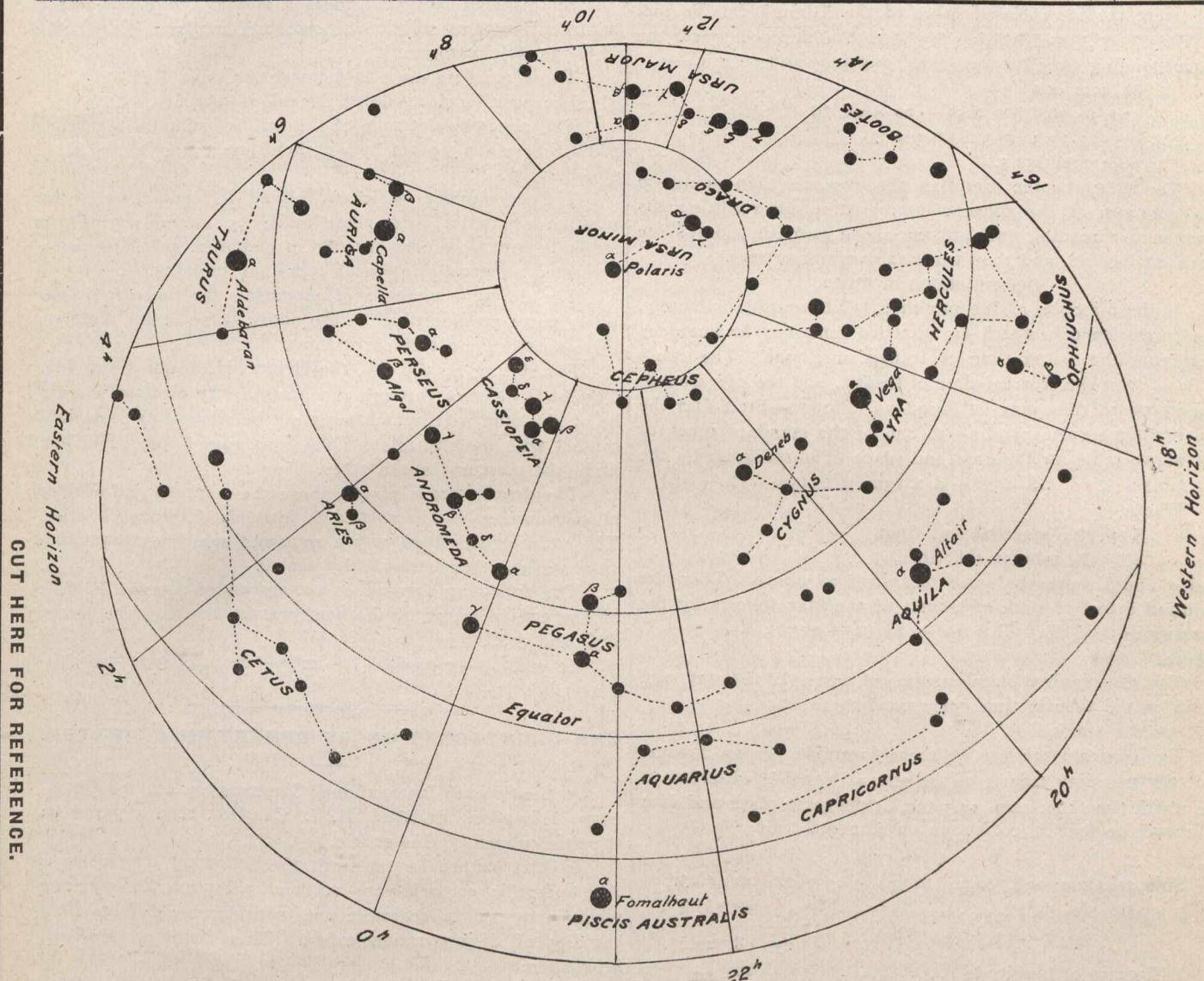


ASTRONOMICAL PAGE



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Star Map for October 1st, 1909, 10 p.m.

STAR MAP, SHOWING THE PRINCIPAL STARS, VISIBLE AT 10 P.M., OCTOBER 1st, IN LATITUDE 45° N.

L. B. Stewart, D.T.S.

The table below gives the apparent places of the brightest of these stars for October 15th at transit across the meridian of 5h W. of Greenwich.

Star	Mag.	R. A. h. m. s.	Decl. ° ' "
α Andromedæ	2.1	0 03 43.5	+ 28 35 36
β Cassiop.	2.4	0 04 22.3	+ 58 39 12
α Cassiop.	2.5	0 35 23.5	+ 56 02 36
γ Cassiop.	2.3	0 51 16.2	+ 60 13 43
α Ursæ Min. (Polaris) ..	2.1	1 27 31.5	+ 88 49 26
α Arietis	2.2	2 02 05.2	+ 23 02 13
α Tauri (Aldebaran)	1.1	4 30 44.3	+ 16 19 47
α Aurigæ (Capella)	0.2	5 10 00.9	+ 45 54 22
β Ursæ Maj.	2.4	10 56 21.7	+ 56 52 00
α Ursæ Maj.	2.0	10 58 07.3	+ 62 14 16
γ Ursæ Maj.	2.5	11 49 02.8	+ 54 11 49
δ Ursæ Maj.	3.4	12 10 55.3	+ 57 32 07
ε Ursæ Maj.	1.8	12 50 01.1	+ 56 27 04
ζ Ursæ Maj.	2.1	13 20 15.1	+ 55 23 05
η Ursæ Maj.	1.9	13 43 56.8	+ 49 45 58
α Lyræ (Vega)	0.1	18 33 51.9	+ 38 42 10
α Aquilæ (Altair)	0.9	19 46 22.0	+ 8 37 50
α Cygni	1.3	20 38 21.0	+ 44 57 38
β Pegasi	2.4	22 59 24.0	+ 27 35 40
α Pegasi	2.6	23 00 15.9	+ 14 43 14

Determination of Azimuth by the Pole Star.

The following table gives the azimuth of Polaris on October 1st, 1909, for places in longitude 5th (= 75° W.) and at certain standard times T:

T	Sid. Time	Lat. = 44°	Lat. = 48°	Lat. = 52°
P.M.		° A " a	° A " a	° A " a
h. m.	h. m. s.			
8 00	20 40 26.6	1 33 46 — 8	1 40 53 — 9	1 49 45 — 9
8 30	21 10 31.5	1 29 07 — 11	1 35 56 — 12	1 44 25 — 13
9 00	21 40 36.4	1 22 55 — 14	1 29 17 — 15	1 37 13 — 16
9 30	22 10 41.4	1 15 14 — 17	1 21 02 — 18	1 28 16 — 20
10 00	22 40 46.3	1 06 13 — 19	1 11 20 — 21	1 17 44 — 22
10 30	23 10 51.2	0 56 00 — 21	1 00 21 — 23	1 05 47 — 25
11 00	23 40 56.2	0 44 47 — 23	0 48 16 — 25	0 52 37 — 27
11 30	0 11 01.1	0 32 45 — 24	0 35 18 — 26	0 38 30 — 28
12 00	0 41 06.0	0 20 07 — 25	0 21 42 — 27	0 23 40 — 29

In this table azimuths are reckoned from the N. in the direction E.S.W. The quantity a is the error in the azimuth resulting from an error of 1m. in the time. It will serve to show the best time to observe if the watch correction is not well determined. The azimuth for any other latitude may readily be found by interpolation.

The standard time corresponding to any azimuth given in the table for a place whose longitude differs from 5h, and for some other date, may be found by the formula:—

$$T' = T + (L - 5h) (1 - 0s.16) - d \times (3m 55s.9).$$

Where

T' = the required time.

T = the time for October 1st.

L = the longitude.

d = number of days elapsed since October 1st.