

Stargazing Targets, February, 2025

DMAS Ashton Public Nights begin in April



Targets – west to east	Angular size	Distance	Dia (Sep)	Mag
Saturn, planet 6	15.8 sec	10.5 AU	9.4xEarth	1.2
Neptune, planet 8	2.2 sec	30.7 AU	3.9xEarth	7.9
Venus, planet 2	39.9 sec	0.4 AU	0.95xEarth	-4.6
M31 Andromeda spiral gal	189 min	2600 kly	142 kly	3.4
M33 spiral gal (Triangulum)	69 min	2900 kly	57 kly	5.7
M45 open cluster (Pleiades)	120 min	430 ly	15 ly	1.5
Almach (Gamma And) dbl star	-	390 ly	(1130 AU)	2.2/5.0
Uranus, planet 7	3.6 sec	19.6 AU	4.0xEarth	5.7
Jupiter, planet 5	41.3 sec	4.8 AU	11.2xEarth	-2.4
M42 Orion Nebula	85 min	1400 ly	35 ly	4.0
Betelgeuse, red supergiant, var dbl	-	500 ly	(5800 AU)	0.6/14.5
Sirius, Dog Star dbl star	-	8.6 ly	(30 AU)	-1.4/8.5
M46 open cluster w/planetary	20 min	4.9 kly	29 ly	6.1
M1 Crab Nebula	6 min	6.2 kly	11 ly	8.4
NGC 2237 Rosette Nebula	80 min	5.5 kly	128 ly	5.5
M38 open cluster (Starfish)	20 min	4.6 kly	27 ly	6.4
M37 open cluster	14 min	4.5 kly	18 ly	5.6
M36 open cluster (Pinwheel)	10 min	4.3 kly	13 ly	6.0
M35 open cluster	40 min	3.0 kly	35 ly	5.1
Mars, planet 4	12 sec	0.8 AU	0.5xEarth	-0.6
Castor (alpha Geminorum) dbl star	-	50.9 ly	(81 AU)	1.6/3.0
M67 open cluster	25 min	2.6 kly	19 ly	6.9
M44 Beehive open cluster	70 min	610 ly	12.4 ly	3.1
Algieba (gamma Leonis) dbl star	-	130 ly	(235 AU)	2.2/3.6
M52 open cluster	15 min	4.6 kly	20 ly	6.9
NGC 7789 open cl (Caroline's Rose)	25 min	5.9 ly	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
Polaris double star	-	430 ly	(2440 AU)	2.0/9.1
M51 Whirlpool spiral galaxy	11 min	28 Mly	91 kly	8.0
M101 spiral galaxy (Pinwheel)	29 min	23 Mly	189 kly	7.9
M81/82 spiral galaxies (Bodes/Cigar)	25/11 min	12 Mly	87/38 ly	6.9/8.0
Moon: full = Feb 09; new = Feb 23	32.0 min	240,000 mi	2,160 mi	-12.4 max

Notes: Most data from SkySafari Pro7 smartphone application, 2024.

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). Oort Cloud ≈3.75 ly dia.

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

Milky Way ≈100x1 kly; total stars =100-400 billion. MW rotates Solar System ≈483,000 mph. The MW thru space ≈1,300,000 mph.