

4795

Diag. Ckt. No 1215-2

Form 504

U. S. COAST AND GEODETIC SURVEY

DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*  
Field No. .... Office No. *4795*

LOCALITY

State *New York.*  
General locality *South Coast*  
Locality *Of Long Island*  
*Jones Inlet to Freeport.*

1947

CHIEF OF PARTY

*C. D. Meeney*

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DATE .....

4795

C. & G. SURVEY  
L. & A.  
JUN 19 1928  
Acc. No.

DESCRIPTIVE REPORT  
TO ACCOMPANY

HYDROGRAPHIC SHEET NO. 4 4795

U. S. C. & G. SURVEY,  
E. Lester Jones, Director.

C. D. Meaney, Chief of Party

### AUTHORITY

In accordance with instructions dated April 8, 1927, a hydrographic survey was made of the water area between latitude  $40^{\circ} - 34'$  N and latitude  $40^{\circ} - 39'.8$  N longitude  $73^{\circ} - 30.8$  W longitude  $73^{\circ} - 35' .8$  W.

### JUNCTIONS

This sheet joins sheet 3 on the west and sheet 5 on the east.

### FLOATING EQUIPMENT

The hydrography was executed with the aid of launch 66, a Coast Guard surfboat and a sea sled.

### POSITIONS

Blue ink positions show work done with launch 66, red ink positions show work done with a sea sled, and green ink positions show work done with a Coast Guard surfboat.

### FIELD PLOTTING

The positions for launch 66 were plotted in the field, the positions for Coast Guard hydrography were plotted in the field when the sheet was dry.

The positions for sea sled hydrography were not plotted in the field as there was insufficient room for plotting.

### TIDES

Tide gauges were maintained at the following places to control reducers:

Prospect Gun Club dock near the southwest point of Meadow Island, at Freeport near the head of Emories Canal and at Biltmore Shores at the head of a canal near signal Ambrose on sheet 5.

A comparison of the time and range of the tide at the above places compared with Fort Hamilton is as follows:

	H. W. I.	L. W. I.	Mean Range
Prospect Gun Club	7.98	1.70	3.1
Freeport	8.61	2.87	2.6
Biltmore Shores	9.89	4.48	1.4

The range of tide and the height of tide at Biltmore Shores is largely affected by prevailing winds. Therefore ordinary methods of interpolating can not be used in determining tide reducers for soundings between stations affected by Biltmore Shores. Tide curves were plotted for Prospect Gun Club and Biltmore Shores for the time at which a reducer is desired and the reducer directly interpolated from the curves.

For the hydrography on the outside coast the best available information indicates the tide is 1.2 times the range and one hour ahead in time of the tide at the Prospect Gun Club.

#### WRECKS

On this sheet there were found four wrecks, two on the outside coast and two on the inside coast.

The wrecks on the outside coast are particularly dangerous as they are covered at high water.

The wrecks are located in the following positions:

LATITUDE	LONGITUDE	NATURE OF WRECK
40° - 34' - 1172 M N	73° - 33' - 987 M W	Mast awash M. L. W.
40° - 35' - 623 M N	73° - 31' - 1067 M W	Boiler awash half tide
40° - 36' - 1190 M N	73° - 34' - 1094 M W	Scow awash 3/4 tide
40° - 37' - 1062 M N	73° - 34' - 1086 M W	Wreck bare M. L. W.

#### CHANNELS

The channels to the entrance of Jones Inlet are changeable; the deepest water is marked by buoys which are shifted with changes in the channel.

Jones inlet had an effective depth of 8' in the south channel and 7' in the west channel. In moderate weather breakers are encountered across the entrance. Strangers should use a pilot.

From Jones Inlet channels branch North, west and east.

The channel to the north leads to Freeport with an effective depth of 5 feet at M. L. W. and to the head of Freeport Creek with an effective depth of 4' at M. L. W.

The channel to the west leads to Long Beach. The effective depth of this channel is 4' at M. L. W.

The channel to the east leads to Great South Bay. The effective depth of the part of the channel shown on this sheet is 7' at M. L. W. to a point 30 meters north of Brant Point Hotel.

A channel known as Big Swift Creek branches north of the main channel east of Jones inlet east of the S. E. point of Meadow Island and runs to Wantaugh with an effective depth of 4' at M. L. W. Other branches of this channel run through the Bay of Fundy to the main channel to Freeport (effective depth M. L. W. 4'), from S. E. of False Channel Meadow westward through High Flats Drain and Mill Creek with an effective depth of 4' at M. L. W.; from East Bay, S. E. of Whale Neck Point west and north to Bellmore with an effective depth of 4' at M. L. W.; from S. E. of Whale Neck Point north to Bellmore at the head of Bellmore Creek with an effective depth of 1' at M. L. W.

A channel known as Brand Creek Channel connects the channel to Wantaugh with the channel to Great South Bay with an effective depth of 4' at M. L. W.

Other channels not much used are West Branch of Meds Creek which runs to the south side of East Bay bare at L. W. with a depth of 3' at M. L. W, Horse Race connecting Haunt's Creek and Brand Creek channel with an effective depth of 1' at M. L. W.; the channel west of Middle Island to East Bay bare at M. L. W. with a depth of 3' at M. L. W.

Bellmore Creek has an effective depth of 3.5 feet at M. L. W.

#### FISH TRAPS

Two fish traps were located on the outside coast.

#### SMOOTH SHEET PLOTTING

The smooth sheet positions were plotted in the Washington Office by J. N. Jones, Deck Officer, and F. G. Johnson, Lieutenant, (j.g.)

Reducers were entered and checked by the Tidal Division.

Soundings were plotted by C. D. Meaney, Lieutenant U. S. C. & G. S.

Respectfully submitted,

  
C. D. Meaney.

Table of Statistics for Sheet 4.

Launch #66

Vol.	Day	Date	Miles	Positions	Soundings
1	A	July 19	2.7	23	118
	B	July 21	27.0	179	620
	C	July 22	13.5	77	318
	D	August 2	1.2	8	49
2	E	August 5	2.4	14	99
	F	August 8	14.0	115	856
	G	September 21	27.0	89	605
3	H	October 22	22.5	73	501
Total			110.3	578	3166

Coast Guard Surfboat

1	A	July 27	26.7	150	928
	B	July 28	5.9	40	201
	C	August 5	2.2	34	140
	D	August 10	6.0	42	274
2	D	August 10	5.8	46	294
	E	August 11	5.9	39	240
Total			52.5	351	2077

Sea Sled

1	a	August 4	12.0	195	888
	b	September 9	3.6	52	240
	c	September 14	2.0	22	109
2	d	September 15	12.5	191	874
	e	September 16	2.8	124	696
3	e	September 16	6.0	79	413
	f	September 19	16.8	195	1176
4	g	September 20	16.3	304	1220
	h	September 21	3.0	58	203
5	h	September 21	3.0	40	216
	j	September 22	10.8	195	721
6	k	September 24	2.5	35	167
	k	September 24	3.0	57	204
	l	October 26	7.4	119	520
7	m	October 27	9.4	204	648
	m	October 27	3.9	61	263
	n	October 28	11.0	216	772
8	p	October 29	6.0	57	332
	q	October 31	6.8	110	522
	r	November 12	1.9	64	131
Total			140.7	2378	10313

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 11-DEM

WASHINGTON

September 27, 1928.

SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4795

Surveyed in 1927

Instructions dated April 8, 1927

Chief of Party, C. D. Meaney.

Surveyed by C. D. M.

Protracted by J. N. Jones and F. G. Johnson.

Soundings pencilled by C. D. Meaney.

Verified and inked by H. E. MacEwen.

1. The records are clear and complete.
2. The character of the development is in accord with the requirements of the General Instructions.
3. The plan and extent of the development satisfy the specific instructions.
4. The sounding line crossings are sufficient to establish a reasonable check on the work.
5. The depth curves up to 30 feet can be completely drawn.
6. The field plotting was completed to the extent prescribed in the General Instructions.
7. A complete examination of adjacent sheets was not possible at the time this sheet was completed since sheet No. 4794 on the east as well as sheet No. 4796 on the west was not completed. ~~at the time~~. A cursory examination, however, shows the junctions to be satisfactory.
8. No further surveying is required to fully develop important areas within the limits of this sheet except as stated in Remarks (d).
9. Remarks:
  - a. Generally speaking the surveying and drafting work done on this sheet was excellent. Some little difficulty was encountered

in the beginning, however, when a check was made of the signals used as control on this survey. One of these signals (⊙ Tile) on which a considerable amount of offshore work depended was found plotted in error and the work consequently had to be changed. Several other signals were found to be transferred erroneously from the topographic sheet but it was found as the verification progressed that these signals were not used by the field party. The names on two Δ signals were confused. Aside from these instances the work was done with evident care and accuracy.

b. A large number (1081) of penciled soundings had to be changed due to an apparent misunderstanding of the rule for converting minus soundings. With very few exceptions the change necessary was due to an erroneous interpolation of tenths of feet.

c. This survey has developed a clear channel free of shoal spots branching off to the southward at the entrance to Jones Inlet. It seems advisable to shift the channel buoys from the positions shown on this sheet to the eastward to mark this new approach.

d. (1) Cross lines should have been run to definitely locate the channel in Long Creek and also in Scow Creek west of signal Δ Breeze.

(2) A closer development is needed to complete the detail in Haunts Creek, lat. 40° 36' 30".

(3) Closer development would be advantageous in clearly defining the deep area north of Δ Short and also for the deep channel, lat. 40° 35' 50", long. 73° 32' 15".

(4) More soundings are needed in Sea Dog Creek to fully develop the deepest part of the channel.

(5) Closer development is needed to fully develop the north entrance to Big Swift Creek, lat. 40° 36' 45", long. 73° 33' 25".

(6) Jones Inlet, lat. 40° 35' 00", long. 73° 34' 25", needs closer development to more clearly denote the exact edge of the main channel and to establish the location of the six foot curve.

(7) The following creeks and canals were not surveyed and no reason was given by the Chief of Party for omitting these areas:

Canals making off from Freeport Creek, lat. 40°38'30"  
long. 73°34'15"

Two canals making north from Belmore Creek (called  
Baldwin Creek on Geological Survey map)  
lat. 40°39'00"  
long. 73°32'00"

Emorys Creek, lat. 40°38'00", long. 73°34'00".

Pine Creek, Little Sand Creek and Bush Creek.

Channels between the East Crow and the West Crow Islands.

Chamels making south from the Bay of Fundy.

10. Rating of work:

- (a) Character and scope of surveying - excellent.
- (b) Field drafting - good.

11. Reviewed by H. E. MacEwen, September, 1928.

12. Sheet inspected by *A. L. Shalowitz*.

Approved:

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Chief, Section of Field Records (Charts)

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Chief, Section of Field Work (H. & T.)

June 30, 1928

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in  
13 volumes of sounding records for

HYDROGRAPHIC SHEET 4795

Locality: South coast of Long Island, N. Y.

Chief of Party: C. D. Meaney, 1927

Plane of reference is M. L. W.

4.2 ft. on tide staff at Jones Inlet (Standard gauge)

Condition of records satisfactory except as checked below:

1. Locality and sublocality of survey omitted.
2. Month and day of month omitted.
3. Time meridian not given at beginning of day's work.
4. Time (whether A.M. or P.M.) not given at beginning of day's work.
5. Soundings (whether in feet or fathoms) not clearly shown in record.
6. Leadline correction entered in wrong column.
7. Field reductions entered in "Office" column.
8. Location of tide gauge not given at beginning of each day's work.
9. Leadline corrections not clearly stated.
10. Kind of sounding tube used not stated.
11. Sounding tube No. entered in column of "Soundings" instead of "Remarks".
12. Legibility of record could be improved.
13. Remarks.

*H. H. H.*  
Chief, Division of Tides and Currents.

Note: For time and height corrections see notes in sounding books.

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4795

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. 4

REGISTER NO. 4795

State New York

General locality South Coast of Long Island

Locality ~~Vicinity of Jones Inlet and Freeport~~ to

Scale 1:10,000 Date of survey July 19-Nov. 11, 1927

Vessel Launch 66

Chief of Party C. D. Meaney

Surveyed by C. D. Meaney

Protracted by J. N. Jones and F. G. Johnson

Soundings penciled by C. D. Meaney

Soundings in ~~fathoms~~ feet

Plane of reference M.L.W.

Subdivision of wire dragged areas by - - - - -

Inked by

Verified by

Instructions dated April 8, 1927

Remarks:

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 4795

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

Number of positions on sheet 3307 . .  
Number of positions checked 560 . . .  
Number of positions revised 112 . . .  
Number of soundings recorded 15547 . . . .  
Number of soundings revised 1081 . . .  
Number of signals erroneously  
plotted or transferred . . . 8 . . .

Date: September 13, 1928  
Cartographer: N. E. MacEwan