Form 604
U. S. DEPARTMENT OF COMMERCE
COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

Type of Survey  SHORELINE (Photo)

Field No. Office No. T-12281

LOCALITY

State SOUTH CAROLINA

General locality WINYAH BAY TO CHARLESTON HARBOR

Locality ASHLEY RIVER

1942 - 1963

CHIEF OF PARTY
W. M. Reynolds, Field Party
J. C. Bull, Norfolk Regional Officer

LIBRARY & ARCHIVES

DATE

cmm-is 61300
DESCRIPTIVE REPORT - DATA RECORD
T-12281

PROJECT NO. (III):
21058 (Ph-6216)

FIELD OFFICE (III):
Georgetown, S. C.

CHIEF OF PARTY
W. M. Reynolds

PHOTOGRAHMATIC OFFICE (III):
Tampa, Florida

OFFICER-IN-CHARGE
V. Ralph Sobiersalski

INSTRUCTIONS DATED (II) (III):
Oct. 8, 1962  Field
Nov. 5, 1962  Office
Feb. 20, 1963  Amendment I
April 26, 1963  II
Oct. 10, 1963  Supplement I

METHOD OF COMPIILATION (II) (III):
Kelsh Plotter

MANUSCRIPT SCALE (III):
1:10,000

STEREOSCOPIC PLOTTING INSTRUMENT SCALE (III):
1:6,000 Pantographed to 1:10,000

DATE RECEIVED IN WASHINGTON OFFICE (IV):

DATE REPORTED TO NAUTICAL CHART BRANCH (IV):

APPLIED TO CHART NO.

DATE:

DATE REGISTERED (IV):

GEOGRAPHIC DATUM (III):
N. A. 1927

VERTICAL DATUM (III):

EXCEPT AS FOLLOWS:

Elevations shown as (2) 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):
CITADEL 1932-1933

LAT: 32° 47' 47.735 (1170.5m)
LONG: 79° 57' 45.332 (1179.5m)

ADJUSTED

PLANE COORDINATES (IV):
\[ \gamma = 2,318,783.97 \text{ Ft., } \chi = 352,018.53 \text{ Ft.} \]

STATE: S. C.

ZONE: South

ROMAN NUMERALS INDICATE WHETHER THE ITEM IS TO BE ENTERED BY (I) FIELD PARTY, (III) PHOTOGRAHMATIC OFFICE,
OR (IV) WASHINGTON OFFICE.
WHEN ENTERING NAMES OF PERSONNEL ON THIS RECORD GIVE THE SURNAME AND INITIALS, NOT INITIALS ONLY.
# DESCRIPTIVE REPORT - DATA RECORD

**FIELD INSPECTION BY (II):**

M. A. Stewart

**DATE:**

May 1963

**MEAN HIGH WATER LOCATION (III) (STATE DATE AND METHOD OF LOCATION):**

Air photo. compilation

Date of photographs

April 2, 1962

**PROJECTION AND GRIDS RULED BY (IV):**

A. Riley

**DATE:**

Feb. 1963

**PROJECTION AND GRIDS CHECKED BY (IV):**

L. F. Beugnet

**DATE:**

Feb. 1963

**CONTROL PLOTTED BY (III):**

V. P. Cackowski

**DATE:**

June 1963

**CONTROL CHECKED BY (III):**

D. Kesler

**DATE:**

June 1963

**STEREOSCOPIC CONTROL EXTENSION BY (III):**

Stereo Bridge (Washington Office)

**DATE:**

April 1963

**STEREOSCOPIC INSTRUMENT COMPILATION (III):**

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<th>PLANIMETRY</th>
<th>CONTOURS</th>
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<tr>
<td>R. Wagner</td>
<td>Inapplicable</td>
</tr>
<tr>
<td>R. Pate</td>
<td></td>
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<tr>
<td>R. Purvis</td>
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</table>

**DATE:**

July 1963

**MANUSCRIPT DELINEATED BY (III):**

T. I. Saperstein

Reviewed by R. R. Wagner

**DATE:**

July 1963

Nov. 1963

**SCRIBING BY (III):**

P. W. Leikhim

Reviewed by W. H. Shearouse

**DATE:**

Nov. 1963

Dec. 1963

**PHOTOGRAHMETRIC OFFICE REVIEW BY (III):**

W. H. Shearouse

**DATE:**

June 1964

**REMARKS:**

Field Ed. – 1963
**DESCRIPTIVE REPORT - DATA RECORD**

**CAMERA (KIND OR SOURCE) (III):**

Wild

**PHOTOGRAPHS (III)**

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**PREDICTED TIDE (III)**

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<th>REFERENCE STATION:</th>
<th>Charleston</th>
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<td>SUBORDINATE STATION:</td>
<td>Highway Bridge</td>
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| SUBORDINATE STATION: | CHARLESTON |

<table>
<thead>
<tr>
<th>FINAL REVIEW BY (IV):</th>
<th>NOR'FOLK REG. O.F., M.M. SLAVNEY</th>
</tr>
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<tbody>
<tr>
<td>DATE:</td>
<td>Nov. 1965</td>
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| PROOF EDIT BY (IV): | |
|---------------------| |
| DATE: | |

| NUMBER OF TRIANGULATION STATIONS SEARCHED FOR (III): | 22 | RECOVERED: | 13 | IDENTIFIED: | 2 |
| NUMBER OF BM(3) SEARCHED FOR (iii): | 11 | RECOVERED: | 6 | IDENTIFIED: | 1 |

| NUMBER OF RECOVERABLE PHOTO STATIONS ESTABLISHED (III): | None |
| NUMBER OF TEMPORARY PHOTO HYDRO STATIONS ESTABLISHED (III): | None |

**REMARKS:**

Tidal Bench Marks, with the exception of those at the Ashley River Memorial Bridge, were beyond the limits of photography.
<table>
<thead>
<tr>
<th>COMPILATION RECORD</th>
<th>COMPLETION DATE</th>
<th>REMARKS</th>
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<tbody>
<tr>
<td>Alongshore area for hydro.</td>
<td>July 1963</td>
<td>Superseded</td>
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<tr>
<td>Interior details added; Alongshe field edit applied Manuscript complete</td>
<td>Oct. 1963</td>
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SUMMARY TO ACCOMPANY
DESCRIPTIVE REPORTS T-12281 and T-12282

Shoreline manuscripts T-12281 and T-12282 are two of nine 1:10,000 scale manuscripts in Project 21058 (Winyah Bay to Charleston, South Carolina), which also contains six 1:20,000 scale manuscripts. The sketch on page 5 of this report shows the position of these manuscripts in the project.

This is a stereoscopic instrument project in advance of hydrographic surveys of the area. 1:30,000 scale panchromatic photographs were taken with the "S" cameras on April 2, 1962. The stereo bridge was run and adjusted to field identified control in the Washington Office. Compilation was done with the Kelsh Plotter. 1:10,000 scale ratio cronapaque prints were processed and provided for photo hydro support.

The field operations preceding compilation included field inspection and identification of control to be used in the stereo bridge. The manuscripts were later field edited in conjunction with photo hydro support.

The compilation manuscripts were vinylite sheets 3.75 minutes in latitude and longitude. The smooth manuscripts were on cronaflex for review. One cronar positive and one cronar negative of each manuscript are furnished for registry and record after final review.
2. Areal Field Inspection.

These maps are located along the South Carolina Coast and include most of Charleston Harbor. Charleston is one of the important seaports along the Atlantic Coast. The harbor is busy with the loading and unloading of freighters and tankers. The port also offers limited passenger service to the Caribbean Area. Charleston is also home port for a part of the Atlantic Fleet, including nuclear submarines. The navy has considerable facilities for the overhaul and repair of various types of ships. The first shots of the civil war were fired from Fort Sumter, which is located in Charleston Harbor. Fort Johnson and Fort Moultrie are also located in the immediate area.

Field inspection was performed on several sets of photographs with various scales and dates. The photography was of good quality and no difficulty was found in their interpretation in the field. There were no unusual tones on the photographs. All tones were identical or similar to other areas along this part of the Atlantic Coast. Field inspection is believed complete and no items were deliberately left for field edit. Field inspection was performed on the following ratio prints of photographs: 62S1211A, 62S4241 through 62S4246 and 62S4581 through 62S4585. The following contact prints were also used; 62S1203A, 62S1206A, 62S1207A, 62S4247, 62S4260 through 62S4263, 62S4280 through 62S4283, 62S4583, 62S4584, 63W3065 through 63W3070 and 63W3072.

Complete photographic coverage was not available for parts of the maps.

3. Horizontal Control.

All Coast and Geodetic Survey Control was searched for. Stations to control the bridging was identified in accordance with project instructions. Three stations were established by intersection. Satisfactory side checks of the triangles were obtained but no adjustment of positions was made. Mt. Pleasant Range Rear Light and Fort Sumter Range Rear Light were established in map T-12282. Charleston New Lighthouse was established in map T-12283. The following stations were reported lost:

T-12281

| LAWTON 1924 | TRADD (USE) 1937 |
| COAST 1924 | Yacht Basin Beacon 1953 |
| Charleston North Radio Tower 1953 | Charleston South Radio Tower |
| R. T. Tank 1933 | CUT 1928 1953 |
3. Horizontal Control Cont'd.

T-12282
LINE 1933
HORSE 1933
BATTERY 1919
DRUM 1928
Pt. Sumter Rear Range 1933
Charleston Powerhouse Chimney 1933
Cooper River Beacon Number 38 1953

T-12283
CONCH U.S.E.D. 1934
LIGHT 1924
JET 1933
Ft. Moultrie Tank 1933
Moultrieville Standpipe
Ft. Sumter Flagpole 1933

T-12286
OSWALD 1934, CREEK 1934, TEMPORARY 1933

T-12287
none

4. Vertical Control.
All tidal bench marks in the area were searched for. Form 685A has been submitted for all marks.

5. Contours and Drainage.
Contours are inapplicable.
Drainage is mainly through tidal streams. These are self-evident from the photographs.

6. Woodland Cover.
Woodland cover was inspected and has been classified on the photographs.

7. Shoreline and Alongshore Features.
The shoreline is both apparent and fast. The apparent shoreline was inspected by skiff running close to shore. The fast shoreline was inspected by skiff and by walking along the beach. Measurements from identifiable points were made to locate the mean high water line where necessary.
The low water line was not located.
All docks, wharves, piers or landings have been indicated on the photographs.
Shore ends of submarine cables have been indicated on the photographs.
All other shoreline structures have been clarified.

Two wrecks along the east side of the Cooper River and south of the bridge were identified on the photographs. The elevation of the northerly wreck was measured. The southerly wreck is covered at mean high water.

9. Landmarks and Aids.
Landmarks for nautical charts and fixed aids to navigation are adequately covered by Form 567. This form is included with this report.

Limit lines for Charleston Country Club Golf Course have been indicated on the photographs.
11. Other Control.
   None was established.

12. Other Interior Features.
   Roads have been classified in accordance with Photogrammetry
   Instructions No. 56.
   Buildings have been indicated in accordance with
   Photogrammetry Instructions No. 54.
   One small landing field has been indicated on the
   Photographs.

   A systematic investigation of names was made and a special
   report was submitted. See "Special Report Geographic Names,
   Project Ph-6216".

14. Special Reports and Supplemental Data.
   Special Report Geographic Names, Project Ph-6216,
   submitted to Washington 1/16/63.
   Form 567 included with this data.
   Letter of Transmittal, included with this data.

William M. Reynolds
Chief, Sub-unit Photo.
Party 6420
Area Covered

The area covered by this report is shoreline from the City of Charleston, S. C., to the Atlantic Ocean in the vicinity of Cummings Point. Sheets T-12284, 12282, and 12286 cover this area which contains four strips of photography. (#7 thru #10)

Method

Four horizontal bridges were run using the C-5 Stereoplanigraph. All four of these strips (7 thru 10) were adjusted by the IBM 650. Pass points were provided for Kelsh compilation.

Strip #7 consists of photos 628 4240 thru 4246 comprising 6 models. The adjustment utilized 3 control points for solution. Three control points were used as checks. "Wilt, Sub-station B" was in error by -12.8 feet in "x" and -2.8 feet in "y". This point has a poor image and is believed to have been misinterpreted in the bridge.

Strip #8 consists of photos 628 4580 thru 4585 comprising 5 models. The adjustment utilized 3 control points for solution. Two control points and 6 pass points were used as checks.

Strip #9 consists of photos 628 4280 thru 4283 comprising 3 models. The adjustment utilized 1 control point and 2 tie points for solution. One control point and 5 pass points were used as checks. Pass points used in the solution and as checks were averaged. All of these points checked within national map accuracy with the exception of point 05340.

Strip #10 consists of photos 63W 3064 thru 3068 comprising 4 models. The adjustment utilized 3 control points for solution. Two control points and one pass point were used as checks. "Secession, 1933 Sub-station B" is a poor image point and checked +3.7 feet in "x" and +14.0 feet in "y".

Adequacy of Control

Control provided was adequate for bridging and complied with the project instructions. Stations "WILT, Sub-station B" and "SECESSION, Sub-station B" did not hold within national map accuracy standards. All other closures to control maintained National Standards of Accuracy at 1:10,000.
Photography

Photography was adequate as to coverage, overlap, and definition. (See appended sketch for closures to control.)

Submitted by:

George F. Wirth

Approved by:

John D. Perrow, Jr.
Aerotriangulation Sketch
Isle of Palms, S.C.
PH-G216
May 1963

Control used in adjustment

△ " " as check

△ Tie " in adjustment

□ " " as check

△ Ldmk " in adjustment

○ Ldmk " as check
<table>
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<th>STATION</th>
<th>SOURCE OF INFORMATION (INDEX)</th>
<th>DATUM</th>
<th>LATITUDE OR Y-COORDINATE</th>
<th>LONGITUDE OR X-COORDINATE</th>
<th>DISTANCE FROM GRID IN FEET, OR PROJECTION LINE IN METERS</th>
<th>DISTANCE CORRECTION</th>
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1 FT. = 0.3048006 METER
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CHECKED BY: E. W. DATE: 6/16/63
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1 FT = 0.3048 METER

COMPUTED BY: P. Brann   DATE: 6/5/43
CHECKED BY: R. Welgeen   DATE: 6/5/43
COMPILATION REPORT
T-12281 and T-12282

31. Delineation:

The Kelsh Plotter was used.

The compilation Limits for T-12281, as provided by the Washington Office called for delineating Wappoo Creek and Elliott Cut to the western Limit of T-12281. The area was compiled to the photograph limits, which omit part of Wappoo Creek and all of Elliott Cut.

Field inspection was adequate and no difficulty was encountered in interpretation.

32. Control

See Aerotriangulation Report, page 10 thru 12 of this report. Some minor adjustments were made during compilation of "T-12282" on Strips 8 and 9.

33. Supplemental Data

None.

34. Contours and Drainage

Contours are inapplicable.

Drainage was delineated with no problems.

35. Shoreline and Alongshore Areas

The shoreline inspection was adequate.

Shallow areas were delineated from office interpretation. The low water line was not delineated.

36. Offshore Details:

See Item 49, Notes for the hydrographer.

37. Landmarks and Aids

Forms 567 for "aids to navigation" and "landmarks" to be charted were forwarded for both maps under dates of July 9 and 16, 1963; and November 7, 18 and 21, 1963. Forms 567 for deletions was forwarded by the field
38. Control for Future Surveys:

No topographic or photo hydro stations were established. Shoreline pass points comprised the entire control assistance for the hydrographer.

39. Junctions:

Junctions have been made:

For T-12281;
with T-12282 on the east; the project limits are to the north, south and west.

For T-12282;
with T-12281 on the west; T-12283 on the east, T-12286 on the south; project Limits are to the north.

40. Horizontal and Vertical Accuracy

No statement.

46. Comparison with Existing Maps

Comparisons of T-12281 and T-12282 were made with U.S.G.S. quadrangle CHARLESTON, S.C., scale 1:24,000; edition of 1958. They are generally in agreement with these exceptions:

T-12281 - there are now 2 bridges, not one, across the Ashley River at latitude 32° 47½; and the yacht basin at latitude 32° 46½ 45" and longitude 79° 57½ is now a pond with access to the river cut off by fill.

T-12282 - there has been enlargement of the sand islands at latitude 32° 45½ 05" between Fort Sumter and Fort Johnson,

47. Comparison with Nautical Charts

Comparison was made with chart 470, scale 1:20,000, 14th edition

T-12281 - In fair agreement, the change from yacht to pond, see Item 46, also is evident from the chart. Small changes in alongshore streets etc. are evident on this survey.

T-12282 - In fair agreement, minor differences in buildings and piers along the shoreline and the small islets off Shutes Folly Island.

Items to be Applied to Nautical Charts Immediately

None

Items to be Carried Forward

None

R. R. Wagner

APPROVED & FORWARDED

CAPT J. BULL
Norfolk Regional Officer
18. GEOGRAPHIC NAME LIST - T-12281

Geographic names were taken from the final name sheet as prepared by the Washington Office on the Charleston, S. C. quadrangle, scale 1:24,000, edition of 1958.

ALBEMARLE POINT
ASHLEY RIVER
ASHLEY RIVER MEMORIAL BRIDGE
ATLANTIC COAST LINE RR
CHARLESTON
DILL CREEK
INTRACOASTAL WATERWAY
JAMES ISLAND
JAMES ISLAND CREEK
MILL CREEK
MURRAY SCHOOL
NEWMARKET CREEK
OLD TOWN CREEK
ORANGE-GROVE CREEK

PLUM ISLAND
SAINT ANDREWS
SAVANNAH ROAD
SEABOARD AIR LINE RR
SOUTH CAROLINA
SOUTH WINDERMIRE
ST. ANDREWS BLVD.
STATE 61
STATE 171
THE CITADEL
US 17
US 52A
U. S. COAST GUARD
WAPPOO CREEK
GEOGRAPHIC NAMES
Ph 6216 (Winyah Bay - Charleston Bay, S.C.)
T-12281

Albemarle
Ashley River
Ashley River Memorial Bridge
Atlantic Coast Line
Charleston
Dill Creek
Intracoastal Waterway
James Island
James Island Creek
Kings Road
Maybank Highway
Mill Creek
Newmarket Creek
Old Town
Old Town Creek
Ocean Highway
Orange Grove Creek
St. Andrews
St. Andrews Blvd.
Savannah Road
Seaboard Air Line
South Windermere
The Citadel
Wappoo Creek

A. J. Wraight
Chief Geographic Names
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

I. I. Saperstein

V. Ralph Sobierski

Chief of Party.

<table>
<thead>
<tr>
<th>CHARTING NAME</th>
<th>DESCRIPTION</th>
<th>SIGNAL NAME</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>METHOD OF LOCATION AND SURVEY NO</th>
<th>DATE OF LOCATION</th>
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* TABULATE SECONDS AND METERS
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

I. I. Zaperstein

V. Ralph Sobieralski

Chief of Party

<table>
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<tr>
<th>STATE</th>
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<th>DESCRIPTION</th>
<th>SIGNAL NAME</th>
<th>LATITUDES</th>
<th>LONGITUDES</th>
<th>DATUM</th>
<th>METHOD OF LOCATION AND SURVEY NO</th>
<th>DATE OF LOCATION</th>
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<td>May 9</td>
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<td>MAST</td>
<td>(Charleston Weather Bureau Mast, 1933)</td>
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<td>39.083</td>
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<td>15.95</td>
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<td>Citadel Water Tank</td>
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<td>65.32</td>
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<td></td>
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<td>(Charleston Water Works Tank, 1932)</td>
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<td>02.977</td>
<td>79 56</td>
<td>32.595</td>
<td>&quot;</td>
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</table>

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* Tabulate seconds and meters
I recommend that the following objects, which have been inspected from seaward to determine their value as landmarks, be charted on the charts indicated.

The positions given have been checked after listing by

H. K. Wagner

<table>
<thead>
<tr>
<th>STATE</th>
<th>SOUTH CAROLINA</th>
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<tbody>
<tr>
<td>CHARLESTON HARBOR</td>
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</tr>
<tr>
<td>ASHLEY RIVER</td>
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</table>

**DAY 9**
(The description in the 1963) Lt. List "at entrance to Orange Grove Creek" appears to be in error; it is about 1/2 mile north of the entrance to Orange Grove Creek.

<table>
<thead>
<tr>
<th>LATITUDE</th>
<th>LONGITUDE</th>
<th>METHOD OF LOCATION AND SURVEY No.</th>
<th>DATE OF LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>32° 40'</td>
<td>11° 23'</td>
<td>H.A. 1927</td>
<td>May 10</td>
</tr>
<tr>
<td>32° 46'</td>
<td>71° 59'</td>
<td>Flot 1927</td>
<td>1963</td>
</tr>
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</table>

**DAY 10**

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<td>32° 40'</td>
<td>21° 39'</td>
<td>H.A. 1927</td>
<td>May 10</td>
</tr>
<tr>
<td>32° 56'</td>
<td>71° 58'</td>
<td>Flot 1927</td>
<td>1963</td>
</tr>
</tbody>
</table>

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* TABULATE SECONDS AND METERS
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

I. I. Saperstein

for V. Ralph Sobieralski, Chief of Party.

<table>
<thead>
<tr>
<th>STATE</th>
<th>SOUTH CAROLINA</th>
<th>CHARTING NAME</th>
<th>DESCRIPTION</th>
<th>SIGNAL NAME</th>
<th>LATITUDE</th>
<th>LONGITUDE</th>
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<th>DATE OF LOCATION</th>
<th>CHARTS AFFECTED</th>
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<tr>
<td></td>
<td></td>
<td>MEET PLEASANT CHANNEL</td>
<td>LIGHT 6</td>
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<td>52.25</td>
<td>79.52</td>
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<td>32 47</td>
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<td></td>
<td>SHEM CREEK</td>
<td>LIGHT 8</td>
<td>32 47</td>
<td>07.17</td>
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<td>12.26</td>
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<td>LIGHT</td>
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<td>06.22</td>
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<td>01.20</td>
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I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

I. I. Saperstein

for V. Ralph Schierasti Chief of Party

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<tr>
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<tr>
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<td>North Channel Range C Front</td>
</tr>
<tr>
<td>LIGHT</td>
<td>North Channel Range C Rear</td>
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<tr>
<td>LIGHT 9</td>
<td>North Channel</td>
</tr>
<tr>
<td>LIGHT</td>
<td>North Channel Range D Front</td>
</tr>
<tr>
<td>LIGHT</td>
<td>North Channel Range D Rear</td>
</tr>
<tr>
<td>LIGHT (South Channel Front Range 1953)</td>
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</tr>
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<td>LIGHT (South Channel Rear Range 1953)</td>
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<td>DAYBN</td>
<td>Ripley Day Beacon 1953</td>
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<td>Ashley River</td>
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<td>DAYBN</td>
<td>Crab Bank</td>
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<td>LIGHT</td>
<td>James Island Plate</td>
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TABULATE SECONDS AND METERS
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T. I. Saporta

for V. Ralph Sobierański Chief of Party

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<td>LIGHT Degaussing Range East Platform</td>
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<td>LIGHT Degaussing Range Middle Platform</td>
</tr>
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<td></td>
<td>LIGHT Degaussing Range West Platform</td>
</tr>
<tr>
<td></td>
<td>D Degaussing Range Structure (Platform)</td>
</tr>
<tr>
<td></td>
<td>E</td>
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<td>LIGHT Upper Degaussing Range West Platform</td>
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I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

I. L. Saperstein

for V. Schierleiski

Chief of Party

<table>
<thead>
<tr>
<th>STATE</th>
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</tr>
<tr>
<td>CHARLESTON HARBOR</td>
<td></td>
</tr>
<tr>
<td>LIGHT</td>
<td>OBSTRUCTION</td>
</tr>
<tr>
<td>LIGHT</td>
<td>OBSTRUCTION</td>
</tr>
<tr>
<td>LIGHT</td>
<td>OBSTRUCTION</td>
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<tr>
<td>LIGHT</td>
<td>OBSTRUCTION</td>
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# Day of month not available

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I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

Y. I. Seberstein

for V. Ralph Seberstein

Chief of Party

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<thead>
<tr>
<th>STATE</th>
<th>SOUTH CAROLINA</th>
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<tr>
<td>TANK (Fort Johnson South Tank, 1953)</td>
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<tr>
<td>TANK (Quarantine Water Tank, 1921)</td>
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<tr>
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<td>168 (178)</td>
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<td>TANK (Charleston St. Phillips Church Spire 1890-1923)</td>
<td>110 (115)</td>
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<td>TANK (Charleston St. Mathew Lutheran Church Spire 1932)</td>
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<td>TANK American Tobacco Co.</td>
<td>135 (140)</td>
</tr>
<tr>
<td>TANK S. C. State Port Authority</td>
<td>13 (13)</td>
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<tr>
<td>TANK City Incinerator</td>
<td>137 (147)</td>
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<tr>
<td>TOWER WUSH Television</td>
<td>842 (854)</td>
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</table>

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I recommend that the following objects which have been inspected to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

I. I. Sepperstein for V. Ralph Schierak

<table>
<thead>
<tr>
<th>STATE</th>
<th>SOUTH CAROLINA</th>
<th>POSITION</th>
<th>METHOD OF LOCATION AND SURVEY NO.</th>
<th>DATE OF LOCATION</th>
<th>CHARTS AFFECTED</th>
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<td>CHARTING NAME</td>
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<td>LONGITUDE*</td>
<td>DATUM</td>
<td></td>
</tr>
<tr>
<td>CHARLESTON</td>
<td></td>
<td>32 48</td>
<td>79 54</td>
<td>1927</td>
<td>Photo</td>
</tr>
<tr>
<td>LIGHT</td>
<td>OBSTRUCTION on top of bridge</td>
<td>32 48</td>
<td>79 54</td>
<td>1927</td>
<td>Plot T-12282</td>
</tr>
<tr>
<td>LIGHT</td>
<td>OBSTRUCTION on top of bridge</td>
<td>32 48</td>
<td>79 54</td>
<td>1927</td>
<td>Plot T-12282</td>
</tr>
<tr>
<td>LIGHT</td>
<td>OBSTRUCTION on top of bridge</td>
<td>32 48</td>
<td>79 54</td>
<td>1927</td>
<td>Plot T-12282</td>
</tr>
<tr>
<td>LIGHT</td>
<td>OBSTRUCTION on top of bridge</td>
<td>32 48</td>
<td>79 54</td>
<td>1927</td>
<td>Plot T-12282</td>
</tr>
</tbody>
</table>

** Day not given by field party

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and nonfloating aids to navigation, if reetermined, shall be reported on this form. Revisions shall show both the old and new positions. 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.

* TABULATE SECONDS AND METERS
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

<table>
<thead>
<tr>
<th>STATE</th>
<th>CHARLES CAROLINA</th>
<th>POSITION</th>
<th>LATITUDES</th>
<th>LONGITUDES</th>
<th>METHOD OF LOCATION AND SURVEY NO.</th>
<th>DATE OF LOCATION</th>
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<td>D. P. METERS</td>
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<td>(OLD POSITIONS)</td>
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</table>

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and nonfloating aids to navigation, if redetermined, shall be reported on this form. Revisions shall show both the old and new positions. 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.
I recommend that the following objects which have been inspected from seaward to determine their value as landmarks be charted on the charts indicated.

The positions given have been checked after listing by

Robert H. Wagner

<table>
<thead>
<tr>
<th>STATE</th>
<th>SOUTH CAROLINA</th>
<th>POSITION</th>
<th>LATITUDE °</th>
<th>LONGITUDE °</th>
<th>METHOD OF LOCATION AND SURVEY NO.</th>
<th>DATE OF LOCATION</th>
<th>CHARTS AFFECTED</th>
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<td>SIGNAL NAME</td>
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<td>D.P. METERS</td>
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<td></td>
<td></td>
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<tr>
<td>CHARLESTON HARBOR</td>
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<td>COOPER RIVER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIGHT</td>
<td>DRIIN ISLAND CHANNEL RANGES FRONT</td>
<td>32°58'</td>
<td>118°56'</td>
<td>79°56'</td>
<td>33°36'</td>
<td>U.S. Plum</td>
<td>May 9, 1932</td>
</tr>
<tr>
<td>LIGHT</td>
<td>DRIIN ISLAND CHANNEL RANGES REAR</td>
<td>32°58'</td>
<td>118°56'</td>
<td>79°56'</td>
<td>33°36'</td>
<td>x 1/10</td>
<td></td>
</tr>
</tbody>
</table>

This form shall be prepared in accordance with Hydrographic Manual, Publication 20.2, Sec. 1-55, 2-39, 6-36, 7-18 to 22 inclusive, and Fig. 79. Positions of charted landmarks and nonfloating aids to navigation, if reetermined, shall be reported on this form. Revisions shall show both the old and new positions. 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.

* TABULATE SECONDS AND METERS
49. NOTES FOR THE HYDROGRAPHER

Numerous shoreline pass points have been located by the Kelsh plotter for the use of the hydro-support party.

Two submerged wrecks shown on Chart 470 at approx. latitude 32°6'09", longitude 79°56'46", and at approx. latitude 32°6'33", longitude 79°56'10" could not be seen on the photographs and should be located by the hydrographer if still existent.

See Item 65 on page 33.
### Photogrammetric Office Review

#### 1. Projection and Grids

#### 2. Title

#### 3. Manuscript Numbers

#### 4. Manuscript Size

4a. Classification label: **Unclassified**

#### Control Stations

5. Horizontal Control Stations of Third-Order or Higher Accuracy

6. Recoverable Horizontal Stations of Less Than Third-Order Accuracy
   (Topographic Stations)

7. Photo Hydro Stations

#### 8. Bench Marks

#### 9. Plotting of Sextant Fixes

#### 10. Photogrammetric Plot Report

#### 11. Detail Points

#### Alongshore Areas (Nautical Chart Data)

12. Shoreline

13. Low-Water Line


15. Bridges

16. Aids to Navigation

17. Landmarks

18. Other Alongshore Physical Features

19. Other Alongshore Cultural Features

#### Physical Features

20. Water Features

21. Natural Ground Cover

22. Planetable Contours

23. Stereoscopic Instrument Contours

24. Contours in General

25. Spot Elevations

26. Other Physical Features

#### Cultural Features

27. Roads

28. Buildings

29. Railroads

30. Other Cultural Features

#### Boundaries

31. Boundary Lines

32. Public Land Lines

#### Miscellaneous

33. Geographic Names

34. Juncions

35. Legibility of the Manuscript

36. Discrepancy Overlay

37. Descriptive Report

38. Field Inspection Photographs

39. Forms

### Reviewer

**William H. Slayton**

**Supervisor, Review Section or Unit**

**Milton M. Slavassy**

**M. M. Slavassy**

### Remarks

**41. Remarks (See attached sheet)**

**42. Field Completion Additions and Corrections to the Manuscript**

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.

**43. Remarks**
Field Edit Report - T-12281

No Field Edit Report has been received.

Questions referred to the field editor on the ozalid Discrepancy Print were answered on the same print during Sept. 1963.

M. M. Slavney
## TIDE COMPUTATION

**PROJECT NO. Ph-Z1058T 12 281**

**Time and date of exposure:** 0436 4.2-67

**Date of field inspection:**

**Reference station:** CHARLESTON

**Subordinate station:** Highway Bridge

**Mean range:** 3.2

<table>
<thead>
<tr>
<th>Time</th>
<th>Height</th>
<th>Height x Ratio of ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td>High tide</td>
<td>5.7</td>
<td>5.8</td>
</tr>
<tr>
<td>Low tide</td>
<td>-0.7</td>
<td>-0.7</td>
</tr>
</tbody>
</table>

**Duration of rise or fall:** 6 11

**Range of tide:** 6.5

**High tide at Ref. Sta.:** 05 39

**Low tide at Ref. Sta.:** 11 57

**Time difference:** 4 0 22

**Corrected time at Subordinate station:** 06 01

**Computed by:** WHS

**Checked by:** RRW
REVIEW REPORT T-12281 and T-12282
SHORELINE
JANUARY 1966

61. GENERAL STATEMENT

See summary accompanying Descriptive Report (page 6)

62. COMPARISON WITH REGISTERED TOPOGRAPHIC SURVEYS

T-12281
T-5178 1:10,000 scale, in 1934 from 1933 photographs
T-5179 " " " " " " " "
T-5181 " " " " " " " "

T-12282
T-5177 and T-5178 1:10,000 scale in 1934 from 1933 photographs
T-5180 and T-5181 " " " " " "

An ozalid comparison print is submitted for T-12281 and T-12282, with these differences noted:

T-12281

Another span, south of the old one, has been added to the Ashley River Memorial Bridge. Construction is responsible for changes in the western shoreline of the Ashley River at latitude 32° 46.7' and on the eastern shoreline at 32° 46.4' to 32° 46.8'. The shoreline of Newmarket Creek, in the northeast part of this map, has narrowed.

T-12282

Spoil dumping has changed Hog Island and apparently Crab Bank. There are some changes in the waterfront of Charleston. Newmarket Creek, north of Charleston has narrowed, and some new islands appear in the southeast part of the map.

There are changes in the pier location and the shoreline of Fort Sumter.

"Dock ruins" on T-5177 at Lat. 32° 47.1' to 32° 47.2' and Long. 79° 53.0' were shown as "oyster bars" by the field inspector and are thus delineated.

These maps supersede the listed prior surveys for nautical chart construction.
63. COMPARISON WITH MAPS OF OTHER AGENCIES

CHARLESTON, S. Carolina U.S.G.S. 1:24,000 1958 is for T-12281 and T-12282.

The new bridge across the Ashley River on T-12281, an island in the southeast part of T-12282, and shoreline changes in other islands are the obvious differences.

64. COMPARISON WITH CONTEMPORARY HYDROGRAPHIC SURVEYS

BOAT SHEET HFP 10-1-63, 1:10,000, no date, for T-12281 and T-12282

On T-12281 the boat sheet reveals small shifts in positions of oyster bars at Lat. 32° 46.3' and Long. 79° 36.9'.

On T-12282, the boat sheet shows piling extending southeast, from the shoreline at Lat. 32° 47.2' Long. 79° 52.9'. Neither the field inspector or the field editor noted these pilings which are indicated on the Comparison Ozalid.

The boat sheet indicates a shore "pier" at Lat. 32° 46.95', Long. 79° 49.5' which was compiled on T-12282 and T-12283 as a sewer line. The field editor located 2 piles at the south of the end of "the sewer line" which are on T-12282. A note pertaining to this is on the Comparison Print.

65. COMPARISON WITH NAUTICAL CHARTS

CHART 470 1:20,000 17th Edition of August 16, 1965

T-12281:

Agreement is good. There is however, a "boiler" shown on the chart at Lat. 32° 46.15', Long. 79° 56.77' which was not noted by the field inspector, or seen on the photograph; and which was referred to the field editor. He found no evidence of it, and the hydrographer later recommended it for deletion, see copy of letter, which is the next page in this report.

T-12282:

Agreement is good with the following exceptions:

The chart shows a bridge under construction across Town Creek and the Cooper River south of the one shown on T-12282. Construction was obviously begun after photography and after field edit.
Memorandum

TO: Officer-in-Charge, EFP 220
   Norfolk District Officer
   102 West Olney Road
   Norfolk 10, Virginia

FROM: Lt. (jg) Gerald R. Cicely
   222 Cambridge Road
   Woburn, Massachusetts

DATE: December 1, 1963

SUBJECT: Submerged Wreck

There was a submerged wreck at Lat 32°46'09", Long 79°56'46" in the Ashley River across from the Coast Guard Base, that the Tampa District Officer asked about. Have you sent them some kind of report on this wreck? If not would you please.

At a low tide I found no evidence of it. The Coast Guard has no knowledge of any obstruction in that area. If you ran lines over the area and found no trace that should be enough to recommend deletion.

[Signature]

Gerald R. Cicely

Our sounding lines do not indicate any evidence of the above wreck and it is recommended that it be deleted.

[Signature]

Harold W. McDade
21 Dec 1963

RECEIVED

DEC 16 1963

Tampa District Office
C. & G. S.
65. COMPARISON WITH NAUTICAL CHARTS (Cont.)

The pier at CASTLE PINCKNEY on SHUTES POLLY ISLAND shows two spurs, as on T-5178 of 1934, T-12282 shows only the "L"; the photographs and the field men gave no evidence of the inner leg of the pier.

The chart shows the shoreline of Newmarket Creek, north of Charleston entering Town Creek, as it was on T-5178 compiled in 1934.

The "piling" on the chart at Lat. 32° 47.1 to 32° 47.2 at Long. 79° 53 is discussed in Item 62 and 64 under T-12282.

66. ADEQUACY OF RESULTS AND FUTURE SURVEYS

These surveys comply with the project instructions, and meet the National Standards of Map Accuracy.

No items are noted for future surveys.

Reviewed by:

M. M. Slavney

Approved by:

Director, Atlantic Marine Center

Approved by:

Chief, Chart Division

Chief, Operations Division

Chief, Cartographic Branch

Chief, Photogrammetry Division
NOTES TO VERIFIER
T-12281 and T-12282 Project 21058 (Ph-6216)
BOAT SHEET No. HFP 10-1-63

There is a minor discrepancy between the boat sheet and T-12282, see paragraph 3 of Item 64. It is possible that a walkway was erected over part of the sewer line after the field edit was done. Also please note the last three paragraphs in Item 65 (Comparison with Nautical Charts).