

Stargazing Targets, July, 2025

DMAS Ashton Public Nights / Ashton Observatory



Targets > west to east	Angular size	Distance	Dia (Sep)	Mag
Mars, planet 4	4.6 sec	2.0 AU	0.53 x Earth	1.5
M64 spiral galaxy (Black Eye)	10 min	17 Mly	51 kly	8.5
M3 globular cluster	2.2 min	33 kly	21 ly	6.2
M53 globular cluster	2.2 min	60 kly	39 ly	7.6
Porrima (Gamma Virginis) double star	-	38 ly	(45 AU)	3.5 & 3.5
Izar (Epsilon Bootis) double star	-	203 ly	(180 AU)	4.7 & 2.5
M5 globular cluster	4.2 min	24 kly	29 ly	5.7
Antares (Alpha Scorpii) double star	-	550 ly	(550 AU)	1.1 & 5.4
M4 globular cluster	7.3 min	7.2 kly	15 ly	5.6
M12 globular cluster	4.3 min	15 kly	19 ly	6.7
M10 globular cluster	3.6 min	14 kly	15 ly	6.6
M8 Lagoon Nebula	90 min	4.3 kly	114 ly	6.0
M17 Omega/Swan/Check Nebula	46 min	4.2 kly	57 ly	6.0
M16 Eagle Nebula	35 min	5.7 kly	58 ly	6.4
M22 globular cluster	6.5 min	10 kly	20 ly	5.1
M11 Wild Duck open cluster	32 min	6.1 kly	57 ly	5.8
Epsilon Lyrae (Double-Double)	-	156-162 ly	(106-164 AU)	5 - 6
M57 Ring nebula	1.4 min	1400 ly	0.6 ly	8.8
Albireo double star	-	430 ly	(4610 AU)	3.1 & 4.7
Collinder 399 open cl (Coathanger)	89 min	4.2 kly	109 ly	3.6
M27 Dumbbell nebula	8 min	1700 ly	4 ly	7.1
M52 open cluster	15 min	4.6 kly	20 ly	6.9
NGC 7789 Caroline's Rose open cl	25 min	5.9 kly	43 ly	6.7
NGC 457 Owl Cluster	20 min	7.9 kly	46 ly	6.4
NGC 869/884 Double Cluster	18/18 min	6.8/9.6 kly	36/51 ly	5.3/6.1
M81/M82 spiral gal. (Bode's/Cigar)	24/11 min	12 Mly	87/40 ly	6.9/8.4
MizarAB & Alcor double star	-	82 ly	(20 AU)	2.2/3.8 & 4.0
M51 spiral galaxy (Whirlpool)	11 min	28 Mly	91 kly	8.4
M101 spiral gal (Pinwheel)	28 min	23 Mly	189 kly	7.9
M13 globular cluster (Hercules)	3.0 min	23 kly	20 ly	5.8
M92 globular cluster	2.2 min	26 kly	17 ly	6.4
Moon: full=July10; new=July24	32.0 min	240,000 mi	2,160 mi	-12.4max

Notes: Most data from SkySafari Pro7 smartphone application, 2025.

Angular size=as viewed from Earth; Distance=distance from Earth; Dia=overall true size; (Sep)=distance separating double stars; Mag=apparent visual magnitude from Earth.

min=arcminute; sec=arcsecond; ly=light year (~5.9 trillion miles); kly=ly x1000; Mly=ly x1,000,000.

AU=astronomical unit, 1AU=the average distance from Earth to Sun (=93,000,000 mi).

Constellations/stars rise approx. 4 minutes earlier/day. The planets move differently per orbit. Moon about 45 minutes later/night.

Milky Way: size = 120x2 kly; stars = 100-400 billion. MW rotates Solar System = 483,000 mph. The MW thru space = 1,300,000 mph.