

Stargazing Targets, June, 2025

DMAS Ashton Public Nights / Ashton Observatory



Targets – west to east	Angular size	Distance	Dia (Sep)	Mag
Mercury planet 1 (max elong Jul 3)	5.9 sec	1.14 AU	0.38 x Earth	-0.6
Castor (alpha Geminorum) dbl star	-	60 ly	(81 AU)	1.6 & 3.0
M44 open cluster (Beehive)	70 min	610 ly	12 ly	3.1
Mars, planet 4	5.2 sec	1.8 AU	0.53 x Earth	1.4
Algieba (Gamma Leonis) double star	-	130 ly	(235 AU)	2.2 & 3.5
Leo Trio (M65/66/NGC3628)	9/9/13 min	41/33/37 Mly	117/86/140 ly	9.3/8.9/9.5
M87 elliptical galaxy (THE BlackHole)	8.3 min	55 Mly	133 kly	8.6
NGC 4565, (Needle Galaxy)	15.8 min	42 Mly	193 kly	9.6
M53 globular cluster	2.2 min	60 kly	38.7 ly	7.6
M3 globular cluster	2.2 min	33 kly	21.2 ly	6.2
Izar (Epsilon Bootis) double star	-	203 ly	(180 AU)	2.5 & 4.7
M104 spiral galaxy (Sombrero)	8.6 min	34 Mly	85 kly	8.0
Porrima (Gamma Virginis) double star	-	38 ly	(44 AU)	3.5 & 3.5
M5 globular cluster	4.2 min	24 kly	29.2 ly	5.7
Graffias (Beta1 Scorpii) triple (5!) star	-	400 ly	(89 AU)	2.6 & 4.9 & 10.6
M80 globular cluster	1.3 min	28 kly	10.7 ly	7.3
M4 globular cluster	7.3 min	7.2 kly	15.2 ly	5.6
M12 globular cluster	4.3 min	15 kly	19.2 ly	6.7
M10 globular cluster	3.6 min	14 kly	14.8 ly	6.6
Rasalgethi (Alpha Herculis) dbl star	-	360 ly	(516 AU)	3.4 & 5.3
M13 globular cluster	3.0 min	23 kly	19.8 ly	5.8
M92 globular cluster	2.2 min	26 kly	16.8 ly	6.4
M57 Ring Nebula planetary nebula	1.4 min	1400 ly	0.6 ly	8.8
M56 globular cluster	2.3 min	32 kly	21.8 ly	8.3
Albireo double star	-	430 ly	(4610 AU)	3.1 & 4.7
M27 Dumbbell nebula	8.0 min	1700 ly	4.0 ly	7.1
M52 open cluster	15 min	4600 ly	20 ly	6.9
NGC 7789 open cl (Caroline's Rose)	25 min	5900 ly	43 ly	6.7
NGC 457 Owl Cluster	20 min	7900 ly	46 ly	6.4
NGC 869/884 Double Cluster	18 min	6.8;9.6 kly	36/51 ly	5.3 & 6.1
M81/M82 spiral gal. (Bode's/Cigar)	25/11 min	12 Mly	87/40 ly	6.9 & 8.4
Cor Caroli double star	-	115 ly	679 AU	2.9 & 5.5
La Superba, red supergiant	-	1000 ly	lum=685xSun	5.3
Alcor & Mizar double-double stars	-	82/86 ly	(25 AU)	4.0 & 2.2/3.9
M101 spiral galaxy (Pinwheel)	29 min	23 Mly	189 kly	7.9
M51 spiral galaxy (Whirlpool)	11 min	28 Mly	91.4 kly	8.4
Moon: new=Jun. 25; full=Jun.11	32 min	240,000 mi	2,160 mi	-12.4 max

Notes: Most data from SkySafari7Pro smartphone application, 2025.

Angular size=as viewed from Earth; Distance=distance from Earth; Dia=overall true size; (Sep)=distance between 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).

Earth orbit causes stars to rise approx 4 minutes earlier/day. Planets move differently per orbit. Moon~45 minutes later/night.

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