

4613

Form 504
Ed. June, 1923

DEPARTMENT OF COMMERCE

U. S. COAST AND GEODETIC SURVEY

R. S. Patton

U. S. COAST & GEODETIC SURVEY

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State: Texas

Acc. No.

DESCRIPTIVE REPORT

Topographic
Hydrographic

Sheet No. A 4613

LOCALITY

Houston Ship Channel

~~South of Morgan Point~~

Cedar Bayou to Lower Portion of

Atkinson I.

1931

CHIEF OF PARTY

John A. Bond, H. & G. E.

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

Project No. 68
1930-31

Descriptive Report
to
Accompany
TOPOGRAPHIC SHEET A
of
HOUSTON SHIP CHANNEL AND VICINITY
TEXAS

John A. Bond, H. and G. E., U. S. C. and G. S.
Chief of Party

Descriptive Report to Accompany Topographic Sheet A
Houston Ship Channel, Texas

INSTRUCTIONS.

The topography on sheet A is a part of Project No. 68, the instructions for which were dated July 24, 1930.

LIMIT AND SCALE.

Surveyed on a scale of 1/5000, the sheet is the southernmost of eight sheets and covers the shore line in the vicinity of Ash Point and several small Islets adjacent to the Houston Ship Channel south of Morgan Point. The sheet joins sheet B on the northwest.

CONTROL AND SURVEY METHODS.

Usual plane table survey methods were employed. Positions were obtained mainly from resections and three point fixes, with but one short traverse on the sheet. The traverse was run between triangulation station Red and a three point fix abreast of Beacon 25, a distance of about 1000 meters. A closing error in distance of seven meters, which was due to unfavorable weather conditions, was adjusted in the field. A small amount of graphic triangulation was used in the vicinity of Ash Lake to secure minor detail.

TIDAL DATUM PLANE. (See memorandum, Feb. 28, 1934, attached)

The mean high water datum plane was not definitely established until after the topography was completed. An assumed value of 1.5 ft. on the U. S. E. tide staff at Morgan Point was

used as mean high water. It was found upon leveling to this tide staff and applying a range of tide of 0.5 ft., as given by the U. S. C. and G. S. tide publication for Galveston Bay, that all elevations on topographic sheets A, B, C, D, E, F, G and H were ~~0.3 ft. low.~~ *0.5 ft. high*. This correction was not applied to any of the elevations. *(See memo. of Feb. 28, 1934, enclosed, from Div. T. & C.)*

Tide readings on the U. S. E. tide staff were obtained at 8:00 A. M. each day and for 12 o'clock noon and 4:00 P. M. for the day previous. Any discrepancies of over 0.2 ft. in estimating the tide for the day previous were corrected. A range of tide of 0.5 ft. in the vicinity of Morgan Point to 0.2 ft. at Harrisburg was used.

GENERAL DESCRIPTION OF TOPOGRAPHIC FEATURES.

The extremity of the narrow sand and shell spit extending from the southern part of Atkinson Island together with the several islets to the south were built up of dredge spoil from the adjacent ship channel. They are very low and bare, except for an occasional clump of a six to eight foot growth of coffee bean.

The U. S. E. base line is marked with a wood stake every 100 feet from triangulation station Red to abreast of Beacon 25. From here the base line is marked by piling placed at the edge of the channel at intervals of 1000 or 2000 feet apart. Many of the piling are missing. The base line for the most part is

straight but at turns and curves attention is called to the fact that distances of 100 feet are measured on the center line of the channel and not on the base line.

On the northeastern edge of sheet A is much low swamp land in the vicinity of Ash Lake, Cedar Bayou, Ash Point and to the south. To the north of Ash Point is a steep fifteen foot grass covered bank closely paralleling the low muddy shore line. The timber in this locality is scrubby in nature and consists chiefly of elm, pin oak and hackberry.

In many places in Cedar Bayou and Ash Lake a thick growth of rushes grow outside the mean high water line. The outside limits are shown on the sheet by a dashed line.

The drainage ditches of a new road now under construction to Chambers County, via Ash Point, are shown by a dashed line. A ferry will operate across the mouth of Ash Lake and Cedar Bayou.

COMPARISON WITH PREVIOUS SURVEYS.

The low sand spit of Atkinson Island and the many small islets to the south are being constantly eroded.

All buoys shown on this sheet have been accurately located and there are no buoys in place in the area surveyed which are not shown.

The elevations in the vicinity of Ash Point are in close agreement with the U. S. G. S. survey of 1915.

All names shown on the sheet have been taken from chart 532.

LANDMARKS.

A list of landmarks for charts which contain the positions of prominent objects and all beacons and ranges will be forwarded under separate cover.

Respectfully submitted.

Edmund L. Jones

Washington, D.C.,
October 20, 1931.

Edmund L. Jones
Aid, U.S.C. and G.S.

Approved:

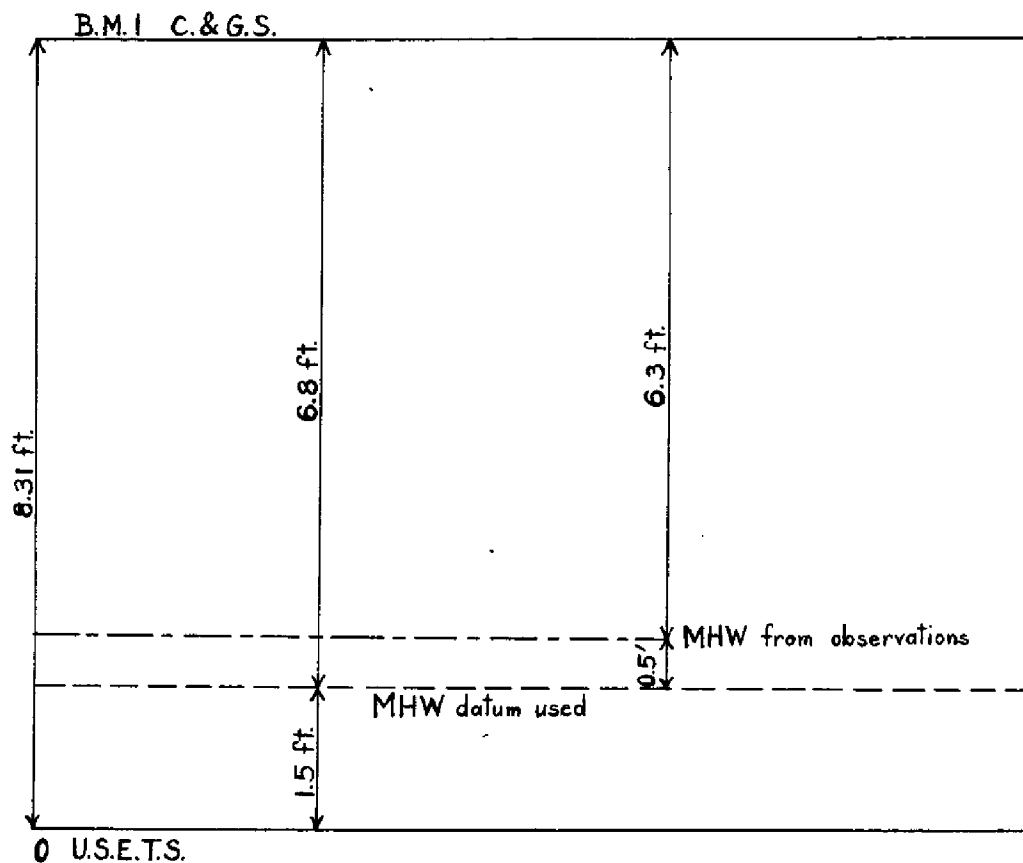
John A. Bond
John A. Bond, H. and G.E.
Chief of Party, U.S.C. and G.S.

February 28, 1934.

Memorandum concerning Mean High Water Datum
at Morgan Point, Texas

The statement "that all elevations on topographic sheets A, B, C, D, E, F, G and H were 0.3 foot low", is in error. An examination of the tidal data available for Morgan Point indicates that the elevations are 0.5 foot too high.

The following diagram shows the relation of the mean high water datum used and the mean high water determined from the observations as referred to the zero of the U. S. Engineer tide staff at Morgan Point.



DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO. 4613

TOPOGRAPHIC TITLE SHEET

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

Field No. A

REGISTER NO. 4613

State Texas

General locality Houston Ship Channel

Locality Cedar Bayou to
Ash Point and Vicinity and Lower Portion of Atkinson Island

Scale 1/5000 Date of survey December 1930, 19

Vessel Lorraine (Shore Party)

Chief of Party John A. Bond H. B. Campbell, John A. Bond

Surveyed by Edmund L. Jones

Inked by E. L. J.

Heights in feet above M.H.W. to ground to tops of trees

Contour, Approximate contour, Form line interval 20 feet

Instructions dated July 24, 1931, 19

Remarks: