

5445

ORIGINAL

U. S. COAST & GEODETIC SURVEY
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Form 504
Ed. June, 1928

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

_____, Director

State: New Jersey

DESCRIPTIVE REPORT

Photo
Topographic
~~Hydrographic~~

} Sheet No. T-5445

LOCALITY

Atlantic

New Jersey Coast

Beechhaven Inlet to Fairview Beach

photographs 1932
Field Inspection
and planimetric surveys to 1936
Compiled 1935-36

~~1935~~

CHIEF OF PARTY

E. C. Rolsted, Jr. H. & G. Engr.

Applied to drawing of Chart 1217 (trans from Ch. 1216) Apr. 26, 1937, JFW.

Partially applied to drawing of Chart 1216 Aug. 31, 1937 - JFW.

Completely applied to drawing of Chart 1216 - Jan. 5, 1938 - JFW

Applied to Chart 826 - April 30, 1938 H.R.P.

" " " 825 1938 A.L.J.

B.M.W.

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET

FIELD NO. 77

REGISTER NO. T-5445

- 1 -
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. 77

REGISTER NO. T5445

State New Jersey

General locality Atlantic
New Jersey Coast

Locality Beachhaven Inlet to Tucker Beach

Scale 1:10,000 Date of survey photographs 4/32;7/32;8/32;1/33, 19

Date of Compilation July 22, 1935

~~Vessel~~ Air Photo Compilation Party No. 12

Reviewed and recommended for approval Roswell C. Bolstad, Jr.
Chief of party Roswell C. Bolstad, Jr.

Surveyed by See data sheet enclosed in Descriptive Report for this sheet.

Inked by R. L. Fisher

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

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

Instructions dated November 15, 1932

Remarks: Compiled on scale of 1:10,000 and printed by

Photo-Lithography.

- STATISTICS -

on

SHEET, FIELD NO. 77, REG. NO. T 5445

PHOTOGRAPHS AS FOLLOWS:-

DATE TAKEN:

✓ 66-6-28 to 29 incl. : ✓ 66-6-30 to 35 incl.
 ✓ 66-6-81 to 83 incl. : ✓ 66-6-74 to 76 incl.
 ✓ 66-51-96 to 98 incl.
 ✓ 66-11-~~97~~ to 83 incl.
 ✓ 66-55-1 to 3 incl.
 ✓ M82 to 98 incl.

871-14 Flight

12:25 P.M.

4/15/32
 4/15/32
 7/30/32
 4/20/32
 8/1/32
 1/23/33

Negatives owned
 by:
 Aero Service Corp
 W.S. Beach Erosion
 Board

	BY	DATE
		From To
ROUGH RADIAL PLOT	None	- - - - -
SCALE FACTOR (1.00)	None	- - - - -
SCALE FACTOR CHECKED	None	- - - - -
PROJECTION	J.J. Lanigan	11/1/34
PROJECTION CHECKED	J.P. O'Donnell	11/1/34
CONTROL PLOTTED	W. Brown	11/3/34
CONTROL CHECKED	H.L. Hawkins	11/13/34
TOPOGRAPHY TRANSFERRED	None	- - - - -
TOPOGRAPHY CHECKED	None	- - - - -
SMOOTH RADIAL LINE PLOT	H.L. Hawkins	5/10/35 5/14/35
RADIAL LINE PLOT CHECKED	J.J. Lanigan	5/15/35
SHORELINE INKED	J.J. Lanigan	5/16/35 5/21/35
DETAIL INKED	R.L. Fisher	7/17/35 7/22/35
PRELIMINARY REVIEW OF SHEET	J.J. Lanigan	7/29/35 7/30/35
AREA OF DETAIL INKED	8.5 sq. Statute Miles	(Land Area)
AREA OF DETAIL INKED	0.0 sq. Statute Miles	(Shoals in water area)
LENGTH OF SHORELINE (more than 200 m. from nearest opposite shore)	46.0 sStatute Miles	
LENGTH OF SHORELINE (rivers and sloughs less than 200 m. wide)	150.0 Statute Miles	
LENGTH OF ROADS, STREETS, TRAILS, AND RAILROADS	18.0 Statute Miles	
GENERAL LOCATION	New Jersey Coast	
LOCATION	Inlet Beachhaven to Tucker Beach	
DATUM	North American 1927	

STATION Bonds 1932. Latitude 39° 31' 54.577" (1683.2)
 (Final Office Adjusted Position) Longitude 74° 15' 55.748" (1331.4)

adjusted

COMPILER'S REPORT

for

AIR PHOTO TOPOGRAPHIC SHEET FIELD NO. 77

GENERAL INFORMATION

The 1934 Field Inspection Report for the east coast of New Jersey (Metedeconk River to Townsend Inlet), attached to the Descriptive Report for Air Photo Topographic Sheet Reg. No. T 5286, furnished the necessary field information for the compilation of this sheet. Additional information was obtained from Messrs. G. Crowther and R.L. Fisher, Surveyor and Draftsman respectively, of Party No. 12, who are familiar with the topography of this area.

The accompanying STATISTICS SHEET details all the necessary data in connection with the compilation of this sheet.

This sheet was compiled from single lens photographs taken by the Aero Service Corporation, 1612 Chancellor Street, Philadelphia, Pennsylvania. In addition, a set of single lens photographs taken by the ~~Soil Erosion Service of New Jersey~~ *U.S. Beach Erosion Board* was used as an aid in interpreting the detail. The photographs of the Aero Service Corporation are on a 1:10,000 scale, enlarged from the original negatives which are on an approximate scale of 1:21,800. There are seven sets of these photographs and the numbers of the photographs together with the dates on which they were taken are enumerated on the STATISTICS SHEET, page 2. No record was available of the hour at which these photographs were taken, and so the condition of tide could not be determined. The high water line was located on the photographs, at intervals, by accurate measurements taken by the field inspection party.

The supplementary flight of single lens photos, nos. M82 to M98 incl. (871-14), taken by the ~~Soil Erosion Service of New Jersey~~ *U.S. Beach Erosion Board*, were flown on January 23, 1933 at 12:25 P.M. At this time the tide at Beachhaven was 0.5' above low water on the inner coast and on the outer coast the tide was about 0.4' above low water. These tide levels were computed from the Predicted Tide Tables of the U.S. Coast and Geodetic Survey.

CONTROL

(a) Sources

The following sources of control were used in the compilation of this sheet:-

- adjusted positions*
used
- Unadjusted positions.*
- (1) Triangulation by Lieut. C.D. Meaney, 1932, field positions adjusted to North American 1927.
 - (2) Triangulation by Lieut. E.H. Bernstein, 1924, field position adjusted to North American 1927.
 - (3) ~~Triangulation by Lieut. R.W. Woodworth, 1931, field positions adjusted to North American 1927.~~
 - (4) Theodolite observations - observed recoverable topographic stations (see item 4 on page 5, Field Inspection Report for this area, attached to Descriptive Report Reg. No. T 5286). These stations are shown by the regulation black circle
- U.S. Beach Erosion Board*

of which there are seventeen such stations that occur on this sheet, and all have been described on form 524. The names, as described, are as follows:

- Engleside Cupola
- Center of Ho. (Barrel Id.) *Single cut.*
- S.W. Gable Middle Id.
- S.W. Gable Higher Id.
- Marsh
- N. Gable Larger *A.P.T. position T-6401a*
- N. Gable Small Shack
- Stack (U.S.E.) Story Id.
- End Pole (Cable Crossing)
- S. Gable (Sheephead Thoro)
- Sheephead
- Stack (Fish Fact.)
- Little Egg C.G. Cupola (Temp.)
- Cable
- Lake (Signal)
- ~~S. Gable (Shooting Thoro)~~ *A.P.T. position (deleted)*
- ~~S.W. Gable Shack~~

T-6401a is a graphic control survey 1935.

There were no topographic sheets of sufficiently recent date to use as control in this area.

There are no railroads in this area, except the extreme southern end of the Tuckerton R.R. Line at the north end of this sheet. This was of no aid as supplementary control as there is not enough length of railroad on the sheet.

(b) Errors

With the exception of S. Gable, *Shooting* Sheephead Thoro and N. Gable, Larger, no difficulty was experienced in holding to all the control on this sheet. The control is plentiful, is well distributed and the radial line plot gave good intersections.

The photographs on which S. Gable, *Shooting* Sheephead Thoro and N. Gable, Larger occur are so indistinct that considerable doubt is felt as to whether these two stations are properly spotted. These stations, like many of the theodolite stations, were not visited in the field, but were described from their appearance as seen from the set-ups at which the 3-pt. fix observations were taken. These descriptions furnished the only information for the spotting of the stations on the photographs. With these facts in mind, it was judged that the difficulty involved in holding these two stations was caused by doubtful spotting and therefore considerably less weight was given to these two stations than to the other control. *These latter stations later relocated by Graphic Control Survey T-6401a 1935 and the new position used on this*

Both of these stations have been deleted from this air photo compilation.

(c) Discrepancies

No other control stations, established by other organizations, were used in the compilation of this sheet.

COMPILATION

(a) Method

The usual radial line method of plotting was used in the compilation of this sheet.

(b) Adjustment of Plot

The photographs in this area appear to have very little scale fluctuation or tilt. The radial line plot gave good intersections and no unusual adjustment, to the extent of causing any appreciable error, was necessary.

(c) Interpretation

The usual graphic symbols were used as approved by the Board of Surveys and Maps (1932) and, with but one or two exceptions, no great difficulty was experienced in interpreting the photographic detail.

One such difficulty concerns the indistinctness of certain marsh islands on the photographs. As a result, the limits of these islands, as shown on this compilation, may be questioned. This difficulty was especially apparent in the case of the small islands adjoining Barrel Island and also Story Island.

In other sections of this compilation, the symbol for Grass in Water is shown outside the high water line, and is bounded by a dashed line. This dashed line represents the vertical edge of this area of Grass in High Water, for it has a vertical edge; but in many cases this outside limit was difficult to spot correctly. A second vertical edge of marsh exists at the positions in these areas shown by the high water line. Since the character of the marsh behind this second vertical edge is distinctly heavier and fuller than that which is covered at high water, the second vertical edge has been chosen as the high water line and the formation outside this line shown as Grass in High Water, bounded by a dashed line representing the outside vertical edge. ?

Corrected from 1936 inspection and plan table surveys Rigg

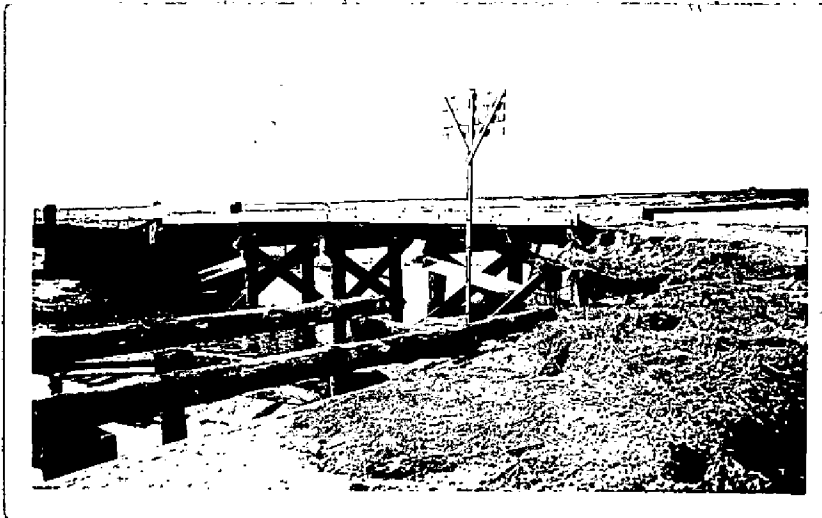
Since Lieut. B.H. Rigg is at present conducting operations in this locality, it is assumed that the results of his survey will clear up any such questionableness of shore line. Special request has been made to Lieut. Rigg to straighten out these doubtful areas.

Good motor roads are indicated by a double full line and poor motor roads by a double dashed line. A single dash line was used to indicate an exceedingly poor motor road, a trail or a path. There are a few small ditches located on the outer coast, near Beachhaven, but, because of their size, they have been omitted.

Where there was any difference in the shoreline, bulkheads, docks etc. between the set of photographs supplied by the Aero Service Corporation and that supplied by the Soil Erosion Service, the latter was accepted as correct, because it was taken at a later date. Of course, if the data submitted by the Field Inspection Party conflicted with that shown on any of the photographs, it would nevertheless be accepted as correct, since the inspection was made later than any of the photographs were taken.

Most of the buildings comprising the former fish factory at the southern end of Story Island have been torn down, and because of this they have not been shown on this compilation, even though they appear on the photographs.

Tucker Beach is eroding very rapidly on the southern end and building up quite slowly on the north. At present, fully two-thirds of the area shown on the photographs has eroded since the photographs were taken. On the other hand, the southern end of Holgate is building up. In each of these two areas, there are two shore lines shown on this compilation.



At Marsh. showing bridge & signal

The shore line shown by the small dashed line is that taken from the photographs, while that shown by the longer dashed line was plotted in from measurements and angles taken by the field inspection party. The present shore line will be shown on Lieut. Riggs sheets, for he is now conducting operations in that area.

see photos
and old maps

Motor road "S4A", which runs through the central portion of the sheet, was built on fill that was placed directly on the marsh, and it has been sinking ever since it was built. At no time was it better than a rough, graded road. No surfacing was ever placed on it.

A cable crossing which originally ran under Little Egg Inlet, from Island Beach to Tucker Beach, and then under Beachhaven Inlet from the northern tip of Tucker Island to Holgate, and which is shown in this position on U.S. C. & G.S. chart no. 1216, has since been changed so that now it runs under Shooting Thoro from Island Beach to theodolite-observed station "Cable" and under Beachhaven Inlet from theodolite-observed station "End Pole (Cable Crossing)" to south of triangulation station "Bonds, C.G. Sta. Cupola, 1924". The exact position of this cable crossing, at Beachhaven Inlet, is not known to this party, however a probable position has been shown on this compilation. The point at which the cable enters Beachhaven Inlet and also the point at which the cable emerges from the Inlet are both known, so that the only uncertainty is the position of the cable under water.

No information furnished
as to whether this cable
is submerged or overhead
across Little Sheephead Creek
1398

The present position of the Coast Guard Station known as Little Egg is only temporary. The station was recently moved from Tucker Beach, because the beach was eroding, and it is believed that a permanent position for the station will soon be established on some creek north of Shooting Thoro.

There are no bridges of importance to navigation on this sheet. In fact the only bridges that occur in the area covered by this compilation are the wooden construction bridges that carry the road "S4A" over Jenny Creek, Sheephead Creek and Little Sheephead Creek. These bridges, which have a clearance of about 4 or 5 feet at high tide, are at present in pretty poor condition. If Tucker Beach should, in time, become completely eroded then one of the above-mentioned creeks may become part of an Inland Waterway. In this event one of these bridges may be rebuilt and become of importance to navigation.

(d) Information from Other Sources

As mentioned under CONTROL (a) Sources, page 4, the extreme southern end of the Tuckerton R.R. line falls on this sheet, but it was of no use as control since there was not enough of it.

There are several monumented stations, established by the New Jersey Board of Commerce and Navigation, located in the area covered by this compilation but they have not been used for supplementary control, for the following reasons:-(1) the positions of the stations were not readily available, (2) many of the stations were not easily accessible to the field inspection party personnel, since they were not equipped with boats etc., (3) the other control on the sheet was plentifully sufficient and these additional stations were not needed.

There were no topographic sheets of sufficiently recent *memorandum* date that could be used for control, in this compilation.

(e) Conflicting Names

The name Tucker Island, which appears on the U.S. Coast and Geodetic Chart No. 1216, is not used by any of the natives of the locality nor by the Commanding Officers at the Bonds and Little Egg Coast Guard Stations. The entire island is known as Tucker Beach. It is therefore recommended that the name Tucker Island be removed from the charts and that the entire island be henceforth labeled Tucker Beach.

The following names, which appear on the overlay sheet, are new and do not appear on any of the present editions of the charts:-

~~Shelter Island~~
Soldiers Hole
Little Thorofare

Jenny Creek
Bunting Sedge

These names were obtained from the Commanding Officers of the Bonds and Little Egg Coast Guard Stations, from the engineers of the New Jersey Board of Commerce and Navigation, who were working in the neighborhood, and from natives. In every case the accuracy of each new name was verified by at least four or five other than the person supplying the information.

COMPARISON WITH OTHER SURVEYS

The junctions with adjoining sheets are satisfactory.

There are no topographic sheets of sufficiently recent date to admit of comparison with this compilation.

LANDMARKS

A list of landmarks, including those to be expunged, has been submitted by this party in the field inspection report which is attached to the descriptive report of sheet Reg. No. T-5286. It is assumed that Lieut. B.H. Rigg, who is conducting operations in this area at present, will check the list and make any revisions if necessary.

There are also many other objects (such as houses, ends of docks, etc.) which are located within the accuracy specified under the following heading, RECOMMENDATIONS FOR FURTHER SURVEYS and may be used to obtain hydrographic "fixes". Care should be taken, when using the houses, to use the center, as the size shown on the compilation may be expanded somewhat.

RECOMMENDATIONS FOR FURTHER SURVEYS

The compilation of this sheet is believed to have a probable error of not over 2 meters in well defined detail of importance for charting, and of not over 4 meters for other detail. It is understood that the widths of roads and similar objects may be slightly exaggerated in order to keep the detail clear and to avoid the closing up of the lines and photographing as a solid area in the photo-lithographic process.

To the best of my knowledge this sheet is complete in all detail of importance for charting purposes within the accuracy stated above, and no additional surveys are required.

Submitted by

R. L. Fisher
R.L. Fisher
Draftsman

Assisted by

J. J. Lanigan
J.J. Lanigan
Surveyor

corrected - *P. W. 3.*

ADDITIONAL NOTE, SHEET #17.

After the completion of this compilation the 1935 Aluminum Control Sheets of Lt. Rigg were furnished this party for comparison. Where no shoreline was added in on the topographic sheets it was assumed that the compilation is correct; previously a copy of the compilation was furnished Lt. Rigg with specific requests for shoreline in questionable areas (See page 5). With the exception of Zucker Beach and the outer coast line it was only necessary to make a very slight adjustment in the previous compilation shoreline in order to agree with the Aluminum Control sheets which were executed at a latter date. A comparison was also made with the descriptions of the triangulation stations submitted by Lt. Rigg and the reference shoreline points correspond correctly on this sheet.

See revision of beach
The high water line at Beachhaven Inlet has changed considerably; it is shown on the compilation sheet by a full black line as taken from Lt. Rigg's topo. sheet "0". Shoreline from the 1932 photos is shown by a short dashed line, and from the Jan. 1935 Air-Photo Field inspection by a long dashed line. The shoreline from topo. sheet "0" just to the east of triangulation station "St. James" appears somewhat questionable as it cuts back into the road, house, and sand dunes as shown on the 1932 photos and also the Jan. 1933 photos (Soil Erosion photos). As there have been several severe storms since this date it is entirely probable that the shoreline could have eroded to this extent. 1934

The roadway (under construction but now abandoned) between Marsh and CABLE has been shown on the compilation by the long double broken line boundary symbol as this road is in reality only a filling directly on top of the marsh, without suitable foundation; which is constantly sinking and rapidly becoming impassable by automobile. It appears that present political influence is against the construction of the road and it is now abandoned and gradually sinking into the marsh. The position of this roadway is shown correctly on the compilation sheet (as can be checked by photo 66-6-74 which is to scale and has adequate control for definitely determining roadway). It was noticed that the distance to the road center as given in descriptive triangulation card 2485 of 29.8 meters does not check either the compilation or the A.C.S. "P", and is believed to have been scaled from an incorrect position of the road on the topo. sheet.

The following triangulation stations were established after this compilation and were therefore not used in controlling the photo plot:

Little Egg 2 1935	Story 1935
Inlet 1935	Stack Story Island 1935*
Shooting 1935	Pole 1935
Sheephead 1935	
Barrel 1935	

*Previous Lth. order theodolite station (See report T-5286, pages 5 & 6) found slightly, 1.8 m., in error.

NAMES.

The names appearing on this compilation are submitted on the forms following. Many of these names have been secured from the Special Report on Geographic Names submitted by Lt. Rigg in 1935.

RECOVERABLE TOPOGRAPHIC STATIONS

The following recoverable objects (includes all) have been shown on this compilation by a small black circle:

Name.	Lat.	Long.	Method of Determination.
Light 32	39°-30.2'	74°-18.1'	A.C.S."P".
Light 31	39°-30.4'	74°-19.3'	A.C.S."P".
W. Gable Boat Ho. (d)	39°-30.4'	74°-17.5'	A.C.S."P".
Little Egg C. G. Cupola (Temp) (d)	39°-30.5'	74°-19.6'	T.S. & A.C.S."P".
Cable (d)	39°-30.4'	74°-19.2'	T.S. & A.C.S."P".
New Fish (C. & N.) (d)	39°-30.5'	74°-20.9'	A.C.S."P".
Stack (Fish Fact.) (d)	39°-31.2'	74°-20.3'	T.S. & A.C.S."P".
Hoe (d)	39°-30.5'	74°-18.3'	A.C.S."P".
N. Gable Larger (d)	39°-32.5'	74°-20.7'	T.S. & A.C.S."P".
Newton C. & N.	39°-30.2'	74°-20.3'	A.C.S."P".
W. Gable Shack (d)	39°-30.8'	74°-18.2'	T.S. & A.C.S."P".
Lake (d)	39°-30.7'	74°-17.3'	T.S.
Light 33A	39°-33.5'	74°-19.2'	A.C.S."N".
End Pole (Cable Crossing) (d)	39°-31.4'	74°-17.8'	T.S. & A.C.S."O".
S. Gable (Sheephead Thoro) (d)	39°-31.7'	74°-18.4'	T.S. & A.C.S."O".
Sheephead (d)	39°-32.0'	74°-19.2'	T.S. & A.C.S."O"*
S.W. Gable (Hither Id.) (d)	39°-33.8'	74°-18.1'	T.S. & A.C.S."O".
Engleside Cupola (d)	39°-33.7'	74°-14.3'	Trav. & A.C.S."O".
S.W. Gable (Middle Id.) (d)	39°-33.6'	74°-17.5'	T.S.
Tow (d)	39°-32.4'	74°-15.4'	A.C.S."O".
Hos (d)	39°-32.1'	74°-15.8'	A.C.S."O".
Fish C. & N. (d)	39°-32.5'	74°-18.4'	A.C.S."O".
Meadow C. & N. (d)	39°-32.2'	74°-18.1'	A.C.S."O".
Sand C. & N. (d)	39°-32.3'	74°-17.9'	A.C.S."O".
Light 33	39°-31.5'	74°-17.5'	A.C.S."O".
Light 34	39°-32.2'	74°-17.3'	A.C.S."O".
Light 35	39°-32.6'	74°-16.6'	A.C.S."O".
Light 36	39°-32.8'	74°-16.1'	A.C.S."O".
Light 38	39°-33.9'	74°-15.2'	A.C.S."O".
Dune C. & N. (d)	39°-32.5'	74°-16.6'	A.C.S."O".
N. Gable Small Shack (d)	39°-32.5'	74°-20.0'	T.S. & A.C.S."N".
Light 33A	39°-33.5'	74°-19.2'	A.C.S."N".

Note:- A.C.S. means 1935 Aluminum Control Sheet of Lt. Rigg.

T.S. means Theodolite observed Control Station by Air-Photo Field inspection party (See Field Insp. Report attached to Compilation Desc. Report T-5286, pages 5 & 6.)

Trav. means taped- theodolite traverse (See same as for T.S.)

* See Lt. Rigg's Desc. Report, page 3, for Graphic Control Sheet "O".

Where T.S. preceeds the A.C.S., as T.S. & A.C.S."P", it means the position of the theodolite control stations were latter verified by the graphic control sheets of Lt. Rigg. Similarly for Trav. & A.C.S."O".

Roscoe J. Rigg

Remarks

Decisions

1	*Shown as "Beach Haven" on Geol. map. "Beachhaven" is correct.	
2		
3	*Area formerly "Bonds" on Geol. map.	
4	*Verified by about 6 men at Bonds C.G. Station.	
5	*Shown as Barrel Islands on Geol. map.	
6	<i>on photo comp. only</i>	
7	<i>do not chart</i> <i>So.</i>	
8	<i>So.</i>	
9	<i>do not chart. on Photo comp. only.</i>	
10	*Incorrectly shown on old Geol. map. <i>So.</i>	
11	<i>not prominent</i> <i>So.</i>	
12	*Incorrectly shown as Johny Sedge on old Geol. map.	
13		
14		
15	*Incorrectly shown on Geol. chart.	
16	<i>not prominent. on photo comp. only.</i>	
17	<i>So.</i>	
18	*Incorrectly shown on Geol. chart. <i>So.</i>	
19		
20		
21		
22		
23		
24		
25	<i>not prominent. on photo comp. only.</i>	
26	*Incorrectly shown as Little Thoro on Geol. chart.	
27	<i>not prominent. on photo comp. only.</i>	

GEOGRAPHIC NAMES

Survey No. T-5445

Name on Survey	1216 Rigg 3243 1955 Also see Special Report to C-1 Names On Chart No. 3243 On U. S. quadangle Maps From local information Air-photo inspection. On local Maps P. O. Guide or Map Rand McNally Atlas U. S. Light List Hwy. & Road Maps & Signs.										
	A	B	C	D	E	F	G	H	K		
<u>BEACH HAVEN</u>				5 men		✓					
<u>Beachhaven</u>	x		x*	x		x			x	1	
<u>Long Beach</u>	x		x	5 men x	x				x	2	
<u>Holgate</u>	x		*	5 men x	x				x	3	
<u>Mordecai Island</u>	x	x	✓ x	x*						4	
<u>Barrel I.</u>	x	x	x*	4 men x						5	
<u>Middle Sedge</u>		x		*						6	
<u>East Sedge</u>	x	x		5 men x						7	
<u>West Sedge</u>	x	x		5 men x						8	
<u>Bunting Sedge</u>	x	x		4 men x						9	
<u>Johnny Sedge</u>	x	x	x*	5 men x						10	
<u>Goosebar Sedge</u>	x	x		4 men x						11	
<u>Middle I.</u>	x	x	*	4 men x						12	
<u>Barrel Channel</u>	x	x		4 men x						13	
<u>Middle Channel</u>	x	x		4 men x						14	
<u>Hither I.</u>	x	x	x*	4 men x						15	
<u>Hester Sedge</u>	x	x		4 men x						16	
<u>Drag Sedge</u>	x	x		4 men x						17	
<u>Goodluck Sedge</u>	x	x	x*	4 men x						18	
<u>Soldiers Hole</u>		x		4 men x						19	
<u>Story I.</u>	x	x	x	4 men x						20	
<u>Story I. Chan.</u>	x	x		3 men x						21	
<u>Marshelder Channel</u>	x	x		4 men x						22	
<u>Marshelder Pt.</u>	x	x		3 men x						23	
<u>Parker I.</u>	x	x	x	4 men x						24	
<u>Jenny Creek</u>			x	3 men x						25	
<u>Little Thorofare</u>		x	x*	3 men x						26	
<u>Foxboro Point</u>		x								27	
<u>Hither Channel</u>		✓									

3/27/36

Chapman

M 234

Remarks

Decisions

1	*Formerly called "Sheephead Creek".	Sheephead is accepted form
2	*Formerly called "Little Sheephead Creek".	"
3	On photo compilation only	Do not chart.
4	Do.	
5	Do.	
6	Do.	
7	Do.	
8		
9		
10		
11		
12		
13		
14	Part of the Sevier Islands.	On photo-compilation only
15	" " " " " "	Do.
16		
17		
18	*See note on Names, page 7, this report. Probably best to retain Tucker I. as heretofore commonly known to many small craft navigator, both local and otherwise.	
19	Added by F.R. Goller	
20	" " " "	
21		
22		
23		
24		
25		
26		
27		

GEOGRAPHIC NAMES

Survey No. T-5445

Name on Survey	1216 Rigg 3243 1955. Also see Special Report Names. On Chart No. On U. S. quadrangle Maps From local information On local Maps P. O. Guide or Map Rand McNally Atlas U. S. Light List Air-photo inspection.									
	A	B	C	D	E	F	G	H	K	
<u>Big Sheephead Thorofare</u> ^{CREEK.}	*	x	*							1
<u>Little Sheephead Thorofare</u> ^{CREEK}	*	x	*							2
<u>Point Creek</u>		x								3
<u>Flatteras Creek</u>		x								4
<u>Willets Creek</u>		x								5
<u>Hatfield Creek</u>		x								6
<u>Hatfield Point</u>		x								7
<u>Newmans Thorofare</u>		x								8
<u>Whirlpool Point</u>		x								9
<u>Cape Horn</u>		x								10
<u>Seven Islands</u>	x	x	x	4 men x						11
<u>Anchoring I.</u>	x	x		4 men x						12
<u>Shooting Thorofare</u>	x	x	x	4 men x						13
<u>Tow I.</u>	x	x		3 men x						14
<u>Fish I.</u>	x			3 men x						15
<u>Beachhaven Inlet</u>	x	x		4 men x						16
<u>Little Egg Inlet</u>	x	x		4 men x						17
<u>Tucker Island</u>	x	x	x	4 men x*						18
<u>GREAT BAY</u>	x									19
<u>LITTLE EGG HARBOR</u>	x									20
										21
										22
										23
										24
										25
										26
										27

Names unclassified. Listed approved by *Chagnon* 2/5/36

234

Names underlined listed approved
Chagnon
 2/5/36

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 RE Ask 7/37

Positions checked by RE Ask 7/37

Grid inked on machine by RE Ask 7/37

Intersections inked by Frank R. Galloway 7/37

Points used for plotting grid:

x 2,110,000 ft
y 270,000

x 2,095,000 ft
y 270,000

x 2,095,000
y 260,000

x 2,085,000
y 250,000

x 2,110,000
y 240,000

x 2,120,000
y 260,000

x 2,110,000
y 255,000

x 2,095,000
y 240,000

Triangulation stations used for checking grid:

$x=2,113,160.22'$ $y=254,656.53'$

1. Bonds 1932 (ref. sta.) 5. _____
2. Beach Haven 1932 6. _____
3. St James 1932 7. _____
4. _____ 8. _____

* This sheet has a poor projection, therefore the grid intersections may be in error by 0.30007^{mm} in places.

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N.J.

STATION _____

x	<u>2,110,000.00</u>	$\log S_e$	<u>5.04139068</u>
K	<u>2.</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>110,000.00</u>	$\log (1/R)$	<u>1086</u>
$x'^3/(6\rho_0^2)_e$	<u>.51</u>	$\log S_m$	<u>4.52541237</u>
S_e	<u>109,999.49</u>	cor. arc to sine	<u>199</u>
		$\log S_i$	<u>4.52541538</u>
$3 \log x'$	<u>15.12417807</u>	$\log A$	<u>8.50912920</u>
$\log 1/(6\rho_0^2)_e$	<u>4.5710213</u>	$\log \sec \phi$	<u>0.11305704</u>
$\log x'^3/(6\rho_0^2)_e$	<u>9.7051994</u>	$\log \Delta\lambda_1$	<u>3.14760252</u>
		cor. sine to arc	<u>+ 336</u>
$\log S_m^2$	<u>9.05083274</u>	$\log \Delta\lambda$	<u>3.14760598</u>
$\log C$	<u>1.321814</u>	$\Delta\lambda$	<u>1404.7660</u>
$\log \Delta\phi$	<u>0.372647</u>		
y	<u>270,000.00</u>		
ϕ' (by interpolation)	<u>39 34 29.7170</u>	λ (central mer.)	<u>74 40</u>
$\Delta\phi$	<u>2.3586</u>	$\Delta\lambda$	<u>23 24.7660</u>
ϕ	<u>39 34 26.7584</u>	λ	<u>74 16 35.2340</u>
	<u>81.29 mm</u>		<u>84.10 mm</u>

Explanation of form:

$$x' = x - K$$

$$S_e = x' - \frac{x'^3}{(6\rho_0^2)_e}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_e$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta\phi = C S_m^2$$

$$\phi = \phi' - \Delta\phi$$

$$\Delta\lambda_1 = S_i A \sec \phi$$

$$\log S_i = \log S_m - \text{cor. arc to sine}$$

$$\log \Delta\lambda = \log \Delta\lambda_1 + \text{cor. arc to sine}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J. STATION _____

x	<u>2,095,000.00</u>	$\log S_0$	<u>4.97772210</u>
K	<u>2</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>95,000.00</u>	$\log (1/R)$	<u>1086</u>
$x'^3/(6\rho_0^2)_0$	<u>1.33</u>	$\log S_m$	<u>4.46174879</u>
S_0	<u>94,999.67</u>	cor. arc to sine	<u>149</u>
		$\log S_1$	<u>4.46174730</u>
$3 \log x'$	<u>14.93317083</u>	$\log A$	<u>8.50912989</u>
$\log 1/(6\rho_0^2)_0$	<u>4.5810213</u>	$\log \sec \phi$	<u>0.11288600</u>
$\log x'^3/(6\rho_0^2)_0$	<u>9.5141921</u>	$\log \Delta\lambda_1$	<u>3.08376319</u>
		cor. sine to arc	<u>+ 250</u>
$\log S_m^2$	<u>8.92349758</u>	$\log \Delta\lambda$	<u>3.08376569</u>
$\log C$	<u>1.321393</u>	$\Delta\lambda$	<u>1212.7344</u>
$\log \Delta\phi$	<u>0.244891</u>		
y	<u>260,000.00</u>		
ϕ' (by interpolation)	<u>39 32 49.8818</u>	λ (central mer.)	<u>74 40 "</u>
$\Delta\phi$	<u>1.7575</u>	$\Delta\lambda$	<u>20 12.7344</u>
ϕ	<u>39 32 48.1243</u>	λ	<u>74 19 47.2656</u>
	<u>148.42 mm</u>		<u>112.88 mm</u>

Explanation of form:

$$x' = x - K$$

$$S_0 = x' - \frac{x'^3}{(6\rho_0^2)_0}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_0$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta\phi = C S_m^2$$

$$\phi = \phi' - \Delta\phi$$

$$\Delta\lambda_1 = S_1 A \sec \phi$$

$$\log S_1 = \log S_m - \text{cor. arc to sine}$$

$$\log \Delta\lambda = \log \Delta\lambda_1 + \text{cor. arc to sine}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

T-5445,

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N.J. STATION _____

x	<u>2,110,000.00</u>	$\log S_0$	<u>5.04139068</u>
K	<u>2</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>110,000.00</u>	$\log (1/R)$	<u>1086</u>
$x'^3/(6\rho_0^2)_0$	<u>.51</u>	$\log S_m$	<u>4.52541727</u>
S_0	<u>109,999.49</u>	cor. arc to sine	<u>199</u>
		$\log S_1$	<u>4.52541538</u> ✓
$3 \log x'$	<u>15.12417807</u>	$\log A$	<u>8.50913129</u>
$\log 1/(6\rho_0^2)_0$	<u>4.5810213</u>	$\log \sec \phi$	<u>0.11254144</u>
$\log x'^3/(6\rho_0^2)_0$	<u>9.7051994</u>	$\log \Delta\lambda_1$	<u>3.14708811</u>
		cor. sine to arc	<u>+ 335</u>
$\log S_m^2$	<u>9.05083474</u>	$\log \Delta\lambda$	<u>3.14709146</u>
$\log C$	<u>1.325106</u>	$\Delta\lambda$	<u>1403.1092</u>
$\log \Delta\phi$	<u>0.373947</u>		
y	<u>240,000.00</u>		
ϕ' (by interpolation)	<u>39 29 32.2100</u>	λ (central mer.)	<u>74 40</u>
$\Delta\phi$	<u>2.3517</u>	$\Delta\lambda$	<u>23 23.1092</u>
ϕ	<u>39 29 29.7447</u>	λ	<u>74 16 36.8908</u>
	<u>.8583</u>		

92.08 mm.

88.16 mm.

Explanation of form:

$$x' = x - K$$

$$S_0 = x' - \frac{x'^3}{(6\rho_0^2)_0}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_0$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta\phi = C S_m^2$$

$$\phi = \phi' - \Delta\phi$$

$$\Delta\lambda_1 = S_1 A \sec \phi$$

$$\log S_1 = \log S_m - \text{cor. arc to sine}$$

$$\log \Delta\lambda = \log \Delta\lambda_1 + \text{cor. arc to sine}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

T-5445

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N.J.

STATION _____

x	<u>2,110,000.00</u>	$\log S_e$	<u>5.04139068</u>
K	<u>21</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>110,000.00</u>	$\log (1/R)$	<u>10.86</u>
$x'^3/(6\rho_0^2)_e$	<u>0.51</u>	$\log S_m$	<u>4.52541837</u>
S_e	<u>109,999.49</u>	cor. arc to sine	<u>1.99</u>
$3 \log x'$	<u>15.12417807</u>	$\log S_1$	<u>4.52541838</u>
$\log 1/(6\rho_0^2)_e$	<u>4.5810213</u>	$\log A$	<u>8.50913024</u>
$\log x'^3/(6\rho_0^2)_e$	<u>9.7051994</u>	$\log \sec \phi$	<u>0.11238806</u>
$\log S_m^2$	<u>9.05083874</u>	$\log \Delta\lambda_1$	<u>3.14734368</u>
$\log C$	<u>1.321482</u>	cor. sine to arc	<u>+ 3.35</u>
$\log \Delta\phi$	<u>0.372235</u>	$\log \Delta\lambda$	<u>3.14734804</u>
y	<u>255,000.00</u>	$\Delta\lambda$	<u>1403.9358</u>
ϕ' (by interpolation)	<u>39 32 00.4630</u>	λ (central mer.)	<u>74 40 "</u>
$\Delta\phi$	<u>2.3509</u>	$\Delta\lambda$	<u>23 23.9358</u>
ϕ	<u>39 31 58.1121</u>	λ	<u>74 16 36.0650</u>
	<u>179.20mm</u>		<u>86.15mm 19</u>

Explanation of form:

$$x' = x - K$$

$$S_e = x' - \frac{x'^3}{(6\rho_0^2)_e}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_e$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta\phi = C S_m^2$$

$$\phi = \phi' - \Delta\phi$$

$$\Delta\lambda_1 = S_1 A \sec \phi$$

$$\log S_1 = \log S_m - \text{cor. arc to sine}$$

$$\log \Delta\lambda = \log \Delta\lambda_1 + \text{cor. arc to sine}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

T-5445

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J.

STATION _____

x	<u>2,095,000.00</u>	$\log S_g$	<u>4.97772210</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>95,000.00</u>	$\log (1/R)$	<u>10.86</u>
$x'^3/(6\rho_0^2)_g$	<u>— .33</u>	$\log S_m$	<u>4.46174879</u>
S_g	<u>94,999.67</u>	cor. arc to sine	<u>— 149</u>
		$\log S_1$	<u>4.46174730</u>
$3 \log x'$	<u>14.93317083</u>	$\log A$	<u>8.50912920</u>
$\log 1/(6\rho_0^2)_g$	<u>4.5810213</u>	$\log \sec \phi$	<u>9.11305791</u>
$\log x'^3/(6\rho_0^2)_g$	<u>9.5141921</u>	$\log \Delta\lambda_1$	<u>3.08393441</u>
		cor. sine to arc	<u>+ 251</u>
$\log S_m^2$	<u>8.92349758</u>	$\log \Delta\lambda$	<u>3.08393692</u>
$\log C$	<u>1.321814</u>	$\Delta\lambda$	<u>1213.2126</u>
$\log \Delta\phi$	<u>0.245312</u>		
y	<u>270,000.00</u>		
ϕ' (by interpolation)	<u>39 34 28.7170</u>	λ (central mer.)	<u>74 40</u>
$\Delta\phi$	<u>— 1.2592</u>	$\Delta\lambda$	<u>20 13.2126</u>
ϕ	<u>39 34 26.9578</u>	λ	<u>74 19 46.7874</u>

83.14 mm

111.67 mm.

Explanation of form:

$$x' = x - K$$

$$S_g = x' - \frac{x'^3}{(6\rho_0^2)_g}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_g$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta\phi = C S_m^2$$

$$\phi = \phi' - \Delta\phi$$

$$\Delta\lambda_1 = S_1 A \sec \phi$$

$$\log S_1 = \log S_m - \text{cor. arc to sine}$$

$$\log \Delta\lambda = \log \Delta\lambda_1 + \text{cor. arc to sine}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

T-5445

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J.

STATION _____

x	<u>2,085,000.00</u>	$\log S_0$	<u>4.92941841</u> ⁷⁷⁵
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>85,000.00</u>	$\log (1/R)$	<u>10.86</u>
$x'^3/(6\rho_0^2)_0$	<u>—, 23</u>	$\log S_m$	<u>4.41344444</u>
S_0	<u>84,999.77</u>	cor. arc to sine	<u>— 119</u>
$3 \log x'$	<u>14.78825679</u>	$\log S_1$	<u>4.41344325</u>
$\log 1/(6\rho_0^2)_0$	<u>4.5810213</u>	$\log A$	<u>8.50913058</u>
$\log x'^3/(6\rho_0^2)_0$	<u>9.3692781</u>	$\log \sec \phi$	<u>0.11271486</u>
$\log S_m^2$	<u>8.82688888</u>	$\log \Delta\lambda_1$	<u>3.03528869</u>
$\log C$	<u>1.320972</u>	cor. sine to arc	<u>+ 200</u>
$\log \Delta\phi$	<u>0.147861</u>	$\log \Delta\lambda$	<u>3.03529069</u>
y	<u>250,000.00</u>	$\Delta\lambda$	<u>1084.6527</u>
ϕ' (by interpolation)	<u>39 31 11.0461</u>	λ (central mer.)	<u>74 40 "</u>
$\Delta\phi$	<u>— 1.4056</u>	$\Delta\lambda$	<u>18 04.6527</u>
ϕ	<u>39 31 09.6405</u>	λ	<u>74 21 55.3473</u>

29.73 mm

132.22 mm.

Explanation of form:

$$x' = x - K$$

$$S_0 = x' - \frac{x'^3}{(6\rho_0^2)_0}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_0$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta\phi = C S_m^2$$

$$\phi = \phi' - \Delta\phi$$

$$\Delta\lambda_1 = S_1 A \sec \phi$$

$$\log S_1 = \log S_m - \text{cor. arc to sine}$$

$$\log \Delta\lambda = \log \Delta\lambda_1 + \text{cor. arc to sine}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

T-5445

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N.J. STATION _____

x	<u>2,120,000.00</u>	$\log S_0$	<u>5.07917886</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>120,000.00</u>	$\log (1/R)$	<u>1.086</u>
$x'^2/(6\rho_0^2)$	<u>1.66</u>	$\log S_m$	<u>4.56320555</u>
S_0	<u>119,999.34</u>	cor. arc to sine	<u>237</u>
$3 \log x'$	<u>15.23754375</u>	$\log S_1$	<u>4.56320318</u>
$\log 1/(6\rho_0^2)$	<u>4.5810213</u>	$\log A$	<u>8.50912990</u>
$\log x'^2/(6\rho_0^2)$	<u>9.8185650</u>	$\log \sec \phi$	<u>0.11288418</u>
$\log S_m^2$	<u>9.12641110</u>	$\log \Delta\lambda_1$	<u>3.18521726</u>
$\log C$	<u>1.321293</u>	cor. sine to arc	<u>+ 399</u>
$\log \Delta\phi$	<u>0.447804</u>	$\log \Delta\lambda$	<u>3.18522125</u>
y	<u>260,000.00</u>	$\Delta\lambda$	<u>1531.8677</u>
ϕ' (by interpolation)	<u>39 32 49.8818</u>	λ (central mer.)	<u>74 40 "</u>
$\Delta\phi$	<u>2.8042</u>	$\Delta\lambda$	<u>25 31.8677</u>
ϕ	<u>39 32 47.0776</u>	λ	<u>74 14 28.1323</u>

145.19 mm

67.17 mm.

Explanation of form:

$$x' = x - K$$

$$S_0 = x' - \frac{x'^2}{(6\rho_0^2)}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_0$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta\phi = C S_m^2$$

$$\phi = \phi' - \Delta\phi$$

$$\Delta\lambda_1 = S_1 A \sec \phi$$

$$\log S_1 = \log S_m - \text{cor. arc to sine}$$

$$\log \Delta\lambda = \log \Delta\lambda_1 + \text{cor. arc to sine}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta\lambda$$

T-5445

GEODETIC POSITIONS FROM TRANSVERSE MERCATOR COORDINATES

STATE N. J.

STATION _____

x	<u>2,095,000.00</u>	$\log S_0$	<u>4.97772210</u>
K	<u>2,000,000.00</u>	$\log (1200/3937)$	<u>9.48401583</u>
$x' (=x-K)$	<u>95,000.00</u>	$\log (1/R)$	<u>10.86</u>
$x'^3/(6\rho_0^2)$	<u>.33</u>	$\log S_m$	<u>4.46174879</u>
S_0	<u>94,999.67</u>	cor. arc to sine	<u>149</u>
$3 \log x'$	<u>14.93317083</u>	$\log S_1$	<u>4.46174730</u>
$\log 1/(6\rho_0^2)$	<u>4.5810213</u>	$\log A$	<u>8.50913129</u>
$\log x'^3/(6\rho_0^2)$	<u>9.5141921</u>	$\log \sec \phi$	<u>0.11254267</u>
$\log S_m^2$	<u>8.92349758</u>	$\log \Delta \lambda_1$	<u>3.08342126</u>
$\log C$	<u>1.320550</u>	cor. sine to arc	<u>- 250</u>
$\log \Delta \phi$	<u>0.244048</u>	$\log \Delta \lambda$	<u>3.08342376</u>
		$\Delta \lambda$	<u>1211.7799</u>
y	<u>240,000.00</u>		
ϕ' (by interpolation)	<u>39 29 32.2100</u>	λ (central mer.)	<u>74 40 "</u>
$\Delta \phi$	<u>1.7581</u>	$\Delta \lambda$	<u>20 11.7799</u>
ϕ	<u>39 29 30.4559</u>	λ	<u>74 19 48.2201</u>
	<u>93.93 mm</u>		<u>115.23 mm</u>

Explanation of form:

$$x' = x - K$$

$$S_0 = x' - \frac{x'^3}{(6\rho_0^2)}$$

$$S_m = \frac{1}{R} \left(\frac{1200}{3937} \right) S_0$$

R = scale reduction factor

ϕ' is interpolated from table of y

$$\Delta \phi = C S_m^2$$

$$\phi = \phi' - \Delta \phi$$

$$\Delta \lambda_1 = S_1 A \sec \phi$$

$$\log S_1 = \log S_m - \text{cor. arc to sine}$$

$$\log \Delta \lambda = \log \Delta \lambda_1 + \text{cor. arc to sine}$$

$$\lambda = \lambda \text{ (central mer.)} - \Delta \lambda$$

REVIEW OF AIR PHOTO COMPILATION T-5445
Scale 1:10,000

Comparison with Graphic Control Surveys

1. T-6400a (June 1935; additional work June 1936), 1:10,000

The identification of station (N. Gable Larger) is doubtful. This station was transferred from the photo compilation to T-6400a but not used or checked on this graphic control survey. The station has been removed from this compilation. The station is also shown on graphic control survey T-6401a.

No other discrepancies.

2. T-6400b (June 1935; additional work June 1936), 1:10,000

The air photo compilation has been revised and shoreline shown on the latter is now in perfect agreement with rodded sections on T-6400b. No discrepancies noted.

3. T-6401a (May 1935; additional work June 1936), 1:10,000

The card description for station N. Gable Larger (d) is inadequate for identification of the station and has been removed from the files. The station has been removed from the photo compilation. Although T-6401a and T-5445 agree in the position of the station, the photos are not clear and the identification of the correct building in a group of three is uncertain.

No discrepancies noted.

All detail on the above graphic control sheets falling within the area of this compilation is now shown on T-5445 with the exception of temporary planetable stations and magnetic meridians.

Comparison with Contemporary Hydrographic Surveys

- H-5893 (July 1935), 1:10,000

H-5893 shows the M.H.W. line of May 1935 at the southern end of Tucker Island. The 1936 planetable survey T-6401a shows very large changes in Tucker Island and Little Egg Inlet since the 1935 planetable and hydrographic surveys.

Several other minor changes have been made in the shoreline of T-5445 which do not appear on H-5893. They are, however, inconsequential.

The positions of lights shown on that portion of H-5893 covered by T-5445 have been changed. Later 1936 locations are shown on this compilation and on graphic control surveys T-6400 and T-6401.

Comparison with Previous Topographic Surveys

T-119	(1840-41),	1:20,000
T-1333	(1871)	"
T-1315a	(1872)	"
T-2456	(1899)	"
T-2640	(1903)	1:10,000
T-4077	(1924)	1:5,000

All of the above sheets show the severest type of shore erosion and silting. In the time that elapsed between the surveys made in 1840 and 1871, Beachhaven Inlet was entirely closed and Tucker Island became a continuation of Long Beach. A large island just west of what is today Tucker Island was formed. Beachhaven Inlet does not again appear on any planetable survey until 1924 when it again shows on sheet T-4077. In the meantime, too, the above mentioned island west of Tucker Island has evidently become part of the latter and subsequent erosion has reduced it to its present form.

The southern end of Tucker Island shows cycles of erosion and building up or silting. These alternate changes in this locality are as large as 1400 meters (approx.).

The interior topography shows small changes in detail.

This compilation is complete and adequate to supersede the above planetable survey in the common area.

Comparison with Chart 3243 (1:80,000), August 1936.

This compilation shows numerous corrections in shoreline and interior detail and additions of piers, jetties, etc. to the present chart.

Several low marshy islands at lat. $39^{\circ} 33.1'$, long. $74^{\circ} 16.6'$ and other similar islands in Hither Channel and in Barrel Channel are not shown on the present chart.

The northerly section of what is known as the Seven Islands is different ~~shows several changes in configuration of these islands.~~
from the configuration in the present chart.

Goosebar Sedge shows an entirely different outline from that depicted on the chart.

A cable crossing, running from lat. $39^{\circ} 32.1'$, long. $74^{\circ} 15.9'$ to lat. $39^{\circ} 31.4'$, long. $74^{\circ} 17.8'$ and another running due south from lat. $39^{\circ} 30.4'$, long. $74^{\circ} 19.2'$ are absent from this chart.

refer to page 6 of desc. report.

Tucker Island has changed considerably, erosion having taken place at its southern point and silting having occurred at its northern extremity.

Positions of lights shown on compilation T-5445 are from the graphic control surveys of June 1936 except Light 33-A located June 1935, and are believed to be the latest available positions.

All landmarks in this area shown on Chart 3243 are shown on T-5445. There are no beacons in this area.

Supplemental Data

Triangulation: See page 3 of the descriptive report, T-5445. Triangulation of Rigg, 1935, was plotted from unadjusted positions, but comparison with the final adjusted positions shows a difference of only a fraction of a meter.

Refer to page 2 of the descriptive report, T-5445, for list of photographs and dates. The detail on this compilation is of the date of the 1932 photographs except as follows:

- (1) Outer coast line, the whole of Tucker Island, and the coast line of the north side of Beachhaven Inlet are from planetable surveys of May and June 1935 and June 1936, as noted on the compilation.
- (2) The interior detail of Long Beach has been corrected to the photographs of January 1933. These photographs cover only a narrow strip along the coast.
- (3) Lights were located by planetable surveys of 1935 and 1936.
- (4) Recoverable topographic stations were located by field inspection of November 1934 to March 1935, and by planetable surveys in May and June 1935 and June 1936.

Remarks

The drafting of shoreline and topographic symbols was poorly executed.

March 9, 1937.

F. R. Gollon.

Frank R. Gollon
V.B.G. Jones

REVIEW OF AIR PHOTO COMPILATION NO.

Chief of Party: Roswell C. Bolstad

Compiled by: (See page 2 of this report)

Project: New York Air Photo Compilation Instructions dated: Nov. 15, 1932
Party No. 12

- ✓ 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)
- ✓ 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. 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, shoals, 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)
- ✓ 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)

Previously submitted, see paragraph on LANDMARKS, page 7.

- ✓ 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, of importance to navigation, occur 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 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: Any additional notes and requirements affecting this area are referred to the report of Lt. B.H. Rigg, who is conducting a combined-operations party in this area at the present time.

18. Examined and approved;
Preliminary review by:-

J.J. Lanigan
J.J. Lanigan
Surveyor

Roswell C. Boisted
Roswell C. Boisted
Chief of Party

19. Remarks after review in office:

Reviewed in office by:

Frank R. Jollo *W.B. Jones*

Examined and approved:

C.K. Green
Chief, Section of Field Records

Fred. L. Peacock
Chief, Division of Charts
Section of Field Work

L.O. Jollo
Chief, Section of Field Work
Chief of Party
Chief, Division of Hydrography
and Topography.