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Diag. Chrt. No. 1239-1

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Hydrographic*
Field No. Office No. *2222*

LOCALITY

State *South Carolina*
General locality
Locality

194

CHIEF OF PARTY

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DATE

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U. S. COAST AND GEODETIC SURVEY.

Gen. W. W. Duffield . Superintendent.

State: *South Carolina.*

DESCRIPTIVE REPORT.

Hydrographic Sheet No. 2222.

LOCALITY:

Charleston Harbor.

1895.

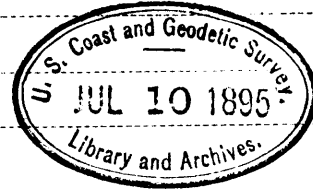
CHIEF OF PARTY:

Lt. L. M. Garrett, U.S.N.

Write me at:

Telegraph me at:

My Express Office is:



U. S. Coast and Geodetic Survey,

Str. Endeavor

June 1 1895, 189

2-547

Gen. W. W. Duffield, Superintendent U. S. C. & G. Survey,
Washington, D. C.

Sir:

I beg to submit the following descriptive report to accompany Sheet I, Charleston Harbor, South Carolina.

The work on this projection was begun on the 24th of January 1895 and completed on April 11th, little being accomplished before the 1st of March, however, owing to the severe and inclement winter weather.

With the exception of some alongshore work and special development lines, for which a pulling boat was used, the entire work was done by the 22 foot air burning launch No. 30 under the charge of Lieutenant John J. Blandin, U.S.N. At times much trouble and annoyance was caused by the priming in the little boiler, causing great

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irregularity of speed and frequent stoppages.
It seems likely that this may cause some
discrepancies in "crossing soundings".

The recent triangulation by these parties left
little or nothing to be desired in the way of sig-
nals and very few were built.

The system of lines in conformity with the
detailed instructions is a rectangular one spaced
120 meters apart. Splits were introduced when
it seemed desirable and special examinations
made where the old chart showed shore spots
in or near any channel or fairway.

The plane of reference is that obtained by the
U. S. Engineer from the U. S. C. & G. S. gauge at Fort
Sumter. The Coast Survey B. M. could not be re-
covered having been walled up when the fort was
repaired a number of years ago (1872 I believe).

Comparison gauges were set up at O E L (A Ele-
vator) and at the Custom House wharf, in the Cooper
River; and at O Rice in the Ashley R. Plotted
curves of all three and the gauge at Sumter
show little or no difference of time between them
on the rising tides, but a very perceptible difference

on the est. Whenever it was possible the soundings were reduced directly from the gauge nearest the line. In other cases a time correction is applied and the reductions made from the Sumner gauge. Full notes of these allowances and corrections are entered in the tide and sounding books.

The instructions also directed changes in the shore line to be corrected as well as the means as far as permitted.

Through the courtesy of Capt. Abbott, U.S. Eng. I was able to have made a tracing of his still unfinished topographic sheet which covers the greater part of the desired territory. The low and marshy banks of the Cooper and Ashley Rivers present such an indeterminate high water mark that the ends of the sounding lines define the shore line fully as well as any other mark at our service. The fact is that there is no high water line. The whole extent of these banks is overflowed at high tide and the irregular ragged line of marsh grass is the only visible line of demarcation. When as in portions of the

Lower harbor there is solid ground the shore line is run in with the sextant.

The city frontage, wharves, slips, etc., on the Esquimaux tracing were done before the heavy gales of nearly two years ago, which did much damage in this locality. To bring this water front up to date, as far as possible, sextant positions and measurements as well as soundings were taken along the entire city front by Lieut. Blandin, Ensign McCannick, and Mr. Green, U.S.N. whose notes form a portion of the records. This work could not well be placed on the sheet as it would result in too much confusion on so small a scale.

Very respectfully
L. M. Garrett.

Lieutenant U.S.N. Condy
Asst. Engr. Survey