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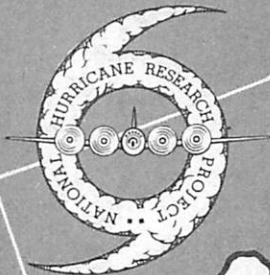
ATSL

NATIONAL HURRICANE RESEARCH PROJECT

REPORT NO. 7

An Index of Tide Gages and Tide Gage
Records for the Atlantic and Gulf
Coasts of the United States

ATMOSPHERIC SCIENCE
LABORATORY COLLECTION



U. S. DEPARTMENT OF COMMERCE
Sinclair Weeks, Secretary
WEATHER BUREAU
F. W. Reichelderfer, Chief

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by

D. Lee Harris and C. V. Lindsay

Office of Meteorological Research, U. S. Weather Bureau, Washington, D. C.



Washington, D. C.
May 1957



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AN INDEX OF TIDE GAGES AND TIDE GAGE RECORDS FOR THE
ATLANTIC AND GULF COASTS OF THE UNITED STATES

D. Lee Harris and C. V. Lindsay

INTRODUCTION

Programs for the forecasting of coastal floods caused by hurricanes and other severe storms, for the construction of protective works to guard against damage produced by these floods, and for insuring against damage produced by storms, have recently been established by the Federal Government. Each of these programs calls for an investigation of past storm conditions, and records of past floods are required for these studies. The most useful records are those made by recording, water-level gages. Such gages are maintained in coastal waters by several government and private agencies. This index of tide gages and tide gage records has been compiled as an aid to the efficient use of this material for the study of coastal floods.

In May 1956, the Hurricane Survey Coordinating Committee of the Army Corps of Engineers expressed the need for an inventory of existing tide gage information. The Weather Bureau had already started the compilation of such an index and agreed to broaden the scope of the project already underway so as to satisfy the needs of the Corps of Engineers and others for such an index. Representatives of the Corps of Engineers, U. S. Coast and Geodetic Survey, and U. S. Geological Survey agreed to cooperate in supplying information for inclusion in the index. The final compilation of the data has been accomplished by the Weather Bureau with the active assistance of the three other Federal agencies mentioned and many private agencies who operate water level gages in tidal waters. A sincere effort has been made to insure the accuracy of all the data contained in this index. However, it is almost inevitable that the first edition of an index of this type will contain at least a few minor errors. Corrections to any of the data contained herein and suggestions for improving the utility of the index, if a revised edition is needed, will be appreciated.

GAGE ZEROS

It is worthwhile to note that mean sea level, as used in this index, may refer either to local mean sea level, as determined from the average hourly tide height over a considerable period of time (sometimes corrected, for stations having only a short period of record, by comparisons with nearby stations having a longer period of record), or to a geodetic level (initially based on tide observations obtained in some other locality). At least four adjustments of the basic level net in the United States were made before 1929, and several of them have been used in determining the elevations of gages listed in this index. The various datum planes used in any locality generally agree within a few tenths of a foot, but the method of definitions used may permit differences of 0.5 ft. in some cases. Since the information necessary to bring all gage zeros to a common geodetic surface was not collected, it will be necessary for the user to investigate this point more fully, if extreme accuracy is required. The possible significance of this discrepancy is discussed more fully in Appendix III.



Figure 1. - High tide data for stations having a record for 20 years or longer.

Staff gages are frequently installed near recording gages. In some cases the gage zero tabulated in this index refers to the zero of the staff gage, in other cases to the zero of the recorder record or tabulations based on the recorder record. The zero of the staff gage and recorder record are usually the same but this is not always the case.

EXTREME TIDES

This index contains records of the highest and lowest recorded tides at all of the tide stations for which these data were available. The high tide data for stations having a record for 20 years or longer have been summarized in figure 1, both in the form of height above mean sea level and height above mean high water. The type of storm - hurricane, tropical storm of less than hurricane intensity, or extratropical storm - responsible for the record high tide is also indicated. It will be noted that at many locations the highest tide of record was not caused by a hurricane. Where no tide station having a record of 20 years or longer existed over any long stretch of the coastline, the record was filled in by listing the highest recorded tide at stations having a shorter period of record. In these cases the number of years of record available is also shown.

The extremely high tides produced by hurricanes frequently cover only a short section of the coastline and may not be recorded by any recording tide gage. Records of the highest tides produced by several storms, obtained from inspections of the coasts after the passage of the storms, have been shown whenever reliable values significantly greater than those reported from the nearest recording tide gage were known. The values obtained in this way are frequently from five to ten feet higher than the values obtained from the tide gage records. Some of this difference may be due to the difficulty of obtaining a reliable still-water height in a coastal inspection, but a greater part of the difference is due to the small lateral extent of the extremely high hurricane tides, so that the peak tide is not often recorded by any established tide gage. Some of the difference is also due to local topography. The amplitude of the storm tide is frequently several feet higher near the head of an estuary than along the open coast.

PRESENT DISTRIBUTION OF TIDE GAGES

The locations of recording tide gages in operation as of January 1, 1957, are shown in figure 2. The number of operating tide gages has varied over the past years but has never been greater than at present. Even so, a comparison with figure 1 shows that the present distribution of gages would permit many of the greatest coastal floods of the past to go by unrecorded if they were repeated.

SOURCES OF TIDE DATA

Tide records belonging to the Coast and Geodetic Survey, the basic tide records for the United States, are filed in the Washington office of the Survey. Copies of the records, when needed, should be requested from:



Figure 2. - Recording tide gages in operation January 1, 1957.

The Director
Coast and Geodetic Survey
U. S. Department of Commerce
Washington 25, D. C.

Tide gages are also maintained by other Federal agencies and private organizations to serve some special function of the operating agency. These records are generally maintained by the field office most concerned with the gage operation. Many of the older records have been retired to a Federal Records Center and a few may have been lost or destroyed. In any case, the office from which copies of the records or other more detailed information concerning the gage should be requested, is listed with the description of the gage. The complete addresses of all of these offices are given in Appendix I.

TIDE GAGE LOCATION MAPS

Nautical charts, containing soundings have been used as background charts whenever such a chart of a suitable scale was available, because the topography of the sea bottom is believed to be of value in understanding the local variations in height of the storm tide. The maps as well as the index show most, if not all, of the tide gages operated by the Coast and Geodetic Survey, Corps of Engineers, or the Geological Survey since 1900. Since these Federal agencies are responsible for most of the gages listed in this index, the ownership of the gages has been indicated on the maps as follows:

- Coast and Geodetic Survey
- Army Corps of Engineers
- △ Geological Survey
- ▽ Any other organization.

ABBREVIATIONS

A list of the Abbreviations used in this index is given in Appendix II.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
100	A	Eastport, Maine	44°54'N.	66°59'W.	AF	J	-14.3	+14	-14	1929 to date	C and GS
101	A	Bar Harbor, Maine	44°23'N.	68°12'W.	AF	J	-8.6	+13	-11	8/16/47 to date	C and GS
102	A	Pulpit Harbor, North Haven Island, Me.	44°09'N.	68°53'W.	AF	J	-9.5	+7.5	-9.5	8/8/45-12/46	C and GS
103	A	Rockland, Maine	44°06'N.	69°06'W.	AF	J	-10.3	+6.7	-10.3	4/30/31-5/29/32	C and GS
										5/14/45-10/22/45	
										5/20/46-10/22/46	
104	A	Port Clyde, Maine	43°56'N.	69°16'W.	AF	J	-8.0	+9.0	-8.0	4/27/50-8/9/50	C and GS
										5/30/44-10/6/44	
										5/28/54-10/10/54	
										4/12/55-8/3/55	
105	A	Augusta, Maine (Kennebec R.)	44°17'N.	69°47'W.	B	G	-0.76	+30.0	0.0	9/15/43-10/15/43	USWB
106	A	Bath, Maine	43°55'N.	69°49'W.	AF	J	-6.0	+11.0	-6.0	9/1/54 to date	C and GS
108	A	Portland, Maine	43°40'N.	70°15'W.	AF	J	-8.1	+19.7	-13.3	8/24/26 to date	C and GS
109	A	Saco, Maine	43°05'N.	70°44'W.	AF	J	-6.3	+13.0	-10.0	3/21/36 to date	USWB
110	A	Fortsmouth, N.H. (Seavey Island)									C and GS
111	B	Haverhill, Mass.									City of Haverhill
111A	B	Salem Harbor Steam Plant, Salem, Mass.									N.E.E.S.
112	B	Deer Island (Fort Daves) Mass.	42°21'N.	70°58'W.	AF	J	-7.0	+8.0	-9.0	1951 to date	C and GS
										6/20/45-10/17/45	
										5/9/46-10/11/46	
										6/26/48-10/4/48	
113	B	Boston, Mass.	42°21'N.	71°03'W.	AF	J	-8.2	+14.0	-11.4	6/12/52-7/2/53	C and GS
114	B	Boston Light, Lighthouse Island, Mass.	42°20'N.	70°54'W.						5/3/21 to date	C and GS
115	B	Cape Cod Canal (East End) (Sandwich), Mass.	41°46'N.	70°30'W.	AF	J	-4.6	+16.0	-5.9	5/6/40-9/24/40	C and GS
116	B	Cape Cod Canal (West End) (Buzzards Bay), Mass.	41°44'N.	70°37'W.	AF	J	-2.0	+11.4	-4.7	6/18/52-10/6/52	C and GS
116A	B	Yarmouth (Pass River), Mass.	41°40'N.	70°11'W.	AP	J	-2 MLW	+18 MLW	-2MLW	5/55 to date	CE-USA
117	B	Woods Hole, Mass.	41°31'N.	70°40'W.	AF	J	-3.0	+9.0	-5.0	8/19/56 to date	C and GS
117A	B	Nantucket, Mass. (Brant Pt. Life Boat Station)	41°17'N.	70°06'W.	AP	J	-3 MLW	+17 MLW	-3MLW	7/16/32 to date	CE-USA
118	B	Clark Point, Mass.	41°36'N.	70°54'W.	AF	J	-5.0	+4.0	-5.0	10/18/56 to date	C and GS
118A	B	South Dartmouth, Mass. (Davis and Tripp Inc., Dock)	41°35'N.	70°57'W.	AP	J	-4.9	+15.2	-4.9	7/3/31-7/25/32	C and GS
										4/26/35-8/24/55	CE-USA
										10/19/56 to date	

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
100		N	1/1	1:32	14.0	11/20/45	-13.4	1/7/43	H,HL	18.2	20.7	C and GS	
101		N	1/1	1:24	9.2	2/15/53	- 8.1	4/5/54	H,HL	10.4	12.0	C and GS	
102		N	1/1	1:24	9.2	11/20/45	- 7.3	5/3/50	H,HL	9.8	11.1	C and GS	
103		N	1/1	1:24	7.2	4/21/32	- 7.8	11/19/45	H,HL	9.7	11.2	C and GS	
104	C and GS	R	0.4/1	1:30	7.4	6/2/54	- 6.2	10/12/31	HL	8.9	10.2	C and GS	
105	USWB	N			30.7	3/19/56	- 3.0	9/14/54 (approx.)		4.1	4.6	C and GS	Flood stage 13' H.S.L.
106	C and GS	R	0.4/1	1:30	5.1	5/31/42	- 4.4	6/1/42	HL	6.4	7.4	C and GS	
108		N	1/1	1:24	8.2	6/29/42	- 7.7	8/26/42	H,HL	8.9	10.2	C and GS	
109						11/30/44		4/23/36					
110	USN	R	1/1	1:24	7.6	11/30/44	- 6.9	1/7/43	H,HL	8.8	9.0	USWB C and GS	
111								3/14/30		4.6		City of Haverhill	Flood stage 15' m.s.l.
111A					30.0	3/21/36		4/5/54				New England Elec. System	Past 6 mos. data may be in error due to leak
112	C and GS	N	1/1	1:24	7.9	4/13/53	- 7.4	2/16/53	H,HL	9.3	10.8	C and GS	
113		R	1/1	1:24	8.9	4/21/40	- 8.4	1/25/38	H,HL	9.5	11.0	C and GS	Flood stage 12' abv. MLM. Remoted to USWB
114	USCG	R	0.4/1	1:30	6.7	5/20/40	- 6.5	3/24/40	HL	9.9	10.4	C and GS	
115	CE-USA	R	1/1	1:24		8/5/52		8/9/52					
116	CE-USA	R	1/1	1:12		8/5/52		10/4/52					
116A	CE-USA	V	Polar 24-hr. or 7 day	0.25/1								CE-USA, NED	Staff zero-2 MLW, length 13' also max. level gage
117	WHOI	R	1/1	1:9	10.4	8/21/38	- 3.3	1/24/36	H,HL	1.8	2.2	C and GS	
118		N	1/1	1:12	4.1	3/24/32	- 3.8	12/8/31	H,HL	3.7	4.6	C and GS	m.s.l. length 12' also max. level gage
118A	CE-USA	V	Polar 24-hr. or 7 day	0.25/1								CE-USA, NED	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and Lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
119	B	Providence (State Pier) R. I.	41°48'N.	71°24'W.	AF	J	- 5.2	+11.0	- 8.4	5/3/38-6/23/47 8/56 to date	C and GS Harr.Elec.Co.
119A	B	Providence, R. I. (Narragansett Elec. Co.)	41°49'N.	71°24'W.	A	G	+ 2.5	+20.5	- 4.5	1956 to date	CE-USA
120	B	Cranston (Edgewood) R.I. (Edgewood Yacht Club)	41°47'N.	71°25'W.	AP	J	- 5.2	+14.8	- 5.2	10/11/55 to date	CE-USA
120A	B	Somerset, Mass., (Montaup Elec. Co.)	41°44'N.	71°09'W.	AP	K	- 5.1	+14.9	- 5.1	8/24/56 to date	CE-USA
121	B	Portsmouth, R. I. (Meyerbaeuser Timber Co.)	41°38'N.	71°16'W.	AP	J	- 3.0	+15.0	- 5.0	10/24/55 to date	CE-USA
121A	B	Little Compton (Sakonnet), R. I. (Holden Wilcox Dock)	41°28'N.	71°12'W.	AP	J	- 3 MLW	+17 MLW	- 3 MLW	9/27/56 to date	CE-USA
122	B	Melville (Navy Fuel Oil Depot), R. I.	41°35'N.	71°17'W.	AF	J	- 4.7	+ 4.8	- 4.7	6/24/43-6/21/44 1940-1956	C and GS USGS
123	B	Potowomut River nr. East Greenwich, R. I.	41°39'N.	71°27'W.	AF	J	- 4.8	+ 4.8	- 4.8		CE-USA
123A	B	North Kingstown, R. I. (Quonset Pt. NAS)	41°35'N.	71°25'W.	AF	G	- 4.8	+15.2	- 4.8	12/17/56 to date	CE-USA
124	B	North Kingstown, (Saunderstown), R. I.	41°30'N.	71°25'W.	AP	M	- 4.8	+15.2	- 4.8	10/10/55 to date	CE-USA
124A	B	Narragansett Marine Laboratory (Pt. Judith Life Boat Boathouse)	41°22'N.	71°31'W.	AP	J	- 7.0	+13	- 7.0	10/4/56 to date	CE-USA
125	B	Newport, R. I.	41°30'N.	71°20'W.	AF	J	- 3.0	+ 8.0	- 4.0	9/10/30 to date	C and GS
126	B	Newport, R. I. (Castle Hill Life Boat Sta.)	41°28'N.	71°22'W.	AP	J	- 4.7	+15.3	- 4.7	10/10/55 to date	CE-USA
127	B,C	Block Island, R. I. (Old Harbor), (Ballards Inn)	41°10'N.	71°33'W.	AP	J	- 3.3	+16.7	- 3.3	11/16/55 to date	CE-USA
128	B,C	Westerly, R. I. (Pawcatuck River)	41°23'N.	71°50'W.	AF	J	- 3 MLW	+17 MLW	- 3 MLW	1940-1956	USGS
128A	B,C	Stonington, Conn., (Thomas Boat Yard)	41°20'N.	71°54'W.	AP	J	- 3.8	+10.6	- 5.6	10/1/56 to date	CE-USA
129	B,C	New London, Conn.	41°22'N.	72°06'W.	AF	J	- 2.0	+ 9.0	- 3.0	6/4/17-11/3/17 6/11/38 to date	C and GS
130	B	Hartford, Conn.	41°46'N.	72°40'W.	AF	J	+ 0.1	+ 9.0	- 3.0	4/1/39-2/19/44	C and GS
131	B	Rocky Hill, Conn.	41°40'N.	72°38'W.	AF	J	- 1.2	+ 9.7	- 2.3	4/13/38-1/3/41	C and GS
132	B	Portland, Conn.	41°34'N.	72°38'W.	AF	J	0.00	+30.0	- 1.5	4/12/38-1/3/41	C and GS
133	B	Middletown, (Bodkin Rock), Conn.	41°34'N.	72°37'W.	AF	J	- 2.0	+ 9.7	- 2.3	9/8/48 to date	USMB
134	B,C	Haddam, Conn.	41°29'N.	72°30'W.	AF	J	- 2.1	+ 8.4	- 3.6	4/14/38-1/2/41	C and GS
135	B,C	Hadlyme, Conn.	41°25'N.	72°26'W.	AF	J	- 3 MLW	+17 MLW	- 3 MLW	4/15/38-1/2/41	C and GS
135A	B,C	Old Saybrook, Conn. (Saybrook Marine Services Inc.)	41°19'N.	72°21'W.	AP	J	- 5.4	+ 5.6	- 6.4	9/20/56 to date	CE-USA
136	B,C,D	Stratford, Conn.	41°11'N.	73°07'W.	AF	J	- 5.7	+14.3	- 5.7	11/10/36-11/4/38	C and GS
136A	B,C	New Haven, Conn. (Tomlinson Bridge)	41°18'N.	72°54'W.	AP	J	- 6.2	+ 6.0	- 9.7	10/9/56 to date	CE-USA
137	B,D	Bridgeport, Conn.	41°10'N.	73°11'W.	AF	J	- 6.1	+13.9	- 6.1	6/11/32-10/31/35	C and GS
138	B	Bridgeport, Conn. (Yellow Mill Bridge)	41°11'N.	73°11'W.	AP	J	- 6.1	+13.9	- 6.1	10/9/56 to date	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
119	Narr. Elec. Co.	N	1/1	1:16	15.9	H9/21/38	- 5.1	5/11/45	H,HL	4.6	5.7	C and GS Narr. Elec. Co.	Remoted to USWB Staff zero -2.5' m.s.l. length 18'
119A	CE-USA	R	Polar 24-hr or 7 day	0.25/1					None			CE-USA, NED	Staff zero -2.2' m.s.l. length 12'
120	CE-USA	R	Polar 24-hr or 7 day	.25/1					H,HL			CE-USA, NED	Staff zero -5.1' also max. level (gage)
120A	CE-USA	V	Polar 24-hr or 7 day	0.25/1					H,HL			CE-USA, NED	Staff zero -2.0' m.s.l. length 12'
121	CE-USA	V	Polar 24-hr or 7 day	.25/1					H,HL			CE-USA, NED	Staff zero -3 MLW, length 18' also (max level gage)
121A	CE-USA	V	Polar 24-hr or 7 day	0.25/1					H,HL			CE-USA, NED	Staff zero -4.8' m.s.l. length 10'
122	USN	R	Polar 24-hr or 7 day	1:16-7/8	4.0	2/23/44	- 4.1	12/11/43	HL	3.8	4.7	C and GS	Staff zero -4.8' m.s.l. length 10'
123	CE-USA	V	Polar 24-hr or 7 day	0.25/1					H,HL	4.4	5.5	CE-USA, NED	Staff zero -3 MLW, length 18' also (max level gage)
123A	CE-USA	V	Polar 24-hr or 7 day	0.25/1					H,HL			CE-USA, NED	Staff zero -4.8' m.s.l. length 10'
124	CE-USA	V	Polar 24-hr or 7 day	.25/1					H,HL			CE-USA, NED	Staff zero -7.0' m.s.l. length 15'
124A	CE-USA	V	Polar 24-hr or 7 day	0.25/1					H,HL			CE-USA, NED	Staff zero -4.8' m.s.l. length 10'
125	USN	R	1/1	1:12	12.2	H9/21/38	- 4.2	1/25/36	H,HL	3.5	4.4	C and GS	Staff zero -1.7' m.s.l. length 12'
126	CE-USA	V	Polar 24-hr or 7 day	.25/1					H,HL			CE-USA, NED	Staff zero -3.3' m.s.l. length 15'
127	CE-USA	V	Polar 24-hr or 7 day	.25/1					H,HL	2.9	3.6	CE-USA, NED	Staff zero -3 MLW length 13' also (max level gage)
128A	CE-USA	V	Polar 24-hr or 7 day	0.25/1					H,HL			CE-USA, NED	Staff zero -3 MLW length 13' also (max level gage)
129	CE-USA	N	1/1	1:12	9.7	H9/21/38	- 4.4	12/11/43	H,HL	2.6	3.1	C and GS	Staff zero -5.7' m.s.l. length 15'
130	CE-USA	R	1/1	1:12	17.0	4/29-30/45	- 1.2	H9/29/43	H,HL	1.7	2.0	C and GS	Staff zero -6.1' length 15' (Staff zero -6.1' length 15' max level gage)
131	CE-USA	N	1/1	1:12	18.7	H9/22/38	- 1.5	10/24/39	H,HL	1.7	2.0	C and GS	Staff zero -5.7' m.s.l. length 15'
132	CE-USA	R	1/1	1:12	18.5	H9/22/38	- 1.5	9/6/38	H,HL	2.0	2.4	C and GS	Staff zero -5.7' m.s.l. length 15'
133	CE-USA	N	1/1	1:12	28.2	3/1936	- 3.7	3/24/40	H,HL	2.5	3.0	USWB	Staff zero -3 MLW length 10' also (max level gage)
134	CE-USA	N	1/1	1:12	8.1	H9/21/38	- 2.6	12/8/39	H,HL	2.7	3.2	C and GS	Staff zero -5.7' m.s.l. length 15'
135	CE-USA	V	Polar 24-hr or 7 day	0.25/1	9.0	H9/21/38	- 4.2	11/16/36	H,HL	5.5	6.5	CE-USA, NED	Staff zero -5.7' m.s.l. length 15'
135A	CE-USA	V	Polar 24-hr or 7 day	0.25/1	5.8	11/28/32	- 6.0	12/20/34	H,HL	6.8	8.0	CE-USA, NED	Staff zero -5.7' m.s.l. length 15' max level gage
136	CE-USA	N	1/1	1:12	8.4	H9/21/38	- 4.2	11/16/36	H,HL			CE-USA, NED	Staff zero -5.7' m.s.l. length 15'
136A	CE-USA	V	Polar 24-hr or 7 day	0.25/1					H,HL			CE-USA, NED	Staff zero -5.7' m.s.l. length 15'
137	CE-USA	N	1/1	1:16					H,HL			CE-USA, NED	Staff zero -5.7' m.s.l. length 15'
138	CE-USA	V	Polar 24-hr or 7 day	0.25/1					H,HL			CE-USA, NED	Staff zero -5.7' m.s.l. length 15' max level gage

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (R) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
139	B, D	Stamford, Conn.	41°03'N.	73°33'W.	A	K	- 3.6	+ 9.4	- 3.6	1952 to date	Conn. PWR. Co.
139A	D	Port Chester, N. Y. (Yacht Club Pier)	41°00'N.	73°40'W.	E					9/56 to date	CE-USA
140	C	Montauk, N. Y.	41°03'N.	71°58'W.	AF	J	- 4.5	+ 9.8	- 7.0	9/6/47 to date	C and GS
141	C	Shinnecock Inlet, Long Island, N. Y.	40°50'N.	72°28'W.	AF	J	0.00	R5, W7		1951 to date	SC Hwy Dept.
141A	C	Shinnecock Inlet (Ocean) Long Island, N. Y.	40°50'N.	72°28'W.	AB		-29.0	R20, W20		10/1-31/56 to be in operation spring 1957	CE-USA
142	C	Peconic Bay, Long Island, N. Y.	40°54'N.	72°30'W.	AP	J	- 5.00	R9, W9		2/1/56 to date	CE-USA
142A	C	Mattituck Inlet, N. Y. (Long Island) Mattituck Petro Corp. Pier	41°01'N.	72°34'W.	E					8/56 to date	CE-USA
143	C	East Quogue, Long Island, N. Y.	40°51'N.	72°34'W.	AF	J	- 5.00	R5, W6		12/29/55 to date	CE-USA
144	C	Oneck Point, Long Island, N. Y.	40°48'N.	72°39'W.	AF	G	- 5.00	R5, W6		12/15/55 to date	CE-USA
145	C	East Moriches Bay, Long Island, N. Y.	40°47'N.	72°44'W.	AF	J	- 5.00	R9, W9		1/5/56 to date	CE-USA
146	C	East Moriches, Long Island, N. Y.	40°48'N.	72°45'W.	AF	J	- 5.00	R5, W6		1950 to date	SC Hwy. Dept.
147	C	Mastic Beach, Long Island, N. Y.	40°45'N.	72°50'W.	AF	G	- 5.00	R5, W6		1/12/56 to date	CE-USA
148	C	Patchogue, Long Island, N. Y.	40°45'N.	73°01'W.	AP	J	- 5.00	R9, W9		11 months (1947)	CE-USA
149	C	West Sayville, Long Island, N. Y.	40°43'N.	73°06'W.	AF	M	MLW	R5, W5, 5		1950 to date	SC Hwy. Dept.
150	D	Fire Island Jetty, Long Island, N. Y.	40°37'N.	73°18'W.	AP		- 5.00	R9, W9		10 months 1941	CE-USA
151	D	Oak Beach, Long Island, N. Y.	40°38'N.	73°17'W.	AP	J	- 5.00	R9, W9		11 months 1947	CE-USA
152	D	Captree, Long Island, N. Y.	40°38'N.	73°17'W.	AF	J	- 5.00	R5, W5		12/7/55 to date	CE-USA
153	D	Amityville, Long Island, N. Y.	40°39'N.	73°25'W.	AF	G	- 5.00	R5, W6		2/8/56 to date	CE-USA
154	D	Freeport, Long Island, N. Y.	40°38'N.	73°25'W.	AF	J	- 5.00	R5, W5		1/24/56 to date	CE-USA
155	D	Meadowbrook Causeway, Long Island, N. Y.	40°36'N.	73°33'W.	AP	J	- 5.00	R9, W9		2/8/56 to date	CE-USA
156	D	Jones Inlet, Long Island, N. Y.	40°35'N.	73°35'W.	AP	I	- 5.00	R9, W9		3 months 1952	CE-USA
157	D	Fort Hamilton, N. Y. C.	40°37'N.	74°02'W.	AF	J	- 5.00	R30, W10		9/30/55 to date	CE-USA
158	D	Fort Hamilton, N. Y. C.	40°37'N.	74°02'W.	AF	J	- 4.2	+ 9.0	- 7.7	1920 to date	C and GS
159	D	Navy Yard, N. Y. C. (East River)	40°43'N.	73°58'W.	AF	J				1900-11/30/20	USN
159A	D	Foot of Hudson Ave. and East River, Brooklyn, N. Y.	40°43'N.	73°59'W.	AF					11/26/26-1/5/29	Con. Edison
160	D	Brooklyn Navy Yard, N. Y.	40°42'N.	73°59'W.	AF	J	- 5.3	+ 9.0	- 9.0	1942-1946	C and GS
161	D	39th St. Brooklyn, N. Y.	40°43'N.	73°58'W.	A	J				1904 to date	NYC
162	D	North third Street, N.Y.C. (East River)	40°45'N.	73°58'W.	AF	J	- 5.00	R30, W10		1921-1922	CE-USA
163	D	Belmont Island, N.Y.C. (East River)	40°45'N.	73°58'W.	AF	G	- 5.00	R30, W10		1920-1922	CE-USA
164	D	Mill Rock, N.Y.C. (East River)	40°48'N.	73°56'W.	AF	G	- 5.00	R30, W13		1921-1948	CE-USA
165	D	Wards Island, N.Y.C.	40°48'N.	73°56'W.	AF	J	- 5.00	R30, W10		1920-1922	CE-USA
166	D	Hell Gate (East River) N. Y.	40°48'N.	73°55'W.	A	K				1954 to date	Con. Edison

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
139	Conn. Pwr. Co.				21.6	2/9/1857			H, HL	7.2	8.5	Conn. Pwr. Co.	
139A		N	1/1	1:12	10.1	11/25/50			H, HL	2.0	2.4	CE-USA (NY Dist.)	Also max level gage
140	SC Hwy Dept.		1:16.8	12/5	7.7	H8/31/54	2/8/51	- 3.5	H, HL	1.2	1.6	C and GS	Gage inside inlet
141			1:16.8	0.18/1	10.4	H8/31/54			HL			SC Hwy Dept.	(Also max level gage)
142	CE-USA	R	1:16.8	0.27/1	10.1	11/25/50			HL	2.7	3.2	CE-USA (NY Dist.)	Also max level gage
142A												CE-USA (NY Dist.)	
143	CE-USA	R	1:20	12/5	4.7	9/14/44			HL	0.9	1.1	CE-USA (NY Dist.)	Also max level gage
144	CE-USA	R	1:16.8	12/5					HL	0.5	0.6	CE-USA (NY Dist.)	Also max level gage
145	CE-USA	R	1:16.8	0.27/1					HL	0.4	0.5	CE-USA (NY Dist.)	Also max level gage
146	SC Hwy Dept.		1:24	12/5	9.7	H9/21/38			HL	0.4	0.5	CE-USA (NY Dist.)	Also max level gage
147	CE-USA	R	1:16.8	12/5	4.8	H9/21/38			HL	0.5	0.6	SC Hwy Dept.	
148	CE-USA		1:16.8	0.27/1					HL	0.7	0.8	CE-USA (NY Dist.)	Also max level gage
149	SC Hwy Dept.		1:24	12/5					HL	0.6	0.7	CE-USA	Records retired
150	CE-USA	R	1:16.8	0.27/1	9.1	11/25/50			HL	4.1	5.0	SC Hwy Dept.	Also max level gage
151	CE-USA	R	1:16.8	0.27/1					HL	2.6	3.1	CE-USA	Records retired
152	CE-USA	R	1:24	12/10					HL	1.0	1.2	CE-USA (NY Dist.)	Also max level gage
153	CE-USA	R	1:16.8	4.3/10	4.7	H9/21/38			HL	1.2	1.4	CE-USA (NY Dist.)	Also max level gage
154	CE-USA	R	1:16.8	4.3/10	5.8	11/25/50			HL	3.0	3.6	CE-USA (NY Dist.)	Also max level gage
155	CE-USA	R	1:16.8	0.27/1					HL	2.8	3.3	CE-USA (NY Dist.)	Also max level gage
156	CE-USA	R	1:16.8	0.27/1	9.4	11/25/50			HL	3.9	4.9	CE-USA (NY Dist.)	Also max level gage
157	CE-USA	R	b	0.27/1	7.72	11/7/53	1/26/28	- 6.2	H, HL, D	4.7	5.7	CE-USA (NY Dist.)	Also max level gage Prior to 1946
158	CE-USA	R	1/1	1:12	6.3	2/5/20	2/2/08	- 7.5	H, HL	4.7	5.7	C and GS	Records retired
159	USN					11/10/32			HL	4.2	5.0	USN	Also max level gage
159A	Con. Edison	R			8.1	11/25/50		- 5.9	H, HL, D	4.1	4.9	Con. Edison Co.	Records available at measuring point only
160	USN	R	1/1	1:12	6.4	H9/14/44	12/11/43	- 5.6	H, HL	4.1	4.9	C and GS	
161	NYC		1:10	1/2						4.1	4.9	NYC	
162	CE-USA		b						H, HL, D	4.1	4.9	CE-USA	Records retired
163	CE-USA		b		9.2	H9/21/38	1/6/28	- 6.0	H, HL, D	4.2	5.0	CE-USA	Records retired
164	CE-USA		b						H, HL, D	4.9	5.9	CE-USA	Records retired
165	CE-USA		b		11.2	H8/31/54	2/8/51	- 6.8	H, HL, D	5.5	6.6	U.S.E. (NY Dist.)	Records retired
166	Con. Edison	R								6.6	7.8	Con. Edison Co.	Measuring point only. Records kept 3 yrs. only

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer

(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour

(6) Height: Inches per foot, ratio, etc.

(7) Cause of Abnormal Tide: (H) Hurricane; (N) Tropical storm not of hurricane intensity.

(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
167	D	Hell Gate Arch, N. Y. C.	40°47'N.	73°56'W.	AF	J	- 5.00	R30, W10	1920-1922	CE-USA	
168	D	Astoria Ferry, East River, N. Y. C.	40°46'N.	73°56'W.	A	G	MLW		1900-1925	NYC	
169	D	Central Service Flushing, N. Y.	40°45'N.	73°50'W.	C	G				Con. Edison	
170	D	15th Street and East River, N. Y. C.	40°44'N.	73°58'W.	AF	K			1954 to date (records kept 3 yrs. only)	Con. Edison	
171	D	Hunts Point, N. Y.	40°48'N.	73°52'W.	C	G			1949 to date	Con. Edison	
172	D	Lawrence Point, N. Y. C. (Astoria)	40°47'N.	73°53'W.	AF	G	- 5.00	R30, W10	9 mos. 1948	CE-USA	
173	D	Steinway Creek, N. Y. C.	40°47'N.	73°53'W.	AF	G	- 5.00	R9, W9	1920-1933	CE-USA	
174	D	Fort Schuyler, N. Y. C.	40°48'N.	73°48'W.	AF	J	- 6.6	+ 6.0	12/12/51-3/13/52	C and GS	
175	D	College Point, Long Island, N. Y.	40°47'N.	73°51'W.	AF	J	- 4.8	+ 9.0	11/29/51-1/2/53	C and GS	
176	D	Hunters Point, N. Y.	40°44'N.	73°58'W.	AF	J	- 5.5	+ 9.0	11/27/51-1/2/53	C and GS	
177	D	Manhattan Beach, N. Y.	40°35'N.	73°56'W.	AF	J	- 6.2	+ 6.3	11/8/26-4/25/28	C and GS	
178	D	Mill Basin, Jamaica Bay, N. Y.	40°37'N.	73°55'W.	AF	J	- 3.5	+ 8.5	11/13/26-4/17/28	C and GS	
179	D	North Channel Bridge, Long Island, N. Y. (Grassy Bay)	40°39'N.	73°50'W.	AF	J	- 7.7	+ 6.3	12/4/26-4/24/28	C and GS	
180	D	Beach Channel, Rockaway Beach, N. Y.	40°55'N.	73°48'W.	AF	J	- 5.00	R30, W10	10 mos. (1927-28)	CE-USA	
181	C, D	Port Jefferson Harbor, Long Island Sound, N. Y.	40°57'N.	73°04'W.	AF	J				CE-USA	
181A	D	Huntington Harbor, N. Y. Sand and Stone Dock, East Side of Harbor	40°55'N.	73°25'W.	E	J			8/56 to date	CE-USA	
182	D	Willlets Point, N. Y.	40°48'N.	73°47'W.	AF	J	- 8.6	+10.6	7/11/31 to date	C and GS	
183	D	Troy Lock and Dam, N. Y.	42°44'N.	73°42'W.	B	G	- 5.0	20	1943 to date	CE-USA	
184	D	Albany, N. Y.	42°39'N.	73°45'W.	A	A	0.00		CE-USA since 1913; W.B. since 1903	CE-USA	
185	D	Albany, N. Y.	42°39'N.	73°45'W.	AF	J	- 5.00	R10, W18	1956 to date	CE-USA	
186	D	Albany, N. Y.	42°39'N.	73°45'W.	AF	J	- 5.00	R30, W20	1943-1955 (May to Oct. only)	CE-USA	
187	D	Yonkers, Main St., N. Y. (Hudson River)	40°56'N.	73°54'W.	A	J		R16, W16	1904 to date	NYC	
187A	D	Glenwood, Foot of Glenwood Ave., and Hudson River, Yonkers, N. Y.	40°57'N.	73°54'W.	C	I		R30, W13	1936 to date	Con. Edison	
188	D	Spytven Duyvil, N.Y.C. (Hudson and Harlem Rivers)	40°53'N.	73°56'W.	AF	J	- 5.00			CE-USA	
188A	D	Sherman Creek, 201st. St., and Harlem River, N.Y.C.	40°52'N.	73°55'W.	C	G				Con. Edison	
189	D	Mill Neck Creek, Mill Neck, N. Y.	40°53'N.	73°34'W.	A	K	6.55		1/15/37 to date	USGS	
189A	D	New Rochelle, N. Y. Fort Slocum Ferry Pier	40°54'N.	73°46'W.	E	J			9/56 to date	CE-USA	
190	D	Cold Spring Brook, Cold Spring Harbor, N. Y.	40°51'N.	73°28'W.	A	K	5.38		6/30/50 to date	USGS	
191	D	Broadway and 225 St. (Near Bridge), N.Y.	40°52'N.	73°55'W.	A	J	MLW		1904 to date	NYC	

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Floot; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Sta. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
167	CE-USA	R	b	1/2	12.8	11/17/32	- 7.4		H,HL,D	5.5	6.6	CE-USA (NY Dist.) NYC	Records retired
168	Con. Edison	R	1:10		8.4	11/25/50	- 6.4		H,HL,D	4.7	8.3	Con. Edison Co.	Measuring point only
169	Con. Edison	R			13.2	11/17/32	- 6.8	12/21/21		4.1	4.9	Con. Edison Co.	Records available at meas. pt. only
170	Con. Edison	R	b		11.0	7/31/34	- 6.7	2/8/51	H,HL,D	7.0	7.6	Con. Edison Co.	Measuring pt. only
171	CE-USA	R	1:16.8	0.27/1	12.2	H9/21/38			HL	6.4	7.6	CE-USA (NY Dist.)	Also max level gage
172	CE-USA	N	b	1:22-1/2	12.0	H9/21/38	- 5.5	1/24/52	H,HL	7.1	8.5	CE-USA (NY Dist.)	
173	CE-USA	N	0.4/1	1:12	4.8	11/22/52	- 4.1	2/12-13/1952	H,HL	6.5	7.6	C and GS	
174	NYC	N	1/1	1:12	4.9	12/23/52	- 4.3	2/13/52	H,HL	4.1	4.9	C and GS	
175	NYC	R	1/1	1:12	5.9	2/20/27	- 5.4	1/25/28	H,HL	4.8	5.8	C and GS	
176	NYC	R	1/1	1:12	7.5	12/8/27	- 3.1	2/4/27	H,HL	5.2	6.3	C and GS	
177	CE-USA	R	1/1	1:12	5.3	12/8/27	- 5.7	1/26/28	H,HL	5.2	6.3	C and GS	
178	CE-USA	R	b		11.64	H8/31/54			H,HL,D	2.1	6.2	CE-USA (NY Dist.)	Records retired, (max level gage (8/56 to date
179	CE-USA	N	1/1	1:16	10.1	H9/21/38	- 7.4	3/24/40	H,HL	6.5	7.7	C and GS	Remoted to WRAS (La Guardia)
180	CE-USA	R	1/1		13.4	H9/21/38	- 3.7	11/17/24	H,HL	7.1	8.3	C and GS	May to Oct. only
181	CE-USA	R	Lockmaster		29.4	3/28/13	- 5.1	T8/3/40	H,HL	4.6	5.1	CE-USA (NY Dist.)	Tide range 4.6 at Troy-Flood stage
182	CE-USA	R			21.5	3/28/13			H,HL	4.6	5.0	CE-USA and WBO	(11' m.s.l. Remote recorder in WBO May to Oct. only
183	CE-USA	R	1:6	4/1	5.5	H9/21/38	- 5.5		H,HL,D	4.6	5.0	Office, Albany, N. Y.	
184	CE-USA	R	b		7.4	11/17/32	- 5.4		H,HL,D	4.6	5.0	CE-USA (NY Dist.) NYC	
185	Con. Edison	R	b	1/2	7.0	11/25/50	- 5.4	1/26/28	H,HL,D	3.7	4.4	Con. Edison Co.	
186	Con. Edison	R	1:10		7.1	11/25/50	- 5.7		H,HL,D	3.6	4.2	Con. Edison Co.	Prior to 1946
187	USGS	N	1:10	5:12	12.2	H9/21/38			D	3.8	4.5	USGS (Albany, N.Y.)	Records retired
188	USGS	N	1:10		10:12				D	4.0	4.8	USGS (Albany, N.Y.)	Also staff gage read during hurricane
189	NYC	N	1:10	1/2					HL	3.7	4.4	USGS (Albany, N.Y.) NYC	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
191A	D	Mamaroneck, N. Y.	40°56'N.	73°44'W.	E	K	- 5.00	R30, W10	9/56 to date	CE-USA	
192	D	High Bridge, N. Y. C. (Harlem River)	40°50'N.	73°56'W.	AF	G	MLW	R16, W16	1926-1933	CE-USA	
193	D	3rd Ave. Bridge, N. Y. C. (Harlem River)	40°48'N.	73°56'W.	A	J			1898 to date	NYC	
194	D	Willis Ave., N. Y. C. (Harlem River)	40°48'N.	73°56'W.	AF	J	- 5.00	R30, W15	1921-1933	CE-USA	
195	D	Port Morris, N. Y. C. (East River)	40°48'N.	73°54'W.	AF	J	- 5.00	R30, W15	1920-1926	CE-USA	
196	D	Port Morris, N. Y. (East River)	40°48'N.	73°54'W.	AF	J	- 5.8	+10.0	12/4/51-1/1/53	C and GS	
197	D	New York City (The Battery) Whitehall Street, N. Y.	40°42'N.	74°01'W.	AF	J	- 5.2	+10.0	8/9/27-10/3/58	C and GS	
198	D	Battery, Whitehall Street, N. Y. C.	40°42'N.	74°01'W.	AF	J	- 5.00	R30, W8	10/3/58 to date	CE-USA	
199	D	Pier A, North River, N. Y. C.	40°42'N.	74°01'W.	AF	J	- 5.0	R16, W16	1900 to date	NYC	
200	D	St. George, N.Y.C. The Narrows, Staten Is.	40°39'N.	74°01'W.	AF	J	- 5.0	R30, W15	1930-1933	CE-USA	
201	D	St. George, Ferry Terminal (Staten Island), N. Y.			A	J		R11, W11	1904 to date	NYC	
202	D	Fort Wadsworth, Staten Island, N. Y. (The Narrows)	40°36'N.	74°03'W.	AF	J	- 5.0	R30, W10	1930-1933	CE-USA	
203	D	Elm Park, Staten Island, N. Y. (Gulf Oil Pier)	40°39'N.	74°08'W.	AF	J	- 5.00	R30, W9	1938 to date	CE-USA	
203A	D	Princess Bay, Foot of Seguine Ave., Staten Island, N. Y.	40°31'N.	74°12'W.	AP	J	- 5.00	R14, W14	7/56 to date	CE-USA	
204	D	E. 86th Street, N.Y.C. (East River)	40°47'N.	73°57'W.	AF	G	- 5.00	R30, W10	1920-1927	CE-USA	
205	D	Arthur Kill (Staten Island) N. Y.	40°35'N.	74°12'W.	A	G			1954 to date	Con. Edison	
206	C	Swan River, East Patchogue, N. Y.	40°46'N.	73°00'W.	A	K	2.84		10/12/46 to date	USGS	
207	C	Patchogue Creek, Patchogue, N. Y.	40°46'N.	73°01'W.	A	K	0.50		10/1/45 to date	USGS	
208	D	Connetquot River, Oakdale, N. Y.	40°45'N.	73°09'W.	A	K	1.56		9/23/43 to date	USGS	
209	D	East 90th St., N. Y. C. (Horns Hook)	40°47'N.	73°57'W.	AF	J	- 4.3	+ 9.0	5/15/39-1/15/43	C and GS	
210	D	Hackensack, N. J., Court St. (Hackensack River)	40°53'N.	74°02'W.	AP	J	- 5.00	R9, W9	12/14/51-3/20/52	CE-USA	
211	D	Gregory Ave. (Passaic River), N. J.	40°51'N.	74°07'W.	AP	J	- 5.00	R9, W9	1938-1941	CE-USA	
212	D	East Newark, N. J. (Passaic River) Essex Power Plant	40°45'N.	74°07'W.	AF	G	- 5.00	R30, W11	1938 to date	CE-USA	
213	D	Port Newark, N. J.	40°41'N.	74°08'W.	AF	J	- 5.6	+ 9.0	2/19-8/6/19	C and GS	
214	D	Caven Point, N. J. (Upper N. Y. Bay)	40°41'N.	74°04'W.	AF	J	- 5.00	R30, W9	12/17/51-1/4/53	CE-USA	
215	D	Carteret, N. J. (Va. Carolina Chemical Co. Pier)	40°35'N.	74°13'W.	AF	J	- 5.00	R30, W11	1950 to date	CE-USA	
216	D	Carteret, N. J.	40°35'N.	74°13'W.	AF	J	- 5.6	+ 8.0	1954-1955	CE-USA	
									12/6/51-1/1/53	C and GS	

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages	Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)		chart (5)	scale (6)	Height (m.s.l.)	Date					
191A	CE-USA				11.2	H8/31/54					CE-USA (NY Dist.)	Records retired
192	NYC		1:10	1/2	6.5	11/10/52		H,HL,D	4.4	5.2	CE-USA (NY Dist.)	Records retired
193	CE-USA		b		12.7	9/21/58		HL	4.6	5.6	NYC	Records retired
194	CE-USA		b		6.0	1/24/52		H,HL,D	4.9	5.9	CE-USA (NY Dist.)	Records retired
195	CE-USA	N	1/1	1:16		11/22/52		H,HL	5.5	6.6	CE-USA	Records retired
196	CE-USA		1/1	1:12	7.8	11/7/53			6.3	7.4	C and GS	
197	C and GS	R	1/1	1:12			3/8/32	H,HL	4.4	5.3	C and GS	Retired to WBO Battery, N.Y. - Also max level gage Prior to 1946
198	CE-USA		b	1/2				H,HL,D	4.4	5.3	CE-USA (NY Dist.)	(records retired)
199	NYC	R	0.1/1	1/2				HL	4.5	5.4	NYC	Records retired
200	CE-USA		b					H,HL,D	4.5	5.4	NYC	Records retired
201	NYC	R	0.1/1	1/2				H,HL,D	4.5	5.4	CE-USA (NY Dist.)	Records retired
202	CE-USA		b		6.2	11/10/52		H,HL,D	4.5	5.4	CE-USA (NY Dist.)	Records retired
203	CE-USA	R	b		8.1	11/25/50	12/8/39	H,HL,D	4.9	5.9	CE-USA (NY Dist.)	Prior to 1946 records retired - Also max level gage
203A	CE-USA		1:16.8	0.27/1				HL	4.9	5.9	CE-USA (NY Dist.)	Max level gage also
204	CE-USA	R	b	0.27/1	8.8	11/25/50	2/8/51	H,HL,D	4.8	5.8	CE-USA (NY Dist.)	Records retired
205	Con. Edison		1:16.8	0.27/1				HL	0.7	0.8	Con. Edison Co.	Records kept 3 yrs. (only measuring point only.)
206	USGS	N	0.1/1	10:12				D	0.7	0.8	USGS (Albany, N.Y.)	
207	USGS	N	0.1/1	5:12				D	0.7	0.8	USGS (Albany, N.Y.)	
208	USGS	N	0.1/1	5:12				D	4.8	5.8	USGS (Albany, N.Y.)	
209	USGS	N	1/1	1:12				H,HL	5.3	6.4	C and GS	
210	CE-USA	N	1:16.8	0.27/1	6.0	3/3/42	3/24/39	HL	5.1	6.1	CE-USA (NY Dist.)	Records retired, max level gage 9/1956 to date
211	CE-USA		1:16.8	0.27/1				HL	5.1	6.1	CE-USA (NY Dist.)	Records retired, max level gage 9/1956 to date
212	CE-USA	R	b		7.9	11/25/50	12/8/39	H,HL,D	5.2	6.2	CE-USA (NY Dist.)	Records retired, max level gage 9/1956 to date
213	CE-USA	N	1/1	1:12	5.0	5/11/52	2/12-13/1952	H,HL	5.0	6.0	C and GS	
214	CE-USA	R	b		8.3	11/23/52	2/8/51	H,HL,D	4.5	5.4	CE-USA (NY Dist.)	Also max level gage
215	CE-USA		b		5.94	11/25/50	2/8/51	H,HL,D	5.1	6.2	CE-USA (NY Dist.)	Max level gage 8/1956 to date
216	CE-USA	N	1/1	1:12	5.3	11/22/52	2/12-13/52	H,HL	5.1	6.2	C and GS	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
217	D	Perth Amboy, N. J. (Raritan Bay, Ft. of Smith St.)	40°30'N.	74°16'W.	AF	J	- 5.00	R30, W13		1938 to date	CE-USA
218	D	Titanium (Raritan River), N. J.	40°29'N.	74°18'W.	AP	G	- 5.00	R9, W9		1947-1949	CE-USA
219	D	South Amboy, N. J. (Raritan Bay)	40°29'N.	74°17'W.	AP	G	- 5.00	R9, W9		1947-1949	CE-USA
220	D	South Amboy, N. J. (Raritan Bay)	40°30'N.	74°17'W.	AF	J	- 4.9	+ 9.0	- 5.7	12/6/51-1/2/53	C and GS
221	D	New Brunswick, N. J. (Raritan River) (Middlesex Transportation Dock)	40°29'N.	74°26'W.	AP	G	- 5.00	R9, W9		1947-1949	CE-USA
222	D	Old Bridge, N. J. (Raritan River) (Old Bridge Sand and Gravel Co. Pier)	40°28'N.	74°23'W.	AP	J	- 5.00	R9, W9		1941-1942	CE-USA
223	D	Sayreville, N. J. (Raritan River) (Central Jersey Power and Light Co.)	40°28'N.	74°21'W.	AP	G	- 5.00	R9, W9		1947-1949	CE-USA
224	D	So. River, N. J. (Raritan River) Ft. of Main St.	40°26'N.	74°22'W.	AP	G	- 5.00	R9, W9		1947-1949	CE-USA
225	D	Morgan, N. J. (Raritan Bay)	40°26'N.	74°12'W.	AF	J	- 5.00	R8, W10		1933-1935	CE-USA
226	D	Sandy Hook, N. J.	40°27'N.	74°00'W.	AF	J	- 4.6	+ 9.0	- 9.5	11/26/06-12/31/16 10/24/32 to date	C and GS
227	D	Highlands, N. J. (Shrewsbury River)	40°24'N.	73°59'W.	AP	J	- 5.00	R9, W9		1938-1941	CE-USA
228	D	Normandy, N. J. (Shrewsbury River)	40°25'N.	73°59'W.	AP	J	- 5.00	R9, W9		6 mos. 1938-39	CE-USA
229	D	Sea Bright, N. J. (Shrewsbury River)	40°21'N.	73°59'W.	AF	J	- 5.00	R8, W10		1937-1939	CE-USA
230	D	Red Bank, N. J. (Town Dock) Navesink River	40°21'N.	74°04'W.	AF	J	- 5.00	R30, W10		1939-1941	CE-USA
231	D	Branchport, N. J. (Steamboat Pier) (Shrewsbury River)	40°19'N.	74°00'W.	AF	J	- 5.00	R8, W10		1937-1941	CE-USA
232	E	Main St., Shark River, N. J. (Belmar)	40°11'N.	74°02'W.	A	J	- 5.00	R9, W10		1937-1941	CE-USA
232A	E	Shark River Inlet, N. J. Ocean Ave.	40°11'N.	74°01'W.	AP	J	- 5.00	R8, W10		1937-1941 plus 3 mos. 1953	CE-USA
233	E	Manasquan Inlet C. G. Sta., N. J.			AP	J				7/31-11/39 (3 mos. 1953)	CE-USA
234	E	Manasquan Inlet Bridge, N. J.			AP	J				7/31-11/39	CE-USA
235	E	Osborne Br., Manasquan River, N. J. (Pt. Pleasant)	40°06'N.	74°05'W.	AP	J	- 5.00	R9, W9		7/31-38	CE-USA
236	E	Bayhead, Manasquan Canal, N. J.	40°06'N.	74°05'W.	AP	J	- 5.00	R9, W9		6/30-4/38	CE-USA
237	E	Bayhead, Manasquan Canal, N. J.			AP	J				7/31-3/32	CE-USA
237A	E	Cedar Creek at Lanoka Harbor, N. J.	39°52'N.	74°10'W.	A	K	0.0	+ 7.0		7/32-to date	USGS
238	E	Waretown, N. J.			AF	J				9/39-10/40	CE-USA
239	E	Waretown, N. J.	39°47'N.	74°11'W.	AF	J	- 2.3	+ 7.0	- 7.0	5/45-11/45 6/46-8/46	C and GS
240	E	Barnegat Inlet (Main Chan.) N. J.			AF	J				10/40-12/40 8/41-11/41 5/45-8/45	CE-USA
241	E	Barnegat Lighthouse, N. J.			AF	J				8/30-3/32	State N. J.

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
217	CE-USA	R	b		9.5	11/25/50	- 6.1	12/8/39	H,HL,D	5.1	6.1	CE-USA (NY Dist.)	Prior to 1946 records retired (also max level gage)
218	CE-USA		1:16.8	0.27/1	9.5	11/25/50			HL	5.3	6.3	CE-USA (NY Dist.)	
219	CE-USA	N	1:16.8	0.27/1	5.7	11/21/52	- 4.5	2/12-13/52	H,HL	5.1	6.1	CE-USA (NY Dist.)	
220	CE-USA		1/1	1:12	8.4	11/25/50			H,HL	5.0	6.0	C and GS	
221	CE-USA		1:16.8	0.27/1	8.6	11/25/50			HL	5.6	6.6	CE-USA (NY Dist.)	Max level gage (8/1956 to date)
222	CE-USA		1:16.8	0.27/1	8.6	11/25/50			HL	5.3	6.4	CE-USA (NY Dist.)	
223	CE-USA		1:16.8	0.27/1	8.6	11/25/50			HL	5.2	6.2	CE-USA (NY Dist.)	
224	CE-USA		1:16.8	0.27/1	7.9	11/7/53	- 6.0	1/24/36	HL	5.2	6.2	CE-USA (NY Dist.)	
225	CE-USA		1/1	1/1	7.3	H9/14/44			H,HL	4.9	5.4	C and GS	Records retired
226	CE-USA	N	1:16.8	1:12	7.3	H9/14/44			H,HL	4.6	5.6	CE-USA (NY Dist.)	Also max level gage
227	CE-USA		1:16.8	0.27/1	8.2	11/25/50			HL	3.8	4.6	CE-USA (NY Dist.)	Records retired
228	CE-USA		1:16.8	0.27/1	8.2	11/25/50			HL	2.9	3.5	CE-USA (NY Dist.)	Records retired
229	CE-USA		1/1	1/1	6.7	11/25/50			H,HL	1.7	2.1	CE-USA (NY Dist.)	Records retired
230	CE-USA		b	1/1	10.5	H9/14/44			H,HL,D	3.0	3.6	CE-USA (NY Dist.)	Records retired
231	CE-USA		1:16.8	0.27/1	8.5	11/25/50			H,HL	1.7	2.1	CE-USA (NY Dist.)	Records retired
232	CE-USA		1:16.8	0.27/1	8.5	11/25/50			HL	4.0	4.8	CE-USA (NY Dist.)	Records retired
232A	CE-USA		1:16.8	0.27/1	8.5	11/25/50			HL	4.0	4.8	CE-USA (NY Dist.)	max level gage 8/1956 to date
233	CE-USA		1:16.8	0.27/1	6.4	2/16/36	- 1.2	11/18/36	HL	0.6	0.7	CE-USA (NY Dist.)	
234	CE-USA		1:16.8	0.27/1	2.1	9/18/36			H,HL	0.6	0.7	CE-USA (Phil Dist)	Records retired
235	CE-USA		1:16.8	0.27/1	6.4	2/16/36			HL	3.1	3.8	CE-USA (Phil Dist)	Records retired
236	CE-USA		0.1/1	5/12	2.1	9/18/36			HL	0.6	0.7	CE-USA (Phil Dist)	Records retired
237	CE-USA		0.4/1	1/1.4	2.1	9/18/36			H,HL	0.6	0.7	CE-USA (Phil Dist)	Records retired
237A	CE-USA		1/1	1:6	2.1	9/18/36			HL	0.6	0.7	CE-USA (Phil Dist)	Records retired
238	CE-USA		0.4/1	1/1.4	2.1	9/18/36			HL	0.6	0.7	CE-USA (Phil Dist)	Records retired
239	CE-USA	N	1/1	1:6	2.1	9/18/36			H,HL	0.6	0.7	C and GS	
240	CE-USA		0.4/1	1/1.4	2.1	9/18/36			HL	0.6	0.7	CE-USA (Phil Dist)	
241	State N.J.											State of New Jersey	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
 (5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
 (6) Height: Inches per foot, ratio, etc.
 (7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
 (8) Data Reduction: (H) Hourly values; (HL) High and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Sta. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
241A	E	Barnegat Lighthouse, N. J.			AF					6/39-10/40	CE-USA
242	E	Barnegat Light (Myers Dock), N. J.			AF					9/43-11/44	CE-USA
242A	E	Batsto River, Batsto, N. J.	39°39'N.	74°39'W.	A	K	+1.4	+10.5		10/27 to date	CE-USA
243	E	Reeds Bay (Head), N. J.			AF	J				12/35-10/37	CE-USA
243A	E	Atlantic City State Marina, Clam Creek, N. J.	39°23'N.	74°26'W.	C						State N.J.
244	E	Reeds Bay, N. J.			AF					11/35-11/36	CE-USA
244A	E	Delta Basin, Atlantic, N. J.	39°22'N.	74°26'W.	C	G				9/35-1/37	CE-USA
245	E	Absecon Bay, (Head), N. J.			AF	K	0.0	+8.0		12/23-4/29	CE-USA
245A	E	Absecon Creek, Absecon, N. J.	39°26'N.	74°31'W.	A					6/33-12/38	CE-USA
										5/46 to date	
246	E	Brigantine (Blvd. Br.) N. J.			AF					10/35-1/41	CE-USA
247	E	Absecon Inlet, N. J.			AF					9/35-12/37	CE-USA
247A	E	Atlantic City Electric Co., The Thorofare, Atlantic City, N. J.	39°22'N.	74°27'W.	A	K	-3.2	+7.5		1954 to date	A. C. Elec. Co.
248	E	Atlantic City, N. J. (Steel Pier)	39°21'N.	74°25'W.	AF	J	-6.4	+18.0		8/15/11-1/16/21	C and GS
										11/30/22 to date	
249	E	Lake Bay (Ventnor), N. J.			AF					3/49-12/49	CE-USA
250	E	Ocean City - Longport Br., N. J.			AF					3/49-12/49	CE-USA
251	E	Beesleys Point Bridge, N. J.			AF					3/49-12/49	CE-USA
251A	E	Wheaton Plastic Co., Great Egg Harbor River, Mays Landing, N. J.	39°27'N.	74°44'W.	A	K				1952 to date	W.P. Co.
252	E	Thompson Point (Gr. Egg River), N. J.			AF					3/49-12/49	CE-USA
253	E	Ocean City (34th Street), N. J.			AF					3/49-12/49	CE-USA
254	E	Cape May Canal (East end), N. J.			AF					7/45-8/46	CE-USA
255	E	Cape May Canal (West end), N. J.	38°58'N.	74°58'W.	AF	J	-5.8	+8.5		5/52-6/53	C and GS
256	E	Cape May Canal (West end), N. J.	38°57'N.	74°53'W.	AF					7/45-8/46	CE-USA
257	E	Cape May Harbor, N. J.	40°13'N.	74°46'W.	AF	J	-7.2	+5.3		9/16/24-12/29/26	C and GS
258	E	Trenton, N. J.									Del. R. J. T.
											B. C.
259	E	Trenton, N. J. (Municipal Pier)	40°13'N.	74°46'W.	AF	J				3/21-12/46	CE-USA
260	E	Trenton, N. J. (Marine Terminal)	40°13'N.	74°46'W.	AF					8/51-6/54	CE-USA
261	E	Trenton, N. J. (Marine Terminal)	40°13'N.	74°46'W.	AF	J	-4.6	+10.0		4/29/52-7/1/53	C and GS
262	E	Bordentown, N. J.	40°05'N.	74°43'W.	AF					1/31-2/34	CE-USA
263	E	Morrisville, Pa. (Fairless Works)	40°10'N.	74°45'W.	AF					8/15/53 to date	US Steel
264	E	Florence, N. J.			AF		+10.0	+30.0		1/51-3/40	CE-USA
264A	E	Near Delair, N. J. (Del. River)								8/51-6/54 to date	Phil. Gas Works

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
241A	CE-USA		0.4/1	0.4/1					HL	1.8		CE-USA (Phil Dist)	
242	CE-USA		0.4/1	1/1.4	10.1	H8/20/39			HL			CE-USA (Phil Dist)	
243	CE-USA		0.1/1	5/12					HL	3.1		USGS (Trenton, NJ)	
243A	State N. J.	R	0.4/1	1/0.94					S			CE-USA (Phil Dist)	State planning to install record-
244	CE-USA		0.4/1	1/0.94					HL	3.3		WBO (Atlantic City, NJ)	(ing Gage)
244A	CE-USA	R	0.4/1	1/0.94					S			CE-USA (Phil Dist)	
245	CE-USA		0.4/1	1/0.94					HL	3.4		CE-USA (Atlantic City, N.J.)	
245A	CE-USA		0.1/1	5/12					HL	3.5		CE-USA (Phil Dist)	
246	CE-USA		0.4/1	1/1.4					HL	3.6		USGS (Trenton NJ)	
247	CE-USA		1/1	1/1					HL	3.8		CE-USA (Phil Dist)	
247A	AC Elec. Co.	R	Polar 24-hr.	0.50/1	8.9	(E.S.T.)			S	4.1	4.2	CE-USA (Phil Dist)	
248	USWB	N	1/1	1:12	7.6	H9/14/44			H,HL	4.1	4.6	AC Elec. Co.	
249	CE-USA		0.4/1	1/1.4					HL	3.7	5.0	C and GS	Remoted to USWB
250	CE-USA		0.4/1	1/1.4					HL	3.6		CE-USA (Phil Dist)	
251	CE-USA		0.4/1	1/1.4					HL	3.4		CE-USA (Phil Dist)	
251A	W.P. Co.	R	Polar 7 day	0.50/1					None	4.0	4.8	W.P. Co.	
252	CE-USA		0.4/1	1/1.4					HL	3.4		Mays Landing, N.J.	
253	CE-USA		0.4/1	1/1.4					HL	3.4		CE-USA (Phil Dist)	
254	CE-USA		1/1	1/1					HL	3.4		CE-USA (Phil Dist)	
255	CE-USA	N	1/1	1:12	5.0	12/22/52			H,HL	4.5	5.8	CE-USA (Phil Dist)	
256	CE-USA	N	1/1	1/1	4.6	H12/2/25			HL	4.1		C and GS	
257			0.4/1	1:16-7/8					HL	4.4	5.3	CE-USA (Phil Dist)	Readings taken during Floods only
258									HL	6.2	6.5	Del.R. Joint Toll Br. Comm.	
259	CE-USA		1/1	.75/1					HL	6.9		Morrisville, Pa.	
260	CE-USA		1/1	.75/1					HL	6.9		CE-USA (Phil Dist)	
261	CE-USA		1/1	1:16	8.3	12/13/52			H,HL	6.2	6.5	CE-USA (Phil Dist)	
262	CE-USA		1/1	.75/1					HL	6.7		C and GS	
263	US Steel		1/1	.75/1					HL	6.1	6.4	CE-USA (Phil Dist)	
264	CE-USA		1/1	.75/1	25.1	8/20/55			H,HL	6.1		US Steel, Morrisville, Pa.	
264A			1/1	.75/1					HL	6.5		CE-USA (Phil Dist)	Phil. Gas Works

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for Gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Sta. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
265	E	Burlington, N. J.			AF					3/21-7/26 1/21-11/39 8/51-6/54 1955 to date 1/21-5/36 8/55 to date (Frequent outage) 5/17/22 to date 8/55 to date (Frequent outage) 5/79-7/80 1/22-7/31 4/33-12/46 8/55 to date (Frequent outage) to date	CE-USA P.S. Co. CE-USA Phil Elec. Co. C and GS Phil Elec. Co. CE-USA
265A	E	Burlington, N. J.			A						
266	E	Torresdale, Pa.			AF						
266A	E	Richmond, Pa.			AB						
267	E	Philadelphia, Pa. (Pier 9 - North)			AF						
267A	E	Delaware, Pa.			AB						
268	E	Fort Mifflin, Pa.			AF						
268A	E	Southwark, Pa.			AB						
268B	E	Fort Mifflin, Pa.			A						
269	E	Baldwins, Pa.			AF						
269A	E	Philadelphia International Airport			C						
270	E	Marcus Hook, Pa.			A						
270A	E	Philadelphia International Airport (Adjacent To)			AF						
271	E	Edgemoor, Del.			A						
271A	E	Chester, Pa.			AF						
272	E	Wilmington (Marine Terminal), Del.			AB						
272A	E	Schuylkill, Pa.			AF						
272B	E	Chambers Works Plant of E. I. duPont de Nemours and Co., Deep Water, N. J.			AB						
273	E	New Castle, Del.			A						
274	E	Reedy Point Del. - Chesapeake and Delaware Canal			AF						
274A	E	Reedy Point Del. - Chesapeake and Delaware Canal			AF						

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K)

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
265	CE-USA		1/1	.75/1					HL	6.4	6.2	CE-USA (Phil Dist)	
265A	P.S. Co.									5.9		Public Service Co. of N. J.	
266	CE-USA		1/1	.75/1					HL	6.2		CE-USA (Phil Dist)	
266A									H,HL	5.8	6.1	Phil. Elec. Co. C and GS	*Datum below and above mean river level
267		N	1/1	1:16	*7.5	11/25/50	*- 8.2	1/25/45					
267A													
268	CE-USA		1/1	.75/1					HL	5.9		Phil. Elec. Co. CE-USA (Phil Dist)	
268A													
268B													
269	CE-USA								HL	5.8		Atl. Ref. Co. CE-USA (Phil Dist)	
269A												Phil. International Airport	
270	CE-USA								HL	5.7		CE-USA (Phil Dist)	
270A												Gulf Oil Corp.	
271	CE-USA								HL	5.7		CE-USA (Phil Dist)	
271A												Phil. Elec. Co. C and GS	
272			1/1	1:12	5.4	11/21-22/52	- 4.8	4/14/53	H,HL	5.3	5.7	Phil. Elec. Co. du Pont Co.	Flood stage LL.5
272A													
272B	du Pont	R	Polar 24-hr	0.25/1	11.3	11/25/50	0.0	10/13/50	HL	5.5		CE-USA (Phil Dist)	
273	CE-USA		1/1	1/1					HL	5.4	5.7	CE-USA (Phil Dist)	
274	CE-USA		1/1	1/1					HL	5.4	5.7	CE-USA (Phil Dist)	
274A	C and GS		1/1						H,HL,			C and GS	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
275	E	Biddles Point, Del. (Chesapeake and Delv. Canal)			AF					6/28-12/33 6/35-5/40 6/28-11/46	CE-USA
276		Summit Bridge, Del. (Chesapeake and Delv. Canal)			AF						CE-USA
277	E,F	Chesapeake City, Md., (Chesapeake and Delv. Canal)			AF					6/28-3/40	CE-USA
278	E,F	Court House Pt. Md., (Chesapeake and Delv. Canal)			AF					6/28-11/46	CE-USA
279	E	Reedy Island, Del.			AF					10/21-10/30	CE-USA
279A	E	Reedy Island, Jetty, Del.			A					1956 to date	USGS
280	E	Artificial Island, N. J.			AF					12/32-12/34	CE-USA
281	E	Woodland Beach, Del.			A					3/22-7/26	CE-USA
282	E	Woodland Beach, Del.			AF					3/10/36-12/22/37	C and GS
283	E	Ship John Lighthouse, Del. Bay	39°20'N.	75°28'W.	AF	J	- 4.8	+10.0	- 3.8	5/30-8/40	CE-USA
284	E	Miah Maull Lighthouse, Del. Bay	39°15'N.	75°31'W.	AF	J	- 7.0	+ 5.0	- 3.5	9/31-2/34	CE-USA
285	E	Leipsic, Del.	38°48'N.	75°06'W.	AF					3/1/36-5/22/38	C and GS
286	E	Brandywine Lighthouse, Del. Bay	38°48'N.	75°06'W.	AF					5/32-3/39	CE-USA
287	E	Delaware Breakwater, Del.	38°47'N.	75°06'W.	AF					4/32-2/39	CE-USA
289	E	Lewes, Del.			AF					7/31-10/32	CE-USA
290	E	Lewes, Del. (Pt. Miles)	38°47'N.	75°06'W.	AF	J	- 4.5	+12.0	- 5.7	5/36-1/40 8/15/11-11/21/11 6/22/14-10/2/14 1/14/19-5/12/23 8/29/24-3/1/25 8/23/29-10/31/29 4/14/36-9/6/38 10/27/38-12/31/39 4/29/47-3/22/50 5/12/52 to date 11/38-10/39 7/48-8/48	C and GS
291	E	Dewey Beach, Del. (Rehoboth Bay)			AF					10/38-8/39 11/38-10/39 6/48-8/48	CE-USA
292	E	Love Creek, Del.			AF						CE-USA
293	E	Indian River Inlet Bridge, Del.			AF						CE-USA
294	E	Oak Orchard, Del.			AF					2/50-3/50 7/48-8/48	CE-USA
294A	F	Havre de Grace, Md., second pile off-shore on west side of city pier	39°33'N.	76°06'W.	E	J	MLW	+11.9	+ 4.7	8/56 to date	CE-USA

- (1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
275	CE-USA		1/1	1/1					HL	4.9		CE-USA (Phil Dist)	
276	CE-USA		1/1	1/1					HL	3.5		CE-USA(Phil Dist)	
277	CE-USA		1/1	1/1					HL	2.6		CE-USA(Phil Dist)	
278	CE-USA		1/1	1/1					HL	2.2		CE-USA(Phil Dist)	
279	CE-USA		1/1	1/1					HL	5.6		CE-USA(Phil Dist)	
279A												USGS (Phil, Pa.)	
280	CE-USA		0.4/1	1/1.9					HL	5.8		CE-USA(Phil Dist)	
281	CE-USA								HL	5.8	6.7	CE-USA(Phil Dist)	
282	CE-USA	N	1/1	1:12	5.5	4/26/37	- 5.2	4/8/36	H,HL	5.8	6.7	C and GS	
283	CE-USA		1/1	1/1					HL	5.9		CE-USA(Phil Dist)	
284	CE-USA		1/1	1/1					HL	5.6		CE-USA(Phil Dist)	
285	CE-USA	N	1/1	1:12	3.4	4/27/37	- 4.7	3/17/37	H,HL	3.5	4.0	C and GS	
286	CE-USA		1/1	1/1					HL	4.9	5.9	CE-USA(Phil Dist)	
287	CE-USA		1/1	1/1					HL	4.2	5.0	CE-USA(Phil Dist)	
289	CE-USA		1/1	1/1					HL	4.2	5.0	CE-USA(Phil Dist)	
290	CE-USA	N	1/1	1:12	5.7	10/23/53	- 4.9	3/28/55	H,HL	4.2	5.0	C and GS	Remoted to USMB Phil., Pa.
291	CE-USA		0.4/1	1/0.94					HL	0.3		CE-USA(Phil Dist)	
292	CE-USA		0.4/1	1/0.94					HL	0.2		CE-USA(Phil Dist)	
293	CE-USA		0.4/1	1/1.9						2.4		CE-USA(Phil Dist)	
294	CE-USA		0.4/1	1/0.94					S	0.6		CE-USA(Phil Dist)	
294A	No local observer									1.7	2.0	CE-USA(Bal. Dist)	Read only after unusually high water

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer

(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour

(6) Height: Inches per foot, ratio, etc.

(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.

(8) Data Reduction: (H) Hourly values; (HL) High and Lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
295	F	Aberdeen Proving Ground, Md.	39°27'N.	76°06'W.	AF	J	- 5.6	+ 9.0	- 8.0	2/3/19-9/21/22	C and GS
296	F	Jacobs Creek nr. Sassafras, Md.	39°22'N.	75°49'W.	A	J	- 4.1	+ 9.0	- 6.0	6/51-9/56	USGS
297	F	Baltimore, Md.	39°16'N.	76°35'W.	AF	J				6/30/02 to date	C and GS
297A	F	Sparrows Point, Md.			C						Beth. Steel Corp.
298	F	Rock Hall, Md. Swan Creek Inlet off Chesapeake Bay on Leary's Pier 75 feet off-shore	39°09'N.	76°16'W.	C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
298A	F	Unicorn Branch nr. Millington, Md.	39°15'N.	75°52'W.	C	K	MLW	+ 4.0	- 2.0	1/48 to date	USGS
299	F	Rock Hall, Md. Swan Creek Inlet off Chesapeake Bay on Hubbards Pier NW corner				J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
299A	F	Rock Hall, Md. White Clapboard Building on Hubbard's Pier	39°09'N.	76°16'W.	E	K	MLW	+11.7	+ 3.7	8/56 to date	CE-USA
300	F	Annapolis, Md.	38°59'N.	76°29'W.	AF	J	- 4.4	+ 7.0	- 9.0	8/6/28 to date	C and GS
301	F	Tilghman, Md. - Knapps Narrows (between Chesapeake Bay and Harris Creek, under highway drawbridge, on south side of Narrows on east side of Bridge)	38°43'N.	76°20'W.	C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
301A	F	Tilghman, Md. - Knapps Narrows (between Chesapeake Bay and Harris Creek, under highway drawbridge, on south side of Narrows on east side of Bridge)	38°43'N.	76°20'W.	E	J	MLW	+11.5	+ 3.5	8/56 to date	CE-USA
302	F	Chesapeake Beach, Md. (Fishing Creek south end of Navy Lab. Dock)	38°41'N.	76°32'W.	C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
303	F	Chesapeake Beach, Md.	38°41'N.	76°32'W.	AF	J	- 2.8	+ 3.3	- 2.7	11/12/43-4/28/44 5/22/44-3/8/45	C and GS
304	F	Seaford, Del. - Nanticoke River SW end of center swing pier P.R.R. Bridge			C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
305	F	Seaford, Del. - Nanticoke River, N fender pile at rt. 13 Highway Bridge			C	G	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
306	F	Cambridge, Md. - Choptank River NE of State slip near SE end of bulkhead in front of town park	38°34'N.	76°04'W.	C	G	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
306A	F	Beaverdam Branch at Matthews, Md.	38°49'N.	75°58'W.		K				7/50 to date	USGS
307	F	Cambridge, Md.	38°34'N.	76°04'W.	AF	J	- 7.1	+ 4.2	- 6.8	12/1/42-8/31/51	C and GS
307A	F	Choptank River nr. Greensboro, Md.	39°00'N.	75°47'W.						1/48 to date	USGS
308	F	Chicamacomico River nr. Salem, Md.	30°31'N.	75°53'W.						4/51 to date	USGS

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K)

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
295	USGS	R	0.1/1	1/6	7.7	88/25/33	- 5.1	1/24/08	H,HL R	1.1	1.3	C and GS USGS (Dover, Del.) C and GS	Remoted to USWB
296	CE-USA and C and GS	R	1/1	1:9					H,HL	1.1	1.3	Beth. Steel Corp. CE-USA(Bal. Dist)	
297A	No local observer								S	1.1	1.3	USGS (College Park, Md.) CE-USA(Bal. Dist)	
298	No local observer								S	1.1	1.3	CE-USA(Bal. Dist)	
299	No local observer								S	1.1	1.3	CE-USA(Bal. Dist)	Read only after unusually high water
299A	No local observer								S	1.1	1.3	CE-USA(Bal. Dist)	
300	USN	R	1/1	1:9	6.3	88/25/33	- 3.4	1/8/29 9/18/36	H,HL	0.9	1.0	C and GS	
301	No local observer								S	1.4	1.6	CE-USA(Bal. Dist)	
301A	No local observer								S	1.4	1.6	CE-USA(Bal. Dist)	Read only after unusually high water
302	No local observer								S	1.0	1.2	CE-USA(Bal. Dist)	
303	NRL	R	0.4/1	1:11-1/4	2.6	12/8/44	- 1.8	11/0/15/44	HL S	1.0	1.2	C and GS CE-USA(Bal. Dist)	
304	No local observer								S	1.0	1.2	CE-USA(Bal. Dist)	
305	No local observer								S	1.0	1.2	CE-USA(Bal. Dist)	
306	No local observer								S	1.0	1.2	CE-USA(Bal. Dist)	
306A									S	1.0	1.2	CE-USA(Bal. Dist)	
307									S	1.0	1.2	USGS(College Park, Md.) C and GS	
307A		N	1/1	1:9	3.8	11/25/50	- 2.8	12/2/44 1/25-2/2/45 12/2/46	H,HL	1.6	1.8	USGS (College Park, Md.) USGS	
308													

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Hourly values; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
309	F	Crisfield, Md.	37°59'N.	75°52'W.	AF	J	- 4.6	+ 5.5	- 4.4	10/22/01-4/24/02 5/3/49-10/13/49 4/20/50-11/9/50 4/12/51-10/23/51 Read only during surveys and dredging operations	C and GS
310	F	Crisfield, Md. - Brick Kiln Road Basin between Big Annessex and Little Annessex Rivers, on off-shore end of pier in SW corner of head of harbor			C	J	MLW	+ 4.0	- 2.0		CE-USA
311	F	Woodland, Del. - Nanticoke River, S side ferry slip on W shore of river			C	I	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
312	F	Riverton, Md. - Nanticoke River off-shore end of county wharf			C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
313	F	Vienna, Md. - Nanticoke River Cannery Dock			C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
314	F	Long Beach, Md.	38°28'N.	76°28'W.	AF	J	- 4.2	+ 1.8	- 4.2	12/18/43-4/20/44 1/3/45-4/11/45 12/49-9/56 Read only during surveys and dredging operations	C and GS
315	F	Rewastico Creek nr. Hebron, Md.	38°25'N.	75°45'W.	C	J	MLW	+ 4.0	- 2.0		USGS
316	F	Honga, Md. - Fishing Creek between Honga River and Tar Bay on E side of swing span highway drawbridge over Fishing Creek			C	J	MLW	+ 4.0	- 2.0		CE-USA
317	F	Fishing Creek, Md. - Back Creek, a tributary of Honga River on piling off W side of Williams Hall's packing house at the end of County Rd.			C	I	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
318	F	Tyaskin, Md. - Nanticoke River, off-shore end of county wharf			C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
319	F	Toddsville, Md. - Farm Creek, a tributary of Fishing Bay, on S corner of Meredith and Meredith Dock			C	J	MLW	+ 4.0	- 2.0		CE-USA
320	F	Bishops Head, Md. - Goose Creek, a tributary of Fishing Bay, on off-shore end of packing house pier			C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
321	F	Fish Harbor, on E end of Davis and Lynch Fishing Dock	38°20'N.	75°05'W.	C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
322	F	Ocean City, Md.	38°20'N.	75°05'W.	AF	J	- 4.3	+ 5.2	- 4.3	7/24/29-5/27/31	C and GS
322A	F	Ocean City, Md. - Inshore of steel sheet pile bulkhead	38°20'N.	75°05'W.	E	G	MLW	+13.5	+ 5.3	8/56 to date	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Sta. No.	Observer		Recording gages chart (5)	Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)		Height (m.s.l.)	Date	Height (m.s.l.)	Date					
309	C and GS	R	0.4/1	3.4	9/13/50	- 1.7	5/11/50	HL	2.0	2.4	C and GS	
310	No local observer							S	2.0	2.4	CE-USA(Bal. Dist)	
311	No local observer							S			CE-USA(Bal. Dist)	
312	No local observer							S			CE-USA(Bal. Dist)	
313	No local observer							S	2.3	2.8	CE-USA(Bal. Dist)	
314	C and GS	R	0.4/1	2.2	4/5/45	- 2.0	2/15/44	HL	1.0	1.2	C and GS	
315	No local observer							S			USGS	
316	No local observer							S			CE-USA(Bal. Dist)	
317	No local observer							S			CE-USA(Bal. Dist)	
318	No local observer							S			CE-USA(Bal. Dist)	
319	No local observer							S			CE-USA(Bal. Dist)	
320	No local observer							S			CE-USA(Bal. Dist)	
321	No local observer							S	3.4	4.1	CE-USA(Bal. Dist)	
322		N	0.4/1	4.3	H8/22-23/1950	- 5.3	12/1-21/29	HL	3.4	4.1	C and GS	Read during un-usually high tide and after high water or high waves
322A	USCG			+5.5 (MHW)	10/8/56			S	3.4	4.1	CE-USA(Bal. Dist)	

- (4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) High and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
323	F	Mt. Vernon, Md. - Wicomico River, N piling, county wharf			C	I	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
324	F	Chance, Md. - Deal Island Upper Thoroughfare between Tangier Sound and Laws Thoroughfare, on Webster's packing house dock on SW side of Harbor			C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
325	F	Wenon, Md. - Deal Island-Lower Thoroughfare between Tangier Sound and Manokin River - In offshore end of southernmost packing house			C	J	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
326	F	Saxis, Va. - Starlings Creek off Pocomoke Sound on offshore end of harbor bulkhead			C	G	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
327	F	Greenbackville, Va. - Chincasteague Bay - On bulkhead along county road by "L" in harbor.			C	G	MLW	+ 4.0	- 2.0	Read only during surveys and dredging operations	CE-USA
328	F	Washington, D. C.	38°52'N.	77°01'W.	AF	J	- 5.6	+ 8.0	- 8.0	1/1/00-4/3/01 11/10/24-6/1/26 4/15/31 to date	C and GS
329	F	Chain Bridge, Va. Side, Potomac River	38°56'N.	77°06'W.	C	J	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA
330	F	Key Bridge, D. C. Side, Potomac River	38°54'N.	77°04'W.	C	J	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA
331	F	Potomac River at Wisconsin Ave. - Washington, D. C.	38°54'N.	77°04'W.	A	K	MLW	+21.5	- 7.0	Intermittent since 1943	USGS, WB
332	F	G St. NW, D. C. Side, Potomac River	38°53'N.	77°04'W.	C	J	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA
333	F	Memorial Bridge, D.C. Side, Potomac River	38°53'N.	77°03'W.	C	J	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA
334	F	Arlington Lagoon at Pentagon	38°52'N.	77°03'W.	C	J	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA
335	F	14th St. Bridge, D. C. Side, Potomac River	38°52'N.	77°02'W.	C	J	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA
336	F	Engineer Wharf, Anacostia River	38°53'N.	77°00'W.	C	J	- 1.41	+ 6.59	- 3.41	Intermittent	CE-USA
338	F	Potomac River at NAS Anacostia, D. C.	38°52'N.	77°01'W.	A	K	- 1.26	+12	- 6	3/38-9/42	USGS
339	F	Potomac River at Gravelly Pt.	38°52'N.	77°02'W.	A	K	- 1.41	+15.2	- 5.8	3/39 to date	USGS
340	F	Bolling Air Force Base, Crash Boat House, Potomac River	38°50'N.	77°01'W.	C	C	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA
341	F	Potomac River at Bellevue Wharf, D.C. side	38°50'N.	77°02'W.	A	J	- 1.41	+ 5.0+	- 1.41	6/41 to date	USGS
342	F	Washington National Airport, Upstream side	38°52'N.	77°02'W.	C	C	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA
343	F	Washington National Airport, Downstream side	38°51'N.	77°02'W.	C	C	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (B) Recorder; (W) Installation

Stn. No.	Observer		Recording gages	Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)		chart (5)	Height (m.s.l.)	Date	Height (m.s.l.)					
323	No local observer							S			CE-USA (Bal. Dist)	
324	No local observer							S			CE-USA (Bal. Dist)	
325	No local observer							S			CE-USA (Bal. Dist)	
326	No local observer							S			CE-USA (Bal. Dist)	
327	No local observer							S			CE-USA (Bal. Dist)	
328		N	1/1	1:12	10.1	110/17/42	- 4.8	H, HL	2.9	3.3	C and GS	
329	CE-USA	R						H	2.8	3.2	CE-USA (Wash Dist)	Observations during fluvial floods and hurricane tides
330	CE-USA	R						H	2.8	3.2	CE-USA (Wash Dist)	Observations during fluvial floods and hurricane tides
331	USGS	R	0.1/1	1:12	16.31	110/17/42	- 4.3	R	2.8	3.2	USGS (College Park, Md.)	
332	CE-USA	R						H	2.8	3.2	CE-USA (Wash Dist)	Observations during fluvial floods and hurricane tides
333	CE-USA	R						H	2.8	3.2	CE-USA (Wash Dist)	Observations during fluvial floods and hurricane tides
334	CE-USA	R						H	2.8	3.2	CE-USA (Wash Dist)	Observations during fluvial floods and hurricane tides
335	CE-USA	R						H	2.9	3.3	CE-USA (Wash Dist)	Observations during fluvial floods and hurricane tides
336	CE-USA	R	0.05/1	1:20				H	2.9	3.3	CE-USA (Wash Dist)	Records available
338	USGS	R						R	2.9	3.3	USGS (College Park, Md.)	for extreme high tides
339	USGS	R	0.1/1	1:12	10.42	110/17/42	- 4.4	R	2.9	3.3	USGS (College Park, Md.)	
340	CE-USA	R						H	2.9	3.3	CE-USA (Wash Dist)	Observations during fluvial floods and hurricane tides
341	USGS	R	0.1/1	1:12	8.51	110/17/42	- 4.3	R	2.8	3.2	USGS (College Park, Md.)	Observations during fluvial floods and hurricane tides
342	CE-USA	R						H	2.9	3.3	CE-USA (Wash Dist)	Obs. during fluvial floods and hurricane tides
343	CE-USA	R						H	2.9	3.3	CE-USA (Wash Dist)	Records available during fluvial floods and hurricane tides

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
344	F	Penn. R.R. Bridge, D. C. Side, Potomac River	38°52'N.	77°02'W.	C	J	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA
345	F	Fort McNair, Anacostia River, D. C.	38°52'N.	77°01'W.	C	J	- 1.41	+ 5.0+	- 1.41	Intermittent since 1943	CE-USA
346	F	Potomac River at Alexandria, Va.	38°48'N.	77°02'W.	A	K	- 1.41	+ 5.0+	- 1.41	11/40 to date	USGS
347	F	Alexandria, Va.	38°48'N.	77°02'W.	AF	J	- 5.4	+ 3.6	- 5.4	7/1/13-5/26/15	C and GS
348	F	Four Mile Run, Va., Potomac River	38°51'N.	77°03'W.	C	I	- 1.41	+ 5.0+	- 1.51	Intermittent since 1943	CE-USA
348A	F	Ft. Belvoir, Gunston Cave, Va.	38°51'N.	77°03'W.	A	I	- 1.41	+ 5.0+	- 1.41	9/55 to date	USGS
349	F	Fort Hunt, Va., Potomac River	38°43'N.	77°03'W.	C	J	MLW	+ 7.0MLW	- 1.41	Intermittent since 1943	CE-USA
349A	F	US Navy, Naval Proving Ground, Dahlgren, Va., Pier of the Yard	38°19'N.	77°02'W.	C	J	- 1.41	+ 6.0	- 3.0	Before 1952 to date	CE-USA
350	F	Draft Area									USN
351	F	None									USWB
352	F	Fredericksburg, Va., Rappahannock Rvr	38°19'N.	77°28'W.	B	K	0.0	+ 9.0	+ 2.16	1945 to date	USWB
352A	F	Cat Point Creek nr. Montross, Va.	38°03'N.	76°50'W.	A	J	+ 2	+ 9.56	+ 2.16	1943 to date	USGS
353	F	Colonial Beach, Va. (Potomac River)	38°15'N.	76°58'W.	AF	J	- 6.4	+ 2.6	- 6.4	4/24/02-12/18/02	C and GS
353A	F	Piscataway Creek near Tappahannock, Va.	37°53'N.	76°54'W.	A	J	+ 2.50	+ 9.57	+ 2.83	6/27/06-6/30/10	USGS
354	F	Solomons, Md.	38°19'N.	76°27'W.	AF	J	- 3.7	+ 7.5	- 5.7	1951 to date	C and GS
355	F	US Navy, Naval Air Station, Patuxent River, Md., Patuxent River boat basin on side of boat house	38°18'N.	76°24'W.	C	K	- 0.6	+ 3.4	- 3.6	9/27/07-4/6/08	USN
356	F	US Navy, Naval Air Station, Patuxent River, Md., Chesapeake Bay Boat Basin	38°17'N.	76°24'W.	C	J	- 0.6	+ 3.4	- 3.6	11/5/37 to date	USN
357	F	Cod Harbor, Va.	37°48'N.	75°59'W.	AF	J	- 4.9	+ 4.1	- 4.9	1955 to date	USN
358	F	Kiptopeke, Va.	37°10'N.	75°59'W.	AF	J	- 4.3	+ 8.4	- 5.8	Observations when stage reaches 2.5 feet	C and GS
359	F	Cape Charles Harbor, Va.	37°16'N.	76°01'W.	AF	J	- 6.0	+ 7.5	- 7.5	9/19/10-12/20/11	C and GS
360	G	Richmond, Va., James River	37°32'N.	77°25'W.	B	G	- 1.8	24.0	- 6.3	9/51 to date	C and GS
361	G	Richmond, Va., James River	37°32'N.	77°25'W.	AF	J	- 1.8	+ 20.0	- 6.3	7/25/13-5/18/14	C and GS
										7/12/18-11/8/18	C and GS
										7/12/52-11/6/52	C and GS
										1892 to date	USWB
										11/6/41 to date	C and GS

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
344	CE-USA	R							H	2.9	3.3	CE-USA (Wash Dist.)	Observations during fluvial floods and hurricane tides
345	CE-USA	R							H	2.9	3.3	CE-USA (Wash Dist.)	Observations during fluvial floods and hurricane tides
346	USGS	R	0.1/1	1:12	7.25	10/15/54	- 4.2	3/1/49	R	2.8	3.2	USGS (College Park, Md.)	Observations during fluvial floods and hurricane tides
347		N							H,HL	2.8	3.2	C and GS	
348	CE-USA	R	1/1	1:6	4.3	1/13/44	- 5.9	3/2-3/14	H	2.8	3.2	CE-USA (Wash Dist.)	Observations during fluvial floods and hurricane tides
348A													
349	CE-USA	R							H			USGS (Charlottesville, Va.)	Observations during fluvial floods and hurricane tides
349A												CE-USA (Wash Dist.)	Observations during fluvial floods and hurricane tides
350	USN	R			42.5	11/16/42	- *2.0	2/2/45	H	1.6	1.8	CE-USA (Wash Dist.)	Read during abnormally high water
352	USWB	R										USN (Yard Craft Office)	Reported hourly to USWB when stage reaches 2'-5"
352A										2.8	3.2	USWB Wash, D. C.	*Lowest since establishment as USWB station
353												USGS (Charlottesville, Va.)	Not affected by tide except under unusual conditions
353A		N	1/1	1:6	3.0	10/18/06	- 3.9	2/3/08	H,HL	1.6	1.8	C and GS	
354	CBL	R	1/1	1:9	3.5	10/15/54	- 2.8	3/19/41	H,HL	1.2	1.4	USGS (Charlottesville, Va.)	
355	USN	R							S(H)			USN and USWB	Reported hourly to USWB when stage reaches 2.5 ft.
356	USN	R							S(H)	1.6	1.9	USN and USWB	Reported hourly to USWB when stage reaches 2.5 ft.
357	C and GS	R	0.4/1	1:11-1/4	2.6	10/22/10	- 1.5	7/6/11	HL	2.7	3.2	C and GS	Reported hourly to USWB when stage reaches 2.5 ft.
358		N	1/1	1:12	4.2	10/23/53	- 3.0	3/28/55	H,HL	2.4	2.8	C and GS	
359		N	1/1	1:12	4.6	10/5/48	- 2.8	3/4-10/50	H,HL	3.5	4.0	C and GS	
360	USWB	N	1/1	1:12	23.0	9/21/44	- 4.2	3/26/47	H,HL	3.5	4.0	USWB, Richmond, Va.	
361		N											

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
362	G	Dupont, James River, Va.	37°28'N.	77°25'W.	A	J	- 4.17	+23.0	(3)	12/35-1/36 6/56-10/40	CE-USA
362A	G	Deepwater Terminal, James River, Va.	37°27'N.	77°25'W.	C	J	- 2.49	+17.0		4/33-1/36	City of Rich.
363	G	Aiken Swamp, James River, Va.	37°23'N.	77°23'W.	A	J	- 3.51	+14.0		6/56-1/40	CE-USA
363A	G	Dutch Gap, James River, Va.	37°25'N.	77°22'W.	A	J	- 1.22	+10.8		3/33-9/35	CE-USA
364	G	Meadowville, James R., Va.	37°23'N.	77°20'W.	A	J	- 2.69	+ 7.3		2/37-10/38	CE-USA
365	G	Jones Neck, James River, Va.	37°22'N.	77°19'W.	A	J	- 4.5	+ 9.0	- 6.0	3/33-10/40	CE-USA
366	G	Bermuda Hundred, James R., Va.	37°20'N.	77°16'W.	A	J	- 3.3	+ 7.0	- 3.7	10/21/10-1/29/11	C and GS
367	G	Hopewell, Va.	37°19'N.	77°16'W.	AF	J	- 2.1	+ 9.0		11/9/41-10/31/53	C and GS
368	F	Gloucester Point, Va.	37°15'N.	76°30'W.	AF	J	- 4.2	+ 9.0	- 4.2	4/13/11-5/18/12 8/3/12-2/24/13 6/14/18-11/4/18 5/16/50 to date	C and GS
369	F,H	Old Point Comfort, Va.	37°00'N.	76°18'W.	AF	J	- 4.9	+ 9.0	- 7.1	11/7/06-3/30/07 12/17/18-9/1/19 8/16/37-12/3/45 12/17/47-6/30/55 12/5/18-3/21/19 7/22/27 to date	C and GS
370	F,H	Hampton Roads, Va.	36°57'N.	76°20'W.	AF	J	- 1.5	+ 9.5	- 7.8	10/19/28-12/31/42 4/30/45-to date	CE-USA
371	F,H	Fort Norfolk, Norfolk Harbor, Elizabeth River	36°52'N.	76°19'W.	AF	J	- 7.0	+ 8.0	- 6.1	4/19/35 to date	C and GS
372	F,H	Portsmouth, Va.	36°49'N.	76°18'W.	AF	J	- 6.2	+ 7.0		11/30/44-4/5/45	C and GS
373	F,H	Little Creek, Va.	36°56'N.	76°11'W.	AF	J				11/27/45-7/11/46 11/10/53 to date	USN
374	F,H	Public Works Dept., Norfolk Naval Shipyard, Portsmouth, Va.	36°46'N.	76°54'W.	A	L	+ 1.56	+14.96	+ 1.92	1/08-1/16 11/18 to date	USGS
375	H	Blackwater River near Franklin, Va.	36°53'N.	76°01'W.	A	J	- 1.7	8.0		8/44 to date	CE-USA
376	H	Linkhorn Bay, Va.	36°45'N.	76°15'W.	A	J	0.0	8.0		1955 to date (Intermittent)	CE-USA
377	H	Great Bridge, Va.	36°43'N.	75°58'W.	A	J	0.0	5.0		10/35-6/56	CE-USA
378	H	North Bay, Va.	36°35'N.	76°02'W.	A	J	0.0	8.0		5/36-12/41 7/49-6/56	CE-USA
379	H	Munden, North Landing River, Va.	36°23'N.	75°55'W.	A	J	0.0	8.0		12/31-12/41 7/49-10/54	CE-USA
380	H,I	Water Lilly, Currituck Sound, N. C.	36°21'N.	75°58'W.	B	J	- 1.5	+ 3.0	- 1.5	12/39-10/41 1/49-6/56 5/29-3/50 ? to date	CE-USA
381	H,I	Coinjock, North R., N. C.	36°21'N.	75°58'W.	B	J	- 1.5	+ 3.0	- 1.5		CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
362	CE-USA	R	0.6/1	2/1	25.2	3/20/56			S	3.3	3.8	CE-USA(Nor. Dist. USWB, Rich. Va.	
362A	CE-USA	R	Dial 8 Day	1/6.75	14.1	3/20/56			S			CE-USA(Nor. Dist.	
363	CE-USA	R	0.6/1	2/1					S			CE-USA(Nor. Dist.	
363A	CE-USA	R	0.6/1	2/1					S			CE-USA(Nor. Dist.	
364	CE-USA	R	0.6/1	2/1					S			CE-USA(Nor. Dist.	
365	CE-USA	R	0.6/1	2/1	6.8	4/27/57			S	2.9	3.3	CE-USA(Nor. Dist.	
366	CE-USA	R	0.6/1	2/1	5.6	4/27/57			S	2.6	3.0	CE-USA(Nor. Dist.	
367	VFL	N	1/1	1:12	5.3	H9/17/45		12/3/42	H,HL	2.6	3.0	C and GS	
368	USA	R	1/1	1:12	4.3	H8/12/55		2/8-9/51	H,HL	2.4	2.9	C and GS	
369	USN	R	1/1	1:12	4.3	1/24/40		3/26/40	H,HL	2.5	3.0	C and GS	
370	USN	R	1/1	1:12	7.5	H8/23/33		1/23,26/28	H,HL	2.5	3.0	C and GS	
371	CE-USA	R	0.4/1	1/1	8.0	H8/23/33			H,HL			CE-USA(Nor. Dist.	
372	USN	R	1/1	1:12	7.4	H9/18/36		11/25/36	H,HL	2.8	3.4	C and GS	
373	C and GS	R	1/1	1:12	4.2	12/6/54		12/4/42	H,HL	2.5	3.0	C and GS	Remoted to USWB Norfolk, Va.
374	USN	R						3/28/55					
375													
376	CE-USA	R										US Naval Shipyard USGS (Charlottesville, Va.)	
377	CE-USA	R	0.6/1	2/1					S	*		CE-USA(Nor. Dist.	
378	CE-USA	R	0.05/1	2/1					S	*		CE-USA(Nor. Dist.	
379	CE-USA	R	0.1/1	2/1					S	*		CE-USA(Nor. Dist.	
380	CE-USA	R			**+1.7	4/16/56			S	*		CE-USA(Nor. Dist.	
381	CE-USA	R						9/9/56	S	*		CE-USA(Nor. Dist.)	3 Observations daily ** for period Mar-Dec., 1956

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

* For Stations in Albemarle and Pamlico Sounds, except Near Inlets, the Periodic Tide has a mean range of less than one-half foot.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.) (3)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
382	H, I	Powells Point, Albemarle Sound, N. C.	36°05'N.	75°48'W.	A	J	0.0	8.0	12/39-12/41 12/48-6/56	CE-USA	
383	H, I	Elizabeth City, N. C.	36°18'N.	76°15'W.	B	G	- 4.9	+ 5.1	3/56 to date	USWB	
384	H, I	Edenton, N. C.	36°04'N.	76°37'W.	B	J	- 2.5	+ 7.5	3/56 to date	USWB	
385	I	Williamston, N. C. (Roanoke R)	35°51'N.	77°02'W.	B	G	- 2.75	18.25	1930 to date	USWB	
386	I	Alligator River at Killkenny Landing			A				1/1/49-12/31/49	CE-USA	
387	I	Alligator River at Cherry Ridge Landing			A				1/1/49-12/31/49	CE-USA	
388	I	Albemarle Sound, 1.7 miles east from Dewey Pier (about 6 miles NNE of Columbia, N. C.)							1/1/49-12/31/49	CE-USA	
389	I	Alligator Creek near Newfoundland, N. C.			A				1/1/49-12/31/49	CE-USA	
390	I	Alligator Creek near Fort Landing, N. C.			A				1/1/49-12/31/49	CE-USA	
391	I	Bridge on State Highway 94 across Atlantic Intracoastal Waterway 3.5 miles north of Pairfield, Hyde County, N. C.	35°36'N.	76°14'W.	A	J	- 0.5		9/20/45-9/30/46 1/1/49-12/31/49 ? - to date	CE-USA	
392	I	Bridge on State Highway 94 across Atlantic I.W.W. 3.5 mi. N. of Pairfield, Hyde County, N. C.	35°36'N.	76°14'W.	B	J			1/1/41 to date	CE-USA	
393	I	Eastern end of A.I.W.W. land cut connecting Pungo and Alligator Rivers	35°40'N.	76°06'W.	A				Has covered range since establishment	CE-USA	
394		Bridge on U. S. Highway 264 across I.W.W. 12 mi. E. of Belhaven, Beaufort County, N. C.	35°33'N.	76°26'W.	A	J	- 0.24		9/20/45-9/30/46 1/1/49-12/31/49	CE-USA	
395	I	Bridge on U. S. Highway 264 across I.W.W. 12 mi. E. of Belhaven, Beaufort County, N. C.	35°33'N.	76°26'W.	B	J	- 0.24		1/1/41 to date	CE-USA	
396		Greenville, N. C. (Tar R.)	35°37'N.	77°23'W.	A		- 2.37		1905 to date	USWB	
397		Tar River at Greenville, N. C.	35°37'N.	77°23'W.	A		- 2.37	30	3/23/55 to date 3/56 to date	USGS	
398		Washington, N. C.			B	J				USWB	
399	J	Core Creek Bridge, N. C.			B	J				USWB	
400	I, J	Hobucken Bridge, N. C.			B	J				CE-USA	
401	J	New Bern, N. C.			B	J				CE-USA	
401A	J	Vanceboro, N. C. (Swift Creek)	35°21'N.	77°12'W.	A		5	23.5	3/56 to date 1/50 to date	USWB USGS	

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AP) Recorder Float; (AR) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages	Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)		chart (5)	scale (6)	Height (m.s.l.)	Date					
382	CE-USA	R	0.4/1	2/1	**+2.0	4/17/56	**-1.1	9/10/56	S		CE-USA(Nor. Dist.)	1 Observation at (noon) daily ** for period Mar.-Dec. 1956
383	USWB	V							S		WB (Nor. Office)	
384	USWB	V			**+3.2	4/11/56	**+0.7	12/30/56	S		WB (Nor. Office)	1 Observation at (noon) daily ** for period Mar.-Dec. 1956 Flood stage 10' m.s.l.
385	USWB	N			1.75	8/22/40	- 0.95	9/8/32	H		WBO(Raleigh,N.C.)	
386	CE-USA								H		CE-USA (Wil. Dist.)	3 Obs. daily 8 a.m., 4 p.m., 12 mid.
387	CE-USA								H		CE-USA(Wil. Dist.)	
388	CE-USA								H		CE-USA(Wil. Dist.)	
389	CE-USA								H		CE-USA(Wil. Dist.)	
390	CE-USA								H		CE-USA(Wil. Dist.)	
391	CE-USA								H		CE-USA(Wil. Dist.)	
392	CE-USA	Br. Tender F							S		CE-USA(Wil. Dist.)	
393	CE-USA		1/12	1/0.5					H		CE-USA(Wil. Dist.)	
394	CE-USA								S		CE-USA(Wil. Dist.)	
395	CE-USA	Br. Tender F									CE-USA(Wil. Dist.)	
396	USWB	N	1/1	1/1	22.13	7/28/19	- 1.35	9/14/44			WB (Raleigh,N.C.)	Flood stage 14' m.s.l.
397	USGS				22.13	7/28/19	- 1.35	9/14/44	D		USGS(Raleigh,N.C.)	
398	USWB	V							S		WB (Nor. Office)	Flood of 1909 reached elev. of 21 ft.
399	CE-USA	Br. Tender F									CE-USA(Wil. Dist.)	
400	CE-USA	Br. Tender F							S		CE-USA(Wil. Dist.)	
401	USWB	V									WB (Nor. Office)	
401A	USGS		0.1/1	1:6	18.67	9/22/55			HL,D		USGS(Raleigh,N.C.)	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.
* For Stations in Albemarle and Pamlico Sounds, except Near Inlets, the Periodic Tide has a mean range of less than one-half foot.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
402	J	Gum Branch, N. C. (New River)	34°51'N.	77°31'W.	A	J	3	20.4	2.5	8/49-to date	USGS
403	J	Morehead City, N. C.	34°13'N.	76°42'W.	AF	J	- 4.6	+ 8.0	- 7.0	11/20/52 to date	C and GS
405	J	Cape Fear River below lock and dam No. 1, about 39 mi. above Wilmington and 65 mi. above mouth of stream and 2 mi. NE of State Highway 87	34°24'N.	78°05'W.	B	J	- 3.11	Covered range since establishment		2/1/52 to date	CE-USA
406	J	Wilmington, N. C.	34°14'N.	77°57'W.	AF	J	- 4.2	+ 6.0	- 3.7	1/24/08-2/13/12	C and GS
407	J	Southport, N. C.	33°55'N.	78°01'W.	AF	J	- 3.7	+ 9.0	- 3.6	4/4/35 to date	C and GS
408	J	Conway, S. C. (Waccamaw R.)	33°50'N.	79°03'W.	B	G		+14.0		2/7/33-10/12/54	USWB
409	J	Little River near Little River, S. C.	33°50'N.	78°41'W.	C	J	MLW	+ 7.0+	- 1.0	USE 1887-1893; WB 1893 to date	CE-USA
410	J	Bridge near Myrtle Beach, S. C.	33°42'N.	78°55'W.	C	J	MLW	+ 7.0+	- 1.0	1934 (Intermittent to Date)	CE-USA
411	J	Socastee Bridge near Myrtle Beach, S. C.	33°41'N.	79°01'W.	C	J	MLW	+ 7.0+	- 1.0	1934 (Intermittent to Date)	CE-USA
412	J,K	International Paper Co., Georgetown, S. C.	33°22'N.	79°18'W.	A	K		+ 8.0+		1941 to date	I.P. Co.
413	J,K	Georgetown Harbor, Georgetown, S. C.	33°13'N.	79°11'W.	C	I	MLW	+ 7.0+	- 1.0	ALL records disposed of at the end of each year	CE-USA
414	K	Pinopolis Hydroelectric Plant near Moncks Corner, S. C.	33°15'N.	80°00'W.	B	G	OO	+10.0+	- 1.0	Unknown (Intermittent to Date)	USGS
415	K	Pinopolis Hydroelectric Plant near Moncks Corner, S. C.	33°15'N.	80°00'W.	A	K	OO			1942 to date	USGS
416	L	Cainhoy, S. C. (Wando River)	32°55'N.	79°50'W.	AF	J	- 5.8	+ 8.0	- 7.8	2/9/28-6/19/28	C and GS
417	L	Cooper River at Charleston Naval Shipyard near North Charleston, S. C. (East end Pier 317 C)			C	J	MLW	+11.0	- 3.0	5/4/51-6/1/52	USN
418	L	Cooper River near North Charleston Naval Shipyard near North Charleston, S. C. (East end Pier 317 C)			A	J	MLW	+11.0	- 3.0	2/36 to date	USN
419	L	North Charleston Terminals, (Cooper River), S. C.	32°54'N.	79°58'W.	AF	J	- 4.6	+ 9.0	- 5.9	5/16/51-6/2/52	C and GS
420	K,L	Sullivan's Island, S. C., Ben Sawyer Brg.	32°46'N.	79°51'W.	C	J	MLW	+ 7.0	- 1.0	1939 (Intermittent to Date)	CE-USA
421	K	Charleston and Western Carolina Railroad Dock, Port Royal, S. C.	32°22'N.	80°41'W.	C	I	MLW	+ 7.0	- 1.0	1933 (Intermittent to Date)	CE-USA
422	K	Port Royal Harbor, S. C.	32°17'N.	80°39'W.	C	I	MLW	+ 9.0	- 1.0	1933 (Intermittent to Date)	CE-USA
423	K,L	V-C Chemical Co., S. C. (Ashley River)	32°50'N.	79°58'W.	AF	J	- 5.6	+ 9.5	- 9.6	4/28/51-6/3/52	C and GS

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.
 (2) Type of Mounting: (F) Concrete control structure or Lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
402		N	0.1/1	1:6	22.99	9/20/55	3.50	10/7/54	HL,D	2.8	3.4	USGS(Raleigh, N.C.) C and GS	
403			1/1	1:12	5.8	H10/15/54 9/19/55	- 2.9	12/11/54	H,HL				
405	CE-USA	Lockman R							S			CE-USA(WIL.Dist.)	Daily 7 a.m. and 6 p.m.
406	CE-USA	R	1/1	1:12	6.4	H10/15/54	- 3.5	2/3/40	H,HL	3.7	4.0	C and GS	Station destroyed by "HAZEL"
407		N	1/1	1:12	5.4	11/2/47	- 4.0	6/28/34	H,HL	4.1	4.6	C and GS	
408	USWB	N											
409	CE-USA	R								1.2	1.4	WBO (Chas. S.C.)	Observations only during surveys and dredging.
410	CE-USA	R								5.2	6.1	CE-USA(Chas.Dist)	Observations only during surveys and dredging.
411	CE-USA	R								4.5	5.3	CE-USA(Chas.Dist)	Observations only during surveys and dredging.
412	I.P.Co.	R	1/1						H	4.5	5.3	CE-USA(Chas.Dist)	Observations only during surveys and dredging.
413	CE-USA	R								4.0	4.7	International Paper Co.	Records destroyed at end of each yr.
414	USGS	R								4.0	4.7	CE-USA(Chas.Dist)	
415	USGS	R	0.1/1	1/1					S			USGS,(Columbia S. C.)	
416		N	1/1	1:12	5.3	6/19/51	- 5.2	2/20/28	H,HL	6.0	7.1	USGS(Columbia, S. C.)	
417	USN	R								5.2	6.1	C and GS	
418	USN	R	0.2/1	1/1								Public Works Chas. Shipyard	
419		N	1/1	1:12	4.7	6/19/51	- 3.9	12/15/51	H,HL,D	5.2	6.1	Public Works Chas. Shipyard	
420	CE-USA	R								5.2	6.1	C and GS	
421	CE-USA	R								5.2	6.1	CE-USA(Chas.Dist)	Observations during surveys and dredg- ing only.
422	CE-USA	R								7.2	8.5	CE-USA(Chas.Dist)	Observations during surveys and dredg- ing only.
423		N	1/1	1:12	5.3	6/19/51	- 4.3	1/27-28/52	H,HL	7.2	8.5	CE-USA(Chas.Dist)	Observations during surveys and dredg- ing only.

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer

(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour

(6) Height: Inches per foot, ratio, etc.

(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.

(8) Data Reduction: (H) Hourly values; (HL) Highs and Lows; (D) Daily means; (S) Special purpose only; (R) On request.

Sta. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
424	K, L	Charleston, S. C. (Custom House) (Union Pier 1, S.C.P.A. eff. 1/27/57)	32°47'N.	79°55'W.	AF	J	- 5.0	+ 9.0	- 5.5	1/1/00-6/29/04 9/30/21-4/16/28 5/7/28 to date	C and GS
425	L	Fort Sumter, S. C.	32°45'N.	79°52'W.	AF	J	- 5.3	+ 9.5	- 8.0	4/18/51-6/4/52	C and GS
426	L	Fort Sumter, Charleston Harbor, S. C.	32°45'N.	79°53'W.	A	J	MLW	+10.0		3/12/48-6/3/49	CE-USA
427	L	Seaboard R. R. Br., Charleston, S. C. Ashley River	32°48'N.	79°58'W.	A	G	MLW	+10.0		(Intermittent 7/6/50-1/23/51)	CE-USA
428	L	Lambs, S. C. Ashley River	32°53'N.	80°05'W.	A	J	MLW	+10.0		1/21/48-6/13/49 1/12/50-1/18/51 (Intermittent)	CE-USA
429	L	Point Hope Island, S. C. Wando River	32°53'N.	79°52'W.	A	J	MLW	+10.0		2/4/48-6/8/49	CE-USA
430	L	Naval Ordnance, Cooper River, North Charleston, S. C.	32°56'N.	79°56'W.	A	J	MLW	+10.0		1/10/50-1/18/51	CE-USA
431	K	Palmetto, Back River, North Charleston S. C.	33°00'N.	79°56'W.	A	J	MLW	+10.0		1/23/50-2/3/51 (Intermittent)	CE-USA
432	K	Cote Bas, Cooper River, Bushy Park, S. C.	33°01'N.	79°55'W.	A	J	MLW	+10.0		3/5/48-12/21/50 (Some data missing)	CE-USA
433	K	Pomplion Hill Chapel East Branch Cooper River, S. C.	33°05'N.	79°50'W.	A	J	MLW	+10.0		2/3/48-6/2/49	CE-USA
434	K	Lewisfield, S. C., Cooper River	33°10'N.	80°00'W.	A	J	MLW	+10.0		4/27/50-2/5/51 2/2/48-6/5/49	CE-USA
435	K	Combahee River near Yemassee, S. C. at Bridge on U. S. Highway 15 (Upper gage)	32°42'N.	80°50'W.	A	J	0.0	+12.5	0.0	1/6/50-2/5/51 2/4/48-2/12/49	USGS
435A	K	Combahee River (Auxiliary gage, 10.2 mi. downstream from upper gage, is at boat landing on Combahee Plantation) (Old Dupont Plantation)			A	J	- 3.3	+ 6.7	- 3.3	6/1/51 to date	USGS
436	K	Hilton Head Island, S. C.	32°13'N.	80°45'W.	C	H	MLW	+20.0	0.0	6/56 to date	USWB
437	K	U. S. Coastal Highway Bridge over Savannah River at Port Wentworth, Ga.	32°10'N.	81°08'W.	A	J	- 6.55	+ 6.95	- 6.55	1941 to date	CE-USA
438	K	Foot of Bull St., Savannah, Ga.	32°05'N.	81°05'W.	A	J	- 6.56	+ 8.35	- 6.56	1916 to date	CE-USA
439	K	State Port, (Kings Island) Savannah, Ga.	32°08'N.	81°08'W.	A	K	- 6.51	+10.05	- 6.51	1912 to date	CE-USA
440	K	Atlantic Creosote Co., Savannah, Ga.	32°09'N.	81°08'W.	A	J	- 6.54	+ 8.05	- 6.54	1926 to date	CE-USA

(1) Type of gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
424	USWB	R	1/1	1:12	8.0	H8/11/40	- 5.5	2/15/53	H, HL	5.1	6.0	C and GS	
425	CE-USA	N	1/1	1:12	5.0	12/28/51	- 4.0	1/28/52	H, HL	5.0	5.9	C and GS	
426	CE-USA		0.4/1	1/1					H, HL, D	5.0	5.9	CE-USA (Chas. Dist)	
427	CE-USA		0.4/1	1/1					H, HL, D	5.2	6.1	CE-USA (Chas. Dist)	
428	CE-USA		*0.4/1	1/1					H, HL, D	5.6	6.6	CE-USA (Chas. Dist)	
429	CE-USA		*0.4/1	1/1					H, HL, D	5.2	6.0	CE-USA (Chas. Dist)	*and other scales
430	CE-USA		*0.4/1	1/1					H, HL, D	5.2	6.1	CE-USA (Chas. Dist)	*and other scales
431	CE-USA		*0.4/1	1/1					H, HL, D	5.2	6.0	CE-USA (Chas. Dist)	*and other scales
432	CE-USA		*0.4/1	1/1					H, HL, D	5.2	6.0	CE-USA (Chas. Dist)	*and other scales
433	CE-USA		*0.4/1	1/1					H, HL, D	5.2	6.0	CE-USA (Chas. Dist)	*and other scales
434	CE-USA		*0.4/1	1/1					H, HL, D	5.2	6.0	CE-USA (Chas. Dist)	*and other scales
435	USGS	N	0.1/1	1/1	8.18	4/18/55			D	5.2	6.0	USGS (Columbia, S. C.)	Discharge data available
435A	USGS								S			USGS (Columbia, S. C.)	Used for slope determination
436	CE-USA	R	0.4/1	1/1	6.6	Jan. 1946	- 3.6	Aug. 1946	H, HL, D	6.6	7.8	WB (Sav. Office)	
437	CE-USA	R	0.4/1	1/1	7.85	T10/15/47	- 6.2	July 1947	H, HL, D	7.0	8.1	CE-USA (Sav. Dist)	
438	CE-USA	R	0.4/1	1/1	7.3	T10/15/47	- 5.6	July 1947	H, HL, D	7.4	8.6	CE-USA (Sav. Dist)	
439	CE-USA	R	0.4/1	1/1	7.3	T10/15/47	- 5.7	July 1947	H, HL, D	7.2	8.4	CE-USA (Sav. Dist)	
440	CE-USA	R	0.4/1	1/1					H, HL, D	7.0	8.1	CE-USA (Sav. Dist)	

- (4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and Lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
441	K	Savannah, Ga. (Kehoe Iron Works)	32°05'N.	81°05'W.	AF	J	- 6.4	+ 7.0	- 6.4	4/5/34-7/1/35	C and GS
442	K	Fort Jackson, Savannah Harbor, Ga.	32°05'N.	81°02'W.	A	J	- 6.61	+ 9.95	- 6.61	1903 to date	CE-USA
442A	K	Thunderbolt, Ga.	32°01'N.	81°03'W.	A	J	MLW	12.2	- 8.0	1956 to date	CE-USA
443	K	Fort Pulaski, Ga.	32°02'N.	80°54'W.	AF	K	- 6.5	+ 11.0	- 6.0	7/1/35 to date	C and GS
443A	K	Vernon View, Savannah, Ga.	31°56'N.	81°06'W.	A	J	MLW	11.5	- 8.0	1956 to date	CE-USA
444	K	Sapelo Island, Ga.	31°10'N.	81°25'W.	A	J	MLW	+ 8.4	- 8.0	1956 to date	R. Tob. Co.
444A	K	Saint Simons Island, Ga.	30°40'N.	81°28'W.	AF	J	- 4.4	+ 9.0	- 5.5	1/1/00-6/27/24	CE-USA
445	K	Fernandina (Beach), Fla.	30°40'N.	81°28'W.	AF	J	- 4.4	+ 9.0	- 5.5	10/16/38 to date	C and GS
446	M	Cedar Point (Beacon No. 95), Fla.	30°27'N.	81°29'W.	A	J	+ 1.93	+ 6.5	- 5.0	9/26/45-11/4/46	CE-USA
447	M,N	Mayport, Fla.	30°24'N.	81°26'W.	AF	J	- 3.69	+ 6.5	- 5.0	4/26/28 to date	C and GS
448	M	Ribault (NAS) at St. John's R., Fla.	30°23'N.	81°27'W.	A	J	- 2.52	+ 6.5	- 5.0	8/6/45-9/17/46	CE-USA
449	M	Sisters Creek at St. John's R., Fla.	30°23'N.	81°28'W.	A	J	- 1.82	+ 6.5	- 5.0	8/8/45-11/7/46	CE-USA
450	M	St. John's River at Naval Air Station near Jacksonville, Fla.	30°14'N.	81°40'W.	A	J	- 10.00	+ 10.0	- 3.0	2/27/45 to date	USGS
451	M	Browns Creek at St. John's R. Fla.	30°25'N.	81°32'W.	A	J	- 1.40	+ 17.0	- 3.7	8/7/45-11/4/46	CE-USA
452	M	St. John's River at Main St. Bridge at Jacksonville, Fla.	30°19'N.	81°40'W.	A	J	- 10.00	+ 17.0	- 3.7	2/11/54 to date	USGS
453	M	St. John's River at US Dredge Depot at Jacksonville, Fla.	30°21'N.	81°37'W.	A	J	- 10.00	+ 7.0	- 4.1	2/9/54 to date	USGS
454	M	Jacksonville, Fla. (US Dredge Depot)	30°21'N.	81°37'W.	AF	J	- 4.2	+ 5.0	- 4.0	4/28/28-7/10/33	C and GS
455	M	St. John's River at US Dredge Depot at Jacksonville, Fla.	30°21'N.	81°37'W.	A	K	0.00	+ 5.0	- 4.0	4/23/33 to date	CE-USA
456	M	St. John's River at US Dredge Depot at Jacksonville, Fla.	30°21'N.	81°37'W.	A	K	0.00	+ 5.0	- 4.0	6/30/46-5/4/53	CE-USA
457	M	Roselle St., Jacksonville, Fla.	30°19'N.	81°40'W.	A	J	- 2.98	+ 6.5	- 5.0	6/18/45-11/7/46	CE-USA
457	M,N	Atlantic Beach Pier	30°20'N.	81°24'W.	A	J	+ 10.0	+ 6.5	- 5.0	8/26/45-10/10/46	CE-USA
458	M	Pablo Creek, Fla.	30°19'N.	81°26'W.	A	J	- 1.08	+ 6.5	- 5.0	9/4/45-11/4/46	CE-USA
459	N	Tolomato River at St. Augustine, Fla. (Vilano Bridge), on north side of Capo's Dock	29°55'N.	81°18'W.	A	J	- 2.15	+ 4.15	- 2.65	5/22/56 to date	CE-USA
460	N	St. Augustine Harbor, St. Augustine, Fla.	29°54'N.	81°19'W.	A	J	0.00	+ 10.5	- 5.0	6/21/48-6/30/54	USGS
461	N	St. Augustine, Fla.	29°54'N.	81°18'W.	AF	J	- 5.8	+ 7.0	- 5.0	3/18/14-8/1/18	C and GS
462	N	Daytona Beach, Fla.	29°14'N.	81°00'W.	AF	J	- 5.73	+ 20.0	- 6.0	1/25/24-4/30/24	C and GS
463	N	Altenhurst, Fla. on dock in Mosquito lagoon 10' out from end of dike along Haulover Canal	28°44'N.	80°45'W.	A	J	+ 10.0	+ 20.0	- 6.0	5/17/25-7/26/26	C and GS
										7/2/27-6/1/52	
										9/25/38-9/30/50	
										10/8/45-10/15/46	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Buildings; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages chart (5)	Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)		Height (m.s.l.)	Date	Height (m.s.l.)	Date					
441		N	1/1	5.8	1/7/35	- 5.5	7/30-31/34	H, HL	7.4	8.6	C and GS	
442	CE-USA	R	0.4/1	8.0	T10/15/47	- 6.0	2/20/35	H, HL	7.4	8.6	CE-USA (Sav. Dist)	
443	CE-USA	R	1/1	7.8	T10/15/47	- 7.7	7/47	H, HL	7.9	9.2	CE-USA (Sav. Dist)	
443A							3/20/36	H, HL	6.9	8.1	C and GS	
444								H, HL	7.5	8.8	CE-USA (Sav. Dist)	
444A								H, HL	6.8	8.0	Reynolds Tobacco Co.	
445	CE-USA	N	1/1	10.8	T10/2/98	- 6.8	1/24/40	H, HL	7.2	8.4	CE-USA (Sav. Dist)	
446			*.075/1					H, HL	6.1	7.1	C and GS	
447	CE-USA	N	1/1	5.4	H10/19/44	- 5.2	1/24/40	HL, D	4.5	5.3	CE-USA (KCRC)	*and other scales
448	CE-USA		0.15/1					H, HL	4.5	5.3	C and GS	
449	CE-USA		*0.15/1					H, HL, D	4.5	5.3	CE-USA (KCRC)	
450	USN	R	0.2/1	4.96	H10/18/51	- 1.23	H9/17/45	H, HL, D	3.4	4.0	CE-USA (KCRC)	*and other scales
451	CE-USA		.075/1					S			USGS (Ocala Dist)	
452	USGS	N	0.2/1	2.49	10/5/55	- 1.66	3/8/56	S	1.5	1.7	USGS (Ocala Dist)	
453	CE-USA	R	0.2/1	3.03	10/18/46	- 1.74	3/8/56	S	2.0	2.5	USGS (Ocala Dist)	
454	CE-USA	R	1/1	3.0	6/6/28	- 2.2	12/19/54	H, HL	2.0	2.3	C and GS	
455	CE-USA	R	*075/1	4.7	3/8/29	- 1.65	3/22/45	HL, D	2.0	2.3	CE-USA (Jack. Dist)	*and other scales
456	CE-USA	R	*.075/1								(before 1/3/49)	
457	CE-USA		.075/1					H, HL, D	1.5	1.7	KCRC	
458	CE-USA		.075/1					HL, D	5.2	6.0	CE-USA (KCRC)	*and other scales
459	CE-USA	R	.075/1					HL, D			CE-USA (KCRC)	
460	USGS	N	0.1/1	8.8	10/18/54	- 1.88	6/12/51	HL, D	4.2	5.0	CE-USA (Jack. Dist)	
461		N	1/1	4.8	H10/20/16	- 4.4	1/13/18	S	4.2	5.0	USGS (Ocala Dist)	
462		N	1/1	5.2	H10/15/39	- 4.4	1/24/40	H, HL	4.2	5.0	C and GS	
463	CE-USA		0.15/1					H, HL, D	4.1	4.9	C and GS	
											CE-USA (KCRC)	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Sta. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
464	N	Indian River, Titusville, Fla.	28°37'N.	80°46'W.	A	J	+10.0			11/5/40-8/24/42	CE-USA
465	N	Indian River, Titusville, Fla.	28°37'N.	80°48'W.	A	J	0.00	+12.8	- 3.0	8/24/45-11/8/46	USGS
466	N	Atlantic Ocean at Canaveral Harbor, Fla.	28°24'N.	80°36'W.	A	J	0.00	+11.2	- 4.2	9/11/51 to date	USGS
467	N	Banana River near Audubon, Fla.	28°26'N.	80°36'W.	A	I	0.00	+ 8.6	- 0.3	2/17/41 to date	USGS
468	N	Atlantic Ocean near Eau Gallie, Fla.	28°08'N.	80°35'W.	A	J	0.00	+10.0	- 4.5	2/18/41-6/24/54	USGS
469	N	Indian River at Melbourne, Fla.	28°05'N.	80°36'W.	A	J	0.00	+ 5.0	- 2.0	12/9/50-7/23/48	USGS
470	N	Indian River at Melbourne, Fla. on south side of west end of Melbourne Causeway Across IWW	28°05'N.	80°36'W.	A	J	0.00			12/5/40-8/21/43	CE-USA
471	N,0	Indian River at Sebastian, Fla.	27°50'N.	80°28'W.	A	J	0.00	+ 7.7	- 2.0	7/29/48-7/8/54	USGS
472	N,0	Indian River at Wabasso, Fla.	27°46'N.	80°25'W.	A	J	0.00	+ 8.6	- 1.7	11/5/40 to date	USGS
473	N,0	Vero Beach, Fla. On south side of bridge across IWW, 200 ft. from east end of bridge	27°39'N.	80°22'W.	A	J	0.00	+ 4.0	- 2.0	11/30/40-12/28/41	CE-USA
474	0	North Fork St. Lucie River, White City, Fla.	27°22'N.	80°21'W.	A	J	0.00	+ 8.4	- 3.0	11/28/41-7/15/48	USGS
475	0	St. Lucie Canal below lock near Stuart, Fla.	27°07'N.	80°17'W.	A	J	0.00	+13.5	- 3.0	10/14/52 to date	USGS
476	0	St. Lucie Canal below lock near Stuart, Fla., on downstream end of right lock wall of navigation lock	27°07'N.	80°17'W.	A	F	0.00	+23.5	- 3.0	11/3/48-1/2/51	USGS
477	0	Jupiter River at Jupiter, Fla.	26°57'N.	80°05'W.	A	J	0.00	+ 9.9	- 2.9	2/13/42 to date	CE-USA
478	P	Hillsboro Canal near Deerfield Beach, Fla. (Below control)	26°20'N.	80°08'W.	A	F	0.00	+15.2	- 1.1	5/24/44-9/17/47	USGS
479	P	Fort Lauderdale, Fla.	26°07'N.	80°09'W.	AF	J	- 5.1	+ 4.4	- 5.1	6/24/48-8/9/48	USGS
480	P	North New River Canal near Ft. Lauderdale, Fla.	26°06'N.	80°14'W.	A	F	0.00	+13.8	- 1.4	7/31/47 to date	C and GS
480A	P	Intracoastal waterway, Ft. Lauderdale, Fla. - on S. side of wooden dock on W. side of IWW at foot of S.E. 15th St.	26°06'N.	80°07'W.	A	J	0.0	+ 8.5	- 2.5	7/14/29-8/24/31	USGS
481	P	South New River at S-13 near Davie, Fla. (Below control)	26°04'N.	80°15'W.	A	F	0.00	+15.9	- 2.3	10/22/43 to date	CE-USA
482	P	Intracoastal Waterway at Hollywood, Fla.	26°01'N.	80°07'W.	A	J	0.00	+ 6.3	- 3.5	1/14/55 to date	USGS
483	P	Snake Creek Canal at S-29 North Miami Beach, Fla. (Below control)	25°56'N.	80°09'W.	A	F	0.00	+ 8.8	- 3.4	3/30/50-6/1/54	USGS
										6/4/47-6/9/48	USGS
										4/28/49 to date	USGS

- (1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.
- (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
- (3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
464	CE-USA	N	*.30/1	*5/1	2.32	10/9/53	- 0.78	4/21/56	H, HL, D			CE-USA (KCRC)	*and other scales
465	CE-USA		0.1/1	1/6				1/3/57	D			USGS (Ocala Dist)	Does not reflect ocean tides
466	USAF	R	0.1/1	1/12	4.50	11/11/54	- 3.94	7/10/56	D	3.5	4.1	USGS (Ocala Dist)	
467	USGS	N	0.2/1	1/6	3.28	9/26/48	- 0.45	6/13/7, 10, 15, 16, 20/45	D			USGS (Ocala Dist)	Does not reflect ocean tides
468	USGS	N	0.1/1	1/12	4.9	H9/22/48	- 4.0	4/7/54	S			USGS (Ocala Dist)	
469	USGS	N	0.1/2	1/10	2.1	10/10/43	- 0.8	2/13/44	D			USGS (Ocala Dist)	
470	CE-USA								H, HL, D			CE-USA (KCRC)	
471	USGS	N	0.5/1	2.4/1	4.48	H9/22/48	- 1.06	5/27/50	D			USGS (Ocala Dist)	
472	USGS	N	0.1/1	1/6	4.76	H9/22/48	- 1.18	5/6/53	D			USGS (Ocala Dist)	
473	CE-USA		*30/1	*1/1					H, HL, D			CE-USA (KCRC)	*and other scales
474	USGS	R	0.1/1	1/6	7.57	T9/23/47	- 1.32	2/23/53	D			USGS (Ocala Dist)	Max. unrecorded stage: about 12.5 ft. from info. By local residents, 10/24, continuous stage, Record starts 4/23/42
475	USGS	R	0.1/1	1/6					S			USGS (Ocala Dist)	*and other scales
476	CE-USA	R	*0.1/1	*2/1					H, HL, D			CE-USA (Jack. Dist)	Discharge data available
477	USGS	R	0.1/2	1/5	2.36	H10/18/44	- 1.02	3/8/45	HL	0.5		USGS (Ocala Dist)	*Estimated by obs. High stage due to fresh water runoff
478	USGS	R	0.1/1	1/6	*11.7	H10/12/47	- 1.21	3/24/52				USGS (Ocala Dist)	Records fragmentary 7/51/47-1/27/50
479	USGS	N	0.4/1	1.16-7/8	3.2	H9/28/29	- 2.1	8/3-4/29	HL	2.4	2.9	C and GS	Broken series
480	USGS	R	0.1/2	1/5	10.54	10/21/47	- 1.33	12/31/56	D			USGS (Ocala Dist)	Operation during hurricane season only, staff range -1.0' to 5.0' msl
480A	CE-USA	R	0.075/1	1/1					HL, D	2.4	2.9	CE-USA (Jac. Dist.)	
481	USGS		0.1/1	1/6	2.78	10/16/56	- 1.37	12/31/56	D			USGS (Ocala Dist)	
482			0.1/2	1/5	2.69	H10/18/50	- 1.09	2/18/53	HL			USGS (Ocala Dist)	
483			0.1/2	1/5	3.17	H10/11/47	- 1.32	2/8/56	D			USGS (Ocala Dist)	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
 (5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
 (6) Height: Inches per foot, ratio, etc.
 (7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
 (8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description Type of gage (1)	Type of mount (2)	Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.							
483A	P	Intracoastal Waterway, Bakers Haulover, Fla. on NE corner of Pier No. 1 on E. shore of IWW at Haulover Beach, N. of Miami Beach	25°54'N.	80°08'W.	A	J	0.0	+16.0	- 1.5	9/20/56 to date	CE-USA
484	P	Biscayne Canal at North Miami, Fla. (Below control)	25°54'N.	80°12'W.	A	L	0.00	+ 6.6	- 2.1	1940-1941	USGS
485	P	Little River Canal at NW 7th Ave., Miami, Fla. (Below control)	25°51'N.	80°13'W.	A	I	0.00	+ 6.8	- 1.9	5/14/47 to date 1940-1941	USGS
486	P	Little River Canal at NW 2nd Ave., Miami, Fla. (Below control)	25°51'N.	80°12'W.	A	L	0.00	+ 6.5	- 3.0	11/19/46-1/12/51 2/8/51 to date	USGS
487	P	Biscayne Bay at North Miami, Fla.	25°51'N.	80°10'W.	A	G	0.00	+ 8.7	- 2.1	5/24/47 to date	USGS
488	P	Miami Canal at NW 36th St., Miami, Fla.	25°48'N.	80°16'W.	A	G	0.00	+ 7.4	- 1.3	2/14/42-6/1/42	USGS
488A	P	Biscayne Bay at Miami, Fla., at bridge tender's house on S. side of MacArthur Causeway drawbridge across IWW	25°48'N.	80°10'W.	A	J	0.0	+14.0	- 3.0	1/30/43 to date 8/28/56 to date	CE-USA
489	P	Miami Canal at NW 27th Ave., Miami, Fla.	25°48'N.	80°14'W.	A	G	0.00	+ 7.1	- 4.0	10/25/45 to date	USGS
490	P	South Fork Miami River at NW 22d Ave., Miami, Fla.	25°47'N.	80°14'W.	A	L	0.00	+ 9.2	- 2.0	3/7/52 to date	USGS
491	P	Tamiami Canal at Red Road, Miami, Fla.	25°47'N.	80°17'W.	A	K	- 0.08	+ 8.5	- 0.9	3/9/40 to date	USGS
492	P	Tamiami Canal at F.E.C. Railway near Miami, Fla.	25°46'N.	80°19'W.	A	I	0.00	+ 8.2	- 1.0	6/5/47 to date	USGS
493	P	Miami Beach, Fla., Pier Gage	24°46'N.	80°08'W.	AF	J	- 3.4	+14.0	- 3.6	1931-1951	C and GS
493A	P	Biscayne Bay at Miami, Fla., - on N. side of West Bridge on Rickenbacker Causeway	25°45'N.	80°11'W.	A	J	0.0	+18.0	- 4.0	1955 to date 9/22/56 to date	CE-USA
494	P	Biscayne Bay at Coconut Grove, Fla.	25°43'N.	80°14'W.	A	K	0.00	+ 8.8	- 2.0	11/8/40 to date	USGS
495	P	Snapper Creek Canal nr. S. Miami, Fla.	25°40'N.	80°17'W.	A	I	0.00	+ 7.5	- 3.0	2/13/50 to date	USGS
496	P	Snapper Creek Canal at Coral Gables, Fla. (Below control)	25°40'N.	80°17'W.	A	L	0.00	+ 8.0	- 3.0	7/9/47-2/9/50	USGS
497	P	Coral Gables Canal at Red Road, Coral Gables, Fla. (Below control)	25°44'N.	80°17'W.	A	I	0.00	+ 8.0	- 3.0	6/5/47-6/23/48 3/10/50 to date	USGS

(1) Type of gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
483A	CE-USA	R	0.075/1	1/1					HL,D			CE-USA(Jack.Dist)	Operation during hurricane season only. Staff range -2.0' to 4.0' msl
484	USGS	R	0.1/2	1/5	4.41	H9/22/48	- 1.70	1/18/57	D			USGS (Ocala Dist)	
485	USGS		0.1/2	1/5	4.62	H10/11,15/47	- 1.36	4/6/50	D			USGS (Ocala Dist)	
486			0.1/2	1/5	3.24	10/2/51	- 1.58	1/18/57	D			USGS (Ocala Dist)	
487	USGS		0.1/2	1/5	4.4	H9/22/48	- 1.79	1/18/57	D			USGS (Ocala Dist)	
488			0.1/1	1/6	4.33	H10/15/47	- 0.24	2/9/45				USGS (Ocala Dist)	
488A	CE-USA	R	0.075/1	1/1					HL,D			CE-USA(Jack.Dist)	Operation during hurricane season only. Staff range -1.0' to 5.0' msl
489	USGS		0.1/2	1/5	4.57	H10/11/47	- 1.54	1/18/57				USGS (Ocala Dist)	
490			0.1/1	1/6	3.23	10/22/53	- 1.57	1/18/57				USGS (Ocala Dist)	
491			0.1/1	1/6	5.92	H10/15/47	- 0.60	3/22/45				USGS (Ocala Dist)	
492	USGS		0.1/2	1/6	8.26	H10/14/47	- 0.39	3/30/50	HL,D	2.5	3.0	USGS (Ocala Dist)	
493	CE-USA	R	1/1	1:12	5.1	H10/18/50	- 2.7	3/24/36	H,HL			C and GS	Operation during hurricane season only. Staff range -1.0' to 5.0' msl
493A	CE-USA	R	0.075/1	1/1					HL,D			CE-USA(Jack.Dist.)	Remoted to WBO (Miami)
494			0.1/1	1/6	3.88	H10/18/44*	- 1.56	2/7/43*	HL			USGS	Operated during hurricane season only. Staff range -2.0' to 4.0' msl. *For period 11/18/40 to 2/2/48- 9.9 ft., 9/15/45, from flood mark.
495	USGS	R	0.1/2	1/5	3.41	H10/17,18/40	- 1.64	1/18/57	D			USGS	
496			0.1/2	1/5	4.45	H9/21/48	- 0.87	6/10/49	D			USGS	
497	USGS	R	0.1/2	1/5	5.22	H10/11/47	- 0.79	6/29/50	D			USGS	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) High and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
498	P	Goulds Canal (Biscayne Bay), Fla.	25°32'N.	80°20'W.	A	I	0.00	+ 9.4	- 2.0	1/21/48 to date	USGS
499	P	Homestead (Biscayne Bay), Fla.	25°28'N.	80°20'W.	A	G	0.00	+ 6.3	- 2.9	2/15/46 to date	USGS
500	P	Military Canal near Homestead, Fla. (below control)	25°29'N.	80°21'W.	A	I	0.00	+10.3		2/12/48 to date	USGS
501	P	Florida City Canal near Florida City, Fla. (below control)	25°27'N.	80°21'W.	A	I	0.00	+ 9.0	- 2.4	2/6/50 to date	USGS
502	Q	Key West, Fla.	24°33'N.	81°48'W.	AF	J	- 4.9	+ 7.5	- 5.0	12/24/07-5/26/08 1/8/09-5/17/09	C and GS
503	Q	Everglades Barrow River, Fla.	25°51'N.	81°25'W.	AF	J	- 1.8	+12.0	- 1.8	1/18/13 to date	C and GS
504	Q	Naples, Fla.	26°08'N.	81°48'W.	AF	J	- 2.8	+ 9.0	- 4.0	12/27/28-4/27/31	C and GS
504A	Q	Naples, Fla. - on fishing pier which extends into ocean								5/19/33-6/14/34	USF and WL
505	Q	Punta Rassa, Fla.								early 1956 to date	Serv.
505A	Q	Fort Myers Beach, Fla.	26°29'N.	82°01'W.	AF	J	- 4.2	+ 5.0	- 4.2	1/11/27-1/14/29 5/11/33-6/13/34	C and GS
506	Q	Billy's Creek at Ft. Myers, Fla.	26°39'N.	81°51'W.	A	G	0.00	+ 5.6	- 1.9	2/9/44-5/5/55	USF and WL
507	Q	Caloosahatchee River at Ft. Myers, Fla.	26°43'N.	81°43'W.	A	I	0.00	+10.8	- 4.3	10/1/48-12/18/50	Serv.
508	Q	Caloosahatchee River at Alva, Fla.	26°43'N.	81°36'W.	A	I	0.00	+14.7	- 3.9	10/7/48-12/18/50	USGS
509	Q	Flacida, Fla.	26°50'N.	82°16'W.	A	I	0.00			5/12/47-6/2/48	USGS
510	Q	Manasota Bridge, Fla.	27°02'N.	82°26'W.	A	A	0.00			5/12/47-6/2/48	CE-USA
511	Q	Treasure Island Bridge, Venice, Fla.	27°08'N.	82°28'W.	A	A	0.00			5/12/47-6/2/48	CE-USA
512	Q	Bolees Creek, Fla.	27°25'N.	82°35'W.	A	A	0.00			5/12/47-6/2/48	CE-USA
513	Q	Anna Maria, Fla.	27°32'N.	82°44'W.	AF	J	- 5.1	+ 5.0	- 6.0	5/16/47-6/2/48	CE-USA
513A	Q	Anna Maria, Fla., on S. side of Anna Maria City pier at entrance to Tampa Bay	27°30'N.	82°43'W.	A	J	0.0	+10.0	- 3.0	4/27/33-6/9/34 10/8/56 to date	C and GS
514	Q	Egmont Key, Fla.	27°36'N.	82°46'W.	AF	J	- 3.5	+ 3.0	- 3.5	9/13/24-9/30/26	C and GS
515	Q	St. Petersburg, Fla.	27°46'N.	82°38'W.	AF	J	- 4.1	+ 8.0	- 7.1	7/28/24-11/1/26	C and GS
516	Q	Hillsborough Bay, Seddon Island, Tampa, Fla. in boat basin of wharf at C.E. Dredge Depot	27°57'N.	82°27'W.	A	J	0.00			12/17/46 to date	CE-USA
516A	Q	Hillsborough Bay near Tampa Fla. - on W. side of Hillsborough County public pier	27°51'N.	82°23'W.	A	J	0.0	+11.5	- 3.0	5/21/54 to date	CE-USA
517	Q	Long Bayou, St. Petersburg, Fla.	27°49'N.	81°46'W.	A	J	- 3.14	+ 6.9	- 2.7	10/7/56 to date	USGS
518	Q	Allen Creek near Clearwater, Fla.	27°56'N.	82°44'W.	A	J	- 2.00	+ 8.0	- 2.2	2/6/45-1949	USGS
519	Q	Spring Bayou, Tarpon Springs, Fla.	28°09'N.	82°46'W.	A	J	- 3.00	+ 6.4	- 2.6	2/6/45-1950 4/7/45 to date	USGS

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
498	USGS		0.1/2	1/5	5.23	H9/21/48	- 1.60	4/11/56	D			USGS	
499	USGS		0.1/2	1/5	4.93	H9/21/48	- 1.56	4/11/56	D			USGS	
500	USGS		0.1/2	1/5	5.01	H9/21/48	- 1.40	4/11/56	D			USGS	
501	USGS		0.1/2	1/5	3.9	10/14/56	- 1.35	4/11/56	D			USGS	
502	USN	R	1/1	1:6	3.3	H10/18/44	- 2.0	2/19/28	H,HL	1.3	1.6	C and GS	
503		N	1/1	1:9	6.1	H9/28/29	- 2.1	12/24/50	H,HL	2.0	2.5	C and GS	
504		N	1/1	1:9	3.3	H9/21/53	- 3.2	12/17/53	H,HL	2.1	2.6	C and GS	
504A		N	1/1	1:9	2.6	2/19/27	- 3.5	3/19/28	H,HL	1.7	2.6	USF and WL Serv.	
505		N	1/1	1:9	2.6	2/19/27	- 3.5	3/19/28	H,HL	1.7	2.3	C and GS	
505A		N	1/1	1:9	2.6	2/19/27	- 3.5	3/19/28	H,HL	1.7	2.3	USF and WL Serv.	
506	USGS		0.1/2	1/10	4.8	10/8/46	- 1.77	10/18/44	D	0.7	0.9	USGS	
507	USGS		0.1/1	1/6	8.2	1924	- 2.68	10/18/44	D			USGS	
508	USGS		0.1/1	1/6	13.3	1924	- 1.88	10/18/44	D			USGS	
509	CE-USA		0.15/1	1/1					H,HL,D			CE-USA (KCRC)	
510	CE-USA		0.15/1	1/1					H,HL,D			CE-USA (KCRC)	
511	CE-USA		0.15/1	1/1					H,HL,D			CE-USA (KCRC)	
512	CE-USA		0.15/1	1/1					H,HL,D			CE-USA (KCRC)	
513	CE-USA	N	1/1	1:9	2.6	H10/4-5/33	- 2.5	3/12/34	H,HL	1.4	1.9	C and GS	
513A	CE-USA	R	0.075/1	1/1					H,HL	1.4	1.9	CE-USA (Jack Dist)	Operation during hurricane season only, Staff range -3.0' to 7.0' msl
514		N	0.4/1	1:11-1/4	3.4	9/19/26	- 3.4	9/18/26	HL	1.3	1.7	C and GS	
515		N	1/1	1:9	4.3	H9/5/50	- 3.0	2/3/51	H,HL	1.4	1.6	C and GS	
516	CE-USA	R	0.075/1	1/1					HL,D	1.8	2.4	CE-USA (Jack Dist)	
516A	CE-USA	R	0.075/1	1/1					HL,D	1.8	2.4	CE-USA (Jack Dist)	
517			0.1/2	1/5	3.22	11/11/47	- 2.86	H9/8/47	S	1.8	2.4	USGS	
518			0.1/2	1/5	3.45	11/12/47	- 0.72	11/1/47	S	1.9	2.5	USGS	
519			0.1/2	1/6	4.19	11/11/47	- 2.60	2/3/51	S			USGS	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer

(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour

(6) Height: Inches per foot, ratio, etc.

(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.

(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero limit (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
520	Q	Indian Bay, Fla. (Aripeka)	28°27'N.	82°40'W.	AF	J	- 3.3	+ 7.0	- 2.8	4/18/33-6/8/34	C and GS
521	Q	Cedar Keys, Fla.	29°08'N.	83°02'W.	AF	J	- 3.4	+ 9.5	- 4.5	3/12/14-6/30/26	C and GS
522	Q	Suwannee River near Wilcox, Fla. (Lower)	29°30'N.	82°59'W.	A	I	Not determined	+16.9	0.0	9/8/38 to date	USGS
523	Q	Suwannee River near Wilcox, Fla. (Upper)	29°36'N.	82°56'W.	A	G	0.00	+23.7	0.0	2/1/51 to date	USGS
524	Q,R	St. Marks Lighthouse, Fla.	30°04'N.	84°11'W.	AF	J	- 3.4	+ 8.0	- 2.6	2/1/51 to date	C and GS
525	Q,R	St. Marks, Fla., SW corner of boat-house approximately 175' E. of post office	30°09'N.	84°12'W.	A	K	- 4.43	+12.1		4/6/33-6/4/34	CE-USA
526	Q,R	McIntyre, Fla., on US highway 319, at N. end of bridge over Ochlochoree River	30°00'N.	84°30'W.	A	J	- 5.01	+10.14		9/4/41 to date	CE-USA
527	Q,R	Carrabelle, Fla., 1 mile W. of town on U.S. Highway No. 98, 60' W. of bridge	29°51'N.	84°41'W.	A	G	- 4.2	+12.74	- 4.2	9/4/41 to date	CE-USA
528	Q,R	Apalachicola, Fla., DS corner of a "m" wharf used by US Coast Guard at foot of Ave. F.	29°44'N.	84°59'W.	A	J	- 3.22	+11.53	- 3.22	9/40 to date	CE-USA
529	Q,R	Brickyard Landing, Fla., 1/2 mile downstream from Brickyard Creek.	29°57'N.	85°01'W.	A	H	+1.10	+10.0	+ 1.10	5/11/50 to date	CE-USA
530	Q,R	White City, Fla., fastened to S. face of 4-pile fender dolphin at SE end of bridge 10' E. of E. end of bridge.	29°53'N.	85°14'W.	A	G	- 5.44	+14.5	- 5.44	9/9/40-2/13/42	CE-USA
531	Q,R	Overstreet, Fla., 6.0 mi. N. of junction of Overstreet road with US Highway No. 98 at Beacon Hill	30°00'N.	85°23'W.	A	I	- 2.55	+ 8.0	+ 0.5	9/14/40-12/31/41	CE-USA
532	Q,R	Panama City, Fla. (Beacon Beach Gage)	30°06'N.	85°39'W.	A	J	- 0.80			9/6/45-11/1/45	CE-USA
533	Q,R	Panama City, Fla. (City)	30°09'N.	85°40'W.	A	K	- 0.34			12/1/34 to date	CE-USA
534	Q,R	Panama City, Fla. (Gulf) on E. side of channel 1/2 mi. E. of entrance of Grand Lagoon	30°08'N.	85°43'W.	A		- 0.46			10/31/34-1/2/43	CE-USA
535	Q,R	West Bay, Fla. - 500' E. of S. end of Fla. State Highway No. 10 bridge across IWW Canal	30°18'N.	85°52'W.	A	J	- 4.73			9/9/40-2/13/42	CE-USA
536	Q,R	Point Washington, Fla. 1.2 mi. N. by road from junction of US Highway No. 98 with Point Washington road on E. side of Ferry Landing dock	30°23'N.	86°07'W.	A	J	- 3.67	+ 8.0	- 3.67	8/24/40-9/23/52	CE-USA

(1) Type of gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages	Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Spring tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)		chart (5)	scale (6)	Height (m.s.l.)	Date					
520		N	1/1	1:9	3.9	H9/5/53	- 3.2	H7/31/53	2.4	3.1	C and GS	
521		N	1/1	1:9	4.7	2/15/53	- 5.9	9/18/47	2.5	3.3	C and GS	
522	USGS	N	0.1/1	1:6	9.40	10/14/53	2.05	12/7/54			USGS	
523	USGS	N	0.1/1	1:6	22.32	4/14/48	0.82	12/7/54			USGS	
524		N	1/1	1:9	4.1	2/1/54	- 3.7	3/11/54	2.4	3.1	C and GS	
525	CE-USA	N(contract)	.075/1	1/1					2.4	3.1	CE-USA(Mob. Dist)	
526	CE-USA	N(contract)	.075/1	1/1					2.4	3.1	CE-USA(Mob. Dist)	
527	CE-USA	N(contract)	.075/1	1/1					1.6	2.1	CE-USA(Mob. Dist)	
528	CE-USA	N(contract)	.075/1	1/1							CE-USA(Mob. Dist)	
529	CE-USA	N(contract)	.075/1	1/1							CE-USA(Mob. Dist)	
530			.075/1	1/1							CE-USA(Mob. Dist)	
531			.075/1	1/1							CE-USA(Mob. Dist)	
532			.075/1	1/1							CE-USA(Mob. Dist)	
533		R	.075/1	1/1							CE-USA(Mob. Dist)	
534	CE-USA		.042/1	1.2/1						1.3	CE-USA(Mob. Dist)	
535			.075/1	1/1						1.3	CE-USA(Mob. Dist)	
536			.075/1	1/1						1.5	CE-USA(Mob. Dist)	
* Beginning with Station 531 Diurnal Tide Range												

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Sta. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
537	R	Destin, Fla.	30°24'N.	86°31'W.	AF	J	- 3.7	+ 5.3	- 5.7	6/11/41-11/21/41	C and GS
537A	R	Destin, Fla., Okaloosa County, at concrete bridge over East Pass on US Highway No. 98	32°24'N.	86°31'W.	AF	G	- 3.21	- Height of well	- 3.21	1/17/47-6/23/47	CE-USA
538	R	Fort Walton, Fla., gage inside N. row of fender piling on S. side of channel, 5' W. of bridge	30°24'N.	86°36'W.	A	G	- 3.62	+10.0	- 3.62	10/24/56 to date	CE-USA
539	R	Camp Mavarre, Fla., 24 miles E. of Pensacola along State Hwy. No. 83 on wharf on N. shore Santa Rosa Sound	30°24'N.	86°53'W.	A	J	- 2.51	+ 7.5	- 2.51	8/20/40-1/31/42	CE-USA
540	R	Escambia River near Gonzalez, Fla.	30°37'N.	87°15'W.	A	I	0.00	+16.1	- 2.0	8/17/51 to date	USGS
541	R	Pensacola, Fla. (City)	30°24'N.	87°13'W.	AF	J	- 8.6	+14.0	- 2.6	4/30/23 to date	C and GS
542	R	Pensacola, Fla. (Gulf) 17 mi. SW of, along State Hwy. No. 93 to bridge over IHW	30°19'N.	87°26'W.	A	J	- 3.10	+12.87	- 3.10	8/17/40 to date	CE-USA
543	S	Roans, Ala., 10 mi. SE of Foley, at Hlgton Fishing Camp on IHW	30°18'N.	87°39'W.	A	I	- 3.09	+ 8.0	- 3.09	8/14/40-3/26/42	CE-USA
544	S	Flash Landing SW of Bon Secour, Ala., in IHW, midway between Oyster Bay and Bon Secour Bay	30°18'N.	87°45'W.	A	J	- 2.86	+ 6.0	- 2.86	8/14/40-2/4/42	CE-USA
545	S	Fort Morgan, Ala.	30°14'N.	88°01'W.	A	J	- 3.10	+ 9.0	- 3.10	3/28/40-1/29/43	CE-USA
546	S	Fort Gaines on Dauphin Island, Ala., 100' W. of Old Ferry Landing	30°15'N.	88°05'W.	AF	J	- 3.05	+ 5.0	0.0	10/13/38-10/29/39	CE-USA
547	S	Sizemore Landing, Ala., Tensas River	30°52'N.	87°54'W.	A	J	- 0.83	+10.0	- 3.0	9/15/56 to date	CE-USA
548	S	Lock No. 1, Tombigbee River near Leroy, Ala.	31°34'N.	88°02'W.	B	F	- 7.28	+41.0	- 3.0	10/30/51-11/29/55	USWB
549	S	Lock No. 1, near Leroy, Ala., on Tombigbee River	31°34'N.	88°02'W.	A	F	- 7.28	+45.0	- 3.0	7/7/54 to date	CE-USA
550	S	Lock No. 1, near Leroy, Ala., on Tombigbee River	31°34'N.	88°02'W.	B	F	- 7.28	+52.0	- 7.28	1910 to date	CE-USA
551	S	Jackson, Ala., on U. S. Hwy. No. 43 bridge over Tombigbee River	31°30'N.	87°55'W.	A	J	- 7.28	+47.0	- 3.0	10/19/54 to date	CE-USA
552	S	Dixie Landing - Little River, Ala., on left bank of Ala. River just below entrance of Little River (Int. Paper Co. loading dock)	31°18'N.	87°46'W.	A	G	- .01	+27.0	0.00	12/13/55 to date	CE-USA
553	S	Mount Vernon, Ala. at boat landing of Ft. Stoddard Fishing Camp	31°06'N.	87°58'W.	A	J	- 1.89	+10.0	- 1.89	11/19/45-1/9/46	CE-USA
554	S	Barry Steam Plant, Ala., Mobile River	31°01'N.	88°01'W.	A	I	- 1.91	+13.32	- 1.91	8/8/51-1/15/53	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Sta. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
537		N	0.4/1	1:11-1/4	1.8	10/2/41	- 0.4	8/16/41	HL		0.6	C and GS	Staff range 0' to 16.92' m.s.l.
537A			0.1/1	1/1					H,HL,D		0.6	CE-USA(Mob.Dist)	
538			.075/1	1/1					H,HL,D			CE-USA(Mob.Dist)	Remoted to USWB
539	USGS		.075/1	1/1	8.19	4/17/45	- 2.18	3/27/55	H,HL,D			CE-USA(Mob.Dist)	
540			0.1/1	1/6	8.5	10/20/26	- 2.6	1/6/24	S		1.3	USGS	Staff range 0' - 6' m.s.l. *and other scales
541	USWB	N	1/1	1:9					H,HL		1.3	C and GS	
542	CE-USA	N(contract)	.075/1	1/1					H,HL,D			CE-USA(Mob.Dist)	Read once daily Wire weight gage also
543			.075/1	1/1					H,HL,D			CE-USA(Mob.Dist)	
544			.05/1	1.2/1					H,HL,D		1.2	CE-USA(Mob.Dist)	
545			.075/1	1/1					H,HL,D		1.5	CE-USA(Mob.Dist)	
546			*0.1/1	1/1					H,HL,D			CE-USA(Mob.Dist)	
547	USWB	V	.075/1	1/1	7.8	4/51	6.3	11/11	H,HL,D	1.0	31	CE-USA(Mob.Dist)	Staff range 0' - 6' m.s.l. *and other scales
548	CE-USA	R(Lockmaster)	1/1	1/1	51.8	5/74			H,HL,D			WBO (Mob., Ala.)	
549	CE-USA	R(Lockmaster)	1/1	1/1	33.2	4/51			H,HL,D			CE-USA(Mob.Dist)	Read once daily Wire weight gage also
550	CE-USA		1/1	1/1					H,HL,D			CE-USA(Mob.Dist)	
551			1/1	1/1					H,HL,D			CE-USA(Mob.Dist)	
552			.075/1	1/1	25.1	4/51			H,HL,D			CE-USA(Mob.Dist)	
553			.075/1	1/1	14.4	4/51			H,HL,D			CE-USA(Mob.Dist)	
554			.075/1	1/1	12.0	4/51			H,HL,D			CE-USA(Mob.Dist)	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.) (3)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
555	S	L. and N. Railway Bridge over Mobile River, Ala.	30°50'N.	87°57'W.	A	G	- 0.83	+ 6.6	- 3.3	8/26/52-10/14/55	CE-USA
556	S	Mobile, Ala. - State Docks (Pier A, S.)	30°42'N.	88°02'W.	A	J	- 0.83	+13.0	- 0.83	8/23/40 to date	CE-USA
557	S	Mobile, Ala.	30°41'N.	88°02'W.	AF	J	- 2.8	+ 8.5	- 3.5	3/2/33-7/1/37	C and GS
558	S	Cedar Point, Ala., Gage on wharf behind State Conservation Laboratory	30°21'N.	88°08'W.	A	J	- 3.05	+ 6.72	- 3.05	8/6/52 to date	CE-USA
559	S	Pascagoula, Miss. at Ingalls Shipyard on outfitting dock	30°22'N.	88°34'W.	A	I	0.00	+ 7.0	- 3.0	7/18/40 to date	CE-USA
561	S	Gulf of Mexico, Biloxi, Miss.	30°24'N.	88°51'W.	A	I	- 6.08	14-15		9/81-6/10/85	CE-USA
562	S	Bay St. Louis, Miss.	30°19'N.	89°20'W.	A	I	- 4.35	+13.54	- 4.35	10/28/95 to date	CE-USA
563	S	Pearl River, La. - Pearl River	30°23'N.	89°45'W.	D	I	+ 0.36			3/19/41-7/26/42	CE-USA
564	S	The Rigolets near Lake Pontchartrain	30°10'N.	89°44'W.	A	J	-10.08	8-9		1906 to date	USWB
565	S	Lake Pontchartrain at Hwy. 11 (South Draw)	30°10'N.	89°51'W.	A	J	-10.0	19-20		9/31 to date	CE-USA
566	S	Lake Pontchartrain at Little Woods, La.	30°05'N.	89°57'W.	B	I	- 9.9	+ 8.1	- 1.9	5/49 to date	CE-USA
567	S	IWW at Paris Road Bridge, New Orleans, La.	30°01'N.	89°56'W.	B	J	- 0.78	+ 6.2	- 2.8	9/28/31 to date	CE-USA
568	S	Bayou Yacloskey (Lake Borgne) Shell Beach, La.	29°52'N.	89°40'W.	A	J	0.00	+ 7		6/27/44-10/9/44	CE-USA
569	S	Miss. River, Chalmette, La.	29°57'N.	90°00'W.	A	J	- 2.22	+25	+11	4/16/48 to date	CE-USA
570	S	Miss. River at Saxonholm, La. (H.W. 13)	29°55'N.	89°56'W.	C	I	0.00	+19		7/7/48 to date	CE-USA
571	S	Miss. River near Naval Depot (H.W. 12)	29°53'N.	89°57'W.	C	I	0.00	+18	+10	10/25/23 to date	CE-USA
572	S	Miss. River at Scarsdale, La. (H.W. 11)	29°51'N.	89°59'W.	C	I	0.00	+19	+ 9	Most years 1912 to date	CE-USA
573	S	Miss. River near La Grange, La. (H.W. 9)	29°44'N.	90°00'W.	C	I	0.00	+18	+ 8	Most years 1912 to date	CE-USA
574	S	Miss. River near Phoenix, La. (H.W. 8)	29°39'N.	89°57'W.	C	I	0.00	+17	+ 7	Most years 1912 to date	CE-USA
575	S	Miss. River near Harlem, La. (H.W. 7)	29°37'N.	89°54'W.	C	I	0.00	+14	+ 7	Most years 1912 to date	CE-USA
576	S	Miss. River near Woodland, La. (H.W. 6)	29°35'N.	89°50'W.	C	I	0.00	+16	+ 6	Most years 1912 to date	CE-USA
577	S	Miss. River at West Pointe a la Hache, La.	29°34'N.	89°48'W.	A	I	- 0.06	+10		2/24/26 to date	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks		
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date							
555	CE-USA	R	.075/1	1/1	10.8	H7/5/16	-10.5	9/20/26	H, HL, D H, HL, D H, HL		1.5 1.5	CE-USA (Mob. Dist) CE-USA (Mob. Dist) C and GS	Records for 1933-1937 only		
556			.075/1	1/1											
557			1/1	1.9											
558	CE-USA	N	.075/1	1/1	20.2	1874	1.18	10/30/52	H, HL, D H, HL, D H, HL, D H, HL, D H, HL, D	*	1.6 1.8 1.6	CE-USA (Mob. Dist) CE-USA (Mob. Dist) CE-USA (N.O. Dist) CE-USA (Mob. Dist) WFO (Jack. Miss.)	*Slight tide effect at low water, flood stage 12' m.s.l.		
559			.075/1	1/1											
561			.10/1	1/1											
562			.075/1	1/1											
563	USWB	N													
564	CE-USA	N	.075/1	1/1					H, HL, D H, HL, D *		1.3	CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist)	*Gage read 8:00 a.m. and 1:00 p.m.		
565			.075/1	1/1											
566			.075/1	1/1											
567	CE-USA	R	.075/1	1/1					H, HL, D H, HL, D			CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist)	No records		
568			.075/1	1/1											
569			.075/1	1/1											
570	CE-USA	R	0.10/1	2/1					H, HL, D			CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist) CE-USA (N.O. Dist)	No records No records No records No records No records No records No records No records No records No records No records No records No records No records No records No records No records		
571															
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(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
578	S	Miss. River at Bohemia, La. (H. W. 5)	29°33'N.	89°16'W.	C	I	0.00	+12	+6	Most years 1912 to date	CE-USA
579	S	Miss. River near Port Sulphur, La. (H.W. 4)	29°29'N.	89°42'W.	C	I	0.00	+13	+3	Most years 1912 to date	CE-USA
580	S	Miss. River near Nairn, La. (H.W. 3)	29°27'N.	89°37'W.	C	I	0.00	+15	+5	Most years 1912 to date	CE-USA
581	S	Miss. River near Empire, La. (H.W. 2)	29°24'N.	89°36'W.	C	I	0.00	+14	+4	Most years 1912 to date	CE-USA
582	S	Miss. River at Buras, La. (H.W. 1)	29°22'N.	89°31'W.	C	I	0.00	+11	+4	Most years 1912 to date	CE-USA
583	S	Miss. River at Fort Jackson, La.	29°21'N.	89°26'W.	B	J	-1.68	+10.3	-2.7	2/23/91 to date	CE-USA
584	S	Miss. River near Boothville, La. (H.W. "A")	29°19'N.	89°24'W.	C	I	0.00	+9	+4	Most years 1912 to date	CE-USA
585	S	Miss. River at Venice, La.	29°17'N.	89°21'W.	A	J	0.00	+10		2/44 to date	CE-USA
586	S	Miss. River at Venice, La. (H.W. "B")	29°16'N.	89°21'W.	C	J	0.00	+10	0.00	Most years 1912 to date	CE-USA
587	S	Miss. River Passes at Wilder Flat	29°15'N.	89°18'W.	A	A	0.00			1/39-3/43	CE-USA
588	S	Miss. River Passes at Head of Cubits Gap	29°12'N.	89°16'W.	A	A	0.00			11/43-4/53	CE-USA
589	S	Miss. River, Pilot Town, La. (H. W. "C")	29°11'N.	89°15'W.	C	J	0.00	+8	+2	Most years 1912-1939	CE-USA
590	S	Miss. River at Pilot Town, La.	29°10'N.	89°15'W.	A	A	0.00			1926-10/43	CE-USA
591	S	Miss. River at Head of Passes, La.	29°09'N.	89°15'W.	A	A	0.00	+11		11/75-9/16/47 3/48-to date	CE-USA
592	S	Miss. River Passes at Pass A' Loutre (Gage No. 3)	29°10'N.	89°15'W.	A	A	0.00			1/41-2/43	CE-USA
593	S	Miss. River Passes, Head of S. E. Pass, Pass A' Loutre	29°10'N.	89°10'W.	A	A	0.00			7/42-10/43	CE-USA
594	S	Miss. River Passes (Main Pass) at mouth	29°19'N.	89°11'W.	A	A	0.00			11/43-1/53	CE-USA
595	S	Miss. River Passes (North Pass) at mouth	29°12'N.	89°01'W.	A	A	0.00			7/42-4/53	CE-USA
596	S	Miss. River at Head of Passes (South Pass)	29°08'N.	89°15'W.	A	A	0.00			11/43-1/53	CE-USA
597	S	Miss. River at South Pass (Gage No. 12)	29°04'N.	89°15'W.	A	A	0.00			11/75-11/43	CE-USA
598	S	Miss. River Passes at Garden Island Bay, La. (Gage No. 15)	29°01'N.	89°09'W.	A	A	0.00			1/41-10/43	CE-USA
599	S	Miss. River Passes at Port Eads, La. (Gage No. 13)	29°01'N.	89°10'W.	A	A	0.00			1/41-2/43	CE-USA
600	S	Port Eads, La.	29°01'N.	89°10'W.	AF	J	-6.3	+5.0	-5.0	8/4/39-10/3/41	C and GS
601	S	Gulf of Mexico (S. Pass Bar) Port Eads, La.	29°00'N.	89°09'W.	A	K	0.00	+10		2/15/39 to date	CE-USA
602	S	Miss. River Passes, SW Pass, La. (Gage No. 5)	29°08'N.	89°15'W.	A	A	0.00			1/41-2/43	CE-USA
603	S	Miss. River Passes, SW Pass, Mile 5 (Gage No. 6)	29°05'N.	89°16'W.	A	A	0.00			4/38-2/43	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
578												CE-USA(N.O.Dist.)	No records
579												CE-USA(N.O.Dist.)	No records
580												CE-USA(N.O.Dist.)	No records
581												CE-USA(N.O.Dist.)	No records
582	CE-USA	N							*			CE-USA(N.O.Dist.)	No records
583												CE-USA(N.O.Dist.)	*Read daily at 8:00 a.m. and 4:00 p.m.
584												CE-USA(N.O.Dist.)	No records
585	CE-USA	R	.075/1	1/1					H,HL,D			CE-USA(N.O.Dist.)	No records
586												CE-USA(N.O.Dist.)	Discharge data available
587												CE-USA(N.O.Dist.)	No records
588												CE-USA(N.O.Dist.)	No records
589	CE-USA	R							H,HL,D			CE-USA(N.O.Dist.)	No records
590												CE-USA(N.O.Dist.)	No records
591	CE-USA	R	.075/1	1/1					H,HL,D			CE-USA(N.O.Dist.)	No records
592										0.9		CE-USA(N.O.Dist.)	No records
593										1.2		CE-USA(N.O.Dist.)	No records
594										1.2		CE-USA(N.O.Dist.)	No records
595												CE-USA(N.O.Dist.)	No records
596												CE-USA(N.O.Dist.)	No records
597												CE-USA(N.O.Dist.)	No records
598												CE-USA(N.O.Dist.)	No records
599												CE-USA(N.O.Dist.)	No records
600	CE-USA	R	1/1	1.6					H,HL,D			CE-USA(N.O.Dist.)	No records
601	CE-USA	R	.075/1	1/1	1.6	9/20/40	- 2.3	1/25/40	H,HL,D			CE-USA(N.O.Dist.)	No records
602									H,HL,D			CE-USA(N.O.Dist.)	No records
603									H,HL,D			CE-USA(N.O.Dist.)	No records

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer

(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour

(6) Height: Inches per foot, ratio, etc.

(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.

(8) Data Reduction: (H) Hourly values; (HL) Highs and Lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
604	S	Miss. River Passes, SW Pass, Mile 10 (Gage No. 7)	29°01'N.	89°20'W.	A		0.00			3/38-10/43	CE-USA
605	S	Gulf of Mexico at East Bay, La.	29°01'N.	89°10'W.	A		0.00			7/95-10/43	CE-USA
606	S	Miss. River Passes, SW Pass, West Bay (Gage No. 11)	25°58'N.	89°24'W.	A		0.00			1/39-10/43	CE-USA
607	S	Miss. River Passes (SW Pass) at Burrwood Bayou	28°56'N.	89°23'W.	A		0.00			1/41-1/53	CE-USA
608	S	Miss. River, SW Pass, Burrwood, La.	28°58'N.	89°23'W.	A	J	0.00	+ 6		8/15-12/23	CE-USA
609	S	Miss. River, SW Pass, East Jetty, La.	28°44'N.	89°25'W.	A	I	0.00	+ 9		1/26 to date	CE-USA
610	S,T	Bayou Rigaud, La.	29°16'N.	89°58'W.	AF	J	- 4.7	+ 8.0	- 4.7	1926 to date	CE-USA
611	S,T	Rumble Oil Platform "A," La.	29°10'N.	89°55'W.	AF	J	- 8.7	+ 6.0	- 6.0	8/2/47 to date	C and GS
612	T	Lake Pontchartrain at Mandeville, La.	30°21'N.	90°04'W.	E	I	2.92	+10.9		1/26/49 to date	C and GS
613	T	Lake Pontchartrain at Mandeville, La.	30°21'N.	90°04'W.	A	I	-10.08	+12		No record	CE-USA
614	T	Lake Pontchartrain at West End, La.	30°02'N.	90°07'W.	A	K	-10.0	+18		9/26/31 to date	CE-USA
615	T	Lake Pontchartrain at Pumping Station No. 3 (Jefferson Parish)	30°02'N.	90°13'W.	A		0.00			9/25/31-11/30/46	CE-USA
616	T	Lake Pontchartrain at Frenier, La.	30°06'N.	90°25'W.	A	I	-10.08	+16		3/9/49 to date	CE-USA
617	T	Tickfaw River at Rome Ferry, La.	30°22'N.	90°33'W.	A	J	0.00	+11		12/47 to date	CE-USA
618	T	Pass Manchac at Manchac, La.	30°17'N.	90°24'W.	E	J	2.00	+12		No record	CE-USA
619	T	Pass Manchac at Manchac, La.	30°17'N.	90°24'W.	B	J	0.00	+ 8	- 2	7/55 to date	CE-USA
620	T	Amite River at Clivio, La.	30°18'N.	90°37'W.	E	J	0.00	+12		No record	CE-USA
621	T	Pettite Amite River, Jct. New River Canal	30°11'N.	90°43'W.	A	H	0.00	+ 6		3/10/50-10/31/50	CE-USA
622	T	Bayou Pierre near St. Paul, La.	30°15'N.	90°46'W.	A	I	0.00	+ 9		1/16/51-5/31/51	CE-USA
623	T	Amite River, French Settlement, La.			A		0.00			10/5/51 to date	CE-USA
624	T	Amite River, Port Vincent, La.			A		0.00			5/26/49-1/12/50	State
625	T	Amite River at mouth Bayou Manchac, La.			A		0.00			1/15/50 to date	State
626	T	Bayou Manchac at mouth Alligator Bayou nr. Kleinpeter, La.			A		0.00			12/15/54 to date	State
627	T	Citrus No. 10, Haynes Blvd. and Citrus Canal, New Orleans, La.	30°05'N.	89°59'W.	B	K	-21.3	+ 6.7	- 1.3	1/29/55 to date	S and WB
628	T	IWW (Inner Harbor Nav. Canal Lock) Lake End (New Orleans, La.)	29°58'N.	91°01'W.	B	F	-32.2	+ 7.8	- 2.2	1900 to date	CE-USA
629	T	IWW (Inner Harbor Nav. Canal) Florida Ave. Bridge (New Orleans, La.)	29°58'N.	91°01'W.	B	J	- 20.6	+ 7.5	- 2.6	5/17/22 to date	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of pilings; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil wall platform.
 (3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
604									H, HL, D		1.1	CE-USA (N.O. Dist.)	
605									H, HL, D		1.1	CE-USA (N.O. Dist.)	
606									H, HL, D		1.1	CE-USA (N.O. Dist.)	
607									H, HL, D		1.1	CE-USA (N.O. Dist.)	
608									H, HL, D		1.1	CE-USA (N.O. Dist.)	
609	CE-USA	R	.075/1	1/1					H, HL, D		1.1	CE-USA (N.O. Dist.)	Discharge data available
610	CE-USA	R	.075/1	1/1					H, HL, D		1.0	C and GS	Discharge data available
611	Humble Oil	N	1/1	1:9	4.3	H9/19/47	- 1.7	2/3/51	H, HL		1.4	C and GS	
612									H, HL				
613									H, HL, D				
614	CE-USA	R	0.10/1	1/1					H, HL, D				No records
615	CE-USA	R	.075/1	1/1	4.4	H9/25/53	- 2.1	11/22/49	H, HL, D				
616	CE-USA	R	0.10/1	1/1					H, HL, D				
617	CE-USA	R	0.10/1	2/1					H, HL, D				
618	CE-USA	R	0.10/1	2/1					H, HL, D				
619	CE-USA	R							HL, D				No records
620													Readings at 8:00 a.m. and 4:00 pm
621	CE-USA	R	0.10/1	2/1					H, HL, D				No records
622	CE-USA	N	.075/1	1/1					H, HL, D				Discharge data available
623	State	R	.075/1	1/1					H, HL, D				CE-USA (N.O. Dist.)
624	State	R	.075/1	1/1					H, HL, D				Discharge data available
625	State	R	.075/1	1/1					H, HL, D				Discharge data available
626	State	R	.075/1	1/1					H, HL, D				Discharge data available
627	S and WB	R	.05/1	2.4/1					H, HL, D				Discharge data available
628	CE-USA	R							HL, D				Hourly readings
629	CE-USA	R							HL, D				Read 8:00 a.m. Read 8:00 a.m.

- (4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc.
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
630	T	Bayou Bienvenue Pumping Sta. No. 5, Jordan and Florida Ave., New Orleans, La.	29°59'N.	90°01'W.	B	K	-21.5	+5.5	-3.5	1/46 to date	CE-USA
631	T	IW (Inner Harbor Nav. Canal Lock) River End, New Orleans, La.	29°58'N.	91°01'W.	B	F	-20.5	+23.5	-0.5	5/17/22 to date	CE-USA
632	T	Miss. River at Algiers, La.	29°57'N.	90°02'W.	B	J	-2.6	+18.7	-1.3	1/02-5/22 2/39-12/43 1900 to date	CE-USA
633	T	Miss. River at Water Purification Plant Wharf	29°55'N.	90°04'W.	AF	J	-1.0	+20.0	-4.0	4/30/56-12/31/54	S and WB
634	T	New Orleans, La.	29°55'N.	92°05'W.	B	F	-0.78	+23.2	-0.8	1/1/24 to date	C and GS
635	T	IW Harvey Lock (River End) New Orleans, La.	29°54'N.	92°05'W.	B	F	-0.78	+7.2	-2.8	1/1/25 to date	CE-USA
636	T	IW Harvey Lock (Canal End) New Orleans, La.	29°47'N.	90°01'W.	C	I	0.00	+17	+9	Most years, 1912 to date	CE-USA
637	T	Miss. River near Bertrandville, La. (H.W. 10)	30°02'N.	90°05'W.	AF	F	-20.43	+7.6	+9	Approx. 1929 to date	N.O.L.B.
638	T	Bayou St. John Lock, Bayou St. John and Robert E. Lee Blvd., New Orleans, La.	29°57'N.	90°08'W.	C	I	-0.05	+21	-1	1/12/72 to date	CE-USA
639	T	Miss. River at Carrollton, La.	29°57'N.	90°08'W.	A	J	0.00	+21	-1	1/1/57 to date	CE-USA
639A	T	Miss. River at New Orleans (Carrollton), La.	29°56'N.	90°11'W.	C	I	0.00	+25	+15	Most years, 1912 to date	CE-USA
640	T	Miss. River near Harehan, La. (H.W. 15)	29°44'N.	90°08'W.	A	J	-0.78	+9	+9	1/6/50-9/26/50 11/2/51 to date	CE-USA
641	T	Bayou Barataria below Junction Bayou Villars, La.	29°40'N.	90°06'W.	B	J	0.00	+7	-2	10/19/55 to date	CE-USA
642	T	Bayou Barataria near Lafitte, La.	29°43'N.	90°16'W.	A	A	-1.56	+7	-2	Jan.-Dec. 1950	CE-USA
643	T	Lake Salvador West of Barataria, La.	29°15'N.	90°13'W.	A	L	0.00	+7	+7	11/3/55 to date	CE-USA
644	T	Bayou Lafourche, Leeville, La.	29°05'N.	91°13'W.	A	A	-0.78	+7	+7	5/49-1/55	CE-USA
645	T	Bayou Lafourche near mouth, Belle Pass, La.	29°36'N.	90°43'W.	A	J	-0.76	+9	+9	7/18/41-3/25/45 11/6-19/45 2/27/46 to date	CE-USA
646	T	IW Houma, La.	29°34'N.	90°43'W.	C	I	0.00	+6.2	-3.8	7/35-5/44 1/27/53 to date	CE-USA
647	T	Bayou Black, at Houma No. 1, La.	29°24'N.	90°47'W.	B	I	-0.78	+6.2	-3.8	7/35-6/42 7/35-5/44 7/35-6/42	U.G.P.L. Co.
648	T	Fohs Canal nr. Bayou Du Large, La.	29°34'N.	90°48'W.	C	C	0.00	+6.2	-3.8	7/35-5/44 7/35-6/42	CE-USA
649	T	Bayou Black, St. Anthony Church, La.	29°38'N.	90°57'W.	C	C	0.00	+6.2	-3.8	7/35-5/44 7/35-6/42	CE-USA
650	T	Bayou Black, Mandalay, La.	29°36'N.	90°51'W.	C	C	0.00	+6.2	-3.8	7/35-5/44 7/35-6/42	CE-USA
651	T	Bayou Black, Arseneaux, La.					0.00	+6.2	-3.8		CE-USA
652	T	Bayou Black, Humphreys, La.					0.00	+6.2	-3.8		CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
630	CE-USA	R							HL,D			CE-USA(N.O.Dist.)	Read 8:00 a.m.
631	S and WB	R							HL,D			CE-USA(N.O.Dist.)	Read 8:00 a.m.
632		R							HL,D			Sewerage and Water Bd., New Orleans, La.	Read 6:00 a.m.
633		N	1/1	1:12	21.0	2/10-13/50	- 1.1	1/25/40	H,HL		*0.8	C and CS	*No tide at high river stages
634	CE-USA	R							HL,D			CE-USA(N.O.Dist.)	Read 8:00 a.m.
635	CE-USA	R							HL,D			CE-USA(N.O.Dist.)	Read 8:00 a.m.
636	Lock Operator	R	.042/1	1.2/1	5.6	10/19/47			H,HL,D			N.O. Levee Board	No records
637	CE-USA	N							HL,D			CE-USA(N.O.Dist.)	Read 8:00 a.m.; during high water only since 12/31/56. Discharge data available.
638			0.10/1	1/1					H,HL,D			CE-USA(N.O.Dist.)	Discharge data available
639A	CE-USA	R	0.10/1	1/1					H,HL,D			CE-USA(N.O.Dist.)	No records
640	CE-USA	N	.075/1	1/1					H,HL,D			CE-USA(N.O.Dist.)	No records
641	CE-USA	N							HL,D			CE-USA(N.O.Dist.)	Read 4:00 p.m.
642	CE-USA	N							HL,D			CE-USA(N.O.Dist.)	
643	CE-USA	N	.075/1	1/1					HL,D			CE-USA(N.O.Dist.)	
644	CE-USA	N	0.10/1	1/1					H,HL,D			CE-USA(N.O.Dist.)	
645	CE-USA	R	.075/1	1/1					H,HL,D			CE-USA(N.O.Dist.)	
646	U.G.P.L.Co.	R							H,HL,D			CE-USA(N.O.Dist.)	
647									H,HL,D			United Gas Pipe Line Co. P.O. Box 1628, N. O., La.	
648									H,HL,D			CE-USA(N.O.Dist.)	
649												CE-USA(N.O.Dist.)	
650												CE-USA(N.O.Dist.)	
651												CE-USA(N.O.Dist.)	
652												CE-USA(N.O.Dist.)	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
653	T	Bayou Black, Greenwood, La.	29°37'N.	90°54'W.	C	J	0.00	+ 8	- 2	Intermittently, July 15, 1935-42	CE-USA
654	T	Bayou Black, Gibson, La.	29°41'N.	90°59'W.	C	J	0.00	+ 7	- 3	Intermittently, July 15, 1935-42	CE-USA
655	T	Bayou Black, S. E. Lake Bridge, La.	29°40'N.	91°02'W.	C	I	0.00	+ 8	- 2	Intermittently, July 11, 1935-42	CE-USA
656	T	Bayou Chene, Bayou Black Settlement, La.	29°38'N.	91°05'W.	B		0.00	+ 9	- 1	Intermittently, 7/35-3/37	CE-USA
657	T	Bayou Boeuf, U.S. Hwy. 90, nr. Amelia, La.	29°40'N.	91°06'W.	A	J	0.00	+ 7	- 2	Daily, 6/37-7/54	CE-USA
658	T	Bayou Penchant Junction, Bayou Shaffer, La.	29°37'N.	91°11'W.	C	I	0.00	+ 8	- 2	Intermittently, 2/29/32-1942	CE-USA
659	T	Lower Atchafalaya River below Berwick, La.	29°40'N.	91°14'W.	C	I	0.00	+ 8	- 2	Intermittently, 7/11/35-1942	CE-USA
660	T	Lower Atchafalaya River at Morgan City, La.	29°42'N.	91°13'W.	A	J	- 2.94	+20	- 2	April, May, June, Nov., 1945	CE-USA
661	T	Morgan City, La., Atchafalaya River	29°42'N.	91°13'W.	A	J	+15.0	+15.0	- 2.0	No record	USWB
662	T	Vermillion River, Broussard Bridge, La.	30°09'N.	92°05'W.	A	J	- 0.78	+11	- 2.0	1904 to date	CE-USA
663	T	Coulee Isle de Cannes, U.S. Hwy. 167	30°07'N.	92°06'W.	C	J	- 0.78	+25.2	- 1.8	3/17/48 to date	CE-USA
664	T	Vermillion River, Milton, La.	30°04'N.	92°05'W.	C	J	- 0.78	+16.2	- 2.8	1947-1953, 1955 (Gage read at time of discharge measurements)	CE-USA
665	T	Vermillion River at Landry Bridge, La.	30°04'N.	92°05'W.	A	J	- 0.78	+16.2	- 2.8	1941-42; 1946 to date	CE-USA
666	T	Vermillion River at Landry Bridge, La.	30°04'N.	92°05'W.	C	J	- 0.78	+15.2	- 3.8	3/24/41-11/7/51	CE-USA
667	T	Eugene Island, La.	29°22'N.	91°23'W.	AF	J	- 2.0	+ 7.5	- 4.0	No record	C and GS
668	T	Lower Atchafalaya River (Deer Island Bayou), S. of Morgan City, La.	29°32'N.	91°16'W.	A	I	0.00	+ 5	- 2	5/25/39 to date	CE-USA
669	T	Lower Atchafalaya River below Sweet Bay Lake, La.	29°34'N.	91°16'W.	A	J	0.00	+ 6	- 2	4/12/47-2/56	CE-USA
670	T	A.V. IMW (Sta. 3092 + 00), La.	27°39'N.	91°17'W.	C	F	0.00	+ 8	- 2	2/56 to date	CE-USA
671	T	Wax Lake E. Control Structure	29°39'N.	91°21'W.	A	F	0.00	+13	- 2	Intermittently 1945; 1949-1950	CE-USA
672	T	F.W.S. (South), La.	29°39'N.	91°21'W.	C	I	0.00	+ 8	- 2	7/55 to date	CE-USA
673	T	A.V. IMW (Sta. 2876 + 00), La.	29°42'N.	91°23'W.	A	I	- 0.14	+ 7	- 2	Intermittently 1945; 1950	CE-USA
673	T	Wax Lake Outlet at Calumet, La.	29°42'N.	91°23'W.	A	I	- 0.14	+ 7	- 2	5/14/42 to date	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
653	CE-USA	R										CE-USA(N.O.Dist.)	
654	CE-USA	R										CE-USA(N.O.Dist.)	
655												CE-USA(N.O.Dist.)	
656	CE-USA	R	.075/1	1/1								CE-USA(N.O.Dist.)	
657												CE-USA(N.O.Dist.)	
658	CE-USA	R	.075/1	1/1								CE-USA(N.O.Dist.)	No records available
659												CE-USA(N.O.Dist.)	Discharge data available
660	USWB	N										USWB (N. O.)	
661	CE-USA	R	.075/1	1/1								CE-USA(N.O.Dist.)	Discharge data available
662	CE-USA	R										CE-USA(N.O.Dist.)	Discharge data available
663	CE-USA	R										CE-USA(N.O.Dist.)	Discharge data available
664	CE-USA	R										CE-USA(N.O.Dist.)	Discharge data available
665												CE-USA(N.O.Dist.)	No data
666												CE-USA(N.O.Dist.)	Discharge data available
667	USCG	R	1/1	1:9	4.8	4/1/45	- 2.8	1/25/40		1.1	1.9	CE-USA(N.O.Dist.) C and GS	
668			.075/1	1/1								CE-USA(N.O.Dist.)	Discharge data available
669	CE-USA	R	0.075/1	1/1								CE-USA(N.O.Dist.)	Discharge data available
670												CE-USA(N.O.Dist.)	
671	CE-USA	R	0.05/1	2.4/1								CE-USA(N.O.Dist.)	
672												CE-USA(N.O.Dist.)	
673	CE-USA	R	0.075/1	1/1								CE-USA(N.O.Dist.)	Discharge data available

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Sta. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
674	T	Wax Lake Outlet, Calumet Floodgate (East), La.	29°42'N.	91°21'W.	C	F	- 0.14	+ 7.9	- 2.1	Intermittently 2/8/52 to date	CE-USA
675	T	Wax Lake Outlet, Calumet Floodgate (West), La.	29°42'N.	91°22'W.	C	F	- 0.14	+ 7.9	- 2.1	Intermittently 2/8/52 to date	CE-USA
676	T	Wax Lake Outlet (Sta. 358 + 00) S. of Calumet, La.	29°39'N.	91°24'W.	C	I	0.00	+ 8	- 2	Intermittently 1945; 1949-1950	CE-USA
677	T	Wax Lake Channel at Little Oaks Bayou, La.	29°41'N.	91°23'W.	C		0.00			1/38-4/39	CE-USA
678	T	Wax Lake Outlet (Lower) (Sta. 615 + 00) S. of Calumet, La.	29°35'N.	91°25'W.	C		0.00			1945, 1949-1950	CE-USA
679	T	Wax Lake Outlet (Sta. 620 + 00) 8 mi. S. of Calumet, La.	29°35'N.	91°25'W.	C	I	0.00	+ 7	- 3	Intermittently 1945; 1949-1950	CE-USA
680	T	A.V. IWW (Sta. 2548 + 00) North Bend, La.	29°40'N.	91°27'W.	C		0.00	+ 8	- 2	Intermittently 1945; 1949-1950	CE-USA
681	T	Wax Lake W. Control Structure, F.W.S. (South), La.	29°41'N.	91°27'W.	A	F	0.00	+12		7/55 to date	CE-USA
682	T	Wax Lake W. Control Structure, L.S. (North)	29°41'N.	91°27'W.	A	F	0.00	+12		7/55 to date	CE-USA
683	T	A.V. IWW (Sta. 2445 + 00) North Bend, La.	29°41'N.	91°28'W.	A	I	0.00	+ 8		Intermittently 1945-1947	CE-USA
684	T	Yellow Bayou, N. of South Bend, La.	29°39'N.	91°32'W.	C		0.00	+ 7	- 3	Daily 2/2/50 to date	CE-USA
685	T	Humble Canal near South Bend, La.	29°37'N.	91°32'W.	C	K	0.00	+ 8	- 2	Automatic: 3/15/45-11/5/45	CE-USA
686	T	Hanson Canal (Lock Gage, North) nr. Franklin, La.	29°46'N.	91°29'W.	C	F	0.00	+ 8	- 2	Intermittent: 1949-1950	CE-USA
687	T	Hanson Canal (Lock Gage, South) nr. Franklin, La.	29°46'N.	91°29'W.	C	F	- 0.78	+ 6.7	- 4.8	Automatic: 3/16/45-11/5/45	CE-USA
688	T	Charenton Dr. and Nav. Canal at Charenton No. 3, La.	29°50'N.	91°32'W.	C	F	- 0.78	+ 9.5	- 4.8	Intermittent: 1949-1950	CE-USA
689	T	Charenton Dr. and Nav. Canal at Charenton No. 4, La.	29°50'N.	91°32'W.	B		0.00			Daily, 11/18/23-9/19/51	CE-USA
690	T	Charenton Drainage Canal at S.P.R.R., La.	29°49'N.	91°32'W.	A	I	- 0.26	+ 7.5		Intermittent: 1952-1954	CE-USA
										7/41-6/42	CE-USA
										7/41-12/42	CE-USA
										8/15/41 to date	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.
(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
(3) (R) Recorder; (W) Installation.

Stn. No.	Observer		Recording gages		Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)	chart (5)	scale (6)	Height (m.s.l.)	Date	Height (m.s.l.)	Date					
674	CE-USA	R										CE-USA(N.O.Dist.)	Discharge data available Discharge data available
675	CE-USA	R										CE-USA(N.O.Dist.)	
676												CE-USA(N.O.Dist.)	
677												CE-USA(N.O.Dist.)	
678												CE-USA(N.O.Dist.)	
679												CE-USA(N.O.Dist.)	
680												CE-USA(N.O.Dist.)	
681	CE-USA	R	0.05/1	2.4/1					H,HL,D			CE-USA(N.O.Dist.)	
682	CE-USA	R	0.05/1	2.4/1					H,HL,D			CE-USA(N.O.Dist.)	
683	CE-USA	R	0.075/1	1/1					H,HL,D			CE-USA(N.O.Dist.)	
684												CE-USA(N.O.Dist.)	
685												CE-USA(N.O.Dist.)	
686												CE-USA(N.O.Dist.)	
687												CE-USA(N.O.Dist.)	
688												CE-USA(N.O.Dist.)	
689												CE-USA(N.O.Dist.)	
690	CE-USA	R	0.075/1	1/1					H,HL,D			CE-USA(N.O.Dist.)	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
691	T	IWW at Mud Lake, La.	29°45'N.	91°36'W.	A	I	0.00	+5		7/25/39-2/24/42	CE-USA
692	T	Weeks Island, La.	29°48'N.	91°50'W.	AF	J	- 4.0	+ 4.0	- 4.0	8/9/46 to date	C and GS
693	T	Vermilion Bay at Cypress Point, La.	29°42'N.	91°54'W.	AF	I	0.00	+ 7.1	- 3.4	2/25/05-2/26/12	State of La.
694	T	Vermilion Bay on N.W. Shoreline of Marsh Island, La.			AF	I	0.00	+ 7.0	- 4.4	5/4/55 to date	State of La.
695	T	Southwest Pass Vermilion Bay at Porpoise Point, La.			AF	I	0.00	+ 7.7	- 3.6	1/11/56 to date	State of La.
696	T	Delcambre Canal near Delcambre, La.	29°57'N.	91°59'W.	B	J	0.00	+ 7	- 3	5/4/55 to date	CE-USA
697	T	Delcambre Canal below Delcambre, La.	29°57'N.	91°59'W.	B	J	0.00	+ 7	- 3	1/8/48 to date	CE-USA
698	T	Coulee Kinney at S.P.R.R. near Abbeville, La.			E	H	+ 8.22	+16.2	+ 8.2	1952 to date	CE-USA
699	T	Vermilion River at Abbeville No. 1, La.	29°58'N.	92°10'W.	C	I	0.00	+11		4/44-5/45	CE-USA
700	T	Vermilion River at Abbeville Pumping Plant, La.			A	I	- 0.78			2/3/42 to date	CE-USA
701	T	Vermilion River at Abbeville Pumping Plant, La.	29°58'N.	92°10'W.	B		- 0.78			6/23/31-12/31/42	CE-USA
702	T	Vermilion River, 2000 ft. below Little Bayou, La.			E	H	+2.72	+10.7	+ 2.7	1952 to date	CE-USA
703	T	Vermilion River below Intracoastal City, La.	29°47'N.	92°10'W.	A		- 0.78			11/32-8/54	CE-USA
704	T	Vermilion River at IWW	29°47'N.	92°10'W.	A	I	- 0.78	+ 8		11/7/32-7/4/42	CE-USA
705	T	Vermilion River at Jct. with Onion Bayou, La.	29°45'N.	92°07'W.	E	I	+ 2.72	+10.7	+ 2.7	10/28/43 to date	CE-USA
706	T	IWW Vermilion Lock (East), La.	29°47'N.	92°12'W.	B	I	- 0.78	+ 7.2	- 2.8	9/25/33 to date	CE-USA
707	T	IWW at Vermilion Lock, La.	29°47'N.	92°12'W.	B	J	- 0.78	+ 6		11/8/52 to date	CE-USA
708	T	IWW Vermilion Lock (West), La.	29°47'N.	92°12'W.	B	I	- 0.78	+ 6.2	- 3.8	9/25/33 to date	CE-USA
709	T	Vermilion Bay below Mud Point, La.	29°43'N.	92°10'W.	A		Not determined			11/43-6/45	CE-USA
710	T	Schooner Bayou Control Structure, La. (East)	29°45'N.	92°16'W.	B	J	- 0.78	+ 4.2	- 2.8	7/1/17 to date	CE-USA
711	T	Schooner Bayou Control Structure, La.	29°46'N.	92°16'W.	A	J	- 0.78	+ 6		7/1/17 to date	CE-USA
712	T	Schooner Bayou Control Structure, La. (West)	29°45'N.	92°16'W.	B	J	- 0.78	+ 4.2	- 2.8	7/1/17 to date	CE-USA
713	T	Schooner Bayou (Old IWW) North Fork Dam Gage, La.	29°46'N.	92°16'W.	B	I	- 0.78	+ 6.2	- 3.8	9/23-12/53	CE-USA
714	T	IWW, Int. with Seventh Ward Canal, La.	29°48'N.	92°15'W.	A		- 0.78			11/15/32-7/5/54	CE-USA
715	T	East White Lake in Old IWW, La.	29°44'N.	92°24'W.	A		- 0.78			7/47-7/54	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Pulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages	Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)		chart (5)	scale (6)	Height (m.s.l.)	Date					
691	CE-USA	R	0.075/1	1/1					1.1	1.5	CE-USA(N.O.Dist.)	
692	Dept. of Public Wks.	N	1/1	1:9							C and GS	
693	Dept. of Public Wks.	R	2.4/1	2/1			1/23-3/20/06	H, HL, D H, HL, D			La. Dept. of Public Wks., Baton Rouge, La.	
694	Dept. of Public Wks.	R	2.4/1	2/1				H, HL, D			La. Dept. of Public Wks., Baton Rouge, La.	
695	Dept. of Public Wks.	R	2.4/1	2/1				H, HL, D	1.1	1.6	La. Dept. of Public Wks., Baton Rouge, La.	
696	CE-USA	N						HL, D			CE-USA(N.O.Dist.)	Read 8 a.m., 4 p.m.
697	CE-USA	N						HL, D			CE-USA(N.O.Dist.)	Read 8 a.m., 4 p.m.
698	CE-USA	R						*HL			CE-USA(N.O.Dist.)	*Highs only. Discharge data available.
699												
700	CE-USA	R	0.075/1	1/1				H, HL, D HL, D			CE-USA(N.O.Dist.)	Read at 8:00 a.m.
701	Acadia Vert- million Rice Irrigation Co.										CE-USA(N.O.Dist.)	
702	CE-USA	R						*HL			CE-USA(N.O.Dist.)	*High only
703	CE-USA	R						H, HL, D			CE-USA(N.O.Dist.)	
704	CE-USA	R	0.075/1	1/1				H, HL, D			CE-USA(N.O.Dist.)	
705	CE-USA	R						*HL			CE-USA(N.O.Dist.)	*High only
706	CE-USA	R						HL, D			CE-USA(N.O.Dist.)	
707	CE-USA	R	0.075/1	1/1				H, HL, D			CE-USA(N.O.Dist.)	Read at 8:00 a.m.
708	CE-USA	R						H, HL, D			CE-USA(N.O.Dist.)	
709	CE-USA	R						H, HL, D			CE-USA(N.O.Dist.)	Read at 8:00 a.m.
710	CE-USA	R						HL, D			CE-USA(N.O.Dist.)	Read at 8:00 a.m.
711	CE-USA	R	0.075/1	1/1				H, HL, D			CE-USA(N.O.Dist.)	Discharge data available
712	CE-USA	R						HL, D			CE-USA(N.O.Dist.)	Discharge data available
713												
714												
715			0.075/1	1/1				H, HL, D H, HL, D			CE-USA(N.O.Dist.)	Discharge data available

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (F) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Sta. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
716	T	Pecan Island Canal near Jct. White Lake, La.	29°39'N.	92°27'W.	A	I	- 0.78	+ 8	- 3.8	4/11/50-7/54 11/55 to date 5/4/55 to date	CE-USA State of La.
717	T	East Cote Blanche Bay near Salt Point near Burns, La.	29°35'N.	91°32'W.	AF	I	0.00	+ 7.0	- 3.8	6/25/47 to date 3/29/56 to date 4/9/41 to date	CE-USA CE-USA CE-USA
718	T	Mermentau River, Lacassine Refuge, La.	30°00'N.	92°47'W.	A	J	- 0.78	+ 8	- 4.8	4/27/51 to date	CE-USA
719	T	Mermentau River, Lake Arthur, La.	30°04'N.	92°39'W.	A	I	- 0.78	+ 1.2	- 3.8	6/15/49 to date	CE-USA
720	T	Bayou Queue De Tortue (Me-B) Premeaux, La., Pumping Plant	30°06'N.	92°34'W.	B	K	- 0.78	+ 15.2	- 3.8	10/15/43-7/54 4/56 to date	CE-USA
721	T	Mermentau River, Catfish Point, La. (North)	29°52'N.	92°51'W.	B	I	- 0.78	+ 5.2	- 4.8	10/29/54 to date 8/45 to date	USGS USGS
722	T	Mermentau River, Catfish Point, La. (South)	29°52'N.	92°51'W.	A	K	- 0.78	+ 9	- 3.1	1923 to date	CE-USA
723	T	Mermentau River, Grand Cheniere, La.	29°46'N.	92°59'W.	A	J	- 0.78	+ 6	- 3.1	10/21/54 to date 1/1/51 to date	USGS CE-USA
724	T	Lacassine Bayou at IWW, La.	29°58'N.	92°51'W.	A	N	0.0	6.3	- 2.0	1/1/51 to date	CE-USA
725	U	Beckwith Creek near De Quincy, La.	30°28'N.	93°22'W.	A	J	25.29	49.99	25.33	3/6/51 to date	CE-USA
726	U	Calcasieu River, Lake Charles, La.	30°13'N.	93°15'W.	A	J	- 0.59	+ 1.7	- 3.1	4/39-5/42 4/22/43 to date	CE-USA CE-USA
727	U	Lake Charles, La. - Calcasieu River	30°13'N.	93°13'W.	A	J	0.0	16.8	- 2.6	12/40-5/42 4/39 to date	CE-USA CE-USA
728	U	English Bayou near Lake Charles, La.	30°16'N.	93°11'W.	A	J	0.0	16.8	- 2.6	12/40-5/42 4/39 to date	CE-USA CE-USA
730	U	Intracoastal Waterway, Calcasieu Lock (East), La.	30°05'N.	93°18'W.	B	F	- 1.09	+ 4.9	- 3.1	12/40-5/42 4/39 to date	CE-USA CE-USA
731	U	IWW, Calcasieu Lock, La. (West)	30°05'N.	93°18'W.	A	F	- 1.09	+ 1.1	- 3.1	12/40-5/42 4/39 to date	CE-USA CE-USA
732	U	IWW, Calcasieu Lock, La. (West)	30°05'N.	93°18'W.	B	F	- 1.09	+ 4.9	- 3.1	12/40-5/42 4/39 to date	CE-USA CE-USA
733	U	Upper Calcasieu Lake, La.	30°05'N.	93°18'W.	A	A	- 0.78	+ 9	- 3.1	12/40-5/42 4/39 to date	CE-USA CE-USA
734	U	Calcasieu River and Pass, Hackberry, La.	30°00'N.	93°20'W.	A	J	- 0.55	+ 9	- 3.1	12/40-5/42 4/39 to date	CE-USA CE-USA
735	U	Lower Calcasieu Lake, La.	29°50'N.	93°17'W.	A	J	- 0.78	+ 9	- 3.1	12/40-5/42 4/39 to date	CE-USA CE-USA
736	U	Calcasieu River and Pass, Cameron, La.	29°47'N.	93°21'W.	A	J	- 0.78	+ 9	- 3.1	12/40-5/42 4/39 to date	CE-USA CE-USA
737	U	Gulf of Mexico near Calcasieu Pass, La.	29°45'N.	93°20'W.	A	J	- 0.78	+ 10	- 3	4/39-12/41 1/27/24-5/27/30	CE-USA CE-USA
738	U,V	Port Arthur, Texas, NELY corner of Corps of Engineers Slip	29°52'N.	93°56'W.	A	J	C and GS	+ 10	- 3	4/39-12/41 1/27/24-5/27/30	CE-USA CE-USA
739	U,V	Taylor Bayou near La Belle, Tex.	29°53'N.	94°10'W.	A	J	- 4.43	+ 10.9	- 4.1	9/5/34 to date 1952 to date	USGS USGS
739A	U,V	Hillebrandt Bayou near Lovell Lake	29°56'N.	94°07'W.	A	J	- 5.79	8.6	- 5.4	1952 to date	USGS
740	U,V	Orange, Tex., Sabine River	30°06'N.	93°44'W.	B	I	+ 6.0	+ 6.0	- 2.0	WB 7/1/03-10/31/04 to date	USWB
741	U,V	Beaumont, Tex., Neches River	30°05'N.	94°06'W.	B	G	+ 15.0	+ 15.0	0	1903 to date	USWB
742	U,V	High Island, Tex., on Mud Bayou RR Bridge abutment	30°05'N.	94°06'W.	A	J	+ 8.0	+ 8.0	- 2.0	Partial, 4/37-1/43; Complete 1/43-8/55; Partial, 8/55-10/55; Complete, 10/55 to date	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.

(2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.

(3) (R) Recorder; (W) Installation

Stn. No.	Observer		Recording gages chart (5)	Highest height recorded (7)		Lowest height recorded (7)	Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)		Height (m.s.l.)	Date						
716	CE-USA	N	0.075/1				H,HL,D	1.1	1.6	CE-USA(N.O.Dist.)	Discharge data available Read at 8:00 a.m. Discharge data April 1941- April, 1942 Read at 8:00 a.m.
717	Dept. of Public Wks.	R	2.4/1				H,HL,D			Ia. Dept. of Public Wks., Baton Rouge, La.	
718	CE-USA	N	0.075/1				H,HL,D			CE-USA(N.O.Dist.)	Discharge data available Read at 8:00 a.m. Discharge data April 1941- April, 1942 Read at 8:00 a.m.
719	CE-USA	N	0.075/1				H,HL,D			CE-USA(N.O.Dist.)	
720	Acadia-Ver-million Rice Irrigating Co.	R					HL,D			CE-USA(N.O.Dist.)	
721		R					HL,D			CE-USA(N.O.Dist.)	Affected by operations of locks in TW, Read 8 a.m. only. Daily discharge station Records good (available) High stage on Calcasieu R. causes flow upstream, Read 8 a.m. only. Read 8 a.m.
722	CE-USA	R	0.075/1				H,HL,D			CE-USA(N.O.Dist.)	
723	CE-USA	R	0.075/1				H,HL,D			CE-USA(N.O.Dist.)	
724		R	0.1/1	3.78	2/13/55	0.53		1.6	2.5	USGS	
725			0.1/1	49.74	5/21/55	26.30				USGS	Affected by operations of locks in TW, Read 8 a.m. only. Daily discharge station Records good (available) High stage on Calcasieu R. causes flow upstream, Read 8 a.m. only. Read 8 a.m.
726	CE-USA	N	0.075/1				D			CE-USA(N.O.Dist.)	
727	CE-USA	V	0.075/1				H,HL,D			CE-USA(N.O.Dist.)	
728			0.1/1	6.08	2/9/55	- 1.71				USGS	
730	CE-USA	R	0.075/1				HL,D			CE-USA(N.O.Dist.)	Discharge data available Read 8 a.m.
731	CE-USA	R					H,HL,D			CE-USA(N.O.Dist.)	
732	CE-USA	R					HL,D			CE-USA(N.O.Dist.)	Discharge data available Read 8 a.m.
733	CE-USA	R					H,HL,D			CE-USA(N.O.Dist.)	
734	CE-USA	N	0.075/1				H,HL,D			CE-USA(N.O.Dist.)	Discharge data available Read 8 a.m.
735	CE-USA	V	0.075/1				H,HL,D			CE-USA(N.O.Dist.)	
736	CE-USA	R	0.075/1				H,HL,D			CE-USA(N.O.Dist.)	Discharge data available Read 8 a.m.
737	CE-USA	R	0.042/1				H,HL,D	1.3	2.0	CE-USA(N.O.Dist.)	
738	CE-USA	R	0.1/1	3.4	5/19/53		S	1.3	2.0	CE-USA(N.O.Dist.)	
739	No observer						D			CE-USA(Pt. Arthur)	Salt water gates between sta. and tide water Salt water gates between sta. and tide water Salt water gates between sta. and tide water
739A	No observer	V	0.1/1	3.4	5/19/53		D			USGS	
740	USWB	N								USWB(Lake Chas.)	Salt water gates between sta. and tide water Salt water gates between sta. and tide water
741	USWB	N								USWB(Lake Chas.)	
742	CE-USA	R	0.042/1				S			CE-USA(Galveston)	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer

(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour

(6) Height: Inches per foot, ratio, etc.

(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.

(8) Data Reduction: (H) Hourly values; (HL) Highs and lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.)	Lower limit (ft. m.s.l.)	Period of record	Agency
			Lat.	Long.	Type of gage	Type of mount					
743	U,V	Sun Oil Company Oil well platform in Gulf of Mexico at Caplin, Tex.	30°03'N.	94°49'W.	A	Ø	- 2.22 - 1.41	+10		Not operating	Tex. A and M
745	U,V	Trinity River at Caplin, Tex.			D	J				1903 to date	USGS and USWB
746	U,V	Galveston River at Liberty, Tex.			AF	J				1907-1945	CE-USA
747	U,V	Galveston (Fort Point), Tex.			AF	J				1947 to date	C and GS
748	U,V	Hopper Dredge Dock Galveston, Tex.	29°19'N.	94°48'W.	A	J	- 3.5 C and GS	+ 6.5	- 5.5	11/28/03 to date	C and GS
749	U,V	Carbon Carbide Co., Texas City, Tex.			AF	J	1929			9/55 to date	C.C. Co.
750	U,V	Buffalo Bayou at Houston, Tex.	29°46'N.	95°24'W.	A	J	- 4.08	42.42	2.92	1936 to date	USGS
751	U,V	Morgan Point Reservation, Morgan Point, Tex., Boat Slip			AF	J	- 1.4	+10.5	- 2.0	Approx. 1939 to date	CE-USA
752	U,V	Freeport, Tex.	28°57'N.	95°19'W.	AF	J	- 3.2	+15.0	- 6.0	4/14/54 to date	C and GS
753	U,V	Freeport, Tex., NW corner Brazos River Harbor			AF	G	- 0.26	+11		1956 to date	Brazos Riv. Hbr. Nav. Dist.
754	U,V	Brazos River Floodgates (4 mi. SW Freeport, Tex.)			A		USGS			1/46-1955	CE-USA
755	U,V	4 mi. SW of Freeport, Tex., on Brazos River Floodgates			B	F	0.0			1/46 to date	CE-USA
756	U,V	Brazos River at East Columbia, Tex.	29°09'N.	95°37'W.	D	J	- 2.95			1938-1940; 1942-1954	USGS
757	U,V	Bay City, Tex., Colorado River	28°59'N.	96°00'W.	D	J				1946 to date	USWB
758	U,V	Matagorda, Tex. (Colorado River Floodgates)			B	F	0.0			9/44 to date	CE-USA
		Matagorda, Tex., (Colorado River Floodgates)			A		USGS			9/44-1955	CE-USA

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

Sta. No.	Observer		Recording gages	Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)		chart (5)	Height (m.s.l.)	Date	Height (m.s.l.)					
743	Mr. Clayton, Bryan, Tex.				28.6 27.16	5/8-11/22 5/12/42	- 0.7	1/22/18	D		Texas A and M USGS	Discharge data available abv. 10 ft. flood stage 24 ft.
745												
746	CE-USA	R	.042/1	1.2/1	10.6	H8/16, 17/15	- 5.4	1/11/08	H, HL, D	1.4	CE-USA (Galveston)	
747		N	1/1	1.9	11.3	H9/8/1900	- 5.4	1/11/08	H, HL	1.4	C and GS USWB (Galveston)	Remoted to USWB
748	USGS		.042/1	0.6/1							USGS	
749			0.1/1	2.0/1	30.15	8/30/45	*		H, HL	*		*No tide effect flood stage 20 ft.
750	CE-USA	R	0.59/1	0.53/1					H, HL	1.0	CE-USA (Galveston)	
751	Dow Chem. Co.	R	1/1	1.9	2.9	11/12/54	- 3.3	1/19/55	H, HL	1.9	C and GS	
752	B. R. N. D.	R							H, HL	1.9	Harbor Navigation District-Brazos River	
753	CE-USA	R	0.052/1						S	1.9	CE-USA Brazos (Floodgates)	
754	CE-USA	R							H	1.9	CE-USA Brazos (Floodgates)	
755	USGS	N							D, HL		USGS	USGS has recorder 1-1/4 mi. D.S.
756	USWB	V			31.17	12/5/40	- 2.05	1/24/53			USWB (Austin)	Discharge data available
757	CE-USA	R							H		CE-USA (Colorado River Floodgate)	
758	CE-USA	R	0.052/1						S		CE-USA (Colorado River Floodgates)	

(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer

(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour

(6) Height: Inches per foot, ratio, etc.

(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.

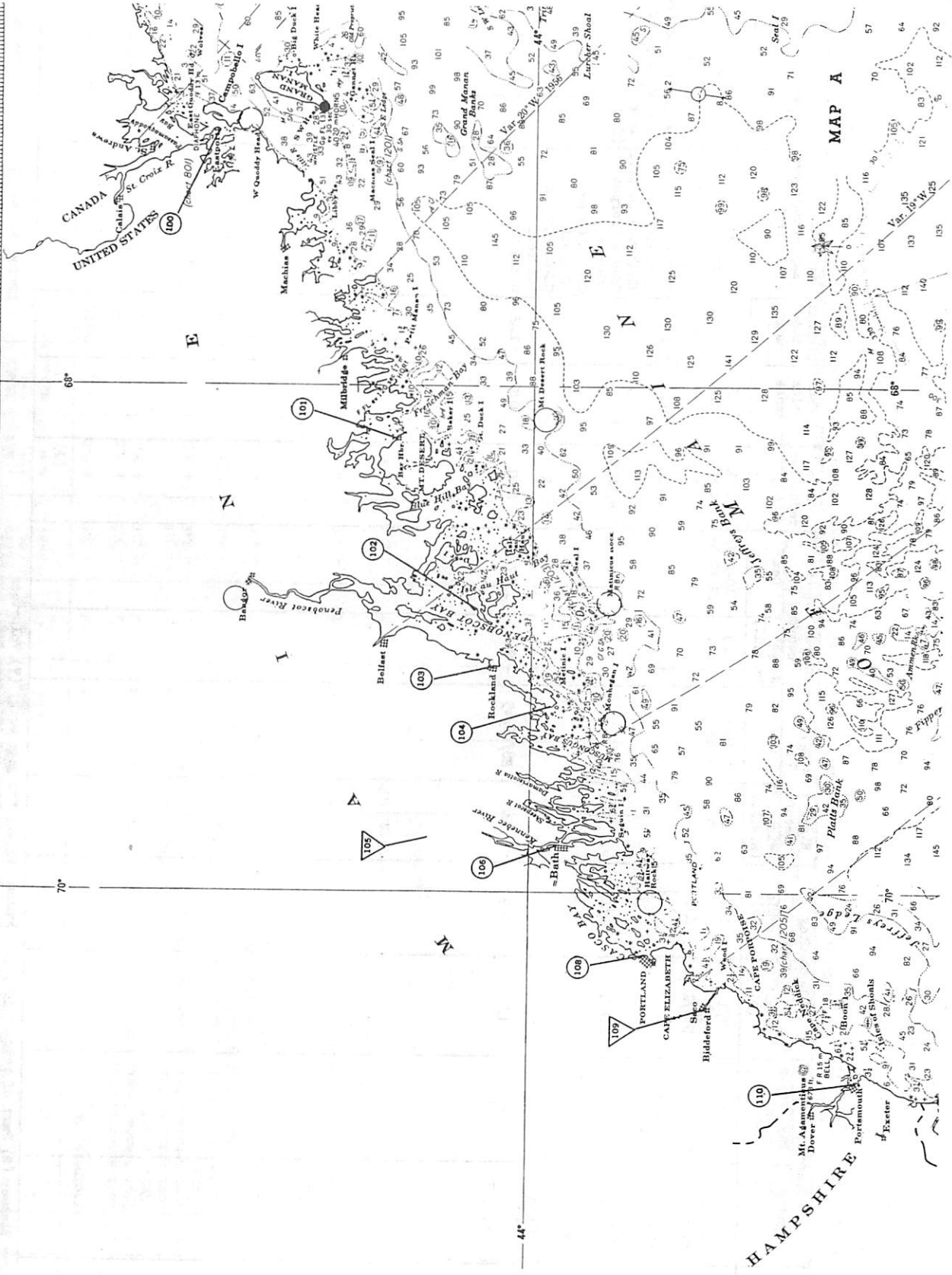
(8) Data Reduction: (H) Hourly values; (HL) High and Lows; (D) Daily means; (S) Special purpose only; (R) On request.

Stn. No.	Map	Station location	Coordinates		Description		Gage zero (ft. m.s.l.)	Upper limit (ft. m.s.l.) (3)	Lower limit (ft. m.s.l.) (3)	Period of record	Agency
			Lat.	Long.	Type of gage (1)	Type of mount (2)					
759	V	Rockport, Tex.	28°01'N.	97°03'W.	AF	J	- 5.5	+ 5.0	- 3.0	2/25/37-3/1/39	C and GS
760	V	Fort Aransas, Tex.	27°50'N.	97°03'W.	AF	J	- 3.4	+ 8.0	- 8.0	2/2/48-9/1/54	C and GS
761	V	Fort Aransas, Tex., on Univ. of Texas wharf	27°50'N.	97°03'W.	A	J	- 1.0	+ 15		5/34-6/35	CE-USA
762	V	Fort Aransas, Tex.	27°50'N.	97°03'W.	A	J	- 3.4	+ 5.0	- 3.0	7/50 to date	CE-USA
762A	V	Fort Aransas, Tex. (Coast Guard Boat Slip)	27°50'N.	97°03'W.	B	J	- 1.0			2/12/32-8/18/43	CE-USA
763	V	Corpus Christi, Tex., at W. end Dock No. 9, Main Turning Basin	27°49'N.	97°24'W.	A		- 1.0	+15		9/22/49 to date	CE-USA
764	V	Corpus Christi, Tex., at S'ly end of Navigation Blvd. bridge across Port Aransas-Corpus Christi Waterway, approx. 900 ft. W. from Avery Point Turning Basin	27°49'N.	97°26'W.	B	I	- 1.0	+ 5.0	- 3.0	11/49 to date	CE-USA
765	V	Corpus Christi, Padre Island Causeway E. end of causeway swing bridge across Gulf Intracoastal Waterway	27°38'N.	97°14'W.	B	I	- 1.0	+ 5	- 3	7/54 to date	CE-USA
766	V	Port Isabel, Tex.	26°04'N.	97°13'W.	AF	J	- 4.0	+ 5.0	- 4.7	3/30/44 to date	C and GS

(1) Type of Gage: (A) Recorder type unknown; (AB) Recorder Bubbler; (AF) Recorder Float; (AP) Recorder Pressure; (B) Staff, read daily; (C) Staff, read intermittently; (D) Wire-Weight, read daily; (E) High Water Indicator.
 (2) Type of Mounting: (F) Concrete control structure or lock; (G) Fender of Bulkhead; (H) Tree; (I) Cluster of piling; (J) Wharf, Pier, Dock, Bridge; (K) Building; (L) Walkway; (M) Concrete mooring; Jetty (N) Bank Installation; (O) Oil well platform.
 (3) (R) Recorder; (W) Installation

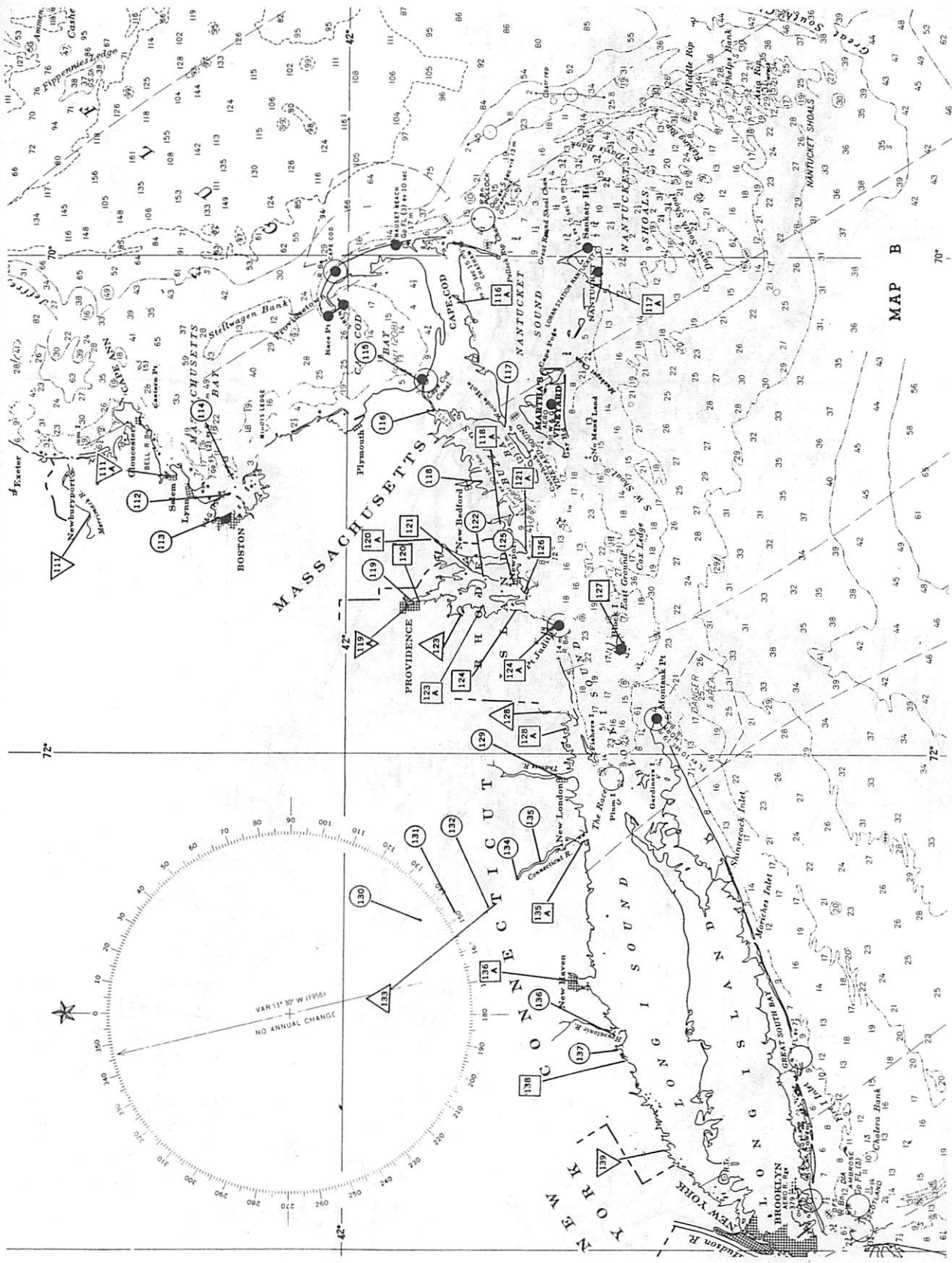
Sta. No.	Observer		Recording gages	Highest height recorded (7)		Lowest height recorded (7)		Data reduction (8)	Mean tide range	Diurnal tide range	Original data may be obtained from:	Remarks
	Agency	Pay Status (4)		chart (5)	scale (6)	Height (m.s.l.)	Date					
759	CE-USA	N	1/1	1:6	2.4	H10/3/49	- 1.3	1/10-25/53	0.2	1.5	C and GS	*In the various bays, except the inlets, the periodic tide has a mean range of less than one (foot).
760	CE-USA	R	1/1	1:6	5.0	H7/25/54	- 2.1	12/19/54	*1.1	1.5	C and GS	
761	CE-USA	R	0.4/1	2/1					*1.1		CE-USA(Corpus Christi)	
762	CE-USA	R							*1.1	1.5	CE-USA(Corpus Christi)	
762A	USCG	R							*1.1	1.5	WB(Corpus Christi)	
763	CE-USA	R	0.4/1	2/1							CE-USA (Corpus Christi)	
764	CE-USA	V									CE-USA(Corpus Christi)	
765	CE-USA	V									CE-USA(Corpus Christi)	
766		N	1/1	1:9	2.9	H8/26/45	- 2.2	1/17/46	0.9	1.2	C and GS	

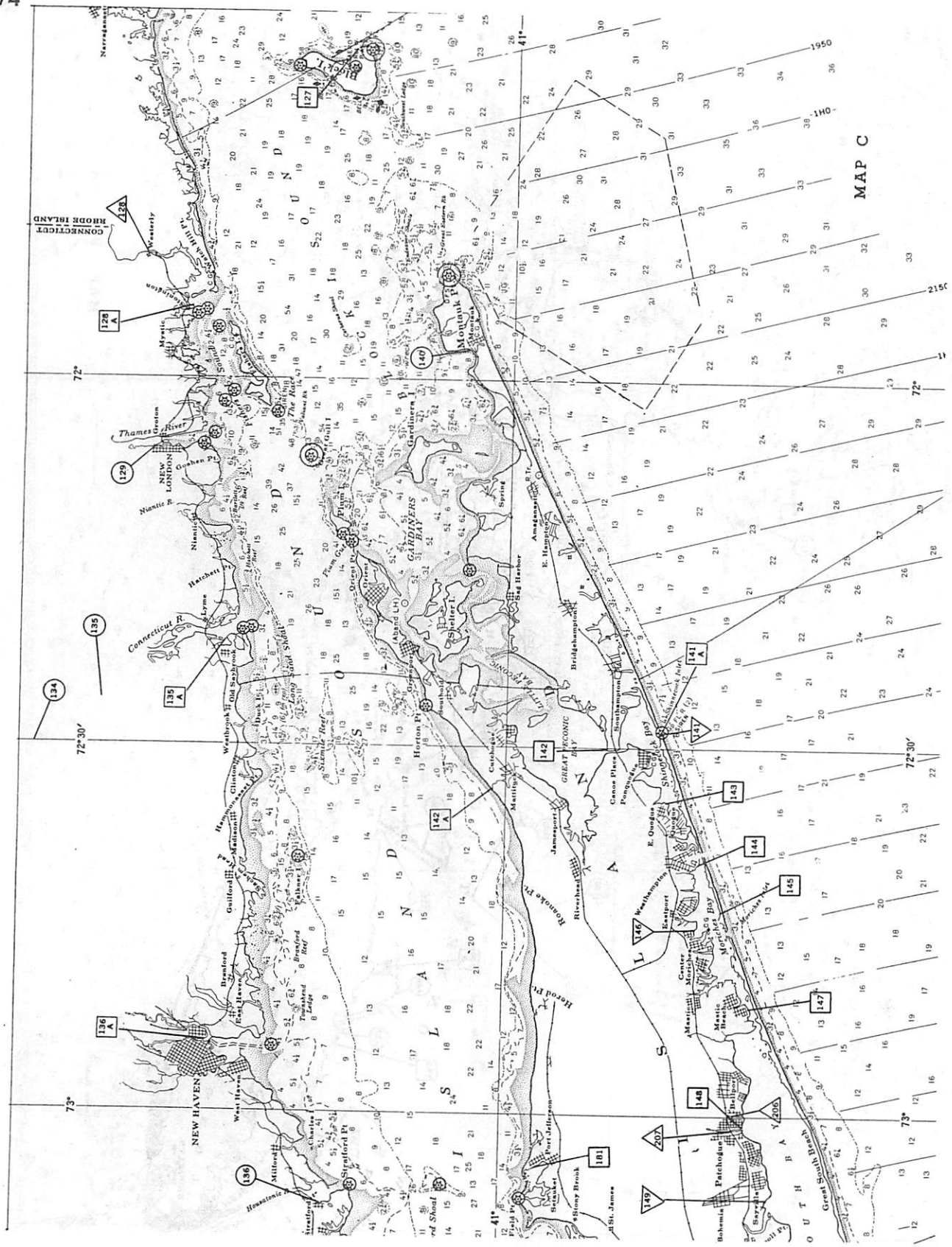
(4) Pay Status: (R) Part of regular job; (N) Nominal salary for gage work; (V) Volunteer
(5) Time: Inches per hour, ratio, etc. (b) Gage registers time and tide four times per hour
(6) Height: Inches per foot, ratio, etc.
(7) Cause of Abnormal Tide: (H) Hurricane; (T) Tropical storm not of hurricane intensity.
(8) Data Reduction: (H) Hourly values; (HL) Highs and Lows; (D) Daily means; (S) Special purpose only; (R) On request.

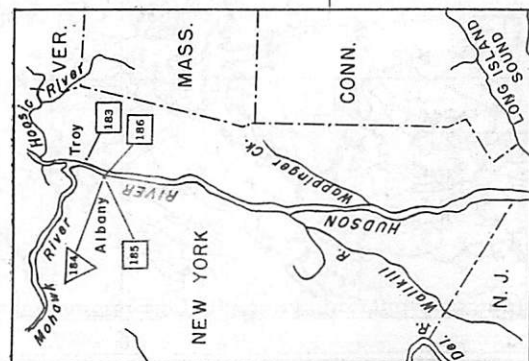
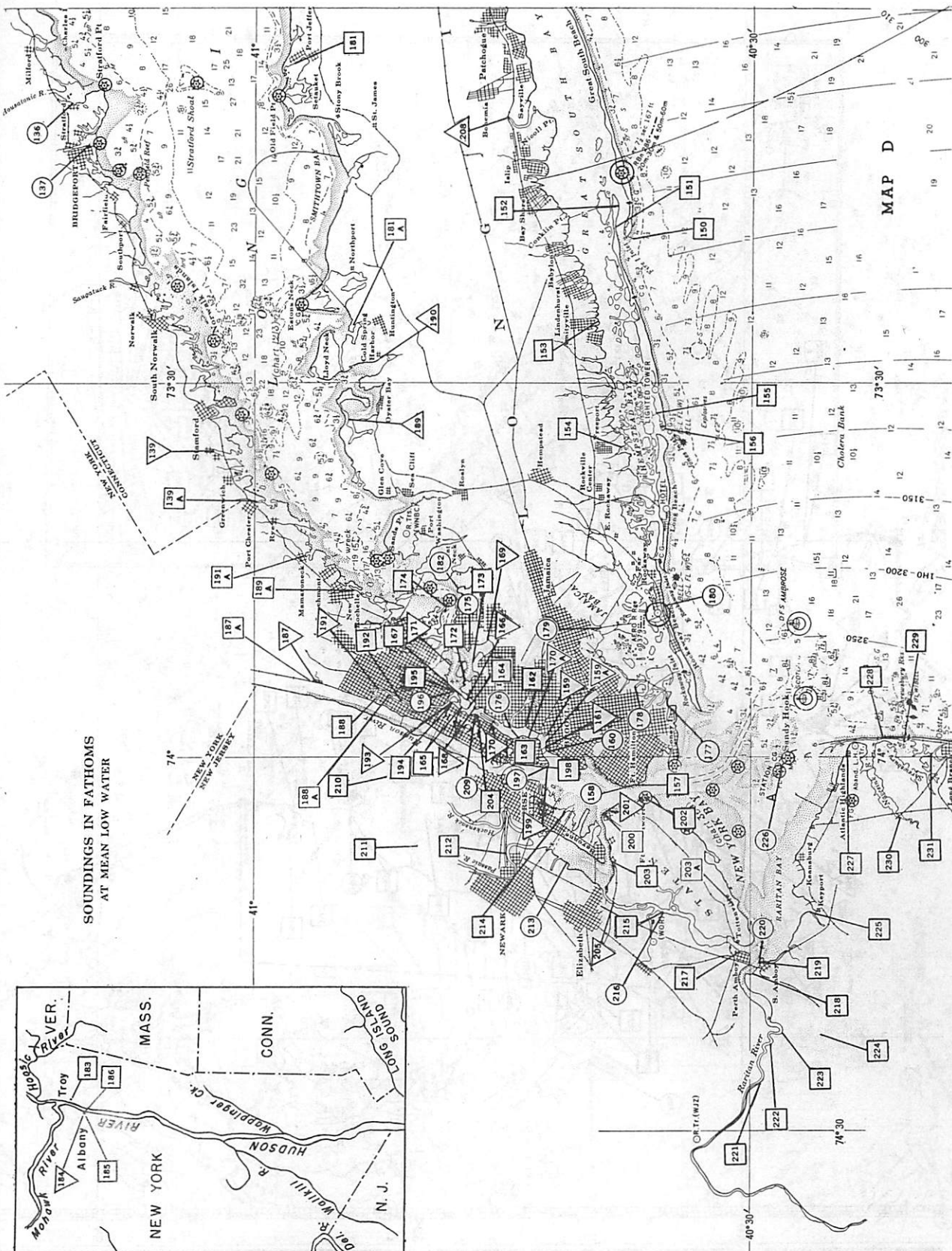


HAMPSHIRE

MAP A

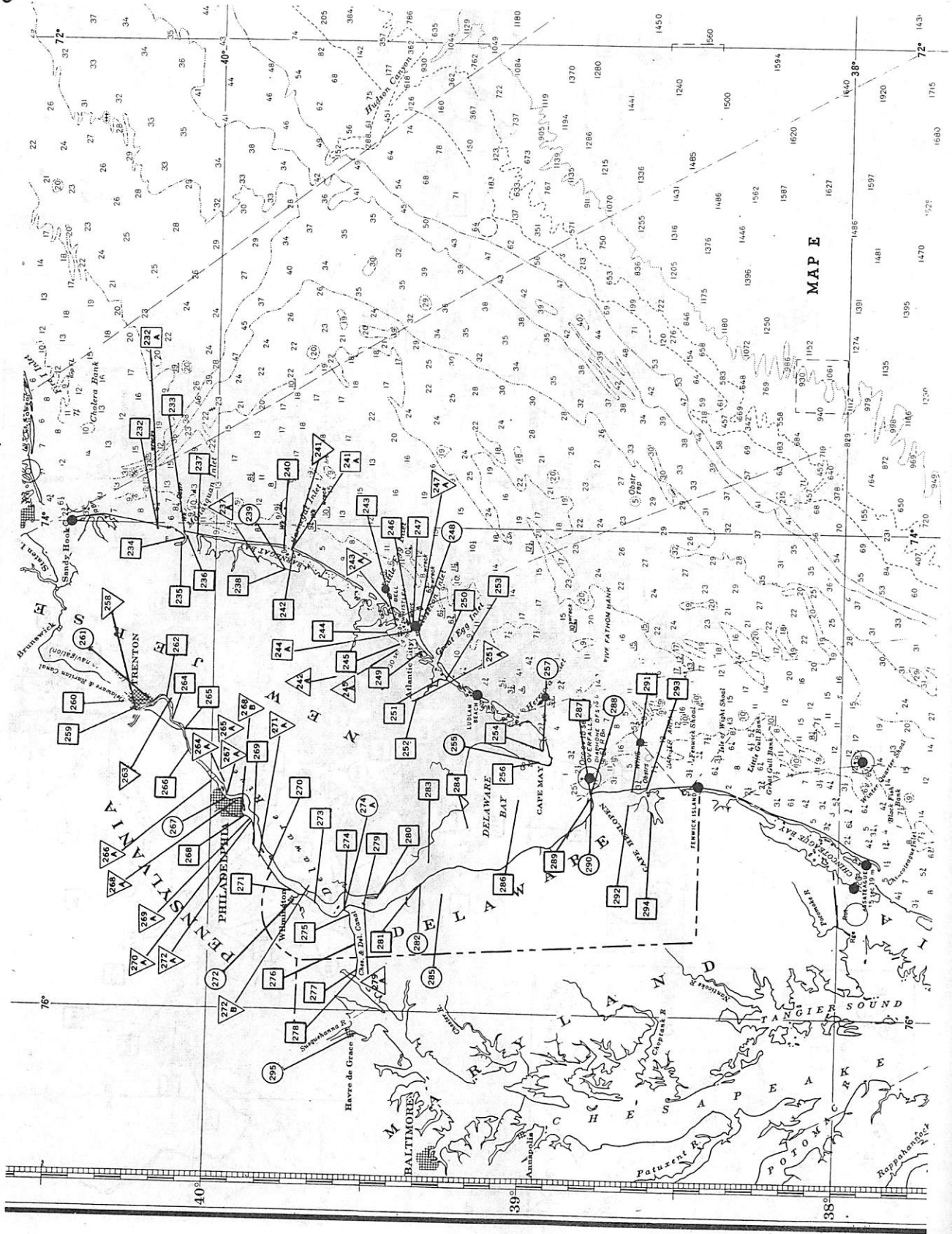


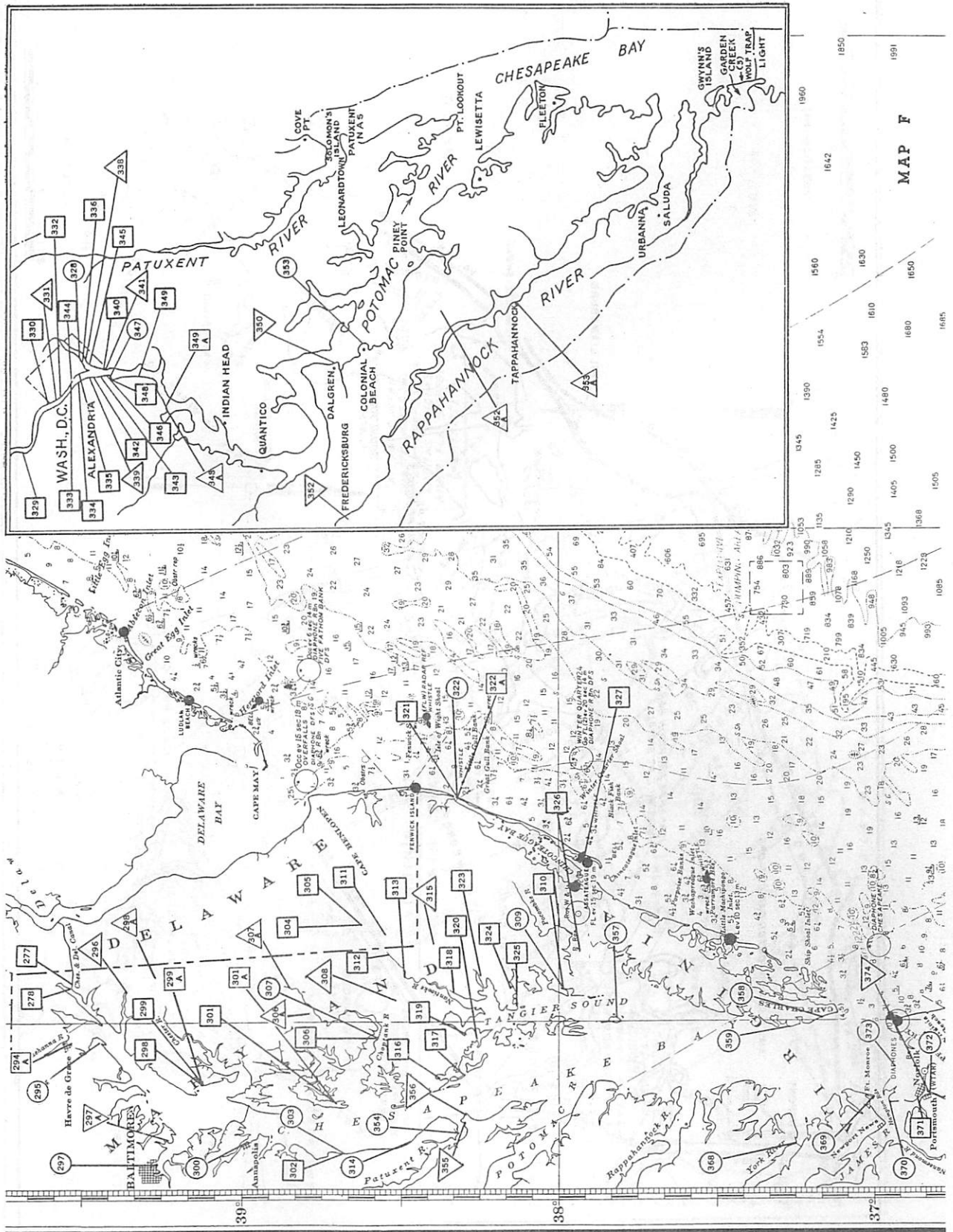




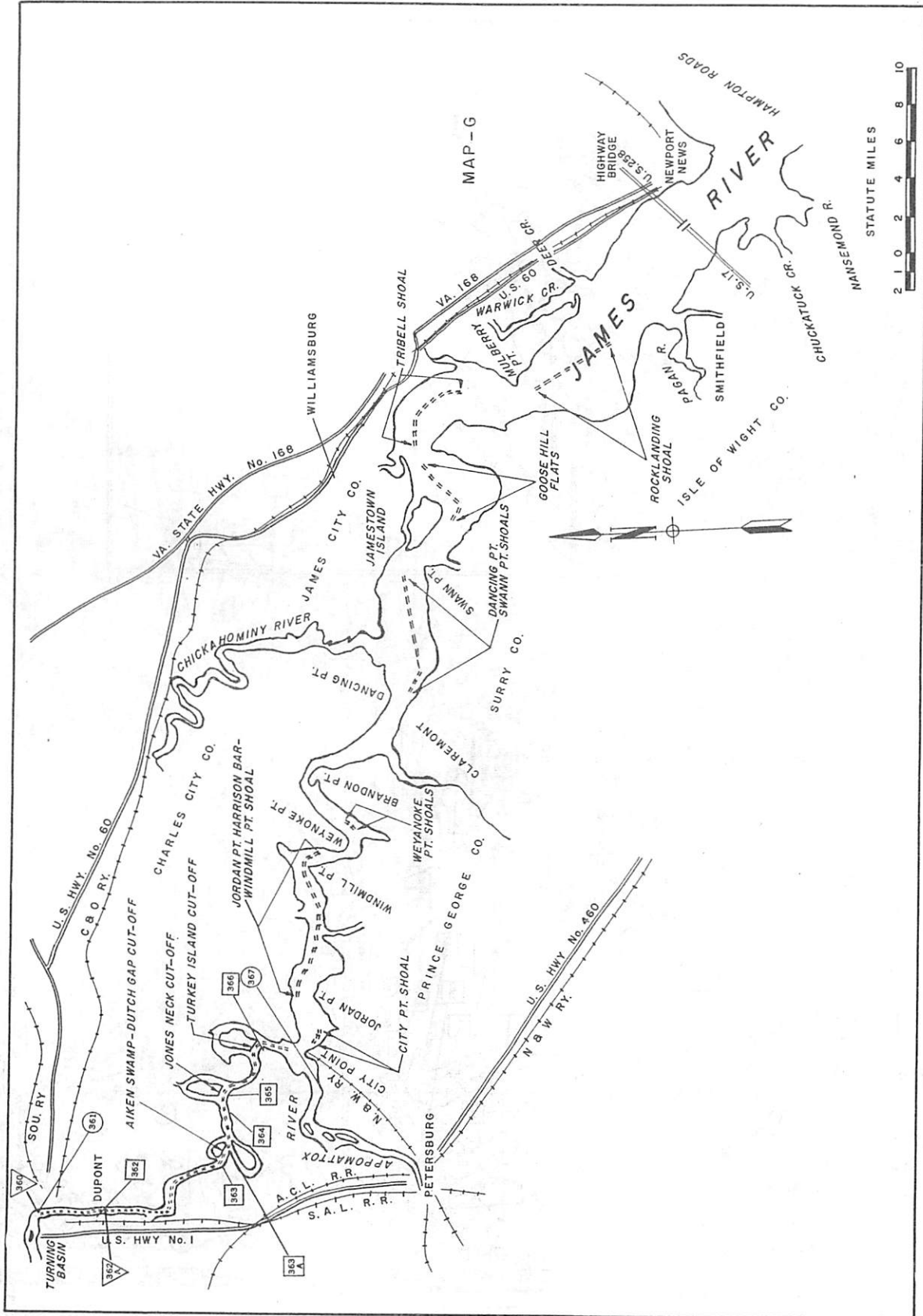
SOUNDINGS IN FATHOMS AT MEAN LOW WATER

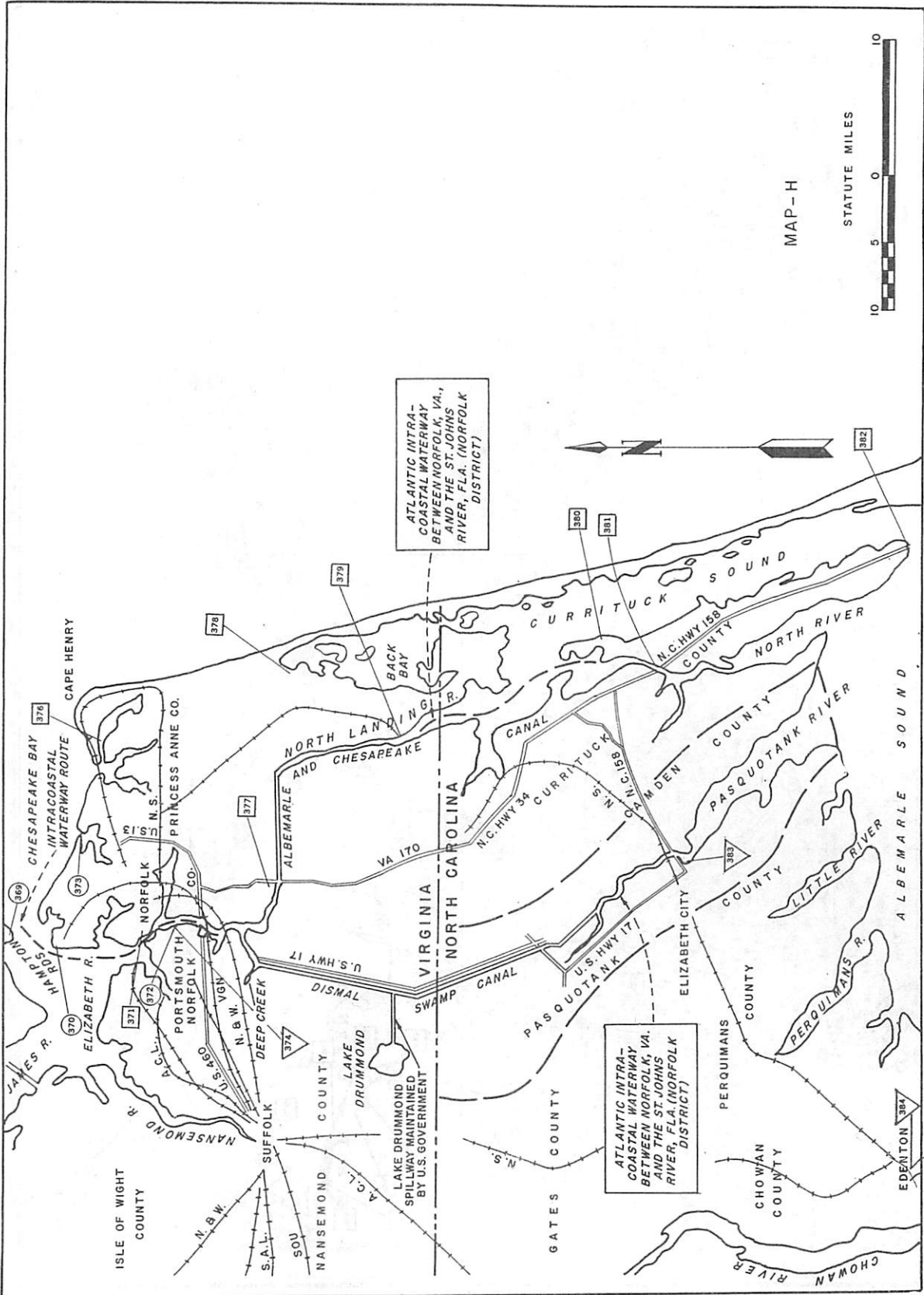
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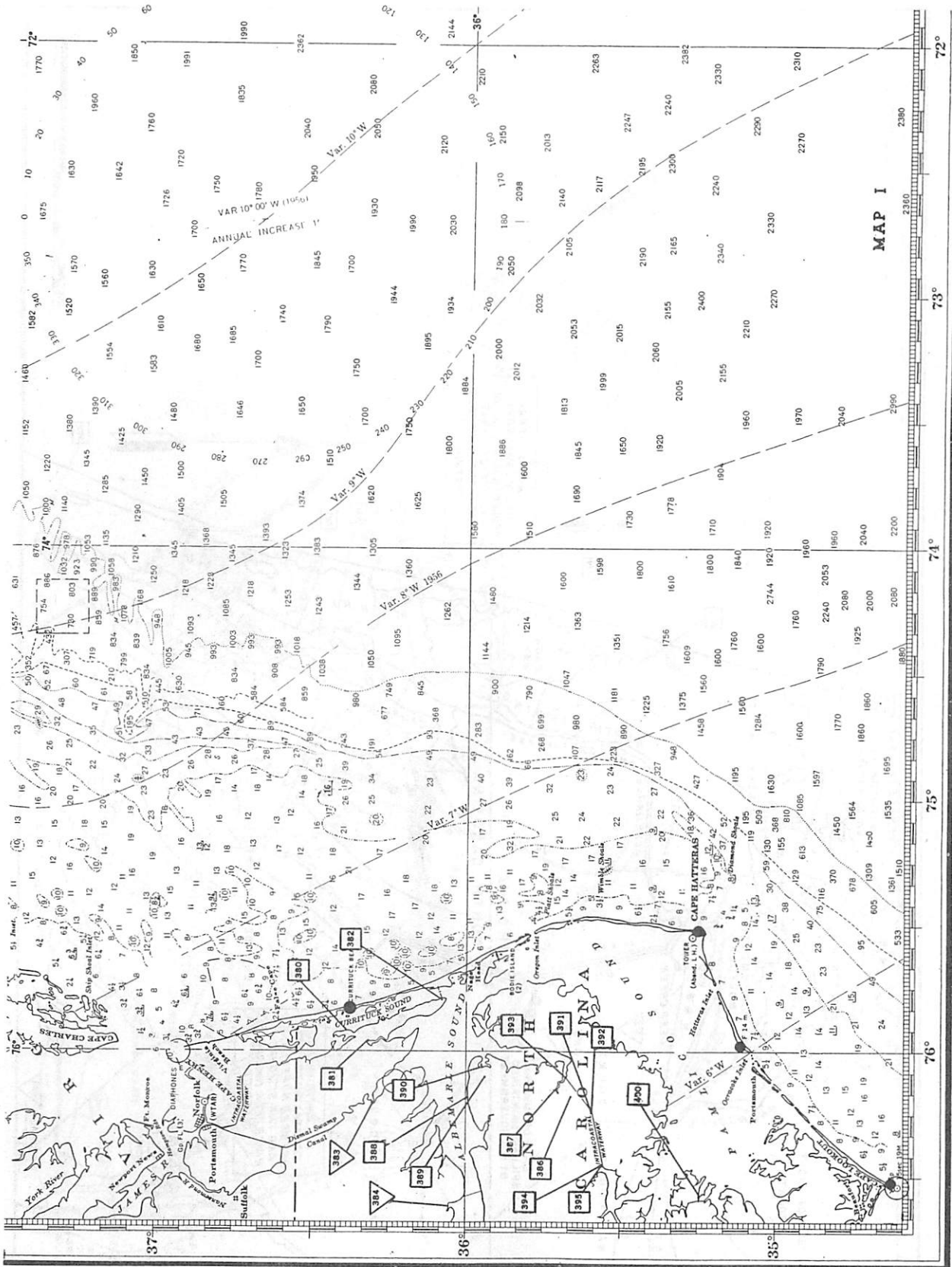


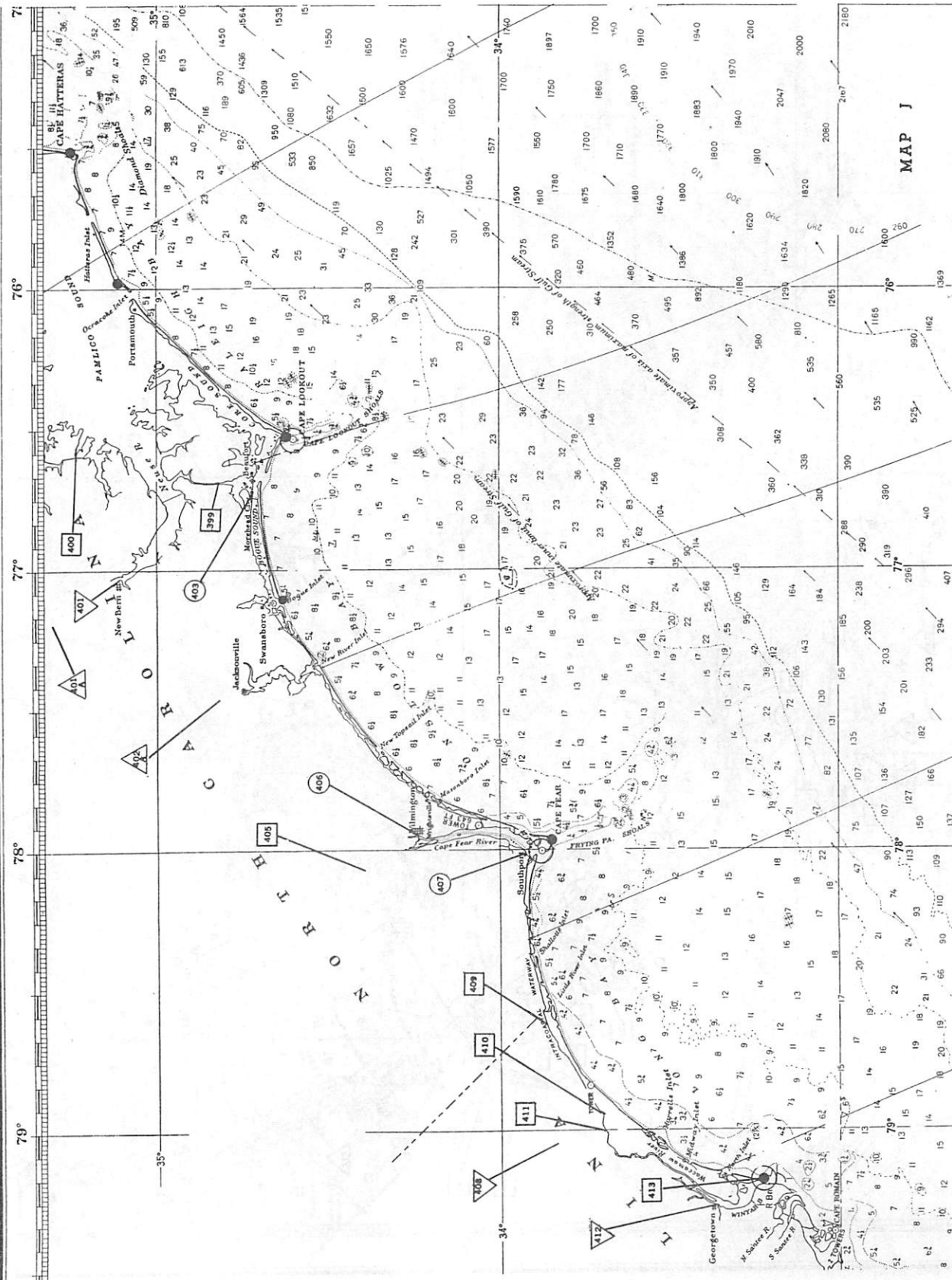


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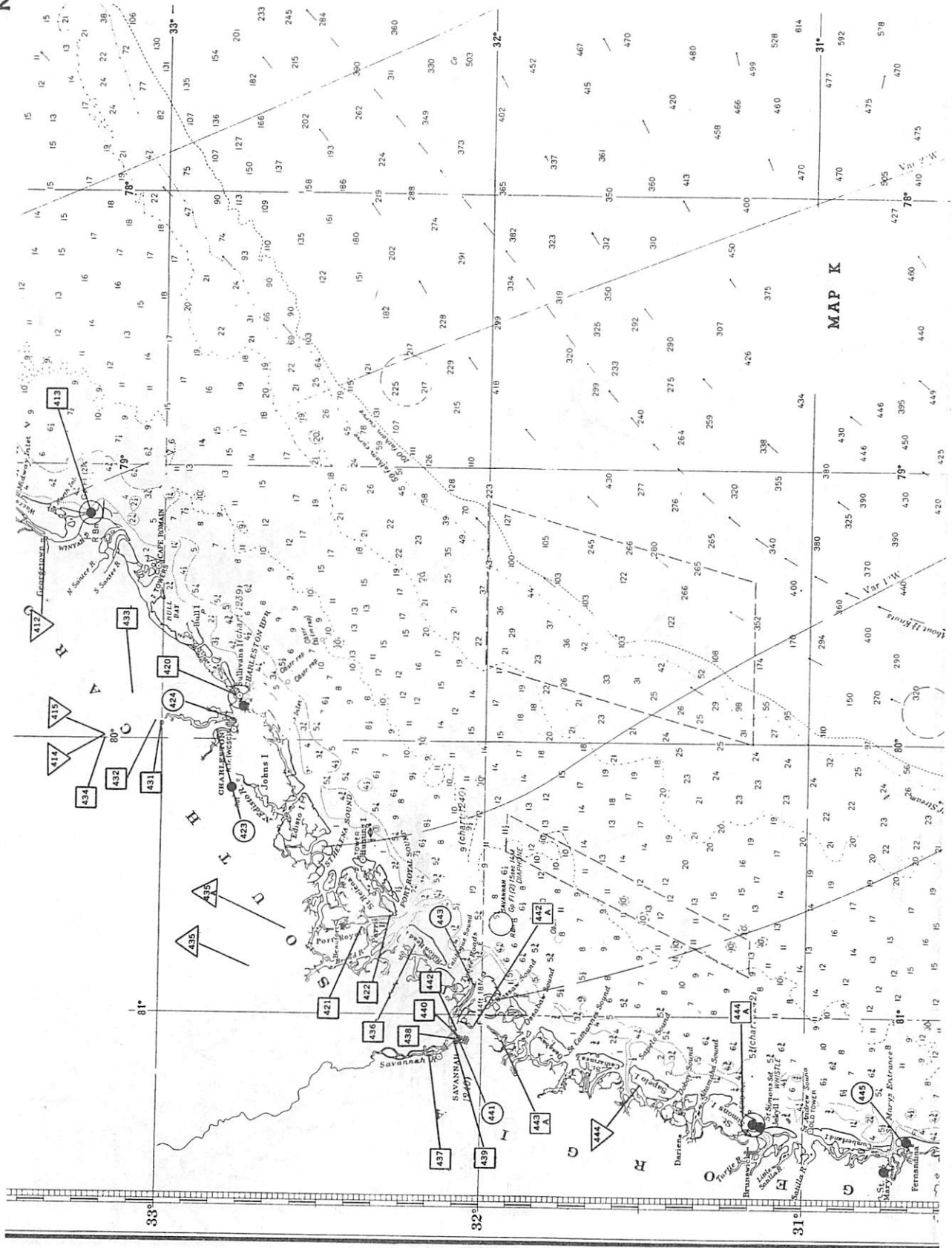




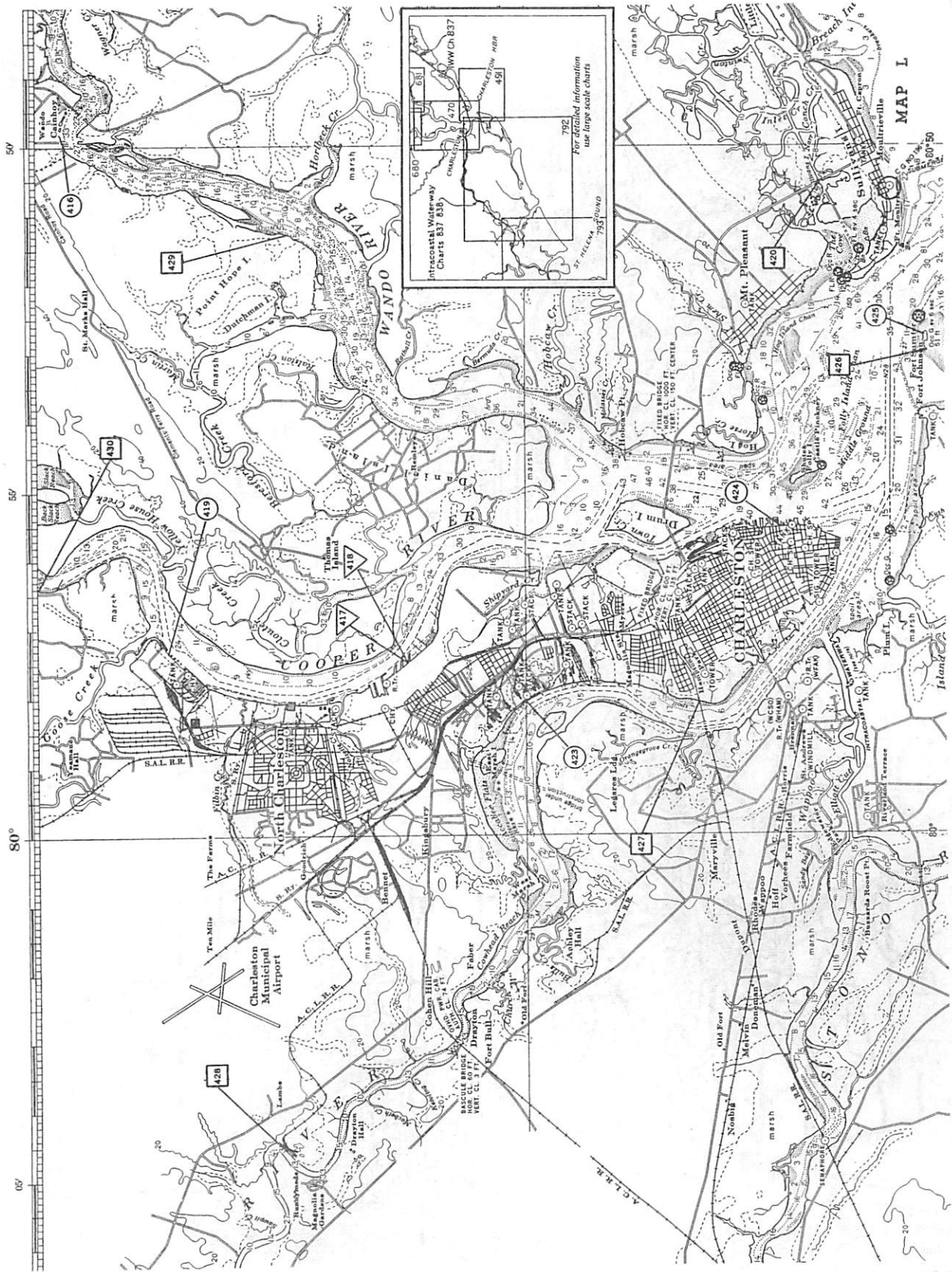




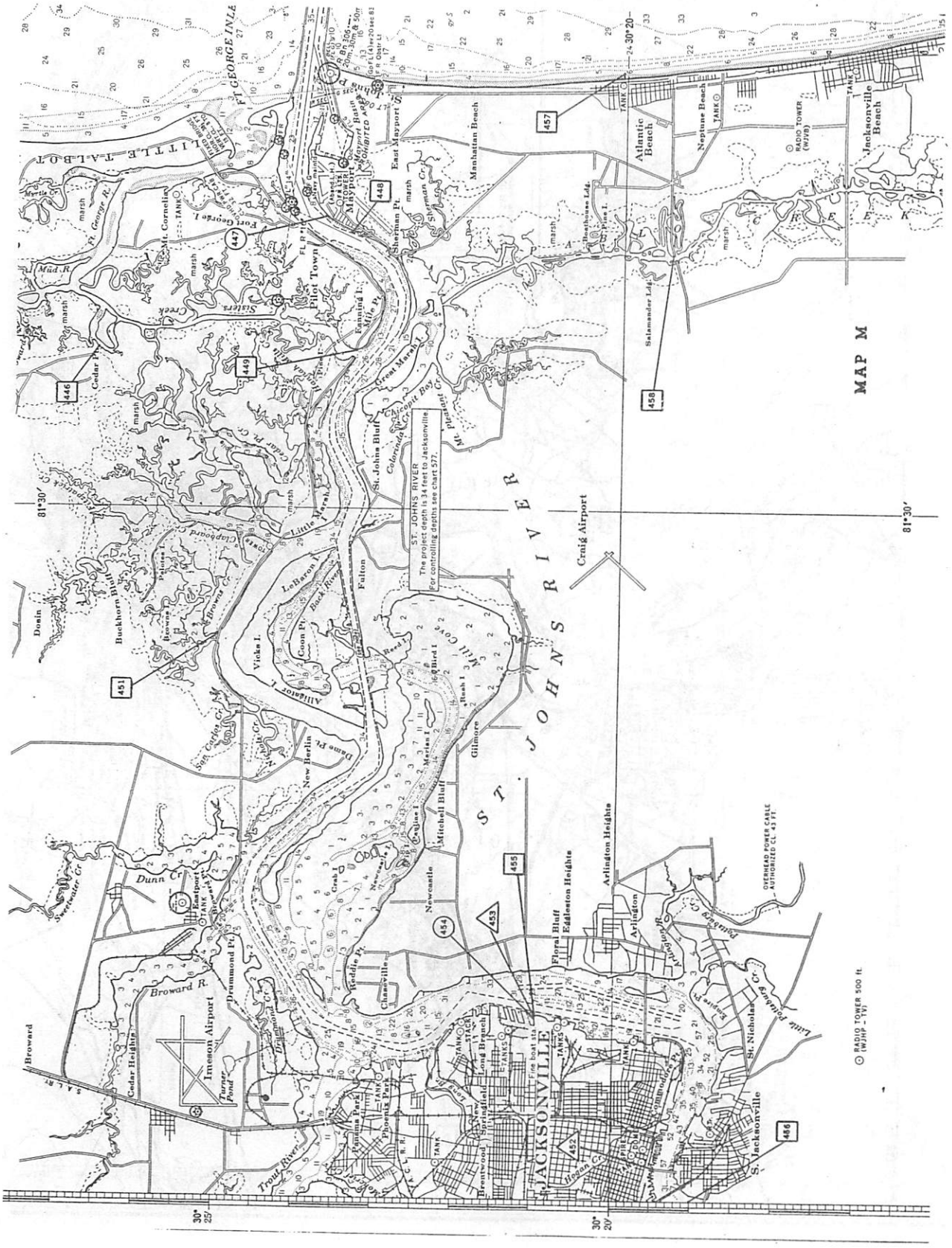
MAP J



MAP K

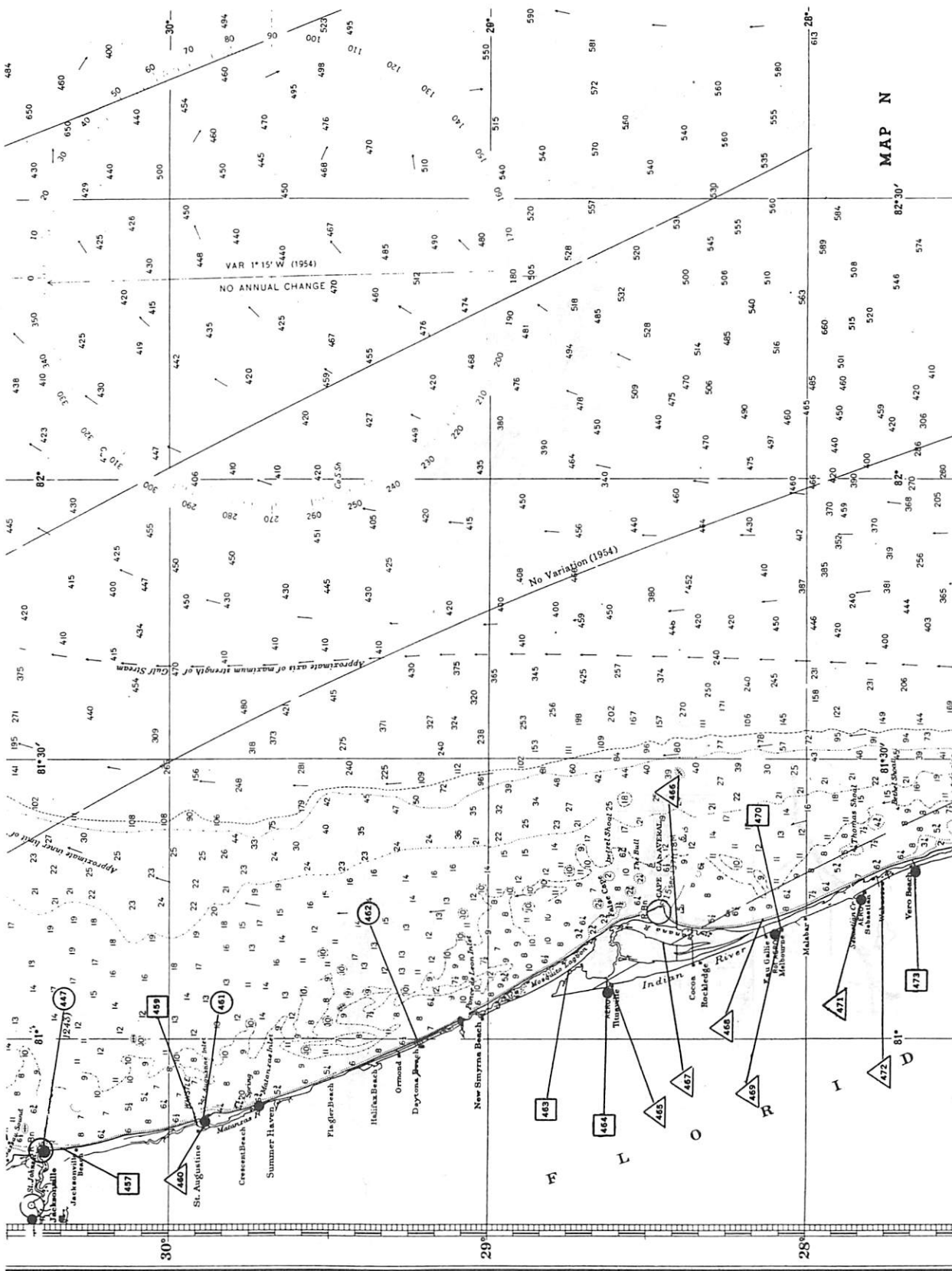


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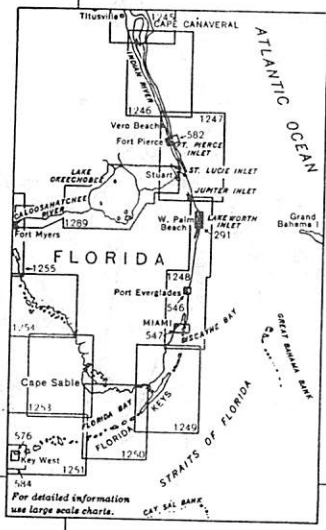
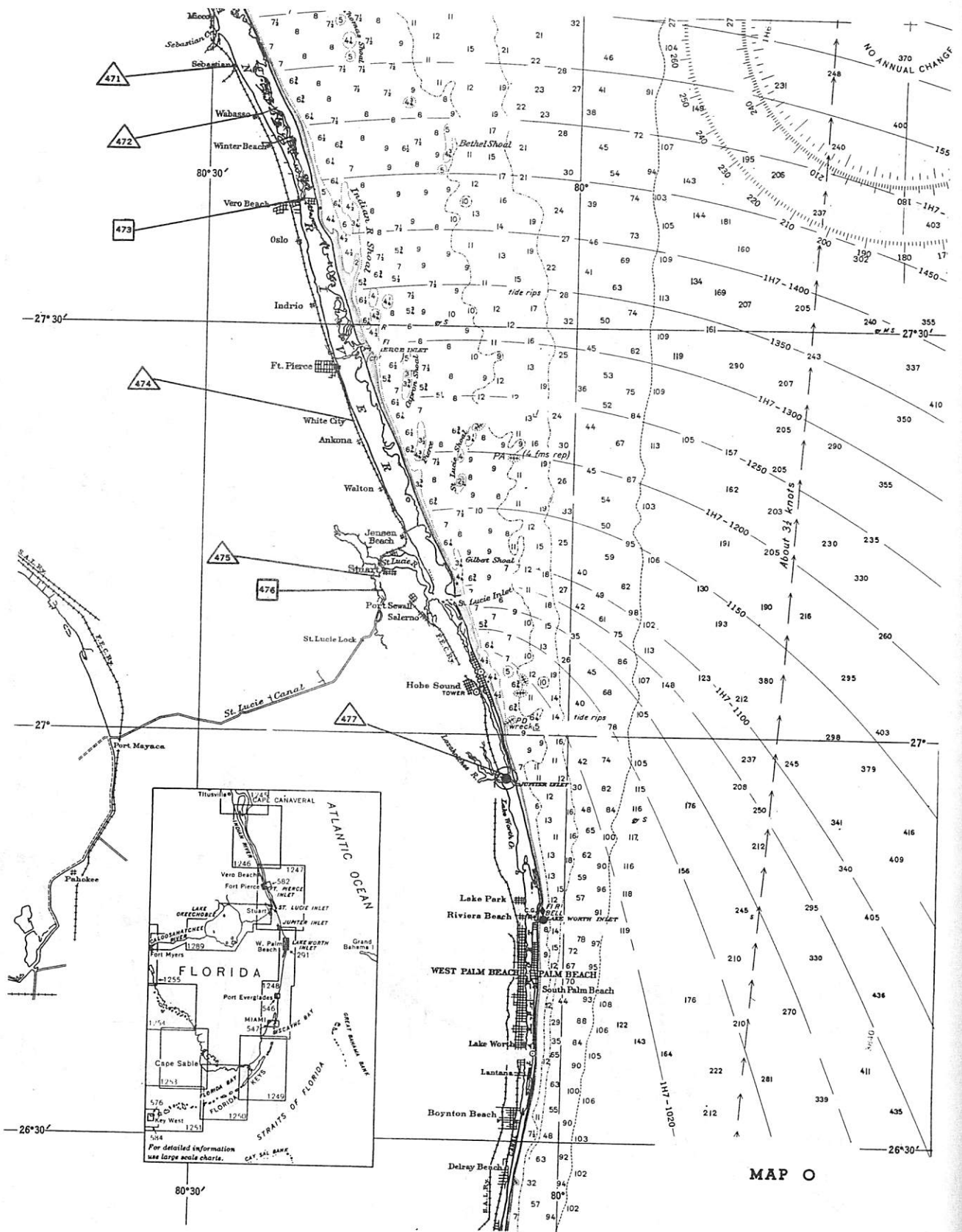


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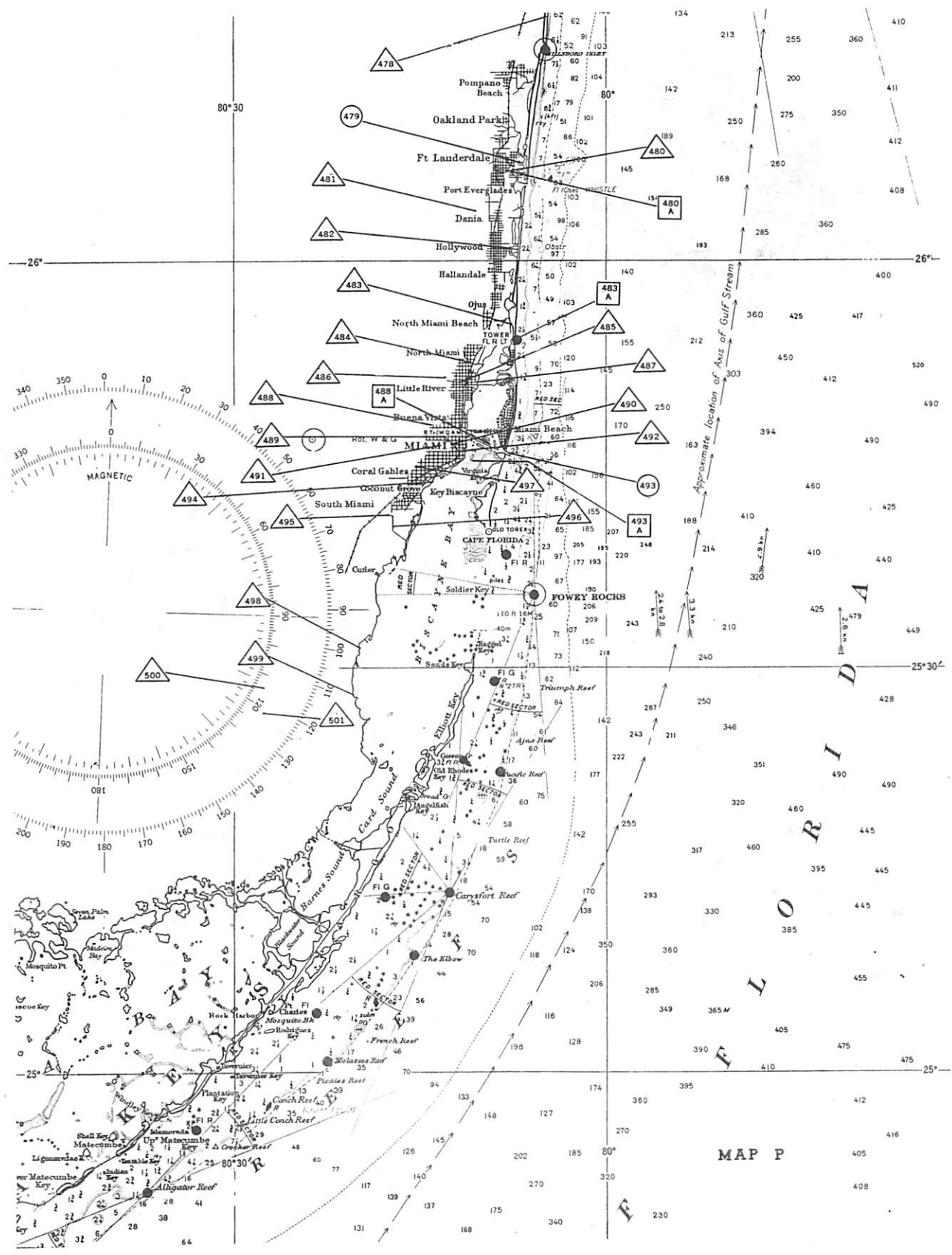
© RADIO TOWER 500 FT.
© (WJTB - TV)



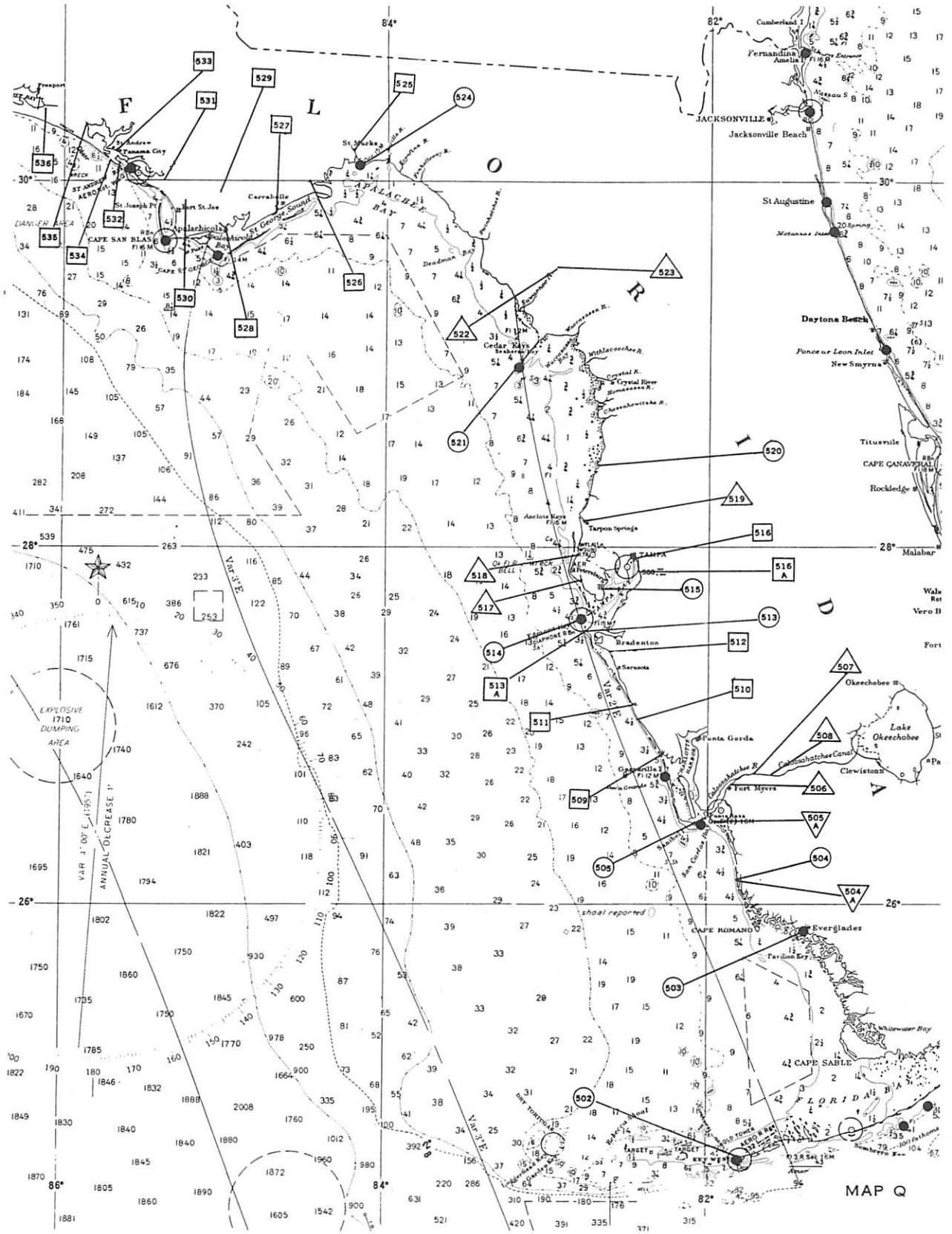
MAP N



MAP O

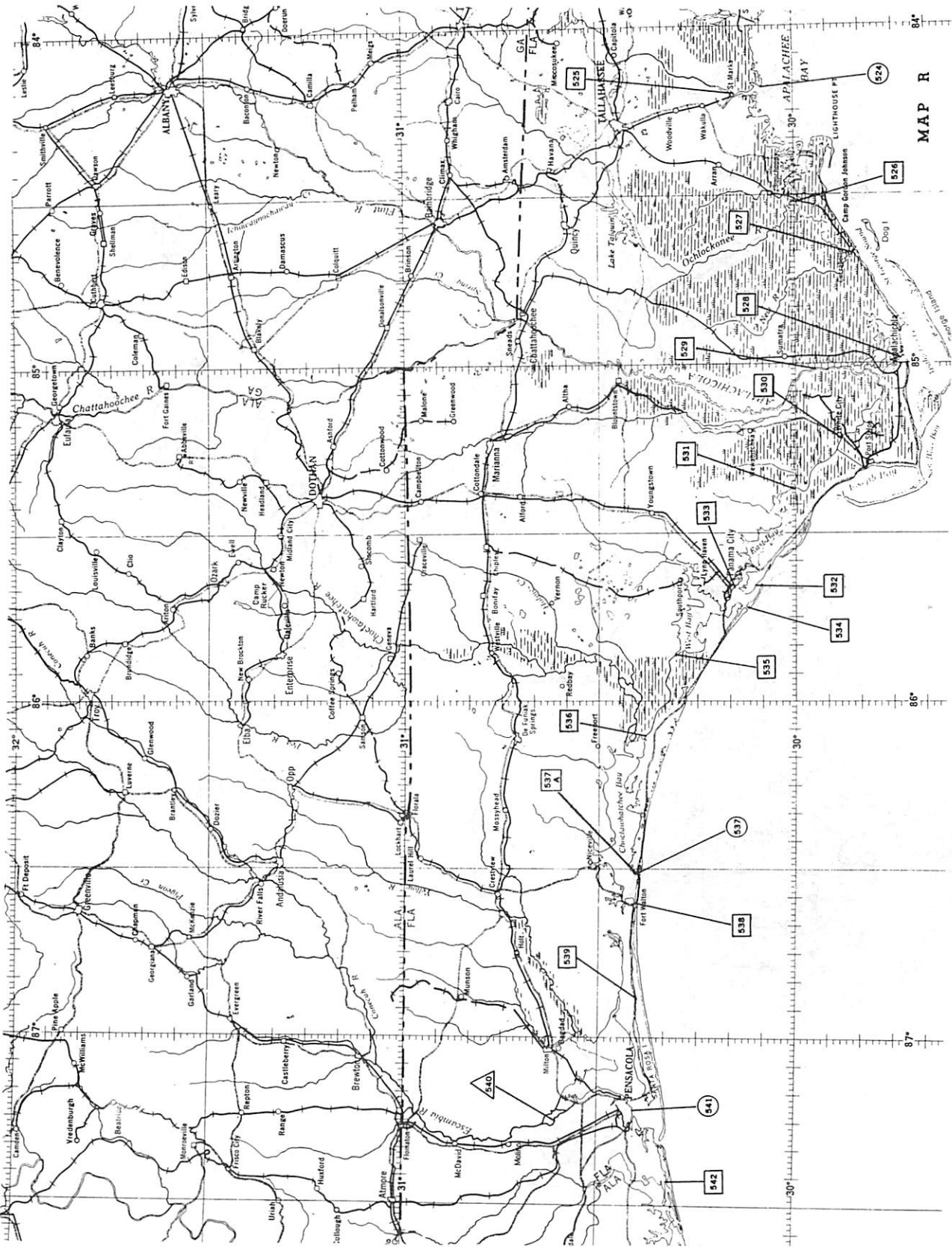


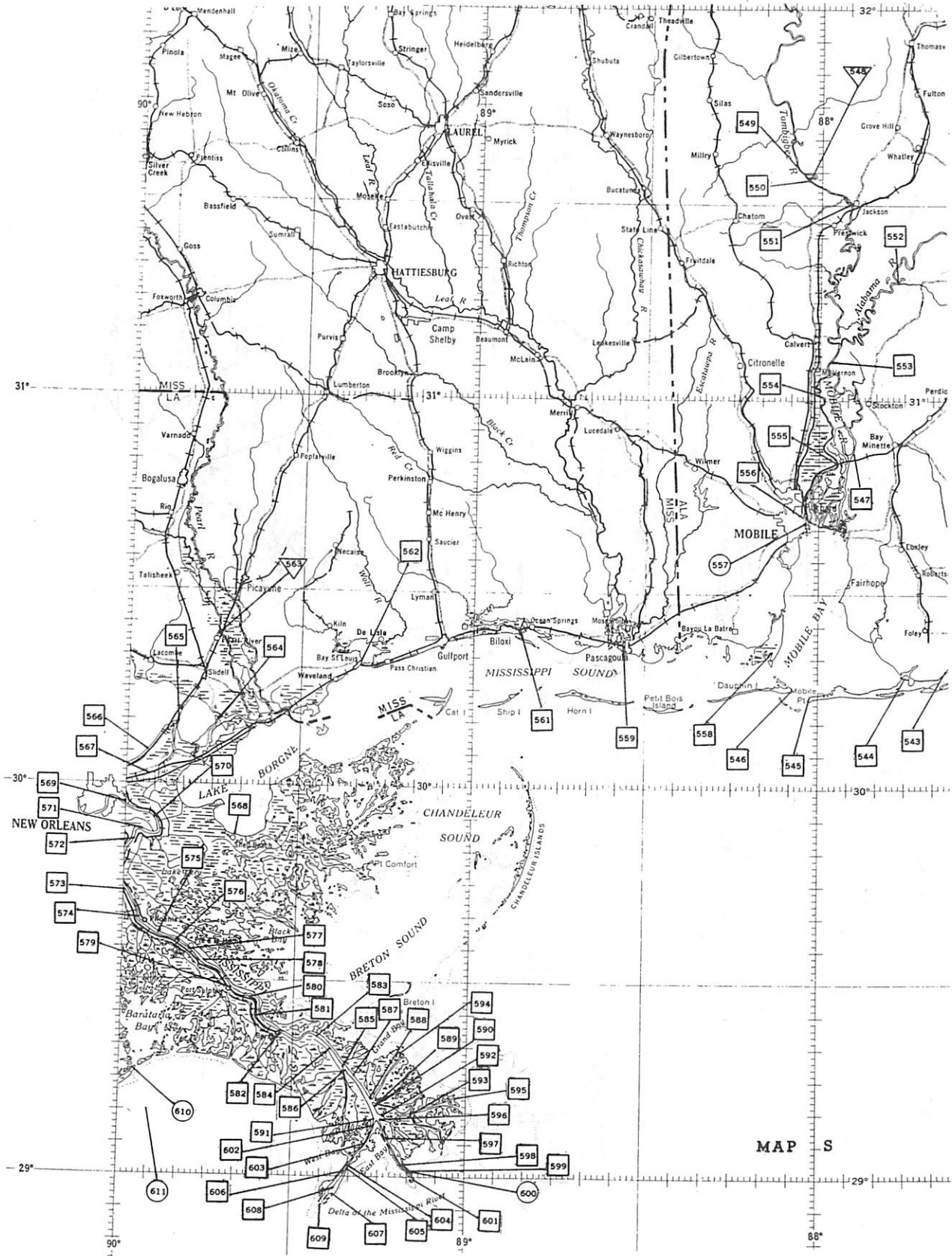
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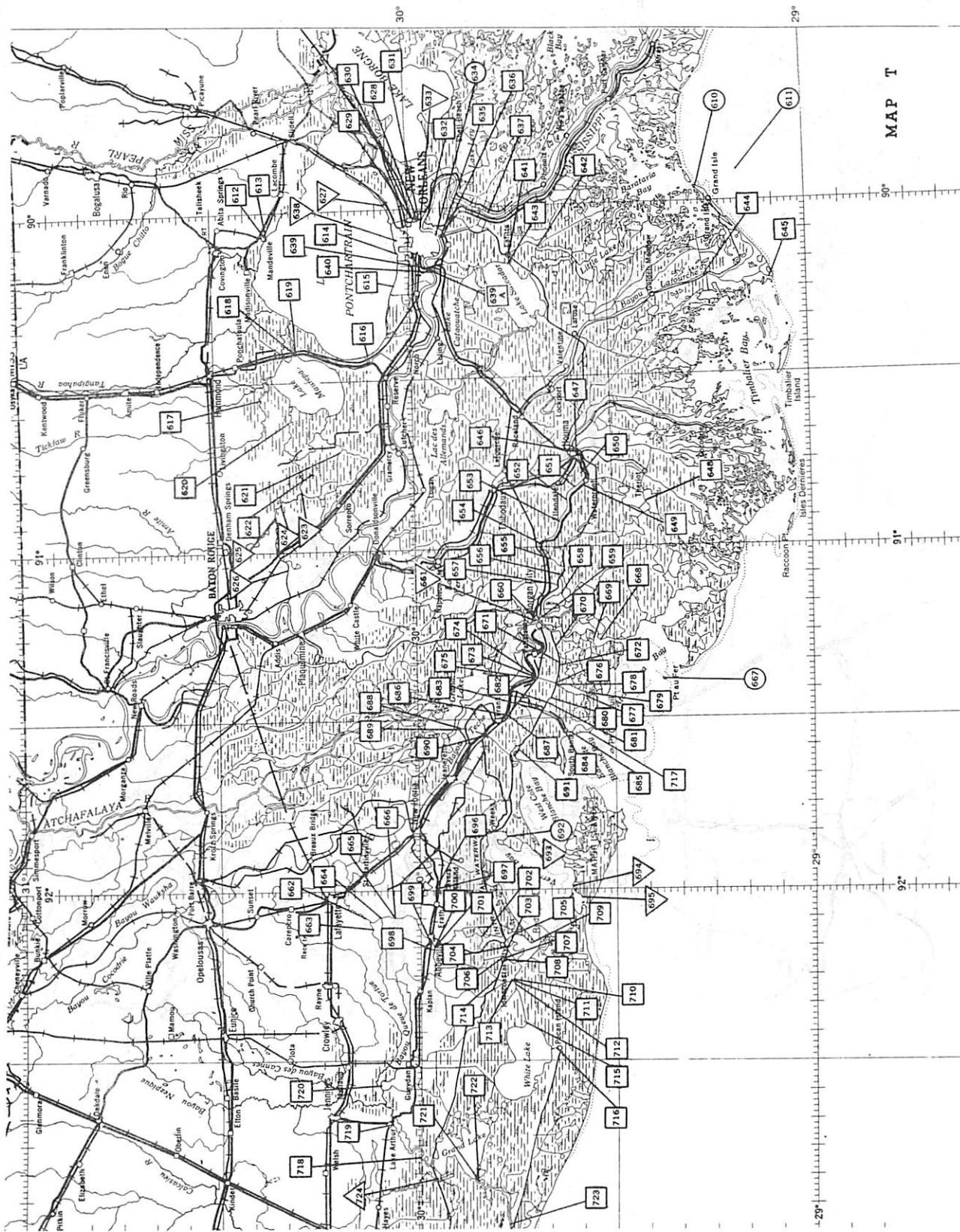
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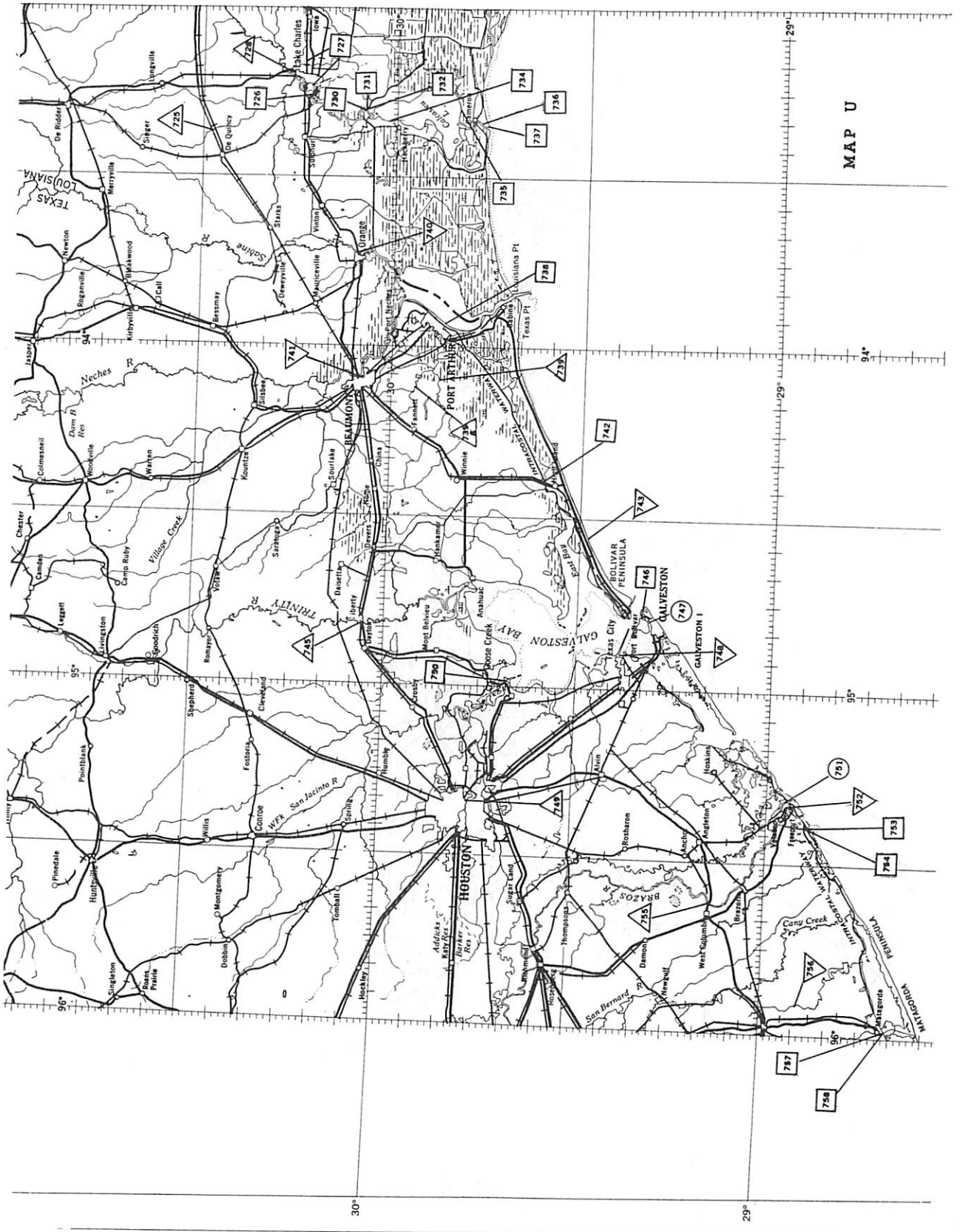
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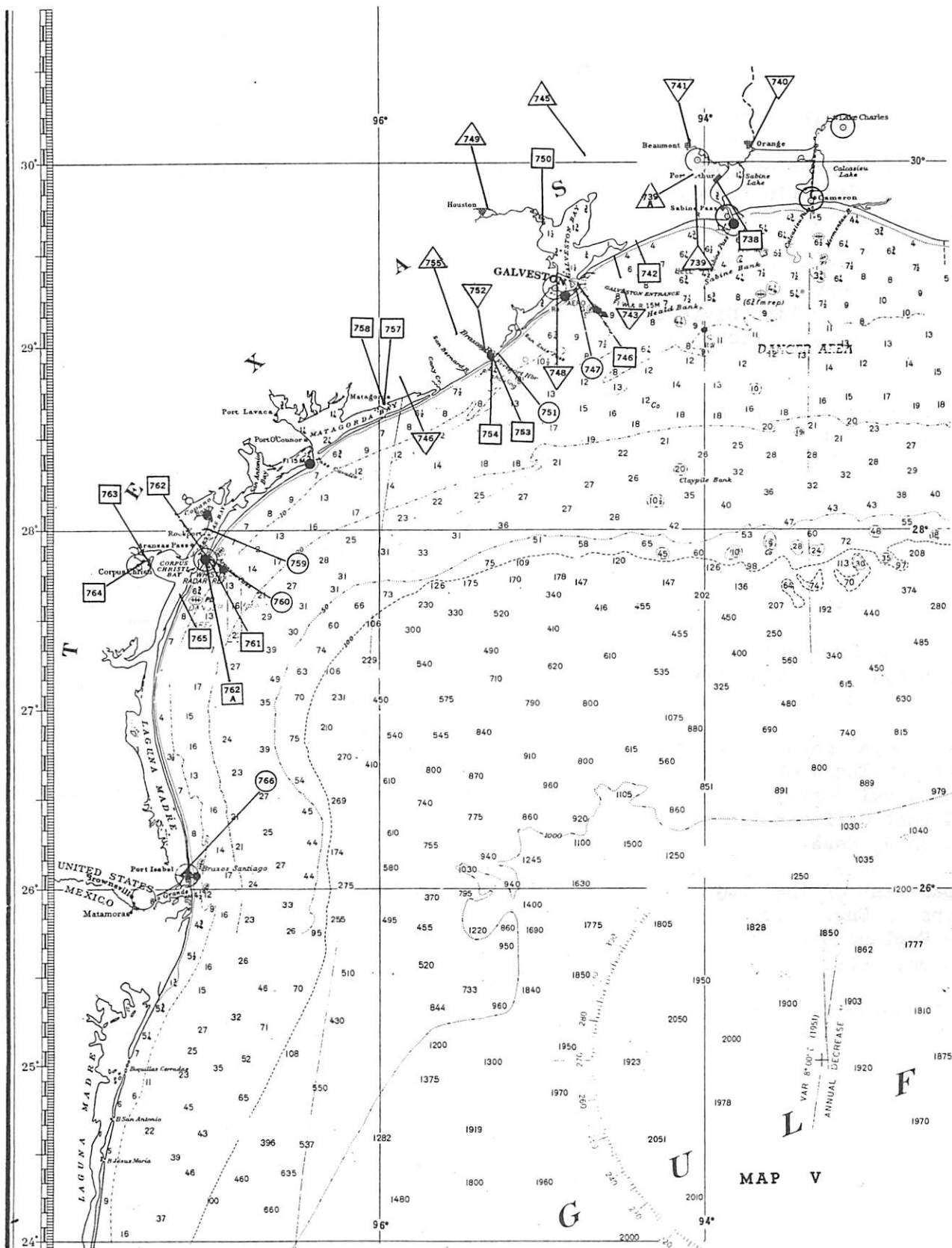


MAP T





MAP U



MAP V

APPENDIX I

List of Agencies Operating Gages, and Their Addresses

- | | |
|--|--|
| U. S. Department of Commerce
Coast and Geodetic Survey
Washington 25, D. C. | U. S. Department of Interior
District Engineer
Geological Survey
526 Federal Building
Post Office Box 948
Albany 1, N. Y. |
| U. S. Department of Commerce
Weather Bureau
Hydrologic Services Division
River Services Section
Washington 25, D. C. | Consolidated Edison Co., Inc.
New York, N. Y. |
| U. S. Department of Interior
Geological Survey
Washington 25, D. C. | Department of the Army
Corps of Engineers
New York District
New York, N. Y. |
| U. S. Department of Interior
District Engineer
Geological Survey
State House, Room 422
Augusta, Maine | City of New York
Dept. of Marine and Aviation
New York, N. Y. |
| Salem Harbor Steam Plant
New England Electric System
Salem, Mass. | Suffolk County Highway Department
Long Island, N. Y. |
| U. S. Department of Interior
District Engineer
Geological Survey
939 Post Office Building
Boston 9, Mass. | U. S. Steel Corporation
Fairless Works
Morrisville, Pa. |
| Department of the Army
Corps of Engineers
New England Division
Boston, Mass. | Delaware River Joint Toll Bridge Com.
Morrisville, Pa. |
| U. S. Department of Interior
District Engineer
Geological Survey
203 Federal Building
P. O. Box 715
Hartford, Conn. | State of New Jersey
Trenton, N. J. |
| Connecticut Light and Power Company
Stamford, Conn. | U. S. Department of Commerce
Weather Bureau
Atlantic City, N. J. |
| U. S. Navy
Navy Yard, East River
New York, N. Y. | E. I. du Pont de Nemours and Co.
Chambers Works
Deep Water, N. J. |
| | U. S. Department of Interior
District Engineer
Geological Survey
P. O. Box 967
228 Federal Building
Trenton 6, N. J. |

U. S. Department of Interior
District Engineer
P. O. Box 421
Harrisburg, Pa.

Department of the Army
Corps of Engineers
Philadelphia District
Philadelphia, Pa.

Gulf Oil Corp.
Philadelphia, Pa.

Department of the Army
Corps of Engineers
Baltimore District
Baltimore, Md.

U. S. Department of the Interior
District Engineer
Geological Survey
P. O. Box 37
College Park, Md.

Bethlehem Steel Company
Sparrows Point, Md.

Department of the Army
Corps of Engineers
Washington District
Washington 25, D. C.

U. S. Navy
Naval Proving Ground
Yard Craft Division
Dahlgren, Va.

U. S. Navy
Naval Air Station
Boat Division
Patuxent River, Md.

U. S. Department of the Interior
District Engineer
Geological Survey
P. O. Box 3327, University Station
Charlottesville, Va.

Department of the Army
Corps of Engineers
Norfolk District
Norfolk, Va.

Norfolk Naval Shipyard
Public Works Dept.
Portsmouth, Va.

U. S. Weather Bureau
Norfolk 13, Va.

U. S. Weather Bureau
Box 627
Raleigh, N. C.

U. S. Department of Interior
District Engineer
Geological Survey
P. O. Box 2857
Raleigh, N. C.

Department of the Army
Corps of Engineers
Wilmington District
Wilmington, N. C.

Department of the Army
Corps of Engineers
Charleston District
Charleston, S. C.

U. S. Weather Bureau Office
Box 221
Charleston, S. C.

International Paper Company
Georgetown, S. C.

U. S. Department of Interior
District Engineer
Geological Survey
210 Creason Building
Columbia, S. C.

U. S. Navy
Charleston Naval Shipyard
Survey Section of Public Works
Charleston, S. C.

U. S. Department of Interior
District Engineer
Geological Survey
795 Peachtree St., Room 136
Atlanta 8, Ga.

Department of the Army
Corps of Engineers
Savannah District
200 East St. Julian St.
Savannah, Ga.

R. J. Reynolds Tobacco Company
Raleigh, N. C.

Department of the Army
Corps of Engineers
Jacksonville District
Jacksonville, Fla.

U. S. Department of the Interior
Surface Water Branch
P. O. Box 348
Miami 33, Fla.

U. S. Fish and Wild Life Service
P. O. Box 637
Naples, Fla.

U. S. Fish and Wild Life Service
Fort Myers, Fla.

U. S. Department of Interior
District Engineer
Geological Survey
P. O. Box 607
Ocala, Fla.

Department of the Army
Corps of Engineers
Mobile District
Mobile, Ala.

Department of the Army
District Engineer
New Orleans District
Corps of Engineers
P. O. Box 267
New Orleans 9, La.

Louisiana Department of Public Works
Baton Rouge, La.

Sewerage and Water Board
New Orleans, La.

New Orleans Levee Board
New Orleans, La.

United Gas Pipeline Company
P. O. Box 1628
New Orleans, La.

Department of the Army
Corps of Engineers
Area Office
Port Arthur, Tex.

Texas A and M College
College Station, Tex.

Department of the Army
Corps of Engineers
Galveston, Tex.

Carbon Carbide Co.
Texas City, Tex.

Brazos River Harbor
Navigation District
Freeport, Tex.

Department of the Army
Corps of Engineers
Area Office
Corpus Christi, Tex.

Department of the Army
Corps of Engineers
Kansas City Records Center
Kansas City, Kans.

APPENDIX II

List of Abbreviations

A. C. Elec. Co.	Atlantic City Electric Company
Atl. Ref. Co.	Atlantic Refining Company, Phil., Pa.
(Bal. Dist.)	Baltimore District Corps of Engineers
Beth Steel Co.	Bethlehem Steel Company
B. R. N. D.	Brazos River Navigation District
Br. Tender	Bridge Tender
C. B. L.	see C and GS
C. C. Co.	Carbon Carbide Company, Texas City, Tex.
CE-USA	Corps of Engineers, U. S. Army
C and GS	Coast and Geodetic Survey
(Chas. Dist.)	Charleston District, Corps of Engineers
Conn. Pwr. Co.	Connecticut Power Company
Con. Edison	Consolidated Edison Company
Del. R. J. T. B. C.	Delaware River Joint Toll Bridge Commission
I.P. Co.	International Paper Company, Georgetown, S.C.
(Jack. Dist.)	Jacksonville District, Corps of Engineers
(KCRC)	Kansas City Records Center, Corps of Engineers
MLW	Mean Low Water
(Mob. Dist.)	Mobile District, Corps of Engineers
m.s.l.	mean sea level
Narr. Elec. Co.	Narragansett Electric Company
NED	New England Division of the Corps of Engineers
N. E. E. S.	New England Electric System
N.O.L.B.	New Orleans Levee Board
(N.O. Dist.)	New Orleans District, Corps of Engineers
N. R. L.	Naval Research Laboratory
NYC	New York City
(NY Dist.)	New York District, Corps of Engineers
(Nor. Dist.)	Norfolk District, Corps of Engineers
(Phil. Dist.)	Philadelphia District, Corps of Engineers
Phil. Elec. Co.	Philadelphia Electric Company
Phil. Int. Arpt.	Philadelphia International Airport
P.S. Co.	Public Service Co. of New Jersey
R. Tob. Co.	Reynolds Tobacco Co.
(Sav. Dist.)	Savannah District, Corps of Engineers
S and WB	Sewerage and Water Board, New Orleans, La.
SC Hwy Dept.	Suffolk County Highway Department
U.G.P.L. Co.	United Gas Pipeline Company
USA, USAF	United States Army, United States Air Force
USCG	United States Coast Guard
USF and WL Serv.	United States Fish and Wild Life Service
USGS	United States Geological Survey
USN	United States Navy
USWB	United States Weather Bureau
VFL	Virginia Fisheries Laboratory
WBO	Weather Bureau Office
W.H.O.I.	Woods Hole Oceanographic Institute
(Wil. Dist.)	Wilmington District, Corps of Engineers
W.P. Co.	Wheaton Plastic Co., Mays Landing, New Jersey
(Wash. Dist.)	Washington, D. C. District, Corps of Engineers

APPENDIX III

THE SIGNIFICANCE OF MEAN SEA LEVEL

A standard reference datum is essential for precise leveling in the interior of the country, as well as near the coast, and in most countries this datum is related to sea level. First-order leveling was first undertaken by the United States Coast and Geodetic Survey in 1878. There have been six special or general adjustments to this original net, the last being that of 1929, now referred to as "Sea Level Datum of 1929" [1].

The use of a term such as "mean sea level" to describe the reference datum implies that the surface obtained by averaging out the effects of waves, tides, and storm surges on the elevation of the sea surface is a level surface, and that the elevation of this surface is known with all useful accuracy. This implication is almost, but not exactly, true. The discrepancies between the above implication and the facts of nature are of little or no practical importance in the interior of the country, but they lead to a certain amount of unavoidable difficulty in any effort to establish exact elevations near the sea coast.

Mean sea level is usually defined as the average height of the surface of the sea for all stages of the tide over a considerable period of time. Some writers specify a 19-year period, corresponding to the approximately 19-year periods in the combination of lunar and solar relationships. The 19-year period is important in the specification of the mean range of the tide, and therefore in the determination of mean low water or any other datum plane which depends on the range of the tide. It has, however, no special significance when applied to mean sea level, and a much shorter period of record has been used in most mean sea level determinations. The short-period records are often corrected for secular trends by comparison with nearby stations having a longer period of record. A 19-year period is often used in these comparisons because of the importance of this period in determining the datum planes which depend on the range of the tide. However, the importance of the astronomical periods of approximately 19 years on mean sea level has not been proven [2].

A study of the accuracy with which mean sea level can be determined may well begin with an examination of the variability of the yearly sea level, defined as the average hourly elevation of the sea surface for one year. Figure 3 shows the yearly sea level for 18 Coast and Geodetic Survey tide stations along the Atlantic and Gulf Coasts. The data are tabulated in table 1 of this appendix. A secular trend toward increasing sea level is apparent in the records of all stations. According to Disney [3], the average indicated rise is 0.011 foot per year at all Atlantic Coast and Florida stations having records for 40 years or longer. The indicated rise at Galveston is 0.021 foot per year. Part of this relative rise at Galveston is believed to be due to settling of the land in this area.

In addition to this trend toward rising sea level, there are many fluctuations in which the annual sea level rises by a few tenths of a foot in a period of

Table 1. - Departure of annual sea level (in feet) from the currently accepted mean sea level (1957)

	Eastport, Maine	Portland, Maine	Portsmouth, N. H.	Boston, Mass.	Newport, R.I.	New York, N.Y. (Battery)	Atlantic City, N.J. (Steel Pier)	Philadelphia, Pa.	Baltimore, Md.	Hampton Roads, Va. (Sewall Point)	Southport, N.C.	Charleston, N.C. (Custom House)	Fort Pulaski, Ga.	Mayport, Fla.	Key West, Fla.	Cedar Key, Fla.	Pensacola, Fla.	Galveston, Tex.
1900																		
1901																		
1902																		
1903									.05									
1904									-.15									
1905									-.09									
1906									-.06									
1907									-.09									
1908									-.05									.16
1909									-.03									.02
1910									.04									-.24
1911									-.01									-.11
1912		0.00					-.35		-.11									.05
1913		-.05					-.28		-.08						.02			.17
1914		.01					-.16		-.05						-.02	-.02		.11
1915		.09					-.10		.06						-.02	-.09		-.01
1916		.05					-.19		.02						.02	-.11		.03
1917		.06					-.18		0.00						.08	-.12		-.21
1918		.06					-.13		.10						-.01	-.07		-.13
1919		.15					.01		.19						-.01	-.02		.24
1920		.11					-.05		.06						-.09	-.12		.13
1921		.06		-.09		.06			.14						.05	-.01		.46
1922		-.06		-.18		-.09			.04						.01	.02		.26
1923		-.01		-.19		-.06	-.17	-.19	.06			-.01			-.06	-.02	.19	.32
1924		0.00		-.17		-.04	-.14	-.08	.10			-.01			-.05	-.20	-.21	-.04
1925		-.08		-.24		-.13	-.23	-.26	-.03			.06			-.03	-.06	-.13	.02
1926		-.10		-.21		-.14	-.19	-.19	-.01			-.16			-.09		-.08	.04
1927		.02	-.01	-.10		-.02	-.03	.09	.10			-.09			.03		-.04	.32
1928		-.06	-.10	-.20		-.18	-.20	-.08	-.01	-.22		-.07			-.04		-.09	.12
1929		-.08	-.11	-.18		-.13	-.18	-.16	.01	-.17		-.05		.01	.01		-.19	.53
1930	-.11	-.10	-.13	-.19		-.17	-.16	-.27	-.03	-.18		-.09		.04	.04		-.12	.23
1931	.01	.01	.01	-.03	.08	-.02	.02	-.13	.07	-.08		-.18		-.12	-.10		-.19	.03
1932	.04	.04	.02	-.05	.12	-.03	.13	.15	.22	.16	.17	.13		0.00	.05		.03	.27
1933	.05	.11	.09	.03	.19	.07	.13	.15	.22	.16	.17	.13		.20	.16		.16	.45
1934	-.05	-.04	-.05	-.15	0.00	-.08	-.06	-.04	.10	-.06	0.00	-.08		.03	.01		-.10	.17
1935	.01	.07		-.02	.13	.06	.08	.07	.16	.07	.15	.11	.14	.18	.11		-.03	.33
1936	-.01	.05		-.08	.09	-.01	0.00	.07	.21	-.03	.18	.11	.16	.19	.19		.05	.34
1937	.03	.07		.01	.18	.10	.15	.19	.31	.15	.20	.16	.20	.22	.25		.15	.46
1938	0.00	.11		.05	.23	.15	.14	.20	.29	.12	.20	.11	.16	.18	.11		.10	.42
1939	.02	.02		.05	.22	.16	.19	.09	.31	.15	.20	.06	.04	.11	.15	.06	.08	.31
1940	.06	.14	.09	.07	.25	.16	.19	.16	.29	.26	.08	.06	.08	.11	.05	-.02	-.02	.22
1941	.08	.10	.11	.08	.22	.08	.13	-.08	.18	.10	.06	.02	.08	.17	.09	.14	.08	.56
1942	.06	.14	.12	.12	.30	.20	.22	.13	.35	.21	.17	.16	.14	.17	.24	.11	.12	.57
1943	-.02	.08	.10	.07	.22	.13	.13	-.02	.24	.08	.23	.23	.20	.19	.23	.17	.18	.58
1944	.02	.13	.10	.09	.27	.19	.24	-.04	.26	.18	.30	.35	.33	.30	.22	.10	.25	.71
1945	.23	.20	.25	.26	.33	.29	.31	.28	.46	.33	.28	.24	.22	.21	.14	.12	.20	.83
1946	.23	.26	.16	.15	.31	.23	.28	.17	.48	.33	.36	.36	.37	.36	.29	.24	.32	.84
1947	.25	.33	.18	.18	.31	.20	.23	.12	.41	.19	.38	.40	.47	.42	.39	.25	.30	.77
1948	.17	.31	.17	.21	.38	.32	.33	.27	.49	.38	.54	.63	.62	.61	.47	.42	.46	.87
1949	.10	.17	.07	.03	.28	.22	.16	.13	.41	.27	.39	.45	.42	.41	.25	.35	.32	.94
1950	.09	.15	.05	.03	.21	.12	.13	.09	.34	.16	.24	.26	.25	.23	.24	.21	.26	.96
1951	.15	.31	.22	.21	.38	.31	.28	.31	.50	.35	.30	.32	.30	.28	.21	.18	.15	.65
1952	.15	.32	.21	.21	.38	.31	.27	.36	.48	.34	.37	.34	.30	.27	.27	.14	.15	.74
1953	.15	.29	.22	.21	.42	.31	.27	.29	.52	.34	.33	.29	.29	.28	.28	.21	.21	.75
1954	.15	.35	.25	.20	.40	.24	.18	.14	.40	.23	.29	.29	.30	.24	.24	.14	.10	.58
1955	.11	.32	.23	.21	.40	.33	.28	.28	.50	.36	.41	.37	.31	.25	.18	.17	.17	.75
1956	.17	.29	.23	.22	.41	.38	.36	.36	.57	.42	.22	.20	.14	.24	.14	.12	.12	.64

Table 2. - Tide data used in establishing sea level datum of 1929

Station	Period of record used	Elevation of local mean sea level relative to Galveston, Tex. (ft.)
Galveston, Tex.	Dec. 1, 1903-Nov. 29, 1906	0.00
Biloxi, Miss.	1882, 1884, 1896-98	-0.30
Pensacola, Fla.	1924-26, compared with Key West	-0.16
Cedar Key, Fla.	1892-93	-0.26
St. Augustine, Fla.	1892-93	-0.89
Fernandina, Fla.	1898-1923 (25 months)	-0.66
Brunswick, Ga.	1904-5, 1908-9	-0.52
Norfolk, Va.	1908-1915	-0.46
Old Point Comfort, Va.	1853-1878	-0.92
Annapolis, Md.	Two 1-month series 1875, 1888	-0.56
Baltimore, Md.	1903-21	-0.59
Atlantic City, N. J.	1912-1926	+0.10
Boston, Mass.	Aug. 1921-July 1923	+0.23
Portland, Maine	1915-1925	+0.39
Yarmouth, Nova Scotia		+0.16
Halifax, Nova Scotia		+0.26
Father Point, Quebec		+0.66
San Diego, Calif.	1906-1908	+1.08
San Pedro, Calif.	1924-25, 1927-28	+1.08
San Francisco, Calif.	1898-1913	+1.11
Fort Stevens, Oreg.	1925-1926	+1.94
Seattle, Wash.	1899-1917	+1.57
Anacortes, Wash.	June 1, 1921-May 31, 1924	+1.48
Vancouver, British Columbia		+1.64
Prince Rupert, British Columbia		+1.90

a few years and falls a similar amount in later years. Many of these short-term changes are correlated along the entire coast; the sea level was higher in 1933 than in 1934 at all stations. However, this is not always true; the trend between 1945 and 1946 changes sign several times between Eastport and Galveston. These short-period changes are believed to be due to changes in the mean atmospheric pressure and prevailing winds during the period considered.

An inspection of figure 3 indicates that a value of mean sea level, determined from a single year of observations, may differ from the long-term average by several tenths of a foot, even if corrected for the secular trend. Some improvement in accuracy can be obtained by comparison with the meteorologically induced departures from the trend as shown by nearby stations. However, the correlation between adjacent stations is not perfect and it is doubtful if discrepancies of the order of 0.1 foot can be avoided in using a short period of record to estimate the local mean sea level.

It is sometimes desirable to establish a local value for mean sea level when no local observations are available. In such cases, there is no alternative to the establishment of an estimated local mean sea level datum by running a level line to a reference datum established by observations at some other location. This brings into question the actual shape of the sea surface.

The slope of the sea surface, upward toward the north along the Atlantic Coast and toward the west along the Gulf Coast has been established [4, 5, 6, 7]. A similar rise in sea level from south to north is observed on both the eastern and western coast of Great Britain [2].

The 1929 general adjustment to the precise level net in the United States was developed by holding the zero of the sea level datum equal to the value then in use for local mean sea level at 21 tide stations in the United States and 5 in Canada. The corrections in the adjustment involved averaged 0.2 millimeters per kilometer, which is significantly less than the permissible error in first-order leveling [8]. Table 2 contains a list of 26 stations used in establishing the sea level datum of 1929, the relative elevation of these stations as determined by first-order leveling, and the period of record used in establishing local mean sea level at each station. The value currently accepted for local mean sea level is, in general, different from the value in use in 1929, as an inspection of figure 3 indicates it should be. Table 3 lists the currently accepted values of mean sea level, half tide level, mean low water, and mean high water in terms of sea level datum, and the period of observations used in determining the relationship between half tide level, mean low water, and mean high water, for 40 Coast and Geodetic Survey tide stations along the Atlantic and Gulf Coasts of the United States. Adjustments for the 19-year astronomical cycle in the range of the tide have been made as described in [9]. Where the determination has been based on only a few years of record, adjustment has been made for the secular trend and meteorological variability by comparison with the period 1924-42 at nearby stations for which a longer period of record has been used.

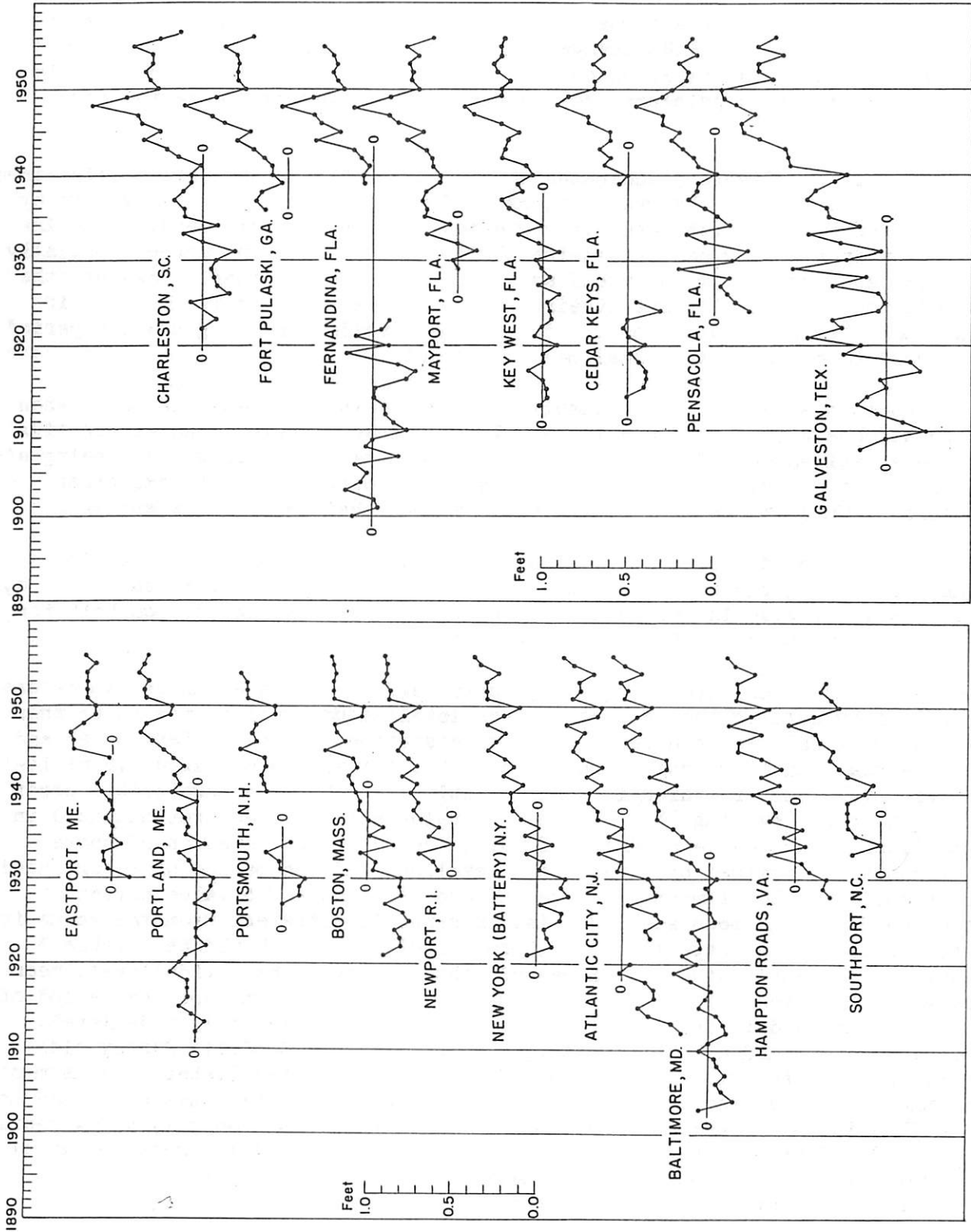


Figure 3. - Yearly sea level.

Table 3. - Comparison of datum planes (all values expressed in terms of sea level datum 1929)

Stn. No.	Location	Local sea level	Half tide level	Mean low water	Mean high water	Period of record used
100	Eastport, Maine	0.02	-0.06	-9.16	9.04	1930-1933
101	Bar Harbor, Maine	-0.20	-0.20	-5.40	5.00	1947-1948
108	Portland, Maine	0.0	-0.02	-4.47	4.43	1912-1930
110	Portsmouth, N. H.	0.11	0.07	-3.98	4.12	1927-1934
113	Boston, Mass.	0.04	-0.09	-4.83	4.65	1924-1942
117	Woods Hole, Mass.	0.12	0.18	-0.72	1.08	1933-1942
119	Providence, R. I.	0.03	0.17	-2.13	2.47	1939-1945
125	Newport, R. I.	-0.07	0.06	-1.69	1.81	1930-1933
129	New London, Conn.	0.0	-0.06	-1.36	1.24	1939-1940
140	Montauk, N. Y.	0.09	0.07	-0.98	1.12	1948-1949
182	Willetts Point, N. Y.	0.28	0.27	-3.26	3.80	1932-1952
198	The Battery, New York City	0.27	0.19	-2.03	2.41	1924-1942
226	Sandy Hook, N. J.	0.29	0.28	-2.00	2.56	1933-1954
248	Atlantic City, N. J.	0.19	0.17	-1.87	2.21	1924-1942
267	Philadelphia, Pa.	1.06*	0.83	-2.07	3.73	1940-1948
287	Breakwater, Del.	0.30	0.29	-1.77	2.35	1952-1953
297	Baltimore, Md.	0.0	-0.01	-0.57	0.55	1903-1921
300	Annapolis, Md.	0.03	-0.02	-0.41	0.44	1929-1936
328	Washington, D. C.	+ .41*	0.40	-1.06	1.86	1932-1942
354	Solomons Island, Md.	0.03	0.02	-0.58	0.62	1938-1954
358	Kiptopeke, Va.	-0.05	-0.05	-1.41	1.31	1951-1952
360	Richmond, Va.	0.55*	0.41	-1.34	2.16	1942-1943
368	Gloucester, Va.	-0.08	-0.07	-1.29	1.14	1950-1952
370	Sewall Point, Va.	0.0	-0.01	-1.25	1.23	1928-1951
372	Norfolk, Va.	0.15	0.15	-1.25	1.55	1936-1951
373	Little Creek, Va.	-0.01	-0.05	-1.30	1.20	1944-1945
403	Morehead City, N. C.	0.03	0.04	-1.36	1.44	1952-1953
406	Wilmington, N. C.	0.38	0.30	-1.55	2.15	1949-1950
421	Charleston, S. C.	0.07	-0.04	-2.62	2.53	1924-1942
443	Ft. Pulaski, Ga.	0.14	0.0	-3.145	3.45	1936-1942
445	Fernandina, Fla.	0.03	-0.10	-3.08	2.88	1898-1922
447	Mayport, Fla.	-0.01	-0.05	-2.30	2.20	1929-1932
453	Jacksonville, Fla.	0.48	0.50	-0.50	1.50	1953-1954
493	Miami Beach, Fla.	0.09	0.08	-1.17	1.33	1932-1942
502	Key West, Fla.	0.0	-0.01	-0.66	0.64	1913-1933
515	St. Petersburg, Fla.	0.04	0.06	-0.64	0.76	1948-1951
521	Cedar Key, Fla.	0.07	0.04	-1.21	1.29	1939-1943
542	Pensacola, Fla.	0.09	0.10	-0.54	0.73	1924-1942
747	Galveston, Tex.	-0.29	-0.23	-0.74	0.28	1909-1927
766	Port Isabel, Tex.	-0.27	-0.21	-0.66	0.24	1945-1953

*Mean River Level

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