report for T-5658.

In common with all sheets in this area the compilation of map details on T-5660 was difficult because of the long air base between photographs and the broken terrain.

The definition of the photographs at Fredricktown and at Georgetown is poor. The larger water front details are shown but small details of buildings, bulkhead lines and piers may have been omitted. The more important objects have been covered by

field inspection and the map detailing is accepted as sufficiently complete for the 1:40,000 scale chart.

Reviewed by - L. C. Lande, September 1939.

Inspected by - B. G. Jones, September 1939 and August 14, 1940.

Examined and approved:

T. B. Reed,
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