DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
H. E. PATTEN, DIRECTOR

DESCRIPTIVE REPORT
Topographic
Hydrographic
Sheet No. 7-5677

State: MARYLAND
Locality: CHESAPEAKE BAY

Romney Creek and vicinity

Photographs taken: 1937

1938

Chief of Party

L. W. Swanson

Appled to ChV. 572. April 1860. Or 1.4.
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. 8-5677
REGISTER NO. T5677

State ___________________________ MARYLAND ___________________________

General locality ___________________________ CHEASPEAKE BAY ___________________________

Locality ___________________________ ROMNEY CREEK ___________________________

Scale 1:10,000,000 Date of Photographs Sunday Apr. 30 & May 1, 1939

AIR PHOTOGRAPHIC SURVEY PARTY NO. 2

Chief of party ___________________________ W. W. Swanson ___________________________
Field Inspection ___________________________ W. W. Swanson, E. L. Jones, W. G. Russell, D. A. Jones
Surveyed by ___________________________ Compilation ___________________________
D. A. Jones

Inked by ___________________________

Heights in feet above __________ to ground to tops of trees

Contour, Approximate contour, Form line interval ______ feet

Instructions dated ___________________________ May 13 ___________________________, 1939

Remarks: _______________________________________________________________________
Date of Survey

T-5677 is of the date of the photographs, April - May 1937, with the exception of certain details within the Aberdeen Proving Ground, which are shown only on the confidential copies of T-5677, and which were corrected to 1939.
STATISTICS
AIR PHOTOGRAPHIC SURVEY SHEET NO. T-5677
STATE OF MARYLAND
CHESAPEAKE BAY, ROMNEY CREEK

<table>
<thead>
<tr>
<th>AIR PHOTOGRAPHS</th>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1257-59.7</td>
<td>4-20-37</td>
<td>2:19-2:26</td>
</tr>
<tr>
<td>1259-31.1</td>
<td>4-20-37</td>
<td>2:28-2:29</td>
</tr>
<tr>
<td>1258-57.3</td>
<td>4-20-37</td>
<td>2:40-2:41</td>
</tr>
<tr>
<td>1500</td>
<td>1-1-37</td>
<td>2:15</td>
</tr>
</tbody>
</table>

SCALES FACTOR -------- J.C. Partington ----------------- 1 : 9650

PROJECTION ---------------- Ruling Machine ---------------- Washington Office

PROJECTION CHECKED ------------------ Washington Office

CONTROL PLOTTED BY: W.C. Russell ---------------- Mar. 23, 1938

CONTROL CHECKED BY: J.C. Partington ---------------- Mar. 23, 1938

RADIAL LINE PLOT: J.C. Partington, L.W. Swanson,
E.L. Jones and W.C. Russell ---------------- Mar. 23, 1938

RADIAL POINTS PRICKED BY: E.L. Jones 
ADDITIONAL POINTS BY: D.A. Jones

SHORE LINE INKED BY: D.A. Jones
DETAIL INKED BY: D.A. Jones

AREA (land) ------------------ 22.4 square statute miles

AREA (shoals) ------------------ 0.0

SHORELINE (more than 200 meters from opposite shore) ------------------ 12.8 statute mi.

SHORELINE (creeks) ------------------ 25.0

ROADS, STREETS, TRAILS & RAILROADS ------------------ 27.5

DATUM ------------------ North American 1927

REFERENCE STATION ------------------ "O" U.S.E., 1937

Latitude 39° 24' 36.783" 1134.4 m.
Longitude 76° 08' 15.175 363.0 (unadjusted

X = 1,033 694 ft  y = 525 435 ft.

PRELIMINARY REVIEW ------------------ L.W. Swanson

Last Supplemental Survey was in 1939 (date that additional corrections were read from Ordinance Dept.)

Tide was approx. 0.8 ft above M.L.W. at time of photos. (Mean range=1.26 ft approx) (Above tide data from tables)

(above notes by J.M.P. Jan. 1940)
Note: The following traverse stations
of the Army Ordinance Dept. were converted
from grid to geographic positions by the
field party and used to control the photo-
plot on T-5677. These stations are of
a confidential nature and have been
removed from T-5677. The positions are
in a confidential file in the division
of geology 857 G72 1939 G-4048:

B.Z. Jones

Ashby St. Bomb Proof Station
AA Site No. 5
AA Site No. 4
9600 Yd. Bomb Proof
Ford's Farm Bomb Proof
Center Hard Surface
DESCRIPTIVE REPORT
to accompany
AIR PHOTOGRAPHIC SURVEY SHEET NO. T-5677
State of Maryland
CHESPEAKE BAY, ROMNEY CREEK

GENERAL INFORMATION.

The field inspection of the shore line was made during November, 1937 by the Air Photographic Survey Party of Baltimore, Maryland. The field inspection of the land areas was made during April and May, 1938 by Air Photographic Survey Party No. 2 of Baltimore, Maryland.

The photographs were taken by the U.S. Coast and Geodetic Survey Nine Lens Aerial Camera by the U.S. Army Air Corps on April 30 and May 1, 1937.

CONTROL

The control for this survey consisted of triangulation stations established by the U.S. Army Engineers, 1937 and recomputed by J.C. Partington, U.S. Coast and Geodetic Survey, 1937. Ordinance Dept. triangulation stations also are shown on this survey. See offset page.

RADIAL PLOT

The radial plot for this sheet was made in conjunction with the radial plots of sheets T-5674, T-5675, T-5676 and T-5678. The five sheets were plotted by the template method. Dummy sheets with control plotted on them were laid down on a large table. The sheets were matched and secured together with scotch tape. The templates were then laid over the dummy sheets and were held by the control and the centers of adjacent pictures. The templates were secured together by scotch tape.

Radials to the centers of adjacent photographs were shown on the templates and were used to supplement the control. The celluloid templates were corrected for the paper distortion of the photographic prints. This distortion in many cases was extremely large and was due to the poor quality of the printing paper and to the drying process during printing.

Radial points were pricked, in general, about every two inches along the shore line and on the inshore areas about four radial points to every square mile were pricked. These radial points formed the basis of the control. Many additional radial points were plotted during the process of detailing particularly in areas in which there were differences of elevation and where the photographs were off scale.

After the templates were adjusted to the control and good intersections were obtained, the map drawings were placed over the templates and joined together in the same manner as the dummy sheets. They were matched up so that the control on the dummy sheets and the map drawings coincided.
The radial line intersections were then pricked on the map
drawings. All the intersections of three lines or over were
circled in blue on the back of the drawings. All two line inter-
sections or intersections which were a little doubtful were circled on 
the back in green. Additional points radial plotted during detail-
ing were circled by smaller blue circles.

The above method of radial plotting proved to be very 
satisfactory. Very good intersections were obtained. By joining
sheets together additional control for the photographs on individ-
ual sheets was obtained and lines of flights were carried thru with good
junctions. It is believed by this office that the template method
is superior to the regular method of running radial plots with nine
lens photographs because it is faster, paper distortion can be eliminat-
ed, better junctions are possible, and less control is necessary.

All the control falling on the five sheets that was available
and could be located on the photographs was used.

The following difficulties were encountered.

(a) Paper Distortion.
Extremely large distortions were taken on
by the photographic prints during the drying process.
The prints were in general large on one edge and
small on the opposite edge. To correct for this a
celluloid template was prepared from a standard
template and revolved about the principal point
until the best adjustment of the corners of the photo-
graphs was obtained. The corrections were then drawn
on the photograph.

(b) Tilt
The tilt occurring on the photographs used in
making the radial plot was too small to cause any
relatively great displacement of the plumb point
from the principle point. It did, however, cause
large differences of scale near the border of a few
of the photographs.

(c) Relief
There are but few differences in relief
on this sheet. Most of the differences occur in the
north west limits of the sheet. The highest elevation
as taken from the U.S. Geological Survey quadrangle
maps in approximately 40 feet.

FIELD INSPECTION

The area covered by this sheet was field inspected prior to
the receipt of instruction for field inspection and detailing of
Chesapeake Bay Sheets, May 15, 1938. However the field inspection
was complete enough to allow the compiler to detail according to
those instructions.
DETAIL

Additional radial points shown by small blue circles were established during the detailing in areas where the photographs were off scale and/or where were differences in relief. Adjustments of several meters per hundred were not uncommon in these areas.

In general all the detail shown on the sheet is in accordance with instruction regarding detailing of Chesapeake Bay Sheets of May 13, 1935. Marsh areas were shown in accordance with Field Memorandum No. 1, 1935.

During the detailing the pricked positions of triangulation stations "R"-2, U.S.E. and "Q"-2, U.S.E. were questioned. As a result the radial control below Romney Creek was adjusted holding station "R"-2, U.S.E. and disregarding "Q"-2 U.S.E. The shoreline below Romney Creek was plotted holding to the adjusted radial control and disregarding "Q"-2 U.S.E. The plotted position of "Q"-2 U.S.E. on the map drawing relative to the shoreline as then plotted was according to the field inspection, that is, the triangulation station fell back 5 meters from the shoreline. The pricked positions of "Q"-2, U.S.E. on photographs 1258, 1259 and 1268 are questioned.

A copy of the boundary line survey of the U.S. Reservation at the Aberdeen Proving Grounds was obtained from the War Department. The boundary line was plotted to the scale of the sheet on an overlay. By field inspection it was known that several of the Reservations bounds fell along fence lines and roads. Adjusting the overlay so that the correct bounds fell along the fence lines, roads, and thru known points as detailed on the map drawing a very close approximation of the Reservation was found and detailed on the sheet.

Except for the control and and the U.S. Reservation Line all information shown on this sheet was taken from the field inspection and from the photographs.

Additional information within the Aberdeen Proving Ground was furnished by the Ordnance Dept, 1937, and has been added upon review.

COMPARISONS WITH PREVIOUS SURVEYS

A comparison between this Air Photograph Survey Sheet and a bromide enlargement of Plane Table Survey T-2877, 1900 was made.

In general there was good agreement in the shorelines of the two surveys. Most of the discrepancies were in the marshy areas where there was probably a difference in the interpretation of the high water line.
The Air Photographic Survey Sheet shows the creeks and streams in much more detail and much further inland than the plane table sheet. This is probably due to the greater amount of detail that shows on the photographs and that the plane table survey was done on a scale of 1/20 000. The roads and other detail on the inland areas of the sheets are in good agreement.

A few of the larger discrepancies are listed below:

Between Latitudes 39 22.6' and 39 23.5' along the Chesapeake Bay side of Taylors Island and at Latitude 39 24.4' just south of Stommy Point there is evidence of considerable erosion. Little Romney Creek at Latitude 39 24' has cut thru to Chesapeake Bay filling in the old creek bed at that point.

Locust Point, a sand spit, at Latitude 39 22.9' has extended approximately 100 meters compared to its length shown on the 1900 Plane Table Survey.

COMPARISON WITH RECENT HYDROGRAPHIC SURVEY

Sounding Lines run using for control signals located by radial plotting on this sheet show no jumps or offsets for the entire length of the sheet indicating no inaccuracies in the radial location of the signals. Also, the sounding lines run at high water along or next to the shore line show perfect agreement with the shore line as detailed on this sheet.

COMPARISON WITH CHART NO. 1225 Corrected to Fed 24, 1938

Little Romney Creek should be shown as cut thru to Chesapeake Bay at Latitude 39 24.0'.

Several of the roads shown on the chart have been changed and many of the roads especially within the limits of the U.S. Army Reservation At Aberdeen. Many of the roads shown on the chart in this area are no longer in existence having been abandoned and grown up entirely to brush.

JUNCTIONS

This sheet forms a junction with T-5676 on the North, With T-5675 on the East and with T-5678 on the West.

GEOGRAPHIC NAMES.

Geographic Names shown on this sheet are listed on form M234 herewith.
LANDMARKS

Landmarks falling on this sheet are not recommended for charting because of their Military Importance, in connection with Aberdeen Proving Grounds.

RECOMMENDATION FOR FUTURE SURVEYS

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 all radial points and well defined objects along the shoreline and in the areas well controlled. The error of the other detail of importance on the sheet is probably not greater than 10 meters.

Respectfully Submitted,

L.W. Swanson,
Jr. H. & G.E.,
Chief of Party.
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.

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**Landmarks falling on field survey Sheet T-5677 are not recommended for charting because of their Military importance in connection with Aberdeen Proving Ground.**
<table>
<thead>
<tr>
<th>Remarks</th>
<th>Decisions</th>
</tr>
</thead>
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<td>Mr. Norman Reynolds, Havre de Grace</td>
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<td>Mr. Herbert Reynolds, Havre de Grace</td>
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<td>DELPH CREEK</td>
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<td>TAYLOR ISLAND</td>
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<tr>
<td>LITTLE ROMNEY CREEK</td>
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<td>ELK TREE POINT</td>
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<td>LONG BRIDGE CREEK</td>
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<tr>
<td>ROMNEY CREEK</td>
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<td>Chesapeake Bay</td>
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</tbody>
</table>

Notes: This form is final and approved.

Date: 8/21/39

L. Hack
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 __________________________

Grid inked on machine by _________________________

Intersections inked by ___________________________

Points used for plotting grid:

\[
\begin{array}{ll}
X &= 1,040,000,000 \\
Y &= 575,000,000 \\
X &= 1,030,000,000 \\
Y &= 570,000,000 \\
X &= 1,040,000,000 \\
Y &= 575,000,000 \\
X &= 1,020,000,000 \\
Y &= 575,000,000 \\
X &= 1,020,000,000 \\
Y &= 575,000,000
\end{array}
\]

Triangulation stations used for checking grid:

\[
\begin{array}{ll}
\gamma &= 1,043,694 \\
\phi &= 575,935 \\
1. \ (0.5, E), 1937 (Ref. Sta.) & 5. \\
2. ______________________ & 6. \\
3. ______________________ & 7. \\
4. ______________________ & 8.
\end{array}
\]
Plane coordinates on Lambert projection

\begin{align*}
\theta &= 39^\circ 26' 13.42'' \\
\lambda &= 76^\circ 13' 16.00'' \\
X &= 2,220,000 \\
Y &= 585,000
\end{align*}

Tabular difference of \( R \) for 1'' of \( \phi \) = 

<table>
<thead>
<tr>
<th>( R ) (for min. of ( \phi ))</th>
<th>( y' ) (for min. of ( \phi ))</th>
<th>( \theta ) (for min. of ( \lambda ))</th>
<th>( \theta' ) (for sec. of ( \lambda ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,785,052</td>
<td>( y' )</td>
<td>( \theta' )</td>
<td>0.2919.8861</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>( y'' \sim ) ( 2R \sin^2 \frac{\theta}{2} )</th>
<th>( y'' )</th>
<th>( \log \theta'' )</th>
<th>( \cot ) ( \log 2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>584,061</td>
<td>4939</td>
<td>0.000363987</td>
<td>9.69897000</td>
</tr>
</tbody>
</table>

| \( \log \theta' \) | \( \log \theta'' \) | \( \log \sin \theta \) | \( \sin \theta \)
|---|---|---|---|
| \( \log R \) | 0.0085320650 | \( \sin \frac{\theta}{2} \) | \( \sin \frac{\theta}{2} \)

| \( \log x' \) | \( \log x'' \) | \( \log x' \) | \( \log x'' \)
|---|---|---|---|
| \( R \sin \theta \) | \( -2,220,000 \) | \( \log R \) | \( 0.30103000 \)

\( x = 2,000,000 + R \sin \theta \)

\( y = y' + 2R \sin^2 \frac{\theta}{2} \)

\( y' \) = 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 \( \theta \) are given in special tables
Plane coordinates on Lambert projection

\[ x = \frac{2,240,000}{1,040,000}; \quad y = 585,000 \]

\[ \phi = 39^\circ 26' 11.65''; \quad \lambda = 76^\circ 09' 01.10'' \]

Tabular difference of \( R \) for 1" of \( \phi \)

<table>
<thead>
<tr>
<th>( R ) (for min. of ( \phi ))</th>
<th>( y' ) (for min. of ( \phi ))</th>
<th>( R' ) (for sec. of ( \phi ))</th>
<th>( y'' ) (for sec. of ( \phi ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,785,231</td>
<td>583,882.3</td>
<td>+</td>
<td>1,117</td>
</tr>
<tr>
<td>( \theta ) (for min. of ( \lambda ))</td>
<td>( \theta ) (for min. of ( \lambda ))</td>
<td>( \theta ) (for sec. of ( \lambda ))</td>
<td>( \theta ) (for sec. of ( \lambda ))</td>
</tr>
<tr>
<td>( \theta ) = 0.31 598700 ( \frac{\theta}{2} )</td>
<td>( \theta'' ) (for machine computation)</td>
<td>( \log \theta'' )</td>
<td>( \log \theta'' ) (for machine computation)</td>
</tr>
<tr>
<td>( \log \theta'' )</td>
<td>( \log 2 )</td>
<td>( \log 2 )</td>
<td>( \log 2 )</td>
</tr>
<tr>
<td>( \log S ) for ( \theta )</td>
<td>( \sin \theta )</td>
<td>( 0.000 \ 3076 \ 581 )</td>
<td>( \sin \frac{\theta}{2} )</td>
</tr>
<tr>
<td>( \log \sin \theta )</td>
<td>( \sin \theta )</td>
<td>( \log \frac{\theta}{2} )</td>
<td>( \sin \frac{\theta}{2} )</td>
</tr>
<tr>
<td>( \log R )</td>
<td>( R \sin \frac{\theta}{2} )</td>
<td>( R \sin \frac{\theta}{2} )</td>
<td>( R \sin \frac{\theta}{2} )</td>
</tr>
<tr>
<td>( \log x' )</td>
<td>( \log \sin \frac{\theta}{2} )</td>
<td>( \log \sin \frac{\theta}{2} )</td>
<td>( \log \sin \frac{\theta}{2} )</td>
</tr>
<tr>
<td>( x' )</td>
<td>( \sin \frac{\theta}{2} )</td>
<td>( R \sin \frac{\theta}{2} )</td>
<td>( R \sin \frac{\theta}{2} )</td>
</tr>
<tr>
<td>( x )</td>
<td>( \frac{2,000,000}{1,040,000} )</td>
<td>( \log y'' )</td>
<td>( \log y'' )</td>
</tr>
</tbody>
</table>

\[ x = 2,000,000.00 + R \sin \theta \]
\[ y = y' + 2R \sin^2 \frac{\theta}{2} \]
\[ y' = \text{the value of } y \text{ on the central meridian for the latitude of the station} \]
\[ S = \log \text{of ratio for reducing arc expressed in seconds to sine} \]

(see log tables)

\( R \), \( y' \), and \( \theta \) are given in special tables

(R 340)
Plane coordinates on Lambert projection

\[ x = 2,240,000 \]
\[ y = 555,000 \]

\[ \phi = 39° 21' 15.15" \]
\[ \lambda = 76° 09' 04.66" \]

Tabular difference of R for 1" of \( \phi \) =

<table>
<thead>
<tr>
<th>R (for min. of ( \phi ))</th>
<th>( y' ) (for min. of ( \phi ))</th>
<th>( y'' ) ((-2R \sin^2 \frac{\theta}{2}))</th>
</tr>
</thead>
<tbody>
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<td>25,815,230</td>
<td></td>
<td>553,883.3</td>
</tr>
<tr>
<td>Corr. for sec. of ( \phi )</td>
<td>Corr. for sec. of ( \phi )</td>
<td>+ 116</td>
</tr>
<tr>
<td>25,815,230</td>
<td></td>
<td></td>
</tr>
<tr>
<td>( \theta ) (for min. of ( \lambda ))</td>
<td>( y )</td>
<td>( y'' ) ( (-2R \sin^2 \frac{\theta}{2}) )</td>
</tr>
<tr>
<td>-</td>
<td></td>
<td>554,999</td>
</tr>
<tr>
<td>Corr. for sec. of ( \lambda )</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31,576,356 ( \frac{\theta}{2} )</td>
<td>( \theta'' ) For machine computation</td>
<td>( \theta'' ) For machine computation</td>
</tr>
<tr>
<td></td>
<td>( \theta'' ) For machine computation</td>
<td>( \theta'' ) For machine computation</td>
</tr>
<tr>
<td>( \log \theta'' )</td>
<td>( \cos \theta )</td>
<td>( \log \theta'' )</td>
</tr>
<tr>
<td>( \log \theta'' )</td>
<td>( \cos \theta )</td>
<td>( \log \theta'' )</td>
</tr>
<tr>
<td>( \sin \theta )</td>
<td>( \sin \theta )</td>
<td>( \sin \theta )</td>
</tr>
<tr>
<td>0.092968259</td>
<td>( \sin \theta )</td>
<td>( \sin \theta )</td>
</tr>
<tr>
<td>( \log R )</td>
<td>( R \sin \frac{\theta}{2} )</td>
<td>( R \sin \frac{\theta}{2} )</td>
</tr>
<tr>
<td>( \log x' )</td>
<td>( \log x' )</td>
<td>( \log x' )</td>
</tr>
<tr>
<td>( \frac{R \sin \theta}{2} )</td>
<td>( R )</td>
<td>( \log y'' )</td>
</tr>
<tr>
<td>( 2,000,000.00 )</td>
<td>( 2,000,000.00 )</td>
<td>( 2,000,000.00 )</td>
</tr>
<tr>
<td>( 1,040,000 )</td>
<td>( 1,040,000 )</td>
<td>( 1,040,000 )</td>
</tr>
</tbody>
</table>

\( x = 2,000,000.00 + R \sin \theta \)
\( y = y' + 2R \sin^2 \frac{\theta}{2} \)
\( y' \) 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

\( R, y', \) and \( \theta \) are given in special tables
Plane coordinates on Lambert projection

\[ x = 2,230,000 \]
\[ y = 570,000 \]
\[ \phi = 39° 23' 44.31'' \]
\[ \lambda = 76° 11' 10.25'' \]

Tabular difference of \( R \) for 1" of \( \phi = \)

<table>
<thead>
<tr>
<th>( R ) (for min. of ( \phi ))</th>
<th>( y' ) (for min. of ( \phi ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,800,138</td>
<td>y' = 568,975 - 2</td>
</tr>
<tr>
<td>( \theta ) (for min. of ( \lambda ))</td>
<td>( y'' = (2R \sin^2 \frac{\phi}{2}) )</td>
</tr>
<tr>
<td>( \theta ) (for min. of ( \lambda ))</td>
<td>( y'' = y' + \frac{1025}{R} )</td>
</tr>
<tr>
<td>( \theta ) (for min. of ( \lambda ))</td>
<td>( R \sin \frac{\theta}{2} )</td>
</tr>
<tr>
<td>( \log \theta' )</td>
<td>( \log \theta'' )</td>
</tr>
<tr>
<td>( \log R )</td>
<td>( \log y'' )</td>
</tr>
<tr>
<td>( \log \sin \theta )</td>
<td>( \log \sin \frac{\theta}{2} )</td>
</tr>
<tr>
<td>( \log x' )</td>
<td>( \log 2 )</td>
</tr>
<tr>
<td>( x' )</td>
<td>( R \sin \theta )</td>
</tr>
<tr>
<td>( x = 2,000,000.00 + R \sin \theta )</td>
<td>( y = y' + 2R \sin^2 \frac{\theta}{2} )</td>
</tr>
</tbody>
</table>

\( y' = \) 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 \( \theta \) are given in special tables
Plane coordinates on Lambert projection

\[ \chi = 2,220,000 \]
\[ \lambda = 555,000 \]
\[ \phi = 39° 21' 16.92" \]
\[ \lambda = 76° 15' 19.26" \]

Tabular difference of \( R \) for 1" of \( \phi \) =

<table>
<thead>
<tr>
<th>( R ) (for min. of ( \phi ))</th>
<th>( y' ) (for min. of ( \phi ))</th>
<th>( \phi ) (for min. of ( \lambda ))</th>
<th>( \phi ) (for sec. of ( \lambda ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,815,051</td>
<td>+</td>
<td>0</td>
<td>29,178,400</td>
</tr>
</tbody>
</table>

\[ y'' = 2R \sin^2 \left( \frac{\phi}{2} \right) \]

\[ y'' = 554,062 \quad 3 \]

\[ 937 \quad 5 \]

\[ 555,000 \]

\[ + \quad 0 \quad 29,178,400 \quad \frac{\phi}{2} \]

\[ \theta'' \quad \text{For machine computation} \quad \theta'' \quad \text{For machine computation} \]

\[ \log \theta'' \quad \text{colog} 2 \quad 9.69897000 \]

\[ S \text{ for } \theta \]

\[ \sin \theta \]

\[ 28522,1456 \]

\[ \log \sin \left( \frac{\theta}{2} \right) \]

\[ \frac{R \sin \theta}{2} \]

\[ x' = R \sin \theta \]

\[ 2,000,000.00 \]

\[ \log 2 \quad 0.30103000 \]

\[ y'' \quad \log y'' \]

\[ 1,020,000.00 \]

\[ x = 2,000,000.00 + R \sin \theta \]

\[ y = y' + 2R \sin^2 \left( \frac{\phi}{2} \right) \]

\[ y' = \text{the value of } y \text{ on the central meridian for the latitude of the station} \]

\[ S = \log \text{of ratio for reducing arc expressed in seconds to sine} \]

\( R \), \( y' \), and \( \theta \) are given in special tables
REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: W. J. Swanson

Project: H.T. 215

Instructions dated: May 13, 1928

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; 28; and 64)

2. Change in position, or non-existence of wharves, lights, and other topographic detail of particular importance to navigation which affect the chart, is discussed in the descriptive report. (Par. 28; and 66 g, h)

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)

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)

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. 125; 44; and 66 c, m, t)

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. Recognizable 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 8c)
Landmarks falling on this are not recommended for
charting because of their military importance in
connection with Aberdeen Proving Ground.

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 naviga-
tion is given in the descriptive report. (Par. 18c)

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. 82, and 86c)

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

14. Junctions with adjoining compilations have been examined and are
in agreement. (Par. 86d)

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 Longi-
tude 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, 39, 40, 41, 42, 43, 44, 45, 46, 48)

16. No additional surveying is recommended at this time.

17. Remarks:

18. Examined and approved;

[Signature]
Chief of Party
DIVISION OF CHARTS
Section of Field Records

REVIEW OF AIR PHOTOGRAPHIC SURVEY T-5677

There were no graphic control surveys in this area.

**Previous Topographic Surveys.**

T-190 (1845) 1:20,000.
T-212 (1845) 1:20,000.
T-2377 (1899) 1:20,000.
T-2388 (1899) 1:20,000.

Because of the difference in scale and the length of time since the previous surveys only a general comparison was made.

T-5677 is complete and adequate to supersede the sections of the above surveys which it covers except for contours.

**Contemporary Hydrographic Surveys.**

H-6366 (1938) 1:10,000.

T-5677 and H-6366 have been compared during this review and are in agreement.

**Chart 1226 (April 5, 1939) and Chart 572 (Compilation in progress)**

T-5677 was applied to Chart 572 prior to completion of this review. Confidential details within the Aberdeen Proving Ground have since been removed from T-5677.

**Confidential Information.**

T-5677 is partly within the Aberdeen Proving Ground. Confidential copies of T-5677 have been furnished the Commanding Officer, Aberdeen Proving Ground and a confidential plate is filed in the vault for possible future printing. Confidential information has been painted off of the negatives in accordance with instructions from the Commanding Officer, Aberdeen Proving Ground and a new non-confidential plate made for printing the file copy and copies for sale to the public.

The instructions regarding the removal of confidential details consisted of notes made on a copy of T-5677.
This copy has been destroyed. The original celluloid drawing and all confidential prints of T-5677 have been destroyed.

Instructions regarding removal of confidential information from T-5677 have been reported to the Nautical Chart Section, September 10, 1940.

Reviewed in the office by - T. M. Price, January 1940.

Inspected by - B. G. Jones, September 17, 1940.

Examined and approved:

T. B. Reed, Chief, Section of Field Records.

F. S. Borden, Chief, Division of Charts.

Raymond L. Egan, Chief, Section of Field Work.

E. R. Steele, Chief, Division of H. & T.