

# 5425

U. S. COAST & GEODETIC SURVEY  
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Form 504  
Rev. Dec. 1933  
DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. PATTON, Director

## DESCRIPTIVE REPORT

Air Photo  
Topographic  
Hydrographic

Sheet No. 5425

State Maryland

### LOCALITY

Chesapeake Bay

~~Tilghman Island~~

Tilghman Island

~~Sanctuary Point~~

Project HT 175

1934

### CHIEF OF PARTY

J.C. Partington Jr. H. & G. Engr.

U. S. GOVERNMENT PRINTING OFFICE: 1934

# 5425

Applied to Cht. 1225, Dec. 10, 1935

R.P.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO.

AIR PHOTO  
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. 5425

REGISTER NO. **5425**

State Maryland

General locality Chesapeake Bay

Locality Tilghman Island, ~~Southern Part~~

Date of Photographs November 28, 1934

Scale 1:10,000 Date of ~~Survey~~ Compilation September 27, 1934

Vessel Photo Compilation Party #25

Reviewed and recommended for approval

Chief of party Lieut. (j.g.) J.C. Partington January 3, 1935

Photographs plotted by

Surveyed by S.M. Stoler November 8, 1934

Inked by J.F. Burns November 24, 1934

Heights in feet above \_\_\_\_\_ to ground to tops of trees

Contour, Approximate contour, Form line interval \_\_\_\_\_ feet

Instructions dated March 11, 1934

Compilation of aerial photographs

Remarks: Nos. 251-261.

# DESCRIPTIVE REPORT

To Accompany

PHOTO COMPILATION SHEET NO. 5425

Chesapeake Bay; Tilghman Island, Southern Part

- - - -

## 1. GENERAL INFORMATION: \*

- (a) Refer to Title Sheet.
- (b) Refer to Statistics Sheet.
- (c) No general report covering this area is available. The area includes that part of Tilghman Island which lies south of Knapps Narrows. This part of Tilghman Island is very flat and is covered almost entirely by cultivated fields. Also, there are a few small marshes and a few small wooded areas. All the area is under cultivation unless otherwise shown.
- (d) The following photographs were used in plotting this sheet:

<u>Photo Numbers</u>	<u>Flight Strip Location</u>	<u>Date</u>	<u>Time</u>	<u>Stage of Tide</u>
251 to 261	Over Tilghman Island	11-28-33	10:35 AM to 1:00 PM	Low - 6:37 AM High- 1:20 PM

- (e) Refer to Statistics Sheet.

## 2. CONTROL:

### (a) Sources:

The triangulation stations shown on the celluloid furnished sufficient control for plotting the sheet.

The station "Mays 1934" was obtained from the progress sketch of Lieut. John Bowie, Jr. 1934. The position of this station had been computed directly on N.A. 1927 Datum. The station "Paw Paw 1933" and station "Knapps Narrows Beacon 1933" were obtained from the progress sketch of Lieut. E.R. McCarthy 1933. All other stations were obtained from the sketch shown as Fig. 13 in the back of "Triangulation in Maryland."

It was necessary to adjust all stations except "Mays 1934" to N.A. 1927 Datum. The Washington Office furnished the following correction to be applied in making this adjustment: To change North American Datum into North American 1927 Datum, subtract 11 meters from the forward latitude position and add 4 meters to the forward longitude position.

*Triangulation in 1909 by C.C. Yates. (L.A.M.)*

### (b) Errors:

No errors in control were found by photo-plot.

All triangulation stations appearing on the celluloid were used in running the plot and all stations checked accurately except where the photographs were so dim as to make accurate picking of stations impossible.

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(c) Discrepancies:

No discrepancy in position of any control station was found in running the plot.

3. COMPILATION: \*

(a) Method:

The usual radial line plot was used to determine the position of all radial points.

(b) Adjustments of plot:

No adjustment was necessary in plotting this sheet. (?)  
*See. Review.*

(c) Interpretation:

In this section of Tilghman Island the center of flight lies to the east of the island. This being the case, all the triangulation stations fall on the west side of the center line of flight making it very difficult to obtain "three wing fixes" for the photographs. The best "fixes" were used first in running the plot and the remaining pictures were adjusted until exceptionally good intersections were obtained. It is believed that the radial points are very accurately located, however, the area should be carefully checked with other surveys because of the peculiar location of the center line of flight mentioned above.

No difficulties in interpreting the data on the photographs were encountered.

(d) Information from other sources:

All information on this sheet except the names was obtained directly from the photographs. The names which appear on the overlay sheet were obtained from U.S. Coast and Geodetic Survey Chart No. 1225 and from U.S. Geological Survey, Sharps Island Quadrangle.

(e) Conflicting names:

The name Tilghman Island Landing is shown on U.S. Geological Survey, Sharps Island Quadrangle, but does not appear on U.S. Coast and Geodetic Charts. This landing is locally known as Devils Island. It is recommended that the name Tilghman Island Landing be added to the charts. *why?*

Additional names:

Barron Neck is shown on the U.S. Geological Survey, Sharps Island Quadrangle, as above. It does not appear on U.S. Coast and Geodetic Charts. It is recommended that this name be added to the charts.

## DESCRIPTIVE REPORT

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### 4. COMPARISON WITH OTHER SURVEYS: \*

(c) This sheet joins on the north with a sheet which was compiled in the Washington Office. A satisfactory junction has been made on the  $38^{\circ} 43'$  parallel. Attention is called to the fact that the sheet compiled in Washington is on North American Datum while sheet No. 5425 is on North American 1927 Datum.

(b) The sheet compiled in Washington covering the northern part of Tilghman Island has been changed slightly at the  $38^{\circ} 43'$  parallel. The roads and houses south of Knapps Narrows were changed in position about three meters and additional houses were added to conform with data found on the photographs. Also, all detail south of the  $38^{\circ} 43'$  parallel has been erased on the sheet compiled in Washington.

The above changes were made in order to make a satisfactory junction with compilation, No. 5425, which was prepared in the Baltimore Office. The two compilations now join very satisfactorily on the  $38^{\circ} 43'$  parallel and the detail at the junction agrees with that shown on the photographs.

~~In making the junction between these sheets, it should be remembered that the northern sheet is on North American Datum and the southern sheet is on North American 1927 Datum.~~

This compilation has been compared with sheet, Register No. 2513, surveyed in 1900. This comparison indicates that the west shore of Tilghman Island has receded about 100 meters and Black Walnut Pt. has receded more than 200 meters since 1900. The eastern side of Tilghman Island has undergone less change. The two surveys check very well in the vicinity of Black Walnut Cove. There is from 50 to 100 meters difference in shoreline at Lower Bar Neck Pt. and Upper Bar Neck Pt.

It is believed that Tilghman Island has undergone so much change since 1900 that the 1900 survey is inadequate and it is recommended that the present compilation (Sheet No. 5425) be used for charting this area.

### 5. LANDMARKS: \*

(a) A copy of form No. 567, Landmarks for Charts, is enclosed, which ~~the~~ lists the objects recommended by the field party as landmarks.

### 6. RECOMMENDATIONS FOR FURTHER SURVEYS: \*

(a) The compilation is believed to have a probable error of 3 meters in position of well defined detail of importance for charting and of 5 meters for other data.

DESCRIPTIVE REPORT

SHEET NO. 5425

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(b) The width of roads has been exaggerated in some cases so that they will show clearly when the sheet is reproduced.

(\*) N.B. The paragraphs (numbers and letters) listed refer to those shown on pages 22 and 23 of Notes on Compilation of Planimetric Line Maps.

Respectfully submitted,

*J. C. Partington*

J.C. Partington  
Jr. H. & G. E.  
Chief of Party

-STATISTICS-

on

SHEET, FIELD NO. 5425, REG. NO. 7-5425

PHOTOS, NO. 251 To NO. 261

DATE OF PHOTOGRAPHS Nov. 28, 1933

10:35 A.M. - 1:00 P.M.

	BY	DATE	
		FROM	TO
ROUGH RADIAL PLOT	<i>S.M. Stoler</i> S.M. Stoler	11- 3-34	11- 3-34
SCALE FACTOR (.950)	<i>S.M. Stoler</i> S.M. Stoler	11- 3-34	11- 3-34
SCALE FACTOR CHECKED	<i>R.D. Cross</i> R.D. Cross	11- 3-34	11- 3-34
PROJECTION	<i>S.M. Stoler</i> S.M. Stoler	11- 6-34	11- 6-34
PROJECTION CHECKED	<i>R.D. Cross</i> R.D. Cross	11- 6-34	11- 6-34
CONTROL PLOTTED	<i>S.M. Stoler</i> S.M. Stoler	11- 6-34	11- 6-34
CONTROL CHECKED	<i>W.V. Sulkowski</i> W.V. Sulkowski	11- 7-34	11- 7-34
TOPOGRAPHY TRANSFERRED	<i>J.F. Burns</i> J.F. Burns	11- 7-34	11- 7-34
TOPOGRAPHY CHECKED	<i>R.D. Cross</i> R.D. Cross	11- 7-34	11- 7-34
SMOOTH RADIAL LINE PLOT	<i>S.M. Stoler</i> S.M. Stoler	11- 8-34	11- 8-34
RADIAL LINE PLOT CHECKED	<i>R.D. Cross</i> R.D. Cross	11- 8-34	11- 8-34
DETAIL INKED	<i>J.F. Burns</i> J.F. Burns	11-14-34	11-24-34

AREA OF DETAIL INKED 2.18 sq. Statute Miles (Land Area)

AREA OF DETAIL INKED 0 sq. Statute Miles (Shoals in Water Area)

LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore)  
10.70 Statute Miles

LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide)  
1.38 Statute Miles

LENGTH OF STREETS, ROADS, TRAILS, R.R., etc. 11.39 Statute Miles

GENERAL LOCATION Maryland, Chesapeake Bay

LOCATION Tilghman Island, ~~Southern Part~~

DATUM North American 1927

STATION Mays 1934 Latitude 38° 42' 17.867" = 550.9 m.  
Longitude 76° 20' 44.194" = 1075.2 m.



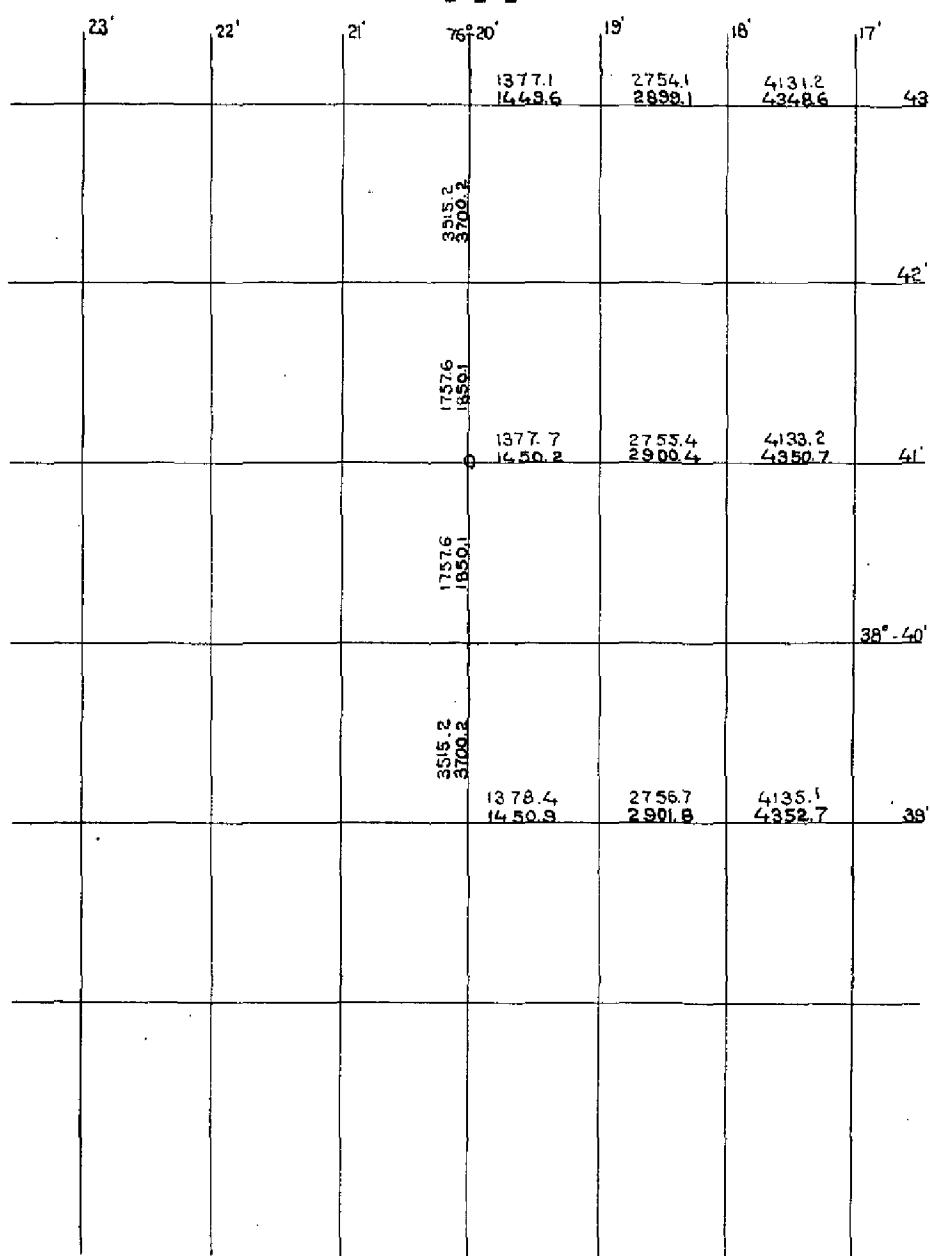
# PROJECTION DIAGRAM

SHEET 5425

Scale = 1:10,000

Scale Factor = .950

Distances multiplied by scale factor are given in red



Layout by S.M.S.  
Checked by R.D.C.

## SHEET NO. 5425

## CONTROL DATA

Station	North American Datum				1927 Datum	x Scale Factor
	°	'	"	m.	m.	m.
Avalon, 1909	38	42	34.384	1060.3	(800.9) 1049.3	(760.9) 996.8
	76	19	58.885	1422.7	(22.9) 1426.7	(21.8) 1355.4
Collins house, red spire, 1898	38	41	23.865	735.9	(1125.3) 724.9	(1069.0) 688.7
	76	20	06.445	155.8	(1290.4) 159.8	(1225.9) 151.8
Mays, 1934* (N.A. 1927 Datum)	38	42	17.867		(1299.2) 550.9	(1234.2) 523.4
	76	20	44.494		(374.7) 1075.2	(356.0) 1021.4
Paw Paw, 1933	38	42	22.698	699.9	(1161.2) 688.9	(1103.1) 654.5
	76	20	45.608	1102.0	(343.8) 1106.0	(326.6) 1050.7
Peoples Chapel Tilghman Island, 1909	38	42	55.992	1726.6	(134.6) 1715.6	(127.9) 1629.8
	76	20	03.631	187.7	(1358.2) 191.7	(1290.3) 187.1
Southern M.E. Church Tilghman Island, 1909	38	41	34.743	1071.3	(789.8) 1060.3	(750.3) 1007.3
	76	20	32.175	777.6	(668.5) 781.6	(635.1) 742.5
Knapps Narrows Beacon, 1933	38	43	18.12	558.7	(1302.4) 547.7	(1237.3) 520.3
	76	20	40.44	976.9	(468.7) 980.9	(445.3) 931.8

(\*) Computed directly on N.A. 1927 Datum.

SHEET NO. 5425

SCALE FACTOR COMPUTATIONS

Photos 251-261

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<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Measured Distance</u>	<u>Computed Distance</u>	<u>Scale Factor Meas./Comp.</u>
Collins house, red spire, 1898		Peoples Chapel Tilghman Island, 1909	2677	2842	.942
Collins house, red spire, 1898		Avalon, 1909	2052	2182	.940
Collins house, red spire, 1898		Paw Paw, 1933	1922	2046	.939
Collins house, red spire, 1898		Mays, 1934	1797	1910	.940
Collins house, red spire, 1898		Southern M.E. Church, Tilghman Island, 1909	668	706	.945
Mays, 1934		Peoples Chapel Tilghman Island, 1909	1435	1524	.941
Mays, 1934		Southern M.E. Church, Tilghman Island, 1909	1290	1372	.940
Avalon, 1909		Southern M.E. Church, Tilghman Island, 1909	1889	2008	<u>.941</u>

Average Scale Factor = .941

N.B. Projection made up at .950 to agree with adjoining projection.

DEPARTMENT OF COMMERCE  
U.S. COAST AND GEODETIC SURVEY

## LANDMARKS FOR CHARTS

Baltimore, Md.

January 8 1935

DIRECTOR, U.S. COAST AND GEODETIC SURVEY:

The following determined objects are prominent, can be readily distinguished from seaward from the description given below, and should be charted:

The prominence of these objects  
has been checked from the water.

J.C. Partington

*Chief of Party.*

[illegible]

A list of objects carefully selected because of their value as landmarks as determined from seaward, together with individual descriptions, must be furnished in a special report on this form, and a copy of such report must be attached by the Chief of Party to his descriptive report.

The selection, determination, and description of these points are an important factor in the value of the chart. Landmarks selected at appropriate intervals can be clearly charted. However, when none is outstanding, a group of two or three objects may by their interrelationship provide positive identification. A group so selected should be indicated.

The description of each object should be short, but such as will clearly identify it; for example, a standpipe, elevated tank, gas tank, church spire, tall stack, red chimney, radio mast, etc. Assign numerals to landmarks to indicate: (1) Offshore, (2) inshore, (3) harbor, 1, 2, 3 would be a mark useful on all charts. Generally, flagstaffs and like objects are not sufficiently permanent to chart.

## GEOGRAPHIC NAMES

Survey No. T-5425 ✓Date. Jan. 17, 1935Chart No. 1225Diagram No. 77

\*, Approved by the Division of Geographic Names, Department of Interior.

♠, Not Approved by the Division of Geographic Names, Department of Interior.

R, Referred to the Division of Geographic Names, Department of Interior.

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	<u>Tilghman Island</u>	do			
	<u>Pawpaw Cove</u> ONE " " " "	do			
	<u>Blackwalnut Point</u> *	do			
	<u>Tilghman</u>	do			
	<u>Dogwood Harbor</u> ♠	do			
	<u>Upper Bar Neck Pt.</u>	do			
	<u>Lower Bar Neck Pt.</u>	do			
	<u>Avalon</u>	do			
	<u>Blackwalnut Cove</u>	do	Blackwalnut Cove on USGS Sharps Island Black Walnut Harbor B.P. 31184		
	<u>Tilghman Island Landing</u> *			* Devils Island (locally)	
	<u>CHOPTANK RIVER</u>				
	<u>Barron Neck</u> ♠	on Geol. Quad. "Sharps Island"		<u>BAR NECK</u>	
	<u>FAIRBANK</u>			B.K.	
	<u>CHESAPEAKE BAY</u>				

APPROVED NAMES  
UNDERLINED IN RED  
H.L.F.B. mer

## REVIEW OF AIR PHOTO COMPILATION NO. 5425

Chief of Party: *J.C. Partington*Compiled by: *J.F. Burns*Project: *HT 175*Instructions dated: *March 14, 1934*

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 i; 26; and 64)  
*Par. 16c. - No bridges on this sheet.*
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)~~  
*No ground surveys used to supplement photographic plot.*
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. 23)~~  
*No blueprints or maps from other sources used.*
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. ✓
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."



8. 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)
9. 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)  
*PAR. 29 - None of these objects are marked by bronze marks. (Filed with T-5425)*  
*PAR. 30 - There are no shoreline measurements. (Descriptions Filed with T-5425)*
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)
- ~~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. 16e)~~  
*No bridges are shown on this sheet.*
12. Geographic names are shown on the overlay tracing. 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 66k) ✓
13. The geographic datum of the compilation is *North American 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, 48) ✓

16. No additional surveying is recommended at this time.

17. Remarks: *Shoreline too heavy.*

18. Examined and approved;

*J. C. Partington*  
Chief of Party

19. Remarks after review in office:

*See following pages.*

Reviewed in office by: *Lernard A. McNamee*

Examined and approved:

*E. H. Green*  
Chief, Section of Field Records

*K. T. Adams*  
Asst Chief, Division of Charts

*F. S. Bordin*  
Chief, Section of Field Work

*G. H. Hude*  
Chief, Division of Hydrography  
and Topography.



REVIEW OF AIR PHOTO COMPILATION T-5425

Comparison with Other Surveys:

1. The compilation fails to check plane table survey T-4769 (1933) for location of shoreline and recoverable topographic stations south of latitude  $38^{\circ} 43.1'$ . The compilation is accepted as correct after an examination of the photographs and check of the plot in this office. A note has been placed on the plane table survey referring to the compilation for correct locations.

With reference to the note on page 3 of the descriptive report T-4769 concerning the position of the Pilgrims Holiness Church an examination of this area was made by joining the celluloid copies of T-5400 and T-5425 together, making a new radial plot thru the area in a north and south direction. It was found that the triangulation position of Pilgrims Holiness Church (Triangulation Station Peoples Chapel, 1909) is correct and consequently the plane table position Station NOB (d) is in error. Three photographs of the flight Nos. 255, 258, and 262 can be "fixed" accurately only by holding to the triangulation position of this church. The triangulation (intersection) position has four <sup>directions</sup> ~~times~~, sufficient for a good check.

It was also discovered that the following described stations located by P.T. in making the traverse mentioned on page 3 are in error. The descriptions with the corrected positions are now filed with T-5400.

THE (d)	Scaled by L. A.M. <i>Laru</i>	April 13, 1935
TEX (d)	D. H. B.	" " "
SOX (d)		

*of the church can be  
checked with 4 other  
directions on the same photo.*

A new position of PIP (d) checked very closely with the position as given on the description card. This position has not been changed. The maximum error in the position of these stations was about 8 meters, found in the position of Station SOX.

Stations UKE and VIX evidently have been located by a traverse from Triangulation Station KNAPP 1933 to the south end of the sheet. The new position of UKE agreed with the plane table position. VIX could not be seen for radial line intersection but since UKE is near it, the P.T. position of VIX has been accepted as correct.

Station CAT(d). The description as submitted with the plane table survey checks the compilation detail. The topographer evidently described the wrong house, for the P.T. position differs by 22 meters from the radial line location of the house he described. The geographic position on the description has been corrected to agree with the compilation and the card description has been filed under T-5425.

Station ABE (d). This station cannot be recovered on the photographs. The description has been withdrawn from the files and the station is not shown on the compilation due to the fact that the plane table is in error in the immediate vicinity as discussed above.

2. T-2513 (1900). This survey on 1:20,000 scale covers the total area of the compilation. The changes are large. It may be noted that Blackwalnut Point has receded over 300 meters since 1900. As stated in the report the most marked changes are on the west coast of this island. The photographs of this area which are available were further examined to check the existence of the bluff north of Blackwalnut Point on the east coast of this island. According to the field inspection notes this abrupt rise is from five to eight feet. This compilation is

detailed and adequate to supersede T-2513.

Recoverable topographic stations shown on this compilation are  
filed under T-5425.

*Leonard A. McSwain*

*B. G. Jones*