ENGINEER DEPARTMENT, U.S.A.
BVT. MAJ. GEN. A.A. HUMPHREYS,
BRIG. GEN. & CHIEF OF ENGINEERS.

CURRENT OBSERVATIONS
IN
WEST PASSAGE OF NARRAGANSETT BAY, R.I.

Surveyed under Authority of the Act of Congress making appropriation for Surveys for Military Defences, Approved July 11th 1870,

UNDER DIRECTION
OF
Bvt. Maj. Gen. G.K. Warren, Major of Engineers, U.S.A.
BY
Capt. A.H. Holgate, Corps of Engineers,
assisted by
John Pierpont, M.E. & W.W. Starr Jr. C.E.
1870.

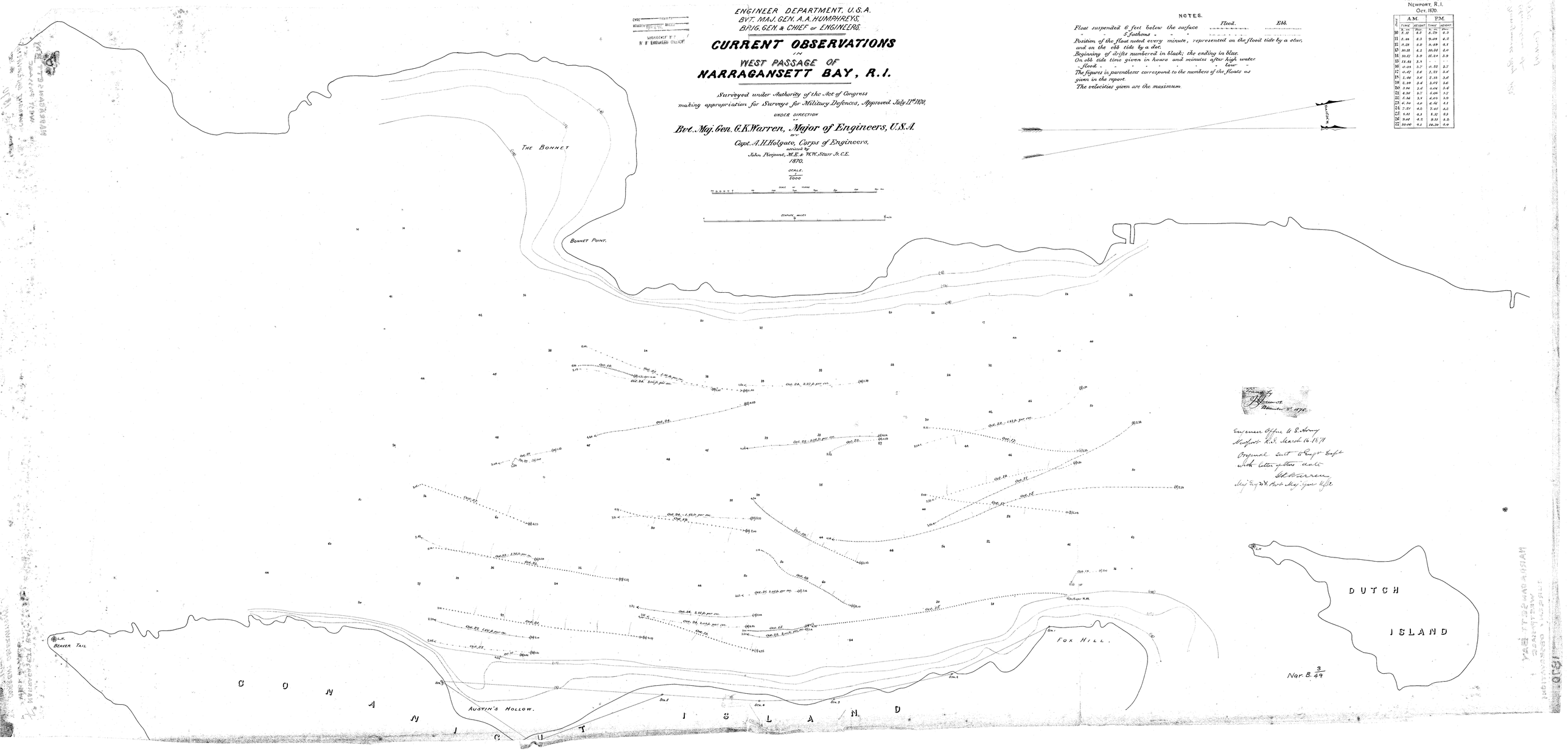
SCALE: $\frac{1}{2000}$

NOTES.

Float suspended 6 feet below the surface — Flood. — Ebb.
" " 5 fathoms " " " " " " " " " " " " " "
Position of the float noted every minute, represented on the flood tide by a star, and on the ebb tide by a dot.
Beginning of drifts numbered in black; the ending in blue.
On ebb tide time given in hours and minutes after high water.
" flood " " " " " " " " low "
The figures in parenthesis correspond to the numbers of the floats as given in the report.
The velocities given are the maximum.

TIDE TABLE, U.S.C.S.
HIGH WATER RECORD.
NEWPORT, R.I.
OCT. 1870.

DAY	A.M. TIME	A.M. HEIGHT	P.M. TIME	P.M. HEIGHT
	h. m.	Feet	h. m.	Feet
10	8.11	4.3	8.29	4.3
11	8.48	4.3	9.09	4.2
12	9.25	4.2	9.49	4.1
13	10.11	4.1	10.34	4.0
14	10.57	3.9	11.24	3.9
15	11.51	3.8	-	-
16	0.05	3.7	0.32	3.7
17	0.47	3.6	1.21	3.6
18	1.46	3.6	2.15	3.6
19	2.39	3.6	3.07	3.6
20	3.36	3.6	4.04	3.6
21	4.36	3.7	5.06	3.7
22	5.36	3.8	6.03	3.9
23	6.34	4.0	6.56	4.1
24	7.31	4.2	7.46	4.2
25	8.11	4.3	8.37	4.3
26	8.48	4.3	9.21	4.3
27	10.00	4.1	10.30	4.0



Engineer Office U.S. Army
Washington D.C. March 16. 1871
Original sent to Engr. Dept.
with letter of this date
G.K. Warren
Maj. Engr. & A. Asst. Maj. Genl. U.S.A.