6014a

B+C

Form 504
Rev. Dec. 1933

DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Topographic~~ / *Hydrographic* } *Sheet No.* T-4685 A

6014a

State CALIFORNIA

LOCALITY

SAN JOAQUIN RIVER DELTA

KIMBALL ISLAND

1933

CHIEF OF PARTY

L. P. RAYNOR

U.S. GOVERNMENT PRINTING OFFICE: 1934

6014a

Form 537
Ed. Dec., 1930

REG. NO. 6014a

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. T-4685 A

REGISTER NO.

State CALIFORNIA

General locality SAN JOAQUIN RIVER DELTA

Locality KIMBALL ISLAND

Scale 1:10,000 Date of survey November, 1933

Vessel HELEN F (Leased launch)

Chief of Party L. P. RAYNOR

Surveyed by FRANK DAVIS

Protracted by T. M. MEANS

Soundings penciled by T. M. MEANS

Soundings in ~~fathoms~~ feet

Plane of reference M.L.L.W.

Subdivision of wire dragged areas by

Inked by Mark J. Gurnee

Verified by Mark J. Gurnee

Instructions dated SEPTEMBER 2, 1933, et.al., 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE: 1931

applied to chart 5534 2/19/35 H.E.M.

HYDROGRAPHIC TITLE SHEET

Field No. T-4685 A

State: CALIFORNIA

General locality: SAN JOAQUIN RIVER DELTA

Locality: KIMBALL ISLAND

Scale: 1:10,000 Date of survey: NOVEMBER, 1933

Vessel: HELEN F (Leased launch)

Chief of Party: L. P. RAYNOR

Surveyed by: FRANK DAVIS

Protracted by: T. M. MEANS

Soundings penciled by: T. M. MEANS

Soundings in FEET

Plane of reference: M.L.L.W.

Instructions dated: SEPTEMBER 2, 1933, et.al.

DESCRIPTIVE REPORT

of

HYDROGRAPHIC SHEET T-4685 A

AUTHORITY, LIMITS, DATES:

The authority for this work is contained in the following letters:

1. 22 LE 1990 March 17, 1933
2. 22 AHH 1990 August 12, 1933
3. SUPPLEMENTAL INSTRUCTIONS PROJECT 98 HT Sept. 2, 1933
4. 26 RS 1990 Nov. 9, 1933
5. 22 AHH 1990 Nov. 16, 1933
6. 22 MEN 1990 Dec. 2, 1933

The work was done under the supervision of Frank Davis, Surveyor, on November 22, 1933. It covers only the hydrography in the two sloughs just northeast of and adjacent to Kimball Island, and which connects the San Joaquin River with Broad Slough.

SURVEY METHODS:

Boat positions were determined by sextant three-point fixes, using for signals the tall transmission towers, most of which had been previously located by triangulation. The smooth sheet projection was made on a sheet of Whatman's paper and the shoreline transferred by tracing from the photo-lithographic print of this area. It was not possible to use any of the aluminum prints sent as signals on both T-5020 and T-4685 were used.

Though all of the objects were at a considerable distance most of the positions plot in the center of the slough in question, forming a rigid check on the photo compilation. In several cases, however, it was necessary to reject one angle and plot in the center of the slough, using the angle retained for a time check only. Soundings could not be taken between 29 E and 31 E, the waterway being obstructed by condemned destroyers awaiting wrecking operations. All soundings were taken with sounding pole.

Lat. 38° 1.5′
Long. 121° 48.0′

NAVIGATION:

These two sloughs are sometimes used by small pleasure and fishing craft of shallow draft. They afford good protection to small craft and shallow draft boats from the strong winds and seas that occur in the wider rivers, although the depth at the San Joaquin end of the western slough is only $1\frac{1}{2}$ feet at M.L.W.

Zero feet (Pos. 55 E) in my records.

TIDAL DATA:

Levels were run from the Bench Marks at Antioch to the staff maintained by the State of California at the Antioch Water Pumping Plant. From these levels, and the data on Tidal Bench Marks furnished from the Washington Office, it was determined that the M.L.L.W. plane was 1.8 feet on the present staff. Observations were recorded in Form 277 for the days on which the soundings were made. A zero correction for time was made in the reduction of soundings for the area included on this sheet.

LIST OF LANDMARKS & GEOGRAPHIC NAMES:

These were submitted previously in separate reports.

SOUNDINGS--THIS SHEET:

The soundings on this sheet were recorded in the last volumne for T-4685. It was thought at the time the work was done that it could be plotted on that sheet. It was intended to transfer these to a separate volumne but through an oversight it was not done. To check the plotting, consult the volumne mentioned.

L. P. Raynor,
Chief of Party.

LPR:T

Verification Report H 6014a

1. Conformity to Hydrographic Manual

The records conform to the requirements of the Hydrographic Manual except as noted in the review and paragraph 3, 4 and 5 below.

2. Depth Curves

None drawn due to the single line of soundings.

3. Field and Office Plotting

Half of the positions were checked and found satisfactory. No boat sheet furnished. The triangulation and topographic stations were checked by the verifier and found satisfactory. Comparison was made with the Air Photo Compilation.

4. Junctions.

None.

5. Remarks

The reports and records required as listed in para. 16- Rules for Verifying and Inking Hydrographic Sheets, were submitted except for a Boat Sheet and Special Chart for the U. S. Lighthouse Service. ~~Statistics Sheet~~, Landmarks for Charts, and the List of Signals were included with H 6014.

A triangulation reference station was added by the verifier.

Respectfully Submitted,

Mark S. Gurnee

October 19, 1934.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 6014.a

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	31
Number of positions checked	17
Number of positions revised	—
Number of soundings recorded	205
Number of soundings revised	—
Number of signals erroneously plotted or transferred	—

Date: October 19, 1934

Cartographer: Mark S. Gurnee

Verification of protracting Verification & inking of rocks and shoals	by	M.S.GURNEE	Time: 7 HRS
Verification of inking	by	M. S. GURNEE	Time:
Review	by	H.W. Murray	Time: 1/2 "

GEOGRAPHIC NAMES

Survey No. H-6014 a
T 5020

Date. 10-19-34

Chart No. 5534

Diagram No. 5534

Names underlined in red approved Oct 22, 1934 H.B.

*, Approved by the Division of Geographic Names, Department of Interior.

¢, Not Approved by the Division of Geographic Names, Department of Interior.

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

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	OK San Joaquin River	Same			
	OK Kimball Island	Same			
	OK Antioch	Same			
	OK Sherman Island	Same			

(M 100)

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6014b(1933) and 6014a (1933) 6014c(1933)

Antioch to Dierssen Landing, Kimball Island, San Joaquin River Delta, California.
Instructions dated March 17 and September 2, 1933 (L. P. Raynor)
Surveyed - November 1933.

Hand Lead and Pole Soundings - Control - 3-Point Control on Shore Signals.
Range Finder Distances.
Compass Bearings using Pelorus.

Chief of Party - L. P. Raynor.
Surveyed by F. Davis.
Protracted by - H. A. Cohen and T. M. Means
Soundings penciled by - H. A. Cohen and T. M. Means.
Verified and inked by - M. S. Gurnee.

1. Condition of Records.

The records are neat, legible and conform to the requirements of the Hydrographic Manual except as follows:

a. Only a partial list of signals used was noted in the sounding records (par. 139).

b. There was no evidence that the plotting of signals were checked since no initials pertaining to the checking appeared on the sheet. This was accomplished in the office.

c. No reference station was shown on H. 6014a (1933). This was added in the office.

d. Triangulation stations and topographic signals noted on H. 6014a (1933) were inked in black ink instead of red (par. 23).

e. A copy of the special chart containing the aids to navigation for the use of the Lighthouse Bureau located on H. 6014a (1933) and H. 6014c (1933) was not forwarded to this office. This is probably H-6014-b (1933) due to the fact that the aids fall outside the hydrographic limits of the survey.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project with the exception of the sparse development in Dutch Slough, particularly in view of the intensive development in other portions of this general project.

3. Sounding Line Crossings.

Cross lines were run in the wider sloughs and are in good agreement.

4. Depth Curves.

The usual depth curves may be satisfactorily drawn except as noted in paragraph 9 below.

5. Junctions with Surveys.

a. The junction of H. 6014c(1933) with H. 6000 (1933) is satisfactory.

b. No actual junction has been effected between H. 4285 (1925) and H. 6014a (1933) at the northwest. However, it is quite probable that the depths shown on the present survey extend to deep water on H. 4285 (1925) since there is evidence of dredging having been done in the eastern slough on H. 6014a (1933).

c. Junction with U. S. Army Engineer's Blueprints as prescribed by the Instructions.

1. The junction of H. 6014a (1933) with B.P. Nos. 26297 (1931) and 27205 (1934) on the east is satisfactory. The small unsurveyed channel opening in lat. 38°1'.5, long. 121°48'.1 is apparently blocked by condemned destroyers. (See B.P. 24755 - 1931).

2. The junction of H. 6014b(1933) with B. P. No. 26298 (1933) at the mouth of Mayberry Cut and Mayberry Slough is satisfactory with the exception that with the latter it would have been desirable to run the sounding lines farther out into deep water as soundings on the blueprint are deficient in this locality. In addition, an extra line of soundings just west of the small eastern island would have been of material value in defining the depth curves and obtaining the controlling depth.

3. Average agreement of soundings at the junction of H. 6014c (1933) with B. P. No. 26299 (1933) at the mouth of Dutch Slough is within 1 foot.

6. Comparison with Prior Surveys.

There are no prior surveys by this Bureau within the limits of the present survey other than H. 4285 (1925) which covers the western slough of H. 6014a (1933). The depths here are in good agreement.

7. Comparison with Charts No. 5534 and 5527.

a. With the exception of the small slough just northeast of Kimball Island and at the mouth of Mayberry and Dutch Sloughs, considered in preceding paragraphs, the above charts contain no information covering the area of H. 6014c(1933), 6014b(1933) and 6014a (1933).

b. Aids to Navigation. (Chart 5534).

Buoy C5 is about 90 m. south of the charted position and buoy (Flg) 5 is about 45 m. south of the charted position. The latter buoy is correctly charted on Chart 5527.

H-6014c(1933)

8. Field Plotting.

Field protracting and plotting were accurate and conform to the requirements of the Hydrographic Manual.

9. Additional Field Work Recommended.

Dutch Slough should be more closely developed so as to conform to the general intensity of the work in other portions of the project. The depth curves in this area, although shown in full lines, are somewhat uncertain due to the sparseness of the lines.

10. Superseding Previous Surveys.

There are no previous surveys to be superseded.

11. Clearances of Overhead Cables.

The following discrepancies are noted between the field party's determination and the U. S. Engineers' permits (Chart Letter No. 728, 1933):

	Lat.	Long.	Engineers' Permit	Field Party
a	38°2'.6	121°45'.7	100 feet	103 feet
b	38°3'.2	121°46'.8	125 "	129 "
c	38°2'.8	121°46'.8	125 "	132 "
d	38°2'.1	121°46'.4	100 "	93 "
e	38°1'.9	121°46'.3	110 "	116 "

In all the above cases, the field party's determination was retained on the sheet.

12. Reviewed by - Harold W. Harray - October 27, 1934.

Inspected by - A. L. Shalowitz.

Examined and approved:

K. T. Adams
K. T. Adams,
Chief, Section of Field Records.

L. O. Colbert
Chief, Division of Charts.

F. B. Borden
Chief, Section of Field Work.

G. F. Rude
Chief, Division of H. & T.

Applied to drawing of Chart 5527 - Feb. 12, 1935 - J.T.W.

GEOGRAPHIC NAMES

Survey No. H-6014
T-5020

Date. April 9, 1935

Chart No.

HMS

Diagram No. 5534

Names approved April 9, 1935. Harlow Bacon
Approved by the Division of Geographic Names, Department of Interior. ✳

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

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	For names see DR for T-5020.				

(M-136)

applied to Chart 5534 2/19/35 H.E.M.

6014 b
6014 c

6014 b
6014 c

Form 504
Rev. Dec. 1933
DEPARTMENT OF COMMERCE
U.S. COAST AND GEODETIC SURVEY
R. S. PATTON, DIRECTOR

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } *Sheet No.* G (T-4685)

6014b
6014C

State CALIFORNIA

LOCALITY

SAN JOAQUIN DELTA

ANTIOCH TO DIERSSEN LANDING

1934

CHIEF OF PARTY

L. P. RAYNOR

U. S. GOVERNMENT PRINTING OFFICE: 1934

Form 537

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 6014b 6014C

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. G (T-4685)

REGISTER NO. 6014 b 6014C

State CALIFORNIA

General locality SAN JOAQUIN DELTA

Locality ANTIOCH TO DIERSSEN LANDING

Scale 1:10,000 Date of survey NOVEMBER, 1933

Vessel HELEN F (Leased launch)

Chief of Party L. P. RAYNOR

Surveyed by F. DAVIS, Surveyor

Protracted by H. A. COHEN

Soundings penciled by H. A. COHEN

Soundings in [redacted] feet

Plane of reference M. L. L. W.

Subdivision of wire dragged areas by

Inked by Mark S. Gurnee

Verified by Mark S. Gurnee

Instructions dated SEPTEMBER 2, 1933 et.al., 19

Remarks:

U. S. GOVERNMENT PRINTING OFFICE

HYDROGRAPHIC TITLE SHEET

Field No. G (T-4685)

State: CALIFORNIA

General locality: SAN JOAQUIN DELTA

Locality: MAYBERRY & DUTCH SLOUGHS

Scale: 1:10,000 Date of survey: NOVEMBER, 1933

Vessel: HELEN F (Leased launch)

Chief of Party: L. P. RAYNOR

Surveyed by: F. Davis, Surveyor

Protracted by: H. A. Cohen

Soundings in FEET

Plane of reference: M.L.L.W.

Instructions dated: SEPTEMBER 2, 1933, et.al.

DESCRIPTIVE REPORT

of

HYDROGRAPHIC SHEET G (T-4685)

AUTHORITY, LIMITS, DATES:

The authority for this work is contained in the following letters;

1. 22 LE 1990 March 17, 1933
2. 22 AHH 1990 August 12, 1933
3. SUPPLEMENTAL INSTRUCTIONS PROJECT 98 HT Sept. 2, 1933
4. 26 RS 1990 Nov. 9, 1933
5. 22 AHH 1990 Nov. 16, 1933
6. 22 MEN 1990 Dec. 2, 1933

The work was done on November 16, 17, 20, 21, 22, 1933, by a party in charge of F. Davis, Surveyor. It includes Mayberry Slough, and Mayberry Cut from their junction with the San Joaquin River to the head of Mayberry Slough; and Dutch Slough from its junction with the San Joaquin River to Latitude 38° 01' North.

SURVEY METHODS:

Hydrographic signals were located by spotting directly on the boat sheet in the field, detail such as tule points, gables, syphons, etc., which had been located during the photo compilation, and by measurements from such detail. These are shown with red circles.

2. By sextant three-point fixes using objects which had been previously located by the photo compilation. These are shown with blue circles.

Boat positions were determined from bearings using boat compass No. 24874 and pelorus of the same number and distances with 40 centimeter range finder or by the usual sextant three-point fix. In Mayberry Slough three-point fixes were used for the entire work as sufficient tall transmission towers were available. This was one of the first pieces of work undertaken and positions on the sounding line were taken with the signal as near the beam as possible to avoid long range finder shots. This method makes it difficult to plot soundings and was abandoned later when greater proficiency in the use of the range finder made this procedure unnecessary.

Before using these towers, triangulation station "Wood" was occupied with a sextant and cuts taken to each tower. These angles were carefully read and the location of the towers was changed if necessary to agree with the cuts, the change, however, being made only in the direction of the line of towers, which was assumed correct. Only a few changes were made and these are relocated on the smooth sheet. Several towers have been removed as they are not in existence.

* Refered to air photo section Hydro.

Soundings were with hand leadline, using 9 lb. lead or with sounding pole marked up to 4 fathoms and turned end for end after each sounding.

NAVIGATION, WHARVES, ETC.

Neither Dutch Slough nor Mayberry Slough appear to be used much by commercial vessels but fishing and pleasure craft use them to some extent. There are no wharves in the area surveyed but landings are made alongside the bank wherever it is desired to pick up or deliver cargo. Along the San Joaquin River, surveyed by the U. S. Engineers', there are several small wharves [redacted] on Sherman Island where landings are made regularly by the mailboat out of Antioch and infrequently by other vessels. The landing at Camp 2, Jersey is in good condition as well as the one at Jersey Headquarters.

COMPARISON WITH U. S. ENGINEERS' SURVEY:

A reduction of the hydrography accomplished by the U.S.Engineers' to the scale of this sheet was not made. Visual inspection indicated that a satisfactory junction with their hydrography had been made except as noted in the Review - Hydro.

LANDMARKS, GEOGRAPHIC NAMES:

Landmarks suitable for charting were submitted with the photo field inspection notes. List of geographic names covering this area was also furnished at that time. Filed with T-4685

CHANGES--PHOTO COMPILATION:

As noted in a previous paragraph, some of the transmission towers shown on the photo compilation do not now exist. These have been deleted from the smooth sheet. The two wooden high line poles shown over Mayberry Slough have been replaced by steel towers and are shown correctly on the smooth sheet. The fixes taken in Mayberry Cut plainly indicate that the photo compilation rather than the U. S. Engineers' work is correct in this locality.

Plotted on plane coordinates

CLEARANCES, OVERHEAD POWER LINES:

Clearances of overhead power lines were measured with the range finder and reduced to M.H.W. and have been indicated on the chart. These clearances show the height at the particular time when the measurements were taken, and of course, change with temperature. The height given in data furnished by the U. S. Engineers' is the height granted in the permit for the erection of the crossing and is the minimum height to be allowed. This may differ by several feet from the actual height at any particular time.
Clearances discrepancies noted in Review - Hydro.

TIDAL DATA:

A portable automatic tide gage was maintained at the Webb Tract while all the hydrography was in progress. On November 20, 21, and 22, a tide observer recorded the height of the tide on the staff maintained by the State of California at the Antioch pumping plant. The M.L.L.W. on this staff is 1.8 feet as determined on December 4, 1933 by levels to U.S.C.& G.S. Benchmarks. It had been expected that reducers for more of the work in Dutch Slough would be obtained from the marigram of the State of California. Unfortunately the gage was out of operation for the period wanted. However, the reductions obtained from the gage at Webb Tract Ferry are considered reliable. The time correction to be applied for the various localities are indicated with appropriate notes on the boat sheet. The tide reducers corresponding to the readings of the staff at the Webb Tract follow, where M.L.L.W. is 4.4 feet, follow

Staff reads:

2.6 to 3.1	add	$1\frac{1}{2}$ ft.
3.1 to 3.6	"	1 ft.
3.6 to 4.1	"	$\frac{1}{2}$ ft.
4.1 to 4.6	zero	
4.6 to 5.1	subtract	$\frac{1}{2}$ ft.
5.1 to 5.6	"	1 ft.
5.6 to 6.1	"	$1\frac{1}{2}$ ft.
6.1 to 6.6	"	2 ft.
6.6 to 7.1	"	$2\frac{1}{2}$ ft.
7.1 to 7.6	"	3 ft.
7.6 to 8.1	"	$3\frac{1}{2}$ ft.
8.1 to 8.6	"	4 ft.

L P Raynor
Chief of Party
C & G. Survey.

STATISTICS

HYDROGRAPHIC SHEET G (T-4685)

DATE	DAY	VOL.	MILES	SOUNDINGS	POSITIONS
Nov. 16	A	1	8.50	846	103
" 17	B	1	5.30	480	53
" 20	C	1	.50	43	6
" 21	D	1 & 2	14.00	856	111
" 22	E	2	6.10	393	59
TOTALS			34.40	2618	332

HYDROGRAPHIC SIGNALS: 33

Verification Report H 6014.

1 Conformity with Hydrographic Manual

The records are neat and legible and conform to the requirements as specified in the Hydrographic Manual. ~~Hdft~~ as noted on the accompanying

2 Depth Curves

The zero, six, twelve, eighteen, and thirty foot curves are drawn.

3 Field and Office Plotting

About a third of the positions were checked. Only two were replotted. The topographic signals were checked by the verifier and found correct, both with the Boat Sheet and with check angles as recorded on the Index Page of Volume 1 of the Sounding Records.

4 Junctions

The only junctions with this sheet- H 6000, had already been made and in satisfactory

5 Remarks

(a) A few corrections have been made to the topography on this sheet by the Airway Mapping Section, but, as they did not affect the areas covered by the hydrography, were disregarded by the verifier. (The most important being the relocation of Antioch 1931). A few corrections to the topography were also made by the hydrographic field party.

(b) Only one aid to navigation was mentioned in the Records or on either sheet (the fl. W. Buoy lat 38°01'.7 long. 121°44'.3). ~~There are no aids to navigation within the limits of the hydrographic survey although~~ ~~there are a number in the San Joaquin River Channel.~~

(c) The crossings are in good agreement.

(d) The reports called for in Paragraph 16 of Rules for Verifiying and Inking Hydrographic Sheets have been submitted except for the Special Chart for the U. S. Lighthouse Service. ~~These have probably not been submitted because they (the aids to navigation) fall outside the junctions of the U.S.C.&G.S.~~ limits of the hydrographic survey.

Respectfully submitted,
Mark S. Gurnee.

October 24, 1934.

Mark S. Gurnee

Although there are several other aids charted in the San Joaquin River, these fall outside the limits of the hydrographic survey and within the area covered by the U. S. Army Engineers.

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 6014

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	332
Number of positions checked	115
Number of positions revised	2
Number of soundings recorded	2618
Number of soundings revised	12
Number of signals erroneously plotted or transferred	None

Date: October 25, 1934

Cartographer: Mark S. Gurnee

Verification of protracting)
Verification & inking of rocks and shoals) **by** M.S. GURNEE **Time:** 5 HRS

Verification of inking by M.S. GURNEE **Time:** 18½ HRS

Review by H.W. Murray **Time:** 5¾ "

LAE

September 25, 1934.

Division of Hydrography and Topography:

✓ Division of Charts:

Tide Reducers are approved in
2 volumes of sounding records for

HYDROGRAPHIC SHEET 6014 and 6014 a-b

Locality Antioch to Dierssen Landing and Kimball Island, San Joaquin Delta, Calif.

Chief of Party: L. P. Raynor in 1933
Plane of reference is mean lower low water reading
4.4 ft. on tide staff at Webb Tract
9.6 ft. below B.M. 1

1.8 ft. on tide staff at Antioch
10.9 ft. below B. M. 1

Height of mean higher high water above plane of reference is approximately 3.5 ft. at Webb Tract and 4.3 ft. at Antioch.

Condition of records satisfactory except as noted below:

Paul T. Whitney

Chief, Division of Tides and Currents.

Section of Field Records

REVIEW OF HYDROGRAPHIC SURVEY NO. 6014b(1933), 6014c(1933) and 6014a (1933)

Antioch to Dierssen Landing, Kimball Island, San Joaquin River Delta, California.
Instructions dated March 17 and September 2, 1933 (L. P. Raynor)
Surveyed - November 1933.

Hand Lead and Pole Soundings - Control - 3-Point Control on Shore Signals.
Range Finder Distances.
Compass Bearings using Pelorus.

Chief of Party - L. P. Raynor.
Surveyed by F. Davis.
Protracted by - H. A. Cohen and T. M. Means
Soundings penciled by - H. A. Cohen and T. M. Means.
Verified and inked by - M. S. Gurnee.

1. Condition of Records.

The records are neat, legible and conform to the requirements of the Hydrographic Manual except as follows:

a. Only a partial list of signals used was noted in the sounding records (par. 139).

b. There was no evidence that the plotting of signals were checked since no initials pertaining to the checking appeared on the sheet. This was accomplished in the office.

c. No reference station was shown on H. 6014a (1933). This was added in the office.

d. Triangulation stations and topographic signals noted on H. 6014a (1933) were inked in black ink instead of red (par. 23).

e. A copy of the special chart containing the aids to navigation for the use of the Lighthouse Bureau located on H. 6014a (1933), H-6014b(1933) and H. 6014c(1933) was not forwarded to this office. This is probably due to the fact that the aids fall outside the hydrographic limits of the survey.

2. Compliance with Instructions for the Project.

The plan, character and extent of the survey satisfy the instructions for the project with the exception of the sparse development in Dutch Slough, particularly in view of the intensive development in other portions of this general project.

3. Sounding Line Crossings.

Cross lines were run in the wider sloughs and are in good agreement.

4. Depth Curves.

The usual depth curves may be satisfactorily drawn except as noted in paragraph 9 below.

5. Junctions with Surveys.

a. The junction of H. 6014c(1933) with H. 6000 (1933) is satisfactory.

b. No actual junction has been effected between H. 4285 (1923) and H. 6014a (1933) at the northwest. However, it is quite probable that the depths shown on the present survey extend to deep water on H. 4285 (1923) since there is evidence of dredging having been done in the eastern slough on H. 6014a (1933).

c. Junction with U. S. Army Engineer's Blueprints as prescribed by the Instructions.

1. The junction of H. 6014a (1933) with B.P. Nos. 26297 (1931) and 27205 (1934) on the east is satisfactory. The small unsurveyed channel opening in lat. 38°1'.5, long. 121°48'.1 is apparently blocked by condemned destroyers. (See B.P. 24755-1931).

2. The junction of H. 6014b(1933) with B. P. No. 26298 (1933) at the mouth of Mayberry Cut and Mayberry Slough is satisfactory with the exception that with the latter it would have been desirable to run the sounding lines farther out into deep water as soundings on the blueprint are deficient in this locality. In addition, an extra line of soundings just west of the small eastern island would have been of material value in defining the depth curves and obtaining the controlling depth.

3. Average agreement of soundings at the junction of H. 6014c (1933) with B. P. No. 26299 (1933) at the mouth of Dutch Slough is within 1 foot.

6. Comparison with Prior Surveys.

There are no prior surveys by this Bureau within the limits of the present survey other than H. 4285 (1923) which covers the western slough of H. 6014a (1933). The depths here are in good agreement.

7. Comparison with Charts No. 5534 and 5527.

a. With the exception of the small slough just northeast of Kimball Island and at the mouth of Mayberry and Dutch Sloughs, considered in preceding paragraphs, the above charts contain no information covering the area of H. 6014c (1933), 6014b (1933) and 6014a (1933).

b. Aids to Navigation. (Chart 5534).

Buoy C3 is about 80 m. south of the charted position and buoy (Flg) 5 is about 45 m. south of the charted position. The latter buoy is correctly charted on Chart 5527.

8. Field Plotting.

Field protracting and plotting were accurate and conform to the requirements of the Hydrographic Manual.

9. Additional Field Work Recommended.

Dutch Slough should be more closely developed so as to conform to the general intensity of the work in other portions of the project. The depth curves in this area, although shown in full lines, are somewhat uncertain due to the sparseness of the lines.

10. Superseding Previous Surveys.

There are no previous surveys to be superseded.

11. Clearances of Overhead Cables.

The following discrepancies are noted between the field party's determination and the U. S. Engineers' permits (Chart Letter No. 738, 1933);

	Lat.	Long.	Engineers' Permit	Field Party
a	38°2'.6	121°45'.7	100 feet	103 feet
b	38°3'.2	121°46'.8	125 "	129 "
c	38°2'.3	121°46'.8	125 "	132 "
d	38°2'.1	121°46'.4	100 "	93 "
e	38°1'.9	121°46'.3	110 "	116 "

In all the above cases, the field party's determination was retained on the sheet.

12. Reviewed by - Harold W. Murray - October 27, 1934.

Inspected by - A. L. Shalowitz.

Examined and approved:

K. T. Adams,
Chief, Section of Field Records.

L. C. Colbert
Chief, Division of Charts.

F. S. Borden
Chief, Section of Field Work.

G. T. Rude
Chief, Division of H. & T.

applied to drawing of Chart 5527
Feb. 12, 1935 - J.T.W.

GEOGRAPHIC NAMES

Survey No. H-6014b-c
T-4685

Date. April 17, 1935
HMS

Chart No.

Diagram No. 5534

Names approved April 17, 1935. Harlow Bacon

Approved by the Division of Geographic Names, Department of Interior. *

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

Under investigation. Q

Status	Name on Survey	Name on Chart	New Names in local use	Names assigned by Field	Location
	For geographic names on this sheet see Descriptive Report for T-4685.				

(M-136)