



**SKY MAP** December

**8:00pm: December 5**

**7:00pm: December 20**

**6:00pm: January 5**

Also can be used in the pre-dawn hours of August thru November.

Latitude 35°N

Memphis

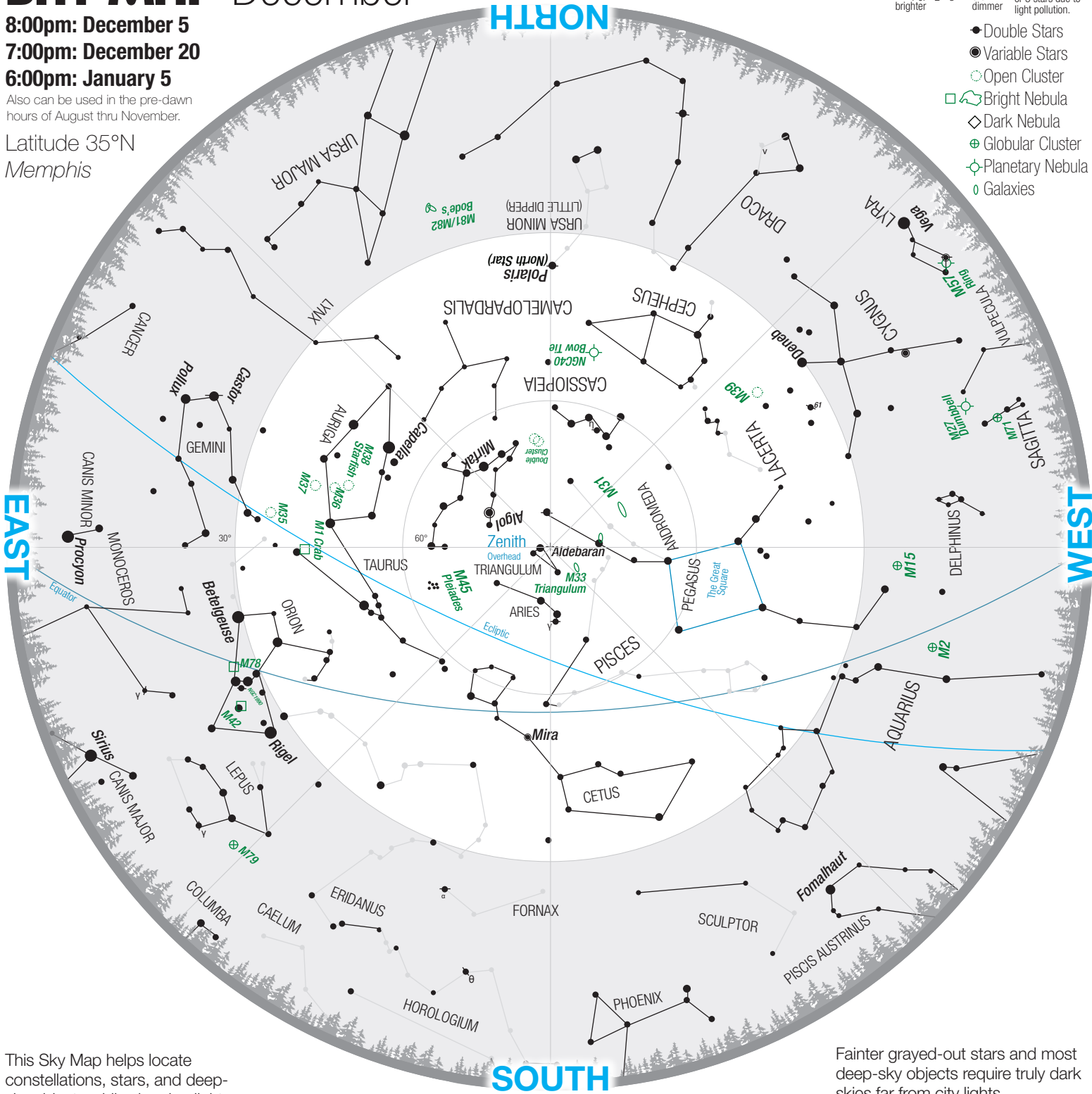
Grey items will not be seen in light polluted cities

Magnitude (Brightness)

Stars ● ● ● ● ●  
1 or 2 3 4 5 & dimmer  
brighter

In cities you may not be able to see magnitude 3, 4 or 5 stars due to light pollution.

- Double Stars
- Variable Stars
- Open Cluster
- Bright Nebula
- ◇ Dark Nebula
- ⊕ Globular Cluster
- Planetary Nebula
- Galaxies



This Sky Map helps locate constellations, stars, and deep-sky objects while showing light pollution's impact. Trees mark the horizon; center is zenith (overhead). Three circles show horizon, 30° altitude, and 60° altitude—in cities, stars below 30° are usually hidden by haze and skyglow.

Rotate so the direction you face is at the bottom (e.g., North upright when facing north). Brighter stars are black; 5th-mag and fainter stars grayed out (invisible in city light). Overhead stars near center, low stars near edge.

Constellation names ALL CAPS. Star names bold italic lowercase. Deep-sky objects smaller/green (color prints). Moon/planets not shown—they move but stay near the ecliptic (blue arc) through the zodiac.

Fainter grayed-out stars and most deep-sky objects require truly dark skies far from city lights.

High-overhead objects are easiest to see, with less interference from trees, buildings, and light pollution.

Contact the Memphis Astronomical Society (M.A.S.) for more info on our sky maps and other outreach services ([memphisastro.org](http://memphisastro.org)).



# Observing List December

Naked Eye Objects			Light Years*	Binoculars Objects			Light Years*	
●	Capella	Auriga	Beautiful yellow star.	42				
●	Sirius	Canis Major	The brightest star in night sky.	9	○	M31	An-drom-eda The Great Andromeda Galaxy. Most distant object visible to naked eye.	2.5M
●	Procyon	Canis Minor	Greek translation "before the dog" because it rises before Sirius	11	○	M38	Auriga Stars appear arranged greek letter "π".	3.5k
●	Deneb	Cygnus	Supergiant star in Cygnus.	1.4k	○	M36	Auriga Open cluster about half the size of M38.	4.1k
◆	Castor	Gemini	Multiple star system. 3 stars visible in telescopes.	52	○	M37	Auriga Bright cluster.	4.4k
●	Pollux	Gemini	Bright star (twin of Castor)	34	○	M41	Canis Major Discovered by Aristotle in 325 BC. Little Bee hive cluster.	2.3k
◆	Rigel	Orion	Blue supergiant star. Triple star system; two are visible with telescopes	770	●	Mira	Cetus Famous long period variable star. Mag varies between 3.0 & 10.1 over a year.	300
●	Betelgeuse	Orion	Very large red star. Diameter is 300 times that of Sun.	430	●	μ Cephei	Ce-pheus Red supergiant. Herschel's Garnet Star. Long period variable (Mag 3.4 to 5.1.)	3.1k
●	Algol	Per-seus	Eclipsing binary star. Magnitude varies between 2 & 3 over 3 days	90	○	M44	Cancer Beehive Cluster. Visible to the naked eye.	610
◆	TX Prescium	Pisces	Red Giant Carbon Star (reddest known star)	900	○	M39	Cygnus 9° from Deneb.	1k
●	Aldebaran	Taurus	Arabic translation: "The Follower". Has massive planets	67	○	M35	Gemini Open cluster near bottom of twin Castor.	2.9k
○	Pleiades	Taurus	M45: The Seven Sisters. Spectacular cluster. Many more stars visible in binoculars.	399	○	M48	Hydra Visible to naked eye under dark sky and good atmospheric conditions.	2.5k
○	Hyades	Taurus	Large V-shaped star cluster. Binoculars reveal many more stars.	152	●	γ Leporis	Lepus Visible with binoculars. Yellow & white stars. Mags 3.6 & 6.2.	30
◆	Polaris	Ursa Minor	The North Pole Star. A telescope reveals a mag 8 companion.	433	⊕	M79	Lepus Unusually globular on opposite of milky way.	42k
					○	NGC 2232	Monoc-eros Very near open cluster to Sun in comparison.	1.1k
					○	NGC 2238/44	Monoc-eros Star cluster surrounded by Rosette Nebula. Need telescope to see Rosette.	5.4k
					○	M50	Monoc-eros Heart shaped open cluster.	3k
					□	M42/43	Orion The Great Orion Nebula. Spectacular bright nebula. Best in telescope. NGC 1977 Running Man nearby.	1.3k
					○	Double Cluster	Per-seus Double Cluster in Perseus. NGC 869 & 884. Excellent in binoculars.	7.3k
					○	M34	Per-seus Many white dwarfs. Excellent in binoculars.	7.3k
					○	NGC 253	Sculp-tor Large, cigar-shaped galaxy. Requires dark sky.	11M
					●	Mizar & Alcor	Ursa Major Quadrupal star system. Good eyesight or binoculars reveals 2 stars.	82