

X.—Chicago, July 21st, 1858.—At Station No. 2, in Latitude $41^{\circ} 53' 50.5''$ N.; Longitude $5h. 50m. 31.15s$ W.

1st.—Using horizon roof No. 1.

NAMES OF STARS.	Observed true altitudes of Star affected by corrections for refraction and errors of Sextant	True Sidereal time of observation deduced.	Time of observation noted by Sidereal Chronometer, No. 2, 557.	Chronometer No. 2, 557, fast of Sidereal time by each observation
Alpha BOOTIS, (Arcturus,) West.....	° ' "	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>
	52 40 22.9	16 32 23.17	17 34 40.3	1 02 17.13
	52 24 35.1	16 33 56.63	17 36 14	1 02 17.37
	52 13 02.3	16 35 04.75	17 37 22.4	1 02 17.65
	51 56 01.8	16 36 44.79	17 39 01.5	1 02 16.71
	51 41 21.3	16 38 10.85	17 40 28.1	1 02 17.25
	51 23 43.4	16 39 53.94	17 42 11.9	1 02 17.96
	51 07 35.5	16 41 27.92	17 43 45	1 02 17.08

Mean result of 7 observations on Alpha BOOTIS, West, (at 16*h.* 37*m.*) +1 02 17.31

Alpha CYGNI, East....	° ' "	<i>h. m. s.</i>	<i>h. m. s.</i>	<i>h. m. s.</i>
	53 19 24	17 12 09.67	18 14 27.5	1 02 17.83
	53 43 49.7	17 14 31.47	18 16 49.7	1 02 18.23
	54 08 50.3	17 16 56.48	18 19 14	1 02 17.52
	54 30 45.9	17 19 03.46	18 21 22.2	1 02 18.74
	54 46 21.2	17 20 33.66	18 22 52.5	1 02 18.84
	54 59 01.4	17 21 46.93	18 24 05.4	1 02 18.47
	55 16 26.8	17 23 27.67	18 25 46.5	1 02 18.83
	55 35 32.2	17 25 17.83	18 27 36.5	1 02 18.67

Mean result of 8 observations on the Star Alpha CYGNI, East, (at 17*h.* 19*m.*) +1 02 18.39

Mean result of 7 observations on the Star Alpha BOOTIS, West, (at 16*h.* 37*m.*) as above +1 02 17.31

Result—Using horizon roof, No. 1:—Fast of Sidereal time by a mean of these results, from E. and W. Stars, (at 16*h.* 58*m.*) +1 02 17.85