

5980

5981

1863

0863

Ding Cht. No. 289

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT.

Type of Survey Shoreline (Photogrammetric)Field No. _____ Office No. T-5980 and
Project No. 51-(49) T-5981

LOCALITY

State MaineGeneral locality Kennebec RiverLocality From 1½ miles north of Gardiner to
4 miles north of Augusta, Maine1949

CHIEF OF PARTY

E. R. McCarthy, Chief of Party

H. A. Paton, Baltimore Photo. Office

LIBRARY & ARCHIVES

DATE

May 19-1953

8-1870-1 (1)

DATA RECORD

T 5980 & 5981

Project No. (II):

Ph-51(49)

Quadrangle Name (IV):

Field Office (II):

Washington, N. C.

Photogrammetric Office (III):

Baltimore, Md.

Instructions dated (II) (III):

(11) - 7 July 1949 (Field)

6 Dec. 1949 (Office)

Chief of Party:

Comdr. E.R. McCarthy

Officer-in-Charge:

Hubert A. Paton

Copy filed in Division of

Photogrammetry (IV)

Office Files

Method of Compilation (III): Multiplex (Bausch and Lomb)

Manuscript Scale (III): 1:10,000

Stereoscopic Plotting Instrument Scale (III): 1:10,000

Scale Factor (III): 1.000

Date received in Washington Office (IV): 5-15-50 Date reported to Nautical Chart Branch (IV):

Applied to Chart No.

Date:

Date registered (IV): 12-29-52

Publication Scale (IV):

Publication date (IV):

Geographic Datum (III): N.A.1927

Vertical Datum (III): M.H.W.

Mean sea level except as follows:

Elevations shown as (25) refer to mean high water

Elevations shown as (5) refer to sounding datum

i.e., mean low water or mean lower low water

Reference Station (III): BURNT HILL, 1868

Lat.: 44 19 13.932

Long.: 69 47 08.322

Adjusted
~~Unadjusted~~

Plane Coordinates (IV):

State: Maine

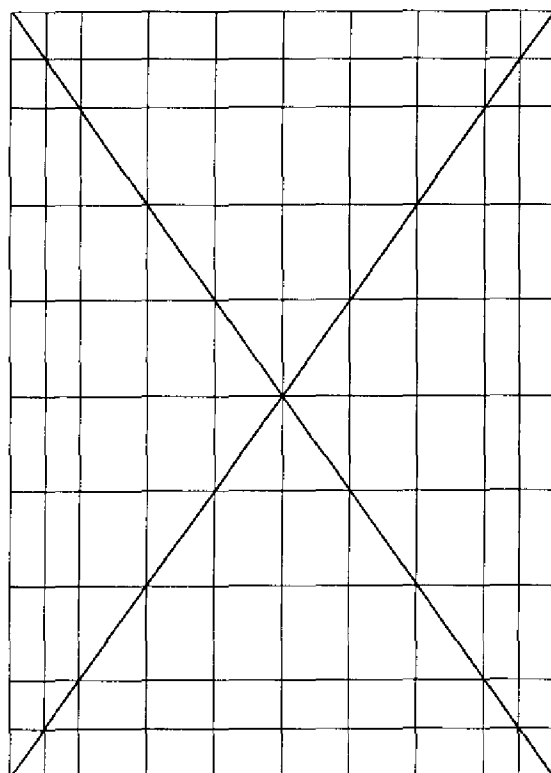
Zone: West

Y=

X=

Roman numerals indicate whether the item is to be entered by (II) Field Party, (III) Photogrammetric Office, or (IV) Washington Office.

When entering names of personnel on this record give the surname and initials, not initials only.



Areas contoured by various personnel
(Show name within area)
(II) (III)

DATA RECORD

Field Inspection by (II):

James A. Clear, Jr.

Harry R. Moore

Stanley D. Aiken

Date:

9/15/49

10/7/49

Planetable contouring by (II):

Date:

Completion Surveys by (II): *None*

Date:

Mean High Water Location (III) (State date and method of location):

May 10, 1949 (date of photography)

Projection and Grids ruled by (IV): T.L.J.

Date: 12/2/49, 2/9/50

Projection and Grids checked by (IV): T.L.J.

Date: 12/2/49, 2/9/50

Control plotted by (III): A.K. Heywood T-5980
T-5981

Date: 1/50
2/50

Control checked by (III): Henry P. Eichert

Date: 1/50, 2/50

Radial Plot or Stereoscopic A.C. Rauck T-5980
Control extension by (III): A.K. Heywood T-5981

Date: 1/50
2/50

Planimetry A.C. Rauck T-5980
Stereoscopic Instrument compilation (III): ~~RAUCK~~ A.K. Heywood T-5981

Date: 1/50
Date: 2/50

Manuscript delineated by (II): T-5980 - B.A. Dew
T-5981 - A.K. Heywood

Date:

Photogrammetric Office Review by (III): A.C. Rauck

Date: 4/50

Elevations on Manuscript

checked by (II) (III): *Not applicable*

Date:

Camera (kind or source) (III): USC&GS TYPE O 6" focal length

Number	Date	Time	Scale	Stage of Tide
49-O-711 to 713	5/10/49	1454	1:24,000	4' above MLW
49-O-714 to 715	"	1456	"	4' above MLW
49-O-744 to 748	"	1534	"	3' above MLW
49-O-749 to 751	"		"	Above tide water

Tide (III)

(From Predicted Tables)

Reference Station: Portland, Maine
Subordinate Station: Augusta, Maine
Subordinate Station: Gardiner, Maine

Ratio of Ranges	Mean Range	Spring Range
1.0	8.9	10.2
0.5	4.1	4.6
0.6	5.0	5.7

Washington Office Review by (IV): *K. N. Maki*

Date: *Dec. 28, 1952*

Final Drafting by (IV): *E. Hunter (5980)*
" *(5981)*

Date: *May 8, 1952*
May 8, 1952

Drafting verified for reproduction by (IV): *M. C. Webber (5980)*
" *(5981)* *E. Hunter*

Date: *June 11, 1952*
June 11, 1952

Proof Edit by (IV):

Date:

Land Area (Sq. Statute Miles) (III):

Shoreline (More than 200 meters to opposite shore) (III):

8 statute mi

Shoreline (Less than 200 meters to opposite shore) (III):

6.5 statute mi

Control Leveling - Miles (II):

Number of Triangulation Stations searched for (II): 29

Recovered: 21

Identified: 12

Number of BMs searched for (II): 4

Recovered: 4

Identified: 4

Number of Recoverable Photo Stations established (III): 14

Number of Temporary Photo Hydro Stations established (III): None

Remarks:

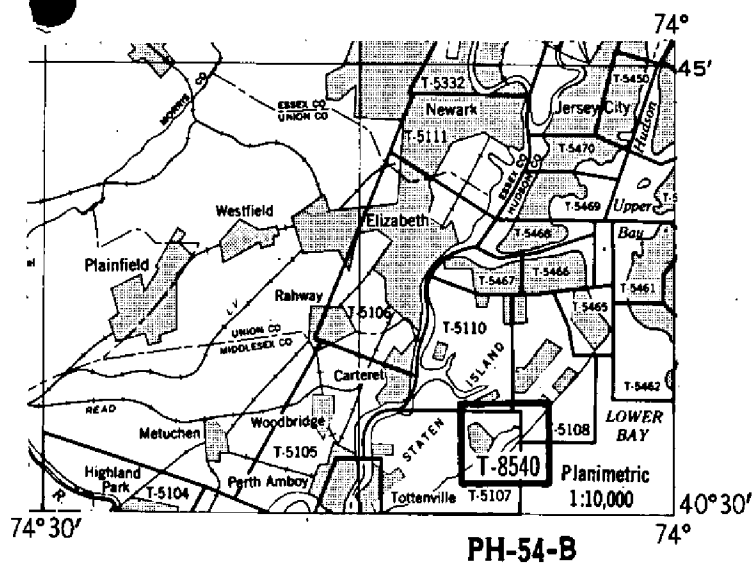
Summary to Accompany T-5980 and T-5981

Shoreline maps T-5980 and T-5981 are two of six similar maps in project Ph-51(49) and are the two most northerly maps in the project. Project Ph-51(49) extends along the Kennebec River, Maine from a junction with project CS-272 at latitude $44^{\circ} 00'$ upstream to a point approximately 2 miles north of Augusta at latitude $44^{\circ} 23'$. This is a multiplex project, in advance of hydrographic surveys to be made at a later date. The field operations preceding compilation included recovery and identification of horizontal control, shoreline inspection, inshore inspection, location of aids to navigation, selection and location of landmarks and geographic names investigation. The multiplex compilation was at a scale of 1:10,000 and the manuscripts were used as multiplex sheets.

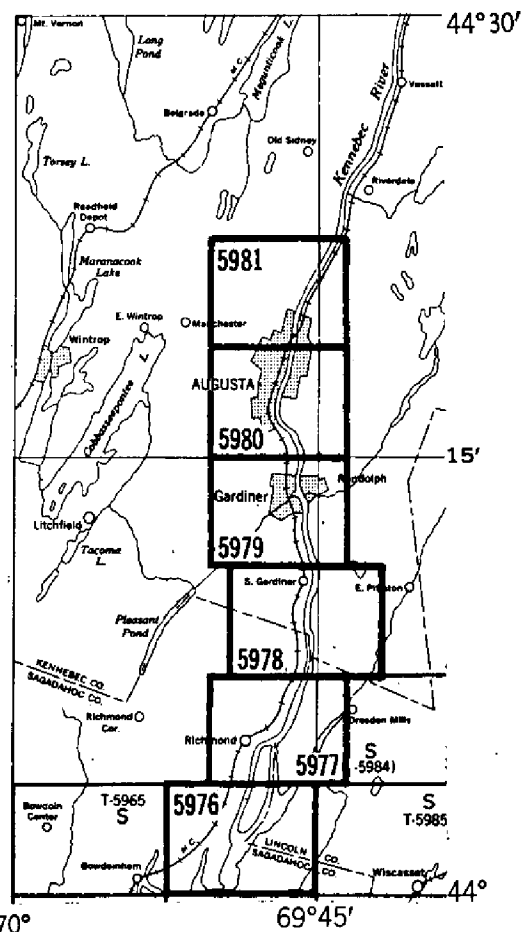
Data pertaining to T-5980 and T-5981 will be filed as follows:

- (a) Filed in the Division of Photogrammetry
 - 1. Two map manuscripts, T-5980 and T-5981, scale 1:10,000
 - 2. Form 524 (14)
- (b) Filed in the Coast and Geodetic Survey Archives
 - 1. Combined Descriptive Report for T-5980 and T-5981
 - 2. A cloth-backed lithographic print of T-5980 and T-5981.

PH-54 (49) **PH-51 (49)**



PH-51 (49)
MAINE, Kennebec River
SHORELINE
1:10,000



FIELD INSPECTION REPORT
SHORELINE SHEETS 5980 & 5981
PROJECT Ph-51(49)

E. R. McCarthy, Chief of Party

All phases of the field work were done in accordance with The Director's Instructions, Project Ph-51(49), Field, dated 7 July 1949; any deviations from same are noted in this report.

The field work on these sheets was performed by the following personnel on the dates indicated:

<u>Name & Title</u>	<u>Field Work</u>	<u>Dates</u>
James A. Clear, Jr. Cartographic Survey Aid	Identification, Shoreline, and Inspection	9/15/49 10/7/49
R. A. Horn Cartographic Engineer	Recovery, Identification, and Inspection	9/15/49 10/7/49

1. Description of the Area

The area surveyed includes the Kennebec River from a point approximately $1\frac{1}{2}$ miles north of Gardiner to a point about 4 miles north of the dam at Augusta, and the land areas adjacent.

Access to the area is available by highway, the Maine Central Railroad, private yachts (limited), and the Augusta Airport (Commercial Air Lines).

A large percentage of the area is urban since the towns of Hallowell and Augusta fall within the survey limits. It is quite industrialized with a large pulp mill, cotton mill, and shoe factories absorbing a considerable portion of the local labor.

Worthy of mention at this point is the fact that water traffic on the Kennebec River, during the course of work on this project, has been an absolute minimum. On rare occasions a small oil tanker makes its way to Hallowell. Private craft, likewise, are very infrequent.

Description of the Area (Cont'd)

The river, below the dam in Augusta, should be considered navigable only as far as the old highway bridge. Small craft operating above the dam should exercise caution since there are an abundance of pulpwood "bolts" (short logs) throughout this portion of the river.

2. Completeness of Field Inspection

It is felt that field inspection has been adequately covered on the photographs.

3. Interpretation of the Photographs

See Report on Shoreline Sheets 5976 & 5977.

4. Horizontal Control

The horizontal control within the limits of the sheets consisted of that established by the U.S. Coast and Geodetic Survey, U.S. Engineers, U.S. Geological Survey, and the Maine Geodetic Survey.

A thorough search was made for all U.S. Coast and Geodetic Survey stations and approximately 70 percent were recovered. A total of 5 U.S.C. & G.S. triangulation stations, 2 U.S. Engineers stations, 4 U.S.G.S. stations, and 1 Maine Geodetic Survey stations were identified for photogrammetric control purposes. The following is a listing of stations identified:

Sheet 9080

MON-23 (M.G.S.)-1935.....	Sub. Station
WORK (U.S.E.)-1937.....	Sub. Station
OLD "N" (U.S.E.)-1937.....	Pricked Direct
HALLOWELL METH. CH. SP. (GILT BALL)-1868.....	Pricked Direct
AUGUSTA CAPITOL FLAGSTAFF-1868.....	Pricked Direct

Sheet 9081

SAND HILL-1935.....	Sub. Station
BURNT HILL-1868.....	Sub. Station
TT-3D-1940(U.S.G.S.).....	Sub. Station
TT-2D-1940(U.S.G.S.).....	Arcs
AUGUSTA CONGREGATIONAL-1868.....	Pricked Direct
TT POINT 1943 + (U.S.G.S.)-1940.....	Pricked Direct
TT STATIONS 37, 658, 1953 (U.S.G.S.).....	Pricked Direct

Horizontal Control (Cont'd)

For purposes of a "tie" between the U.S. Engineers scheme of triangulation and that of the U.S. Coast and Geodetic Survey in the area, a short traverse was run and a polaris observation made for a point and azimuth connection. The origin of the traverse was MON. 23 (Maine Geodetic Survey); the destination was HAMIL (U.S.E.). Since the Coast Survey, for an appreciable length of time, supervised the establishment of the scheme of which MON.23 is a part; also computed and adjusted the field notes on same, it was felt that this station was a justifiable origin for the connection executed.

Forms 24-A, 470, and 250 are submitted to the Division of Geodesy for the completion of adjustment.

5. Vertical Control

Four (4) Tidal Bench Marks, Maine-69 (U.S. Coast and Geodetic Survey) were recovered and identified. These stations were identified directly on the photographs, which is not in exact compliance with project instructions. It was felt, however, that under existing circumstances at these particular points, direct identification would give at least an equivalent, and potentially greater, degree of accuracy than that which could be obtained by the prescribed substitute point method.

In accordance with project instructions (Item No.8) the difference in water levels, above and below the dam in Augusta, was determined. At 09:16 (E.S.T.) on Tuesday 27 September 1949, this difference was 21.9 feet. High tide was about 0700 this date. Water above the dam was considered at about same stage as at time of photography.

6. Contours and Drainage

Water level above dam \pm 22.35' above the MHW level of water below the dam.

Not applicable.

7. Mean High Water Line

The mean high water line, in virtually all cases, extends back to the woods or brush line. There is, however, an abundance of grass in water, the outer limits of which have been indicated by a dashed line.

Although the water level above the dam in Augusta is not affected by tides, said level varies with amount of run-off and quantities consumed by the two large mills at the dam.

Mean High Water Line (Cont'd)

At times there is no water flowing over the breast.. The MHWL delineated above the dam is, therefore, an indication of fast land at the average high water..

8. Low Water Line

Where practical, the approximate position of the mean low water line has been shown on the photographs.. This line is not, in all cases, coincident with the grass in water line..

An approximate M.L.W.L. has been indicated on two fairly large spoil areas which bare about 2 feet at low water..

9. Wharves and Shoreline Structures

All wharves and shoreline structures have been inspected, and explained on the photographs where necessary.

10. Details Off-Shore from Mean High Water Line

At various points along the Kennebec River notations have been made indicating "Crib Piers".. These are log-faced, stone filled structures that were used in the days when logs in considerable numbers were floated down river.. A log boom was strung between the crib piers to control the movement of the logs.. This practice has been abandoned..

Above the dam at Augusta there is an extensive log boom, employed to control the movement of the pulpwood "bolts".. The position of this log-boom is changed repeatedly and at times the northern end is tied to the west bank, closing off the river.. There are gates, however, to permit passage of small craft during such periods.. The boom is removed during winter months.

Below the dam, at approximate latitude 44°17.8' and longitude 69° 46.8', a floating log (anchored at one end) was noted.. Since said log sweeps with the tide the general danger area has been indicated..

In addition, several water-soaked log obstructions were observed below the dam.. In all cases they were close to shore, with the tip of each projecting about 6" above the water level..

Details Off-Shore from Mean High Water Line (Cont'd)

They shift with the tides and a definite geographic position, therefore, could not be satisfactorily determined for charting.. This fact should, however, be incorporated in the Coast Pilot Information.

11..Landmarks and Aids to Navigation

There were no established landmarks or fixed aids to navigation within the limits of these two sheets.. Three objects which will serve satisfactorily as landmarks have been determined, and the information is submitted on Form 567..

The Maine Central Railroad is very close and generally parallel to the river. Railroad semaphores were identified on the photographs and may serve as secondary landmarks.

In some instances it was possible for the field party to identify several floating aids to navigation. Although this was not prescribed in the instructions, it was done without any additional effort and, it is felt, may serve as a check in some quarter.. On the surface, the ability to do this may appear to refute the testimony in paragraph 3 of this report.. In reality it was simply a case of particularly good contrast and other external conditions..

12. Hydrographic Control

Not applicable.

13. Landing Fields and Aeronautical Aids

There is one landing field within these two sheets, the Augusta Airport, which accomodates commercial airlines as well as private aircraft..

Two commercial radio station towers and one State Police radio tower have been located on the photographs and may serve as aeronautical aids.. Forms 524 and 567 are submitted with information relative to each.

14. Roads

The roads and trails were classified in accordance with Photogrammetry Instructions No. 10, dated 14 April 1947, and the Ammendment to the above dated 24 October 1947.

Roads (Cont'd)

At Augusta, on both sides of river, traffic circles and approaches to a new highway bridge were shown on the photograph by planetable methods.

15. Bridges

All bridge information for the area covered by this report as listed in the U.S. Engineers "List of Bridges over Navigable Waters in the U. S.", dated July 1, 1941 was verified in the field, all clearances were carefully measured with a steel tape, and published descriptions and clearances were found to be correct except for the following omissions, which were reported to the local District Engineer..

<u>Miles</u>	<u>Type</u>	<u>Spans</u>	<u>Channel (Horiz)</u>	<u>Channel (Vert-H.W.)</u>
43.8	Fixed	11	223.0' (Right)	69.6
44.1	Fixed	3	181.0 (Center)	27.7
44.3	Fixed	7	150.6 (Center)	38.4

The latter two bridges are listed in the Bridge Book but clearances are not shown. Although the river is not navigable, this date, at the position of these bridges the clearances were determined and submitted..

The first bridge listed is the Augusta Highway Bridge which is under construction. The figures given are the proposed clearances. This bridge is nearing completion and was located on a photograph by planetable methods.. A General Elevation plan of this bridge is submitted with the field records..

16. Buildings & Structures

Buildings and structures have been classified in accordance with Photogrammetry Instructions No. 29, dated 10/1/48, with variations noted herewith.. Part (d) of paragraph 9 in these instructions has been executed in reverse in rural areas..

Buildings & Structures (Cont'd)

Since on shoreline sheets all structures are to be shown, the predominant number of buildings come under class 2. Therefore, for clarity, only class 1 buildings have been identified with all others considered class 2. In the urban areas, which extends from the southern portion of Hallowell to the northern limits of Augusta, class 2 buildings have been circled with all others being considered class 1. Appropriate notes have been made on the photographs.

An unusual condition exists in this region in that the barns, for the most part, are connected directly to the dwellings. To simplify the complication of the buildings, a short line has been drawn on the photographs showing the division of barn and dwelling, with the latter then being indicated as class 1.

17. Boundary Monuments and Lines

There were no boundary monuments or lines investigated within the limits of the sheets.

18. Geographic Names

Geographic Names for this project are the subject of a special "GEOGRAPHIC NAMES REPORT". The principal names recommended, i.e., points, coves, islands, etc., are shown on the preliminary name sheets submitted. Secondary names, particularly in urban areas, such as names of streets, schools, churches, and cemeteries are not shown on the preliminary names sheet. Since said sheets are 1:62,500 scale it was felt that such names could not be shown with any degree of legibility.

Geographic Names (Cont'd)

These names, however, have been indicated on the photographs.

Submitted:
Date: 10/11/49

James A. Clear Jr.
James A. Clear, Jr.
Cartographic Survey Aid

R. A. Horn
R. A. Horn.
Cartographic Engineer

Em. Lub

PHOTOGRAMMETRIC PLOT REPORT

21. AREA COVERED

T-5980 and T-5981.

22. METHOD

General methods used were the same as for T-5976 and T-5977.

One four-model strip and a single model were set up for T-5980. The strip (49-0-711 to 715) extended from AUGUSTA CONG.CH.SPIRE, 1868, SUB.PT. BURNT HILL, 1868 and TT2D, 1940(USGS) to SUB.PT. WORK, 1937 (USE). Intermediate stations were OLD "N", 1937 (USE), SUB. PT. 23, 1935 (MGS) and HALLOWELL METH. CH.SP. 1868. All stations were held. AUGUSTA CAPITOL FLAGSTAFF, 1868 would not hold. The field inspection party had assumed that the flagstaff, now gone, had been located on the dome of the building. It is apparent that the flagstaff was on the front of the building. Nearby, in the same model, were 21, 1935 (MGS) and 22, 1935 (MGS). These stations were not identified but from their descriptions appeared to be holding. *See Review Report*

In the USGS listing, it was discovered that several of the positions and descriptions apparently were scrambled. The position for TT2D, 1940 was listed under the description for 12+, and the position for 37+ was listed under the description for TT2D, 1940.

It was necessary to set a single model to the west (49-0-745-746) in order to plot the position of landmark STANDPIPE, 1949. Control points for this model were OLD "N", 1937(USE), SUB. PT. 23, 1935(MGS) and HALLOWELL METH. CH.SP. 1868. The planimetry from the adjoining model (49-0-713-714) was used for scale.

A four-model strip was set for T-5981 (49-0-747 to 751). It extended from SUB.PT. BURNT HILL, 1868 and AUGUSTA CONG.CH.SP. 1868 to SUB.PT. TT3D, 1940(USGS). Intermediate stations also held were 658=37+(USGS) and 1943+(USGS). A tie was made with the planimetry from T-5980 to the south.

23. ADEQUACY OF CONTROL

Control complied with projection instructions and was adequate. One control point, SUB.PT. SAND HILL, 1934 (MGS), would not hold in the extension for T-5981. The image point plotted about 9.5 mm southwest of its computed geographic position. All pertinent data were carefully examined but no error was evident. *Checked during review. See item #67*

A copy of a letter to the Chief, Division of Photogrammetry, dated 17 March is attached to this report.

24. SUPPLEMENTAL DATA

Inapplicable

25. PHOTOGRAPHY

See report for T-5976 and T-5977. The quality of the diapositives was better.

26. RECOMMENDATIONS

See report for T-5976 and T-5977.

27. ACCURACY

It is believed that all well-defined points are located to within 0.5mm of their correct geographic positions.

Approved and forwarded

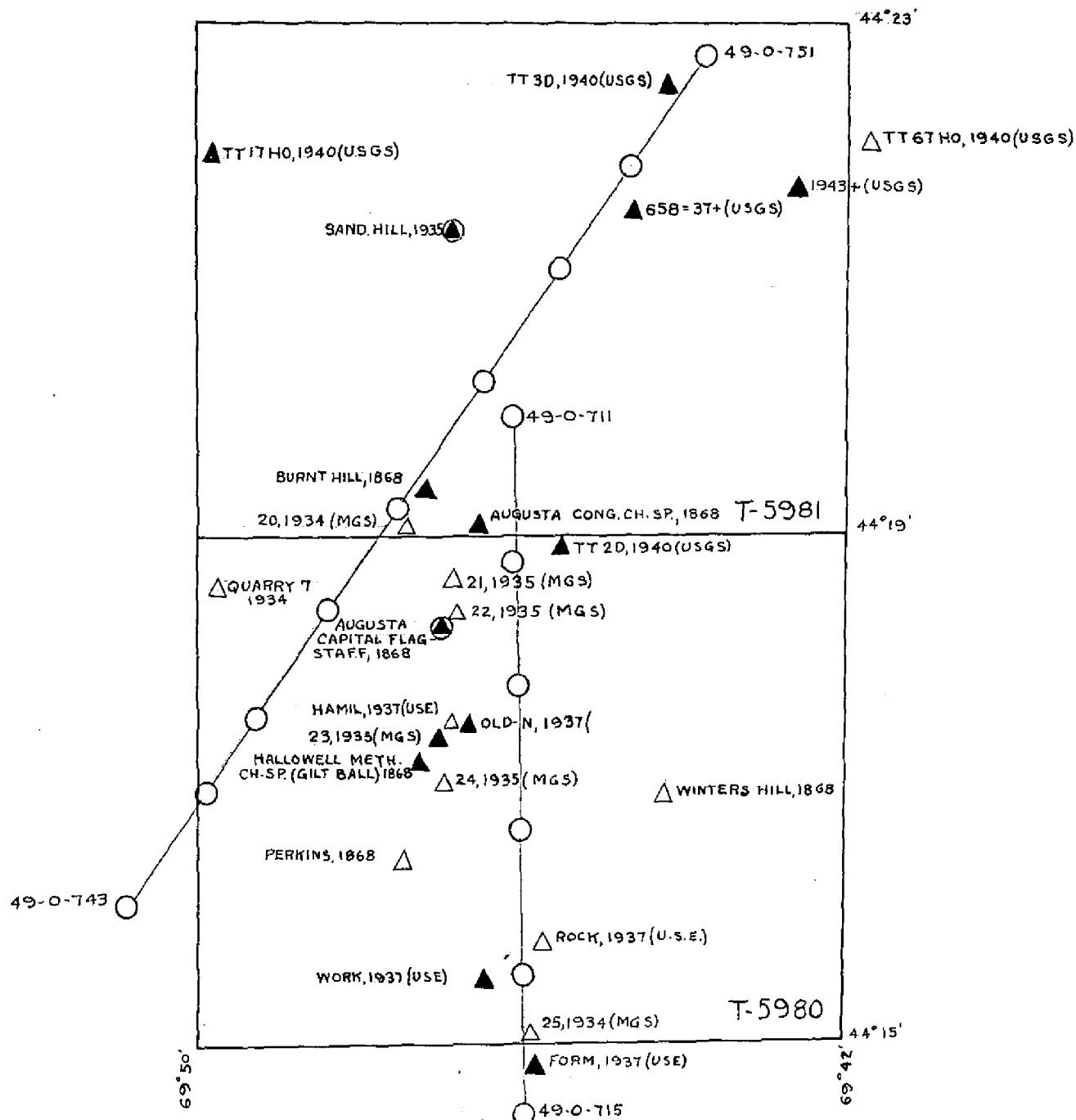
Respectfully submitted
16 March 1950



Hubert A. Paton
Comdr., USC&GS
Officer in Charge



Henry P. Eichert
Cartographer (Photo.)



HORIZONTAL CONTROL STATIONS

PROJECT PH-51(49)

KENNEBEC RIVER, MAINE

- △ Triangulation Station (Recovered, not identified)
- ▲ Triangulation Station (Identified and held)
- Triangulation Station (Identified, not held)

MAP T. 5280. PROJECT NO. Ph-51(49) SCALE OF MAP 1:10,000 SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ν -COORDINATE LONGITUDE OR λ -COORDINATE		DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS		N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS		FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS	
					FORWARD (BACK)		FORWARD (BACK)		FORWARD (BACK)	
* AUGUSTA CAPITAL PLASSTAFF, 1868	6793 Pg 285	N.A. 1927	44 18	25.48			786.5 (1065.4)			
			69 46	55.38			1227.5 (102.4)			
HALLOWELL, METH. CH SPIRE (GILT BALL) 1868	" 284	"	44 17	10.48			323.5 (1528.4)			
			69 47	38.68			857.7 (472.6)			
PERKINS, 1868	" 276	"	44 16	18.938			584.5 (1267.4)			
			69 47	47.592			1055.5 (275.2)			
WINTERS HILL, 1868	" 276	"	44 16	53.928			1664.5 (187.4)			
			69 44	27.715			614.6 (715.8)			
HUNT, 1868	" 286	"	44 15	45.27			1397.3 (454.6)			
			69 46	0 5.62			124.7 (1206.2)			
OLD N, 1937(USE)	" 131	"	530,351.62				107.2 (1416.8)			
			599,572.63				1393.7 (130.3)			
ROCK, 1937(USE)	" 133	"	520,950.77				289.8 (1234.2)			
			603,667.01				1117.7 (406.3)			
HAMIL, 1937(USE)	" 131	"	530,172.58				52.6 (1471.4)			
			598,706.93				1129.9 (394.1)			
WORK, 1937 (USE)	" 133	"	519,038.32				1230.9 (293.1)			
			603,367.72				1026.5 (497.5)			
21, 1935 (MGS)	CWA P.6	"	538,777.0				1151.2 (372.8)			
			601,259.8				384.0 (1140.0)			
22, 1935 (MGS)	"	"	537,483.07				756.8 (767.2)			
			600,865.32				263.8 (1260.2)			
* See descriptive report.		Station believed lost.								

1 FT. = 3048008 METER
COMPUTED BY: H.P. Eichert
CHECKED BY: A.K. Heywood
DATE 1-50
DATE 1-50

MAP T. 5980

PROJECT NO..... Ph-51(49)

SCALE OF MAP.....1:10,000

SCALE FACTOR 1.000

[illegible]

1 FT. = 3048006 METER/

COMPUTED BY: Henry P. Eichert

DATE 1-50

CHECKED BY:

DATE 1-50

4-2388.12

MAP T. 5981

PROJECT NO. Ph-51(49)

SCALE OF MAP

1:10,000

SCALE FACTOR 1.000

STATION	SOURCE OF INFORMATION (INDEX)	DATUM	LATITUDE OR ν -COORDINATE LONGITUDE OR x -COORDINATE	DISTANCE FROM GRID IN FEET. OR PROJECTION LINE IN METERS FORWARD (BACK)	DATUM CORRECTION	N.A. 1927 - DATUM DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)	FACTOR DISTANCE FROM GRID OR PROJECTION LINE IN METERS FORWARD (BACK)
BURNT HILL, 1868	G-6793 P. 276	N.A. 1927	44 19 13.932			430.0 (1422.0)	
	"	"	69 47 08.322			184.4 (1145.2)	
AUGUSTA CONG. SPIRE, 1868	P. 285	"	44 19 00.49			15.1 (1836.9)	
	"	"	69 46 34.38			761.9 (567.8)	
1943 (USGS)	USGS Vassalboro P. 9	"	44 22 05.44			167.9 (1684.1)	Unmarked & Rd. Deleted
	"	"	69 43 20.38			451.3 (877.2)	
TT 3D, 1940, (USGS)	P. 2	"	44 22 45.37			1400.4 (451.6)	
	"	"	69 44 26.57			588.2 (740.1)	
658 = 37 + (USGS)	USGS Augusta P. 6	"	44 21 46.28			1428.5 (423.5)	Unmarked & Rd. Deleted
	"	"	69 45 03.82			84.6 (1244.0)	
TT 2D, 1940 (USGS)	P. 2	"	44 19 57.92			1787.8 (64.2)	
	"	"	69 46 05.10			113.0 (1216.7)	
TT 17 HO, 1940 (USGS)	P. 6	"	44 22 16.82			519.2 (1332.8)	
	"	"	69 49 58.53			1295.9 (32.5)	
TT 67 HO, 1940 (USGS)	USGS Vassalboro P. 9	"	44 22 26.62			821.7 (1030.3)	
	"	"	69 42 23.08			511.0 (817.4)	
20, 1934 (MGS)	CWA P. 6	"	541,052.48			320.8 (1203.2)	
	"	"	598,415.44			1041.0 (483.0)	
SAND HILL, 1935 (MGS)	"	"	554,946.88			1507.8 (16.2)	
	"	"	598,986.07			1215.0 (309.0)	
TT 2D, 1940 (USGS)	USGS AUGUSTA P. 6	"	44 18 33.54			1035.2 (816.8)	On T-5980
	"	"	69 45 53.44			1184.4 (145.5)	20

1 FT. = 3048006 MEER

COMPUTED BY: Henry F. Eichert

DATE 1-50

CHECKED BY:

D. M. Grant

DATE

1-50

M. 2388-12

COMPILATION REPORT, T-5980 and T-5981

31. DELINEATION

Refer to Photogrammetric Plot Report

North limits of T-5981 extended to latitude 44° 23' as no half minute projection lines were ruled. Delineation of detail of approximately one quarter minute of latitude in this area is the compiler's interpretation.

32. CONTROL

Refer to Photogrammetric Plot Report.

Sub. Pt. Sand Hill, 1935 (M.G.S.) could not be held in the control extension by approximately 10 m. m.

33. SUPPLEMENTAL DATA

Photostat copy of proposed bridge over the Kennebec River at Augusta. This was not used to supplement the delineation of the bridge. *Copy filed in desc report envelope - Div. Photogrammetry. General Files*

34. CONTOURS AND DRAINAGE

Inapplicable.

35. SHORELINE AND ALONGSHORE DETAILS

Shoreline and low water lines are from adequate field inspection.

Refer to items 7, 8, 9, field inspection report.

36. OFFSHORE DETAILS

Refer to item 10, field inspection report.

37. LANDMARKS AND AIDS

The positions of six landmarks and/or aids plotted by multiplex methods are submitted on form 567 and forwarded with the descriptive report. *Attached to this desc. report.*

Refer to items 11 and 13, field inspection report. Railroad semaphores discussed in item 11 were not considered important and are not shown. ✓

38. CONTROL FOR FUTURE SURVEYS

Forms 524 are forwarded with this report for fourteen recoverable topographic stations. *Filed in Div. Photogrammetry General Files*

Inasmuch as these are not listed under item 11 of the field inspection report, they are herewith listed by quadrangles.

<u>T-5980</u>	<u>T-5981</u>
1 - Radio Tower - WRDO, 1949	12 - Radio Tower WFAU, 1949
2 - Radio Tower - Police, 1949	13 - East Tower, 1949
3 - Standpipe, 1949	14 - West Tower, 1949
4 - Dome, 1949	
5 - Red Stack, 1949	
6 - North Tower, Browns Island, 1949	
7 - South Tower, Browns Island, 1949	
8 - North Tower, East Bank, 1949	
9 - South Tower, East Bank, 1949	
10 - North Tower, West Bank, 1949	
11 - South Tower, West Bank, 1949	

The positions of all of these stations were determined by multiplex methods.

Refer to item 11 and 12 field inspection report, ~~and 49, Notes for the Hydrographer.~~

39. JUNCTIONS

Agreeable junctions are made between these two manuscripts and with T-5979 to the south. There is no contemporary survey to the north of T-5981.

As there is no shoreline to be joined at the east or west of these two manuscripts, no junction is necessary.

40. HORIZONTAL AND VERTICAL ACCURACY

Refer to item 27 of Photogrammetric Plot Report.

41. GEOGRAPHIC NAMES

Refer to item 18, field inspection report. *Attached list of names approved by Geographic Names Section, Div. Charts.*

46. COMPARISON WITH EXISTING MAPS

U. S. Geological Survey quadrangles, Vassalboro, and Augusta, Me. were used for comparison. These are of a scale of 1:62,500 and are editions of 1943. The Augusta quadrangle was reprinted in 1948.

The only difference worthy of note is the new highway bridge at Augusta, Maine.

47. COMPARISON WITH NAUTICAL CHARTS

Comparison was made with nautical chart No. 289, scale 1:15,000, 4th edition, published December 1943, corrected in 1949.

Towers and overhead cable, crossing the river at Augusta, are shown on the chart. These were not indicated by the field party and are not shown on the manuscript. *The new bridge falls in the same position as the overhead cable shown on the chart. See review report for additional differences.*
Several log booms shown on the chart are no longer in existence.

Items to be applied to nautical charts immediately:

New highway bridge at Augusta.

Items to be carried forward

None.

Approved and forwarded

Hubert A. Paton

Hubert A. Paton
Comdr., USC&GS
Officer in Charge

Respectfully submitted

April 1950

Albert C. Rauck, Jr.

Albert C. Rauck, Jr.
Surveying and Cartographic
Aid

PHOTOGRAMMETRIC OFFICE REVIEW

T. 5980

T. 5981

1. Projection and grids QCR 2. Title QCR 3. Manuscript numbers QCR 4. Manuscript size QCR

CONTROL STATIONS

5. Horizontal control stations of third-order or higher accuracy QCR 6. Recoverable horizontal stations of less than third-order accuracy (topographic stations) QCR 7. Photo hydro stations QCR 8. Bench marks QCR 9. Plotting of sextant fixes QCR 10. Photogrammetric plot report QCR 11. Detail points QCR

ALONGSHORE AREAS

(Nautical Chart Data)

12. Shoreline QCR 13. Low-water line QCR 14. Rocks, shoals, etc. QCR 15. Bridges QCR 16. Aids to navigation QCR 17. Landmarks QCR 18. Other alongshore physical features QCR 19. Other along-shore cultural features QCR

PHYSICAL FEATURES

20. Water features QCR 21. Natural ground cover QCR 22. ~~Planetable contours~~ 23. ~~Stereoscopic instrument contours~~ 24. ~~Contours in general~~ 25. ~~Spot elevations~~ 26. Other physical features QCR

CULTURAL FEATURES

27. Roads QCR 28. Buildings QCR 29. Railroads QCR 30. Other cultural features QCR

BOUNDARIES

31. Boundary lines QCR 32. Public land lines QCR

MISCELLANEOUS

33. Geographic names QCR 34. Junctions QCR 35. Legibility of the manuscript QCR 36. ~~Discrepancy overlay~~ 37. Descriptive Report QCR 38. Field inspection photographs QCR 39. Forms QCR 40. Albert C. Pauck, Jr. Henry P. Eicher
Reviewer Supervisor, Review Section or Unit

41. Remarks (see attached sheet)

FIELD COMPLETION ADDITIONS AND CORRECTIONS TO THE MANUSCRIPT

42. Additions and corrections furnished by the field completion survey have been applied to the manuscript. The manuscript is now complete except as noted under item 43.

Compiler_____
Supervisor

43. Remarks:

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

~~TO BE DELETED~~

STRIKE OUT ONE

NON-LOADING AIDS OR LANDMARKS FOR CHARTS

~~Baltimore, Md.~~

April

19-50

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 by

Albert C. Rauck, Jr.

Hubert Q. Patton

Hubert A. Paton

Chief of Party.

[illegible]

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TO BE CHARTED
~~TO BE CHARTED~~

MOORE ENGINEERING AID TO LANDMARKS FOR CHARTS AERONAUTICAL AID

~~Baltimore, Maryland~~

April 1950

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

The positions given have been checked after listing by Albert C. Rauck, Jr.

Hubert A. Patton
Chief of Party.

Chief of Party.

[illegible]

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by individual field survey sheets. Information under each column heading should be given.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

TO BE CHARTED

STRIKE OUT ONE

NON-FLUORESCENT AIDS OR LANDMARKS FOR CHARTS & AERONAUTICAL AIDS

Baltimore, Maryland

April 1961

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

The positions given have been checked after listing by

Albert C. Rauck, Jr.

Hubert A. Paton *Chief of Party.*

Hubert A. Paton

[illegible]

This form shall be prepared in accordance with Hydrographic Manual, pages 800 to 804. Positions of charted landmarks and *nonfloating aids* to navigation, if redetermined, shall be reported on this form. The data should be considered for the charts of the area and not by

Baltimore Photogrammetric Office
518 E. 32nd Street, Baltimore-18, Maryland.

17 March 1950.

To: Chief, Division of Photogrammetry
U. S. Coast and Geodetic Survey
Washington-25, D. C.

Subject: Horizontal control- SAND HILL, 1935 (MGS)

In bridging the horizontal control for the multiplex compilation of Survey No. T-5981, Project Ph-51(49), it was not possible to hold sub station SAND HILL, 1935 (MGS). No error in the field data is evident; however, the approximate position for station SAND HILL on the field photograph, determined from the identified sub point thereon, and the approximate position determined from the published description do not agree. The multiplex position for sub point SAND HILL, 1935(MGS) is approximately 9.5 mm southwest of its geographic position.

Hubert A. Paton
Comdr., USC&GS
Officer in Charge

n

24 March 1950

To: Comdr. Hubert A. Paton
U. S. Coast and Geodetic Survey
518 East 32nd Street
Baltimore 18, Maryland

Subject: Horizontal Control - SAND HILL, 1935 (MGS)
T-5981, Ph-51(49)

This is in reply to your letter dated 17 March 1950 informing this office that subpoint SAND HILL 1935 (MGS) could not be held during multiplex compilation.

This office is unable to explain the discrepancy of 9.5 mm. It seems inconceivable that the position of station SAND HILL is in error since it is an occupied station and the apex of three closed triangles, however, the station mark may have been moved or the field inspection party may have mistakenly recovered a companion mark, or made an error in the substation measurements.

Since station SAND HILL is not needed to control the multiplex plotting, it will not be necessary for you to make any further efforts to reconcile the discrepancy, but steps should be taken to warn future users of the possible error. This should be done by indicating the pertinent facts on Form 526 (Triangulation Recovery Notes), in duplicate and forwarding the forms to this office.

The discrepancy and its final disposition should, of course, be described in Descriptive Report T-5981 along with any related correspondence.

*The discrepancy has not
been resolved. Lerdsy
has noted in its files
that a discrepancy ^{may} exist
in connection with this
station. K.H.M. 12/29/52*

(Signed) K. T. Adams

Acting Director

48. GEOGRAPHIC NAME LIST
(a) T-5980

Augusta ✓
Augusta State Hospital ✓

Britts Shoal ✓
Browns Island ✓
Browns Island Boom ✓

Chelsea School No. 1 ✓
Chelsea School No. 2 ✓
Chelsea School No. 9 ✓
Chelsea Boom ✓
Coney High School ✓

U.S.G.S. and names report: Cony High school
(also Maine State Gde, p. 113)

Dudley Boom ✓

Farmingdale Cemetery ✓

Hallowell ✓
Hinkley Shoal ✓
Hunts Hill ✓

Loudon Hill ✓

Me. 3,
Me. 9,
Me. 11,
Me. 17,
Me. 24,
Me. 27,
Me. 100,
Me. 105
M.C. R.R. ✓
Mile Rk. ✓
Perkins Hill ✓

Shepard Pt. ✓

U.S. 201
U.S. 202

Vaughn Brook ✓

Maine ✓

Kennebec River ✓

Augusta Airport ✓
Winthrop Street

Mt. Hope Cemetery ✓

Blaine Memorial ✓

Lincoln School ✓

Augusta State Cemetery ✓

Farrington School ✓

Hallowell High School ✓

Maria Clark School ✓

Nash School ✓

Litgow Library ✓

Names underlined in red
are approved. 12-15-50
L. Heck

48- GEOGRAPHIC NAME LIST
(b)

T-5981

✓ Augusta

Ballard School

Belfast Rd - U.S. 202

Bord Brook

Burnt Hill

Cony School

Me 3 and 9 11

Me 24 27

Me 100

Me 104

Me 105

M.C.R.R.

U.S. 201

U.S. 202

Maine
Kennebec River

Mt. Hope Cemetery

Augusta Airport

St. Marys School

Smith School

Webster School

Williams School

Names underlined in
red are approved.

12-15-50. L. Heck.

Review Report
Shoreline Maps T-5980 and T-5981
28 December 1950

62. Comparison with Registered Topographic Surveys

T-1996 1:10,000, 1890-91

These maps supersede T-1996 for nautical charting purposes.

63. Comparison with maps of other Agencies.

Augusta, Maine, U.S.G.S. quadrangle, 1941
Vassalboro, Maine, U.S.G.S. quadrangle, 1941] 1:62,500
Refer to item 46.

64. Comparison with Contemporary Hydrographic Surveys

None.

65. Comparison with Nautical Charts

Chart 289 1:15,000, Ed. 1943, Corr. 9/26/49

The small island below Shepard Pt. on T-5980 is shown as two islands on the chart.

The two islands south of Chelsea Boom on T-5980 are shown as one island on the chart.

Several crib piers shown on T-5980 and T-5981 are not shown on the chart. These discrepancies, however, do not occur in critical channel areas.

An awash area immediately below the dam and on the east side of the channel on T-5981 is shown on the chart as an area of fast land extending out into the channel.

The configuration of the shoreline on T-5981 differs from that shown on the chart. The general channel width compares favorably.

66. Adequacy of Results and Future Surveys

These maps are adequate as a base for hydrographic surveys and the construction of nautical charts.
They meet the National Standards of Map Accuracy.

67. Control

Two unmarked U.S.G.S. traverse stations were deleted. They were stations 1943 + and 658=37+.

Triangulation station Augusta Capitol Flagstaff, 1868 was deleted. The flagstaff no longer exists and its former position could not be definitely determined.

No error could be determined in the position of Sub.Pt.Sand Hill, 1935 from an examination of field data and/or computations. Sand Hill, 1935, has been retained on the manuscript since it has not been reported as lost or destroyed. See underlined sentence in attached letter of 24 March 1950 indicating character of station.

Reviewed by:

K. N. Maki
K. N. Maki

Approved by:

S. V. Griffith
Chief, Review Section *SB*
Division of Photogrammetry

W. L. Munster
Chief, Nautical Chart Branch
Division of Charts *GA*

O. S. Reading
Chief, Div. of Photogrammetry

lws

Carl O. Heaton
Chief, Div. of Coastal Surveys
HRF