

2092

Diag. Chrt. No. 1232-1

Form 504

U. S. COAST AND GEODETIC SURVEY
DEPARTMENT OF COMMERCE

DESCRIPTIVE REPORT

Type of Survey *Wachman Hydro*
Field No. _____ Office No. *2092*

LOCALITY

State *North Carolina*
General locality *Outer Diamond*
Locality *Shoal*

1891

194

CHIEF OF PARTY

C. E. Keeland

LIBRARY & ARCHIVES

DATE _____

2092

83
SHA
2092
1891

U. S. COAST AND GEODETIC SURVEY.

T. C. Mendenhall, Superintendent.

State: *North Carolina,*

DESCRIPTIVE REPORT.

Hydrographic Sheet No. *2092.*

LOCALITY:

*Outer Diamond Shoal,
Off Cape Hatteras*

1891.

CHIEF OF PARTY:

Lieut. G. E. Vreeland, U.S.N.

2092

Position of Hatteras Beacon May 1891

Lat. $35^{\circ}14'28''$

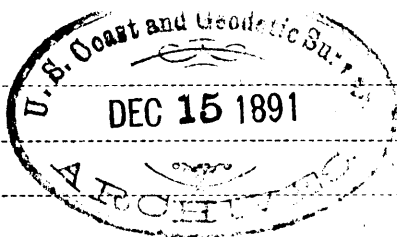
Long. $75^{\circ}31'18''$

C. A. P. M.
Dec. 14. 1891.

Write me at: _____

Telegraph me at: _____

My Express Office is: _____



U. S. Coast and Geodetic Survey,

St Blake
Fort Monroe Va

June 1st, 1891

2-547

Lieut. C. E. Vreeland, U.S.N.

Comdg. U.S.S. "Blake"

Sir:

I respectfully make the following report of measuring a base line from Creed's Hill Life Saving Station (flag pole) to Watteras Light, and theodolite angles taken.

With the flag pole as initial point measured on line to the Light Ho.; it was impossible to measure the entire base, owing to the topography, a sand hill and mangrove growth preventing, so measured to point A.

This point on the line was chosen so as to give a level line to Watteras Beacon, and measuring from A to the Beacon, and from the Beacon to the Light House, and all three

angles of the triangle by theodolite, A.I., if the same by each measured side AB and BI, would be a check on the accuracy of the measurements. Measured CI ^{CA?} =

17920 meter lengths. AB = 2571.65 meters. BI = 1515.25 meters, and angles of triangle as in diagram and accompanying angle book. Computing AI by two different measurements, by one = 2576.05 meters; by other = 2576.4 meters, and AI = measured 2576.2 meters.

To check CI ^{CA?}, it was re-measured and measured 18020 meter lengths and 1.5 meters. This showed an error of one chain, 20 meters, so it was measured a third time, this time checked by Post Engineer White, by myself, and the pins, verifying at each feet of theodolite 15-20 meter lengths. There was no possibility of error, and came

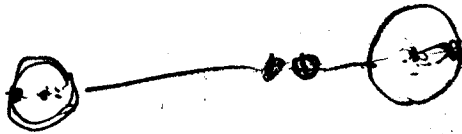
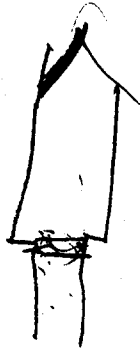
out 180-20 meter lengths and 1.8 meters.

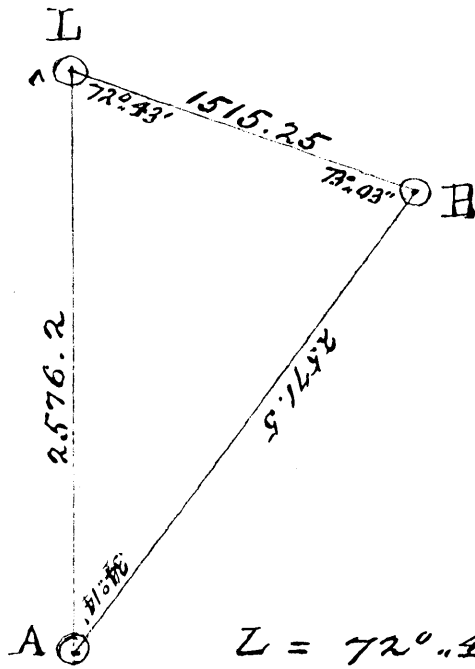
The error of one length the first day was due to mischance of chain men, and true length is mean of 180-20 and 1.5, and 180-20 and 1.8 meters = 3601.6, and whole base line from Creeds Hill to Light House = 3601.6 + 2576.2 = 6177.8.

Asst Surgeon Bogert erected temporary signal at Kings, and the angles connecting it with Creeds Hill from Light House are given in angle book.

Yours very respectfully,
Harry Kimball
Lieut U.S.A.

Forwarded
C. E. Vegeard
Lt. Comdr





$$L = 72^{\circ} 48'$$

$$B = 73^{\circ} 03'$$

$$A = 34^{\circ} 14'$$

$$BL = 1515.25 \text{ meters}$$

$$AB = 2571.5 \quad "$$

$$AL = 2576.2 \quad "$$

$$AC = 3601.6 \quad "$$

$$CL = 6177.8 \quad "$$

* Chain was used with pins,
 pegs not used. As meas-
 ured chain = 20.045^{-4} .

$$CL = 6177.8 \times 1.00225 =$$

$$6191.7 \text{ meters - True length Base}$$

C

Angles - 172
Edgo 850
Miles 57

} Krelard
Blake

| May
29-31
'91

Officers -

Ensign W. S. Muir

J. H. Rohrbacher

B. Wright U.S.N.
