

5216

U. S. COAST & GEODETIC SURVEY  
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Form 504  
Ed. June, 1923

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

\_\_\_\_\_, Director

State: Georgia

DESCRIPTIVE REPORT

*Topographic* } Sheet No. 5216 5216  
~~*Hydrographic*~~

LOCALITY

Co. GEORGIA

Vicinity of St. Catherine's Sound

Bear River

193 4

CHIEF OF PARTY

S. B. Grenell

U. S. GOVERNMENT PRINTING OFFICE: 1923

5216

Applied to chart 839 Nov. 7, 1935 H.C.

Applied to chart 573 Nov. 10, 1936 G.H.S.

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. ....

REGISTER NO. 5216  
5216

State Georgia

General locality *Atlantic Coast*  
*Vicinity of St. Catherine's Sound*

Locality Bear River to Atlantic Ocean

Scale 1 - 10,000 Date of photographs: 11/8/33  
Date of ~~survey~~ Comp. 12/17/33, 19  
12/17/33

Vessel Air Photo. Compilation Party #18

Reviewed and recommended for approval;  
Chief of party Lieut. (j. g.) S. B. Grenell

Photographs plotted by:  
~~Surveyed by~~ F. B. Hickman

Inked by T. R. Cooper

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

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

Instructions dated November 10, 1933

Remarks: Compilation of aerial photos Nos: (789) M1 to M7.

(789) M148 to 157, (789) M187 to 189

# NOTES ON COMPILATION

One copy of this form must accompany each chart from beginning to completion. The last draftsman, whose name appears on this form, is responsible for it and all personnel will endeavor to keep these forms up to date and correctly posted. This form is very important inasmuch as the final Descriptive Report of the Chart compiled is based upon the information contained herein.

SHEET NO. 5216

789-M1  
PHOTO NO. 789-M148 TO PHOTO NO. 789-M157 Also 789-M187 to M189

BY START FINISH

ROUGH RADIAL PLOT \_\_\_\_\_

SCALE FACTOR (1.00) \_\_\_\_\_

SCALE FACTOR CHECKED S. B. Grenall \_\_\_\_\_

PROJECTION A. A. Futral 2/11/34 2/11/34

PROJECTION CHECKED R. D. Cross 2/12/34 2/12/34

CONTROL PLOTTED R. D. Cross 3/3/34 3/5/34

CONTROL CHECKED Warren Fitch 3/5/34 3/5/34

TOPOGRAPHY TRANSFERRED \_\_\_\_\_

TOPOGRAPHY CHECKED \_\_\_\_\_

SMOOTH RADIAL LINE PLOT F. B. Hickman 3/20/34 3/23/34

RADIAL LINE PLOT CHECKED S. B. Grenall \_\_\_\_\_

DETAIL INKED T. R. Cooper 3/26/34 4/11/34

AREA DETAIL INKED 24.1 sq. Statute Miles

LENGTH OF SHORELINE OVER 200 m. 33.4 Statute Miles

LENGTH OF SHORELINE UNDER 200 m. 61.7 Statute Miles

GENERAL LOCATION Coast of Georgia

LOCATION Bear River to Florida Passage

DATUM STATION Buckhead U.S.E. 1932 Latitude 31° - 49' + 169.1 m

SCALE FACTOR N.A. 1927 Datum Longitude 81° - 09' + 898.0 m

PROJECTION \_\_\_\_\_

PROJECTION CHECKED \_\_\_\_\_

PROJECTION INKED \_\_\_\_\_

# INSPECTION REPORT

Sheet No. 5216

## REFERENCE:-

In reviewing this sheet in the Washington office, reference should be made to the General Report for all single lens sheets filed with sheet No. 5206.

## GENERAL INFORMATION:-

The area covered by this sheet is comprised principally of salt marsh and offers few unusual features worthy of note. The borders of the wooded areas have been carefully outlined and the low bluff symbol used where the fast land borders have been eroded.

The marshline borders of the streams were unusually well defined by clear cut lines and the interpretation of high water line unusually easy. The marsh in this area is high and very dense.

## CONTROL:-

Station Stevensons Point - 1858 - was recovered in 1932-33 by C. M. Durgin but was not included in his scheme. Stations Med and Way were located in 1925 and recovered by C. M. Durgin in 1932-33 but were not reobserved at that time. All other stations on this sheet were located either by C. M. Durgin, 1932-33 or by C. A. Egner, 1934. No topographic control was used on this sheet.

## LANDMARKS FOR CHARTS:-

Form 567 for this area will be submitted by C. A. Egner, 1934.

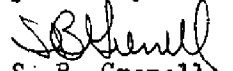
## COAST PILOT NOTES:-

Notes will be submitted by C. A. Egner, 1934.

## NAMES:-

All names appearing on this compilation were taken from current issues of charts.

Respectfully submitted,

  
S. B. Grenell  
Chief of Party

REPORT OF COMPILATION:-

COMPILATION METHOD:

The standard radial line plot method in the compilation of this sheet.

Control on this sheet was unusually good except that stations Newell 2, Med and Way, were off a small amount on one or two pictures. Med and Way are not held on photo #148. Newell 2 is slightly off on 187 and 188.

ADJUSTMENTS OF PHOTOGRAPHS:-

The pictures on this sheet have about the average amount of tilt but no particular difficulty was experienced in adjusting the pictures to radial points, excepting photos 1 to 7 inclusive, which were of slightly larger scale than true 1 : 10,000.

INTERPRETATION:-

The photos for this sheet were very clear and delineation of shore line was well defined throughout the sheet. However, because of differences in stage of tide between flights, mud flats that could be outlined on some photos were covered by tide on overlapping photos at junction of flights. Such is the case in the junction of flights 1 to 7 (789) and 187-190 (789). Mud flat appearing along shoreline of Bear River on photo 187 (789) is lost overlapping photo #1 (789) in this manner at Lat  $31^{\circ} - 46'$ , Long.  $81^{\circ} - 10'$ .

Standard symbols listed in the topographic manual were used throughout the sheet in such combination as would give close approximation to existing conditions.

INFORMATION FROM OTHER SOURCES:-

Information for the compilation of this sheet was obtained photographs, observation of same under stereoscope, field party notes, and existing charts.

COMPARISON WITH OTHER SURVEYS:-

The junction with sheet 5215 to the north and sheet 5217 to the south have been made and are satisfactory.

ACCURACY AND COMPLETENESS:-

The area covered by this sheet is complete in every detail as nearly as can be determined by the photographs. All well defined detail is located with a probable error of not more than 4 meters; less well defined detail with a probable error of not more than 10 meters.

REPORT OF COMPILATION (cont'd)PHOTOGRAPHS:-

No.	to	No.	Date	Time	Stage of Tide
(789)M1	to	M7	11/8/33	1:00 P.M.	4/5
(789)M148	--	M157	12/17/33	11:20 A.M.	4/9
(789)M187	--	M188	12/17/33	11:15 A.M.	4/9

*T. R. Cooper*  
T. R. Cooper  
Draftsman

Approved:

*S. B. Grenell*  
S. B. Grenell

## REVIEW OF AIR PHOTO COMPILATION NO. T-5216

Chief of Party: S. B. Grenell

Compiled by: T. R. Cooper

Project: F.P. 4, Ga. Party #18

Instructions dated: 11/10/33

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) ✓
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) ✓  
*See topo. control sheets - C. H. Egner, 1934 - for new locations of Beacons etc.*
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 used.* ✓
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 detail available from aluminum mounted topo. sheets at date of compilation.* ✓
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) ✓  
*Form 524 submitted by C.A. Egner, 1934.*
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) ✓  
*Form 567 submitted by C.A. Egner, 1934*
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)~~ ✓  
*No bridges*
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) ✓  
*No new names.*
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, 48)

16. No additional surveying is recommended at this time.

17. Remarks:

18. Examined and approved;

10-4-34

J. B. Green  
Chief of Party

19. Remarks after review in office: *See following pages.*

Reviewed in office by: *J. R. Sobieralski*  
*B. G. Jones*

Examined and approved:

C. K. Green  
Chief, Section of Field Records  
L. O. Whit  
Chief, Division of Charts

J. B. Borden  
Chief, Section of Field Work  
G. H. Hude  
Chief, Division of Hydrography  
and Topography.

## REVIEW OF AIR PHOTO COMPILATION T-5216 (1934)

### Projection:

The projection lines are rather heavy, and several lines are in error by 1 to 2 meters. Larger errors are as follows: meridian  $81^{\circ}13'$ , 2 to 3 meters too far east; parallels  $31^{\circ}44'$  and  $31^{\circ}45'$ , 3 to 5 meters too far north. Parallel  $31^{\circ}45'$  was apparently laid out 3 to 4 meters short and parallel  $31^{\circ}44'$  stepped down from it (see diagram following this review.) Control stations are plotted correctly according to the projection. The larger errors are confined to the lower end of the compilation and are not considered large enough to warrant revising the compilation at this time. Because of the small errors in projection which occur throughout the sheet, the revision, when made, should include the whole compilation rather than the lower section only.

### Comparison with other Surveys:

1- The contemporary plane table surveys are primarily for hydrographic and air photo control, and they show only short sections of shore line. However, it is evident that the compilation party did not use the plane table control, and did not make a field inspection between the compilation and the plane table surveys.

(a) T -6148, 1934 (1:10,000). At latitude  $31^{\circ}49.4'$ , longitude  $81^{\circ}09.5'$ , the plane table shore line differs from the compilation by 0 to 10 meters. This is probably due to sketching between rod readings as the shore lines cross at several points. The compilation has not been changed.

Details appearing on T-6148 which are not included in the compilation are as follows:

(1) The magnetic meridian. *and temporary plane table stations*

(2) Florida Passage Range. The beacons are located on the compilation, but the azimuth of the range is not shown. This azimuth is  $181^{\circ}55'$  as scaled from T-6148 by *V. K. Sobolevskii* and checked by D. H. Benson. T-6148 gives this azimuth as  $182^{\circ}10'$ , but the range line is not drawn through the stations and there is no evidence that a point was located on the extension of the range to strengthen the azimuth though the report states that such a point was determined.

(3) Bear River Range Beacons. According to information received from the Lighthouse Service in November, 1934, this range has been discontinued.

(b) T -6149, 1934 (1:10,000). At latitude  $31^{\circ}45.6'$ , longitude  $81^{\circ}10.6'$ , the plane table shore line differs from the compilation by 0 to 12 meters. The plane table survey shows

Δ Bear, 1934, 2 meters outside the HW line. The station is described on Form 525 as being 9 meters west of the top of a shell bank. This agrees more closely with the compilation. The difference is probably due to a difference in interpretation. The compilation has not been changed.

At latitude  $31^{\circ}46.8'$ , longitude  $81^{\circ}09.5'$ , the plane table shore line differs from the compilation by 0 to 17 meters. This is at the mouth of a small creek, and the difference is probably due to differences in interpretation and sketching between rod readings. Inspection of the photographs shows that the compilation gives the better interpretation.

The only detail shown on T-6149 which is not shown on the compilation is the magnetic meridian. *and temporary plane table stations*

(c) T-6151a, 1934 (1:10,000). At latitude  $31^{\circ}44.3'$ , longitude  $81^{\circ}11.7'$ , the plane table shore line on both sides of the creek differs from the compilation by 4 to 11 meters. This appears to be a difference in location. The plane table survey locates Δ Med, 1925, 6 meters from the HW line, whereas the compilation shows the station 13 meters from the HW line. When recovered by C. A. Egner in 1934, this station was described as being "about 5 meters from the creek bank." From this, it would appear that the station has not been spotted correctly on the photographs. As it would necessitate additional field inspection to respot Δ Med, 1925, on the photographs, it has not been considered advisable to revise the compilation at this time.

Only a small section of T-6151 is covered by the compilation and all detail common to both sheets is included on the compilation except the magnetic meridian, *and temporary plane table stations*

(d) T-6151b, 1934 (1:10,000). At latitude  $31^{\circ}43.7'$ , longitude  $81^{\circ}10.6'$ , the plane table shore line differs from the compilation by 0 to 10 meters. The difference is probably in large part due to interpretation and sketching between rod readings as the shore lines cross at several places. However, Δ Way, 1925, which is described as being "...1 meter inside the grass line...", is shown 10 meters from the shore line (marshy) on the compilation. The plane table position agrees with the description. This indicated a possible error in spotting the station on the photographs, but there is not enough information available to revise the compilation in the office without additional field inspection. This error and the one at Δ Med, 1925, discussed under T-6151a are within a millimeter and are apparently confined to the areas around the triangulation stations. The photo plot has been checked by laying the compilation over the plane table sheets and no evidence of *extensive* ~~error~~ could be found. All temporary plane table stations fell well within the compilation shore lines.

*error in azimuth*

All detail common to T-6151b and the compilation is shown on the compilation with the exception of the magnetic meridian, and *temporary plane table stations.*

2- T-841, 1858-60 (1:20,000) and T-4123, 1925 (1:20,000). Comparison with these surveys shows numerous changes in the marshy shore lines.

At latitude  $31^{\circ}44.8'$ , longitude  $81^{\circ}09.2'$ , T-4123 shows some rocky ledges. From inspection of the photographs this detail appears to be sand or shell banks. These are shown on the compilation by sand dots outside the HW line.

The compilation is complete and adequate to supersede the sections of T-841 and T-4123 that it covers.

3- Comparisons with charts 1241 and 573 show minor changes in shore line. All details shown on the charts are included in the compilation with the exception of the beacons noted below.

Recoverable Stations:

Permanent recoverable stations transferred to the compilation in the office are described on Form 524 and filed as follows:

<u>STATION NAME</u>	<u>FILED UNDER</u>
TAIL (d)	T-6149
TRY (d)	"
DRY (d)	T-6151a
PLUM (d)	"

Plotted by *V. R. Sobieralski*  
*galeis of* V. R. Sobieralski

Checked by B. G. Jones.

Several  $4" \times 4"$  stakes were also transferred from the plane table surveys. *There are no cond descriptions for these stations*

Aids to Navigation:

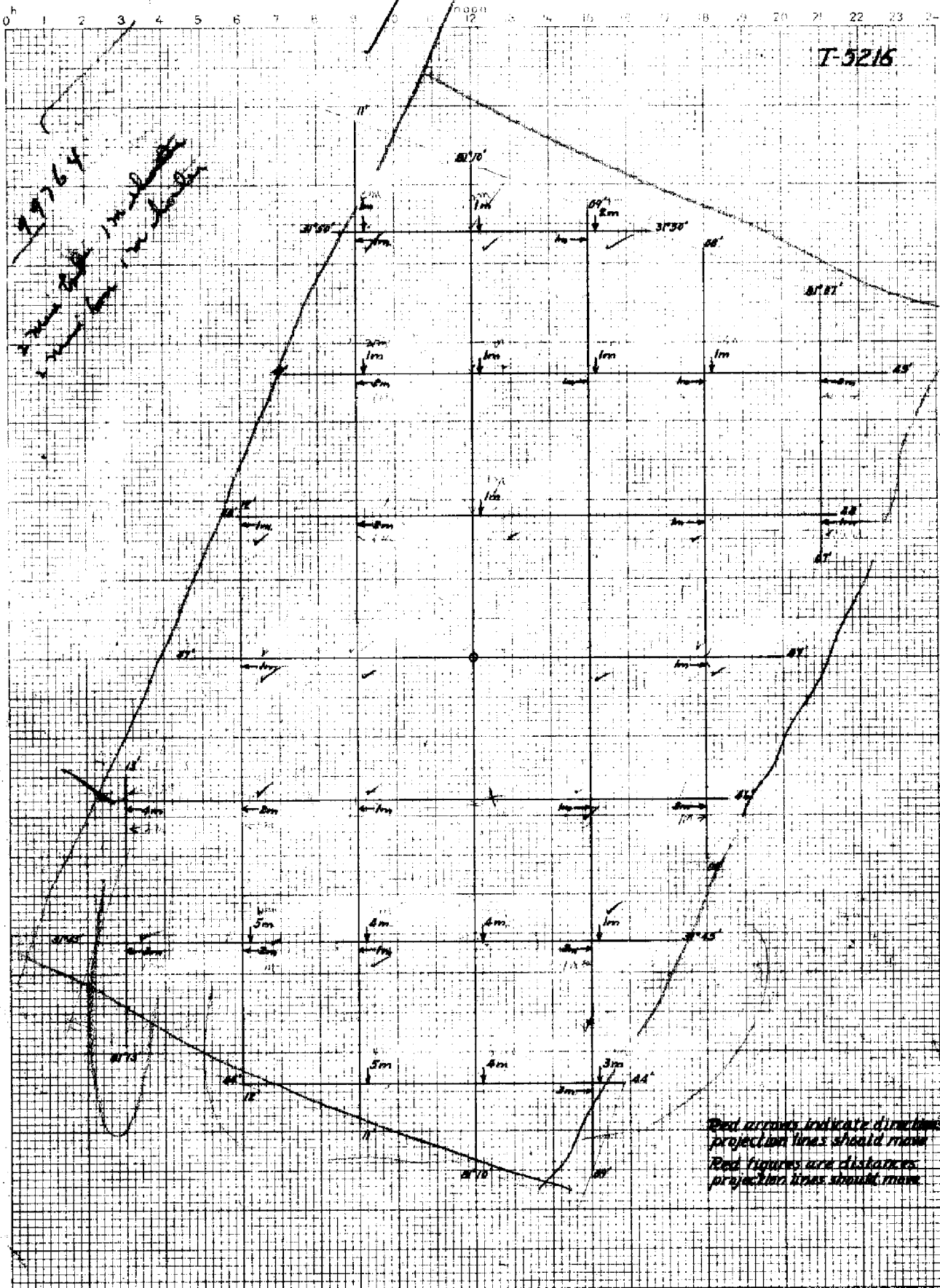
All beacons shown on the charts appear on the compilation with the exception of Florida Passage Beacon "2" and Bear River Beacon "1" which are on chart 1241. These beacons were added to the chart subsequent to the last printing on September 7, 1934. As the photographs and plane table surveys were completed several months before this date, no positions for these beacons can be determined without an additional survey.

*V. R. Sobieralski*  
*B. G. Jones*

Station:

99795

T-5216



Survey No. T-5216

Date. April 22, 1935

Chart No.

Diagram No. 1241-2

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

Under investigation. Q

[illegible]