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FORM 504  DEPARTMENT OF COMMERCE  U. S. COAST AND GEODETIC SURVEY
State: Florida
DESCRIPTIVE REPORT.
Mydrographic Sheet No. 4451
LOCALITY
Atlantic Ocean
Off St Augustine
1925
CHIEF OF PARTY:
F.G. Engle

Descriptive Report to accompany Hydrographic sheet of

Fathometer Test Run

East Coast of Florida, April 8 - 11, 1925.

U. S. S. Lydonia

F. G. Engle, H. & G. E. Comdg.

On the sheet (Mercator projection) is shown the line on which comparison was made between gathometer apparatus and up and down soundings.

The dead reckening was adjusted on the sheet to positions fixed by St. John's Sea buoy inshere, and sights on celestial objects off shere. The dead reckening, corrected for leeway and estimated current (the latter being taken from chart #1001 and indications from the lead of wire on deep soundings), is shown in red ink; the position numbers being assigned to changes of speed, course, stops for soundings etc. The adjustment was made on an elapsed time basis and is shown by red dotted lines.

Lines of position are shown in red ink with necessary notations, the corresponding lines after being shifted by the dead reckoning to a common log reading for combination for position are shown by black lines.

As the log was frequently fouled by seaweed, the dead reckoning is based in some places on the engine counter. Where this was done the notation "Counter" was made in column headed "True dist." on the Precise dead Reckoning form, otherwise, this amount is the log distance multiplied by the log factor.

F. G. Engle H. & G. E.

Condg.

The work on HHHSI was accepted as such method by the find party and no verifications were made in the office

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Field Records.

Division of Hydrography and Topography:

Division of Charts:

Tide reducers are approved in volums of sounding records for

HYDROGRAPHIC SHEET 4451

Locality: Off St. Augustine, Fla.

Chief of Party: F. G. Bugle in 1925. Plane of reference is ment lew water.

ANCIENT SOUR SUCCESS at

all reducers loss than one per cont of depth and so are not entered.

For reduction of soundings, condition of records satisfactory. except as checked below:

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

Chief, Division of Tides and Currents.

## ADDRESS THE DIRECTOR U. S. COAST AND GEODETIC SURVEY

AND REFER TO No. 4-DRM

#### DEPARTMENT OF COMMERCE

#### U. S. COAST AND GEODETIC SURVEY

WASHINGTON August 11, 1925.

### SECTION OF FIELD RECORDS

Report on Hydrographic Sheet No. 4451

Off St. Augustine, Fla.

Chief of Party, F. G. Engle.

Surveyed by party of Steamer LYDONIA.

Protracted, soundings plotted and inked by F. G. Engle.

Inspected by F. M. Albert.

- 1. The records conform to the requirements of the General Instructions.
- 2. The plan and character of the survey conform to the requirements of the General Instructions.
- 3. No written instructions were issued for this work, but the Chief of Field Work Section was present and it was done under his observation for testing the new sonic sounding device known as the "Fathomer".
- 4. The usual field plotting was done by the field party. As the plotting was based upon astronomic fixes, with commections made by dead reckoning, the plotting by the field party was assumed to be correct.
- 5. Mo further surveying is required within the area covered by this sheet.
- 6. The character and scope of the surveying and field drafting are excellent.
- 7. Reviewed by E. P. Ellis, August, 1925.