



SKY MAP July

10:00pm: July 5
9:00pm: July 20
8:00pm: August 5

Also can be used in the pre-dawn hours of March thru June.

Latitude 35°N
Memphis

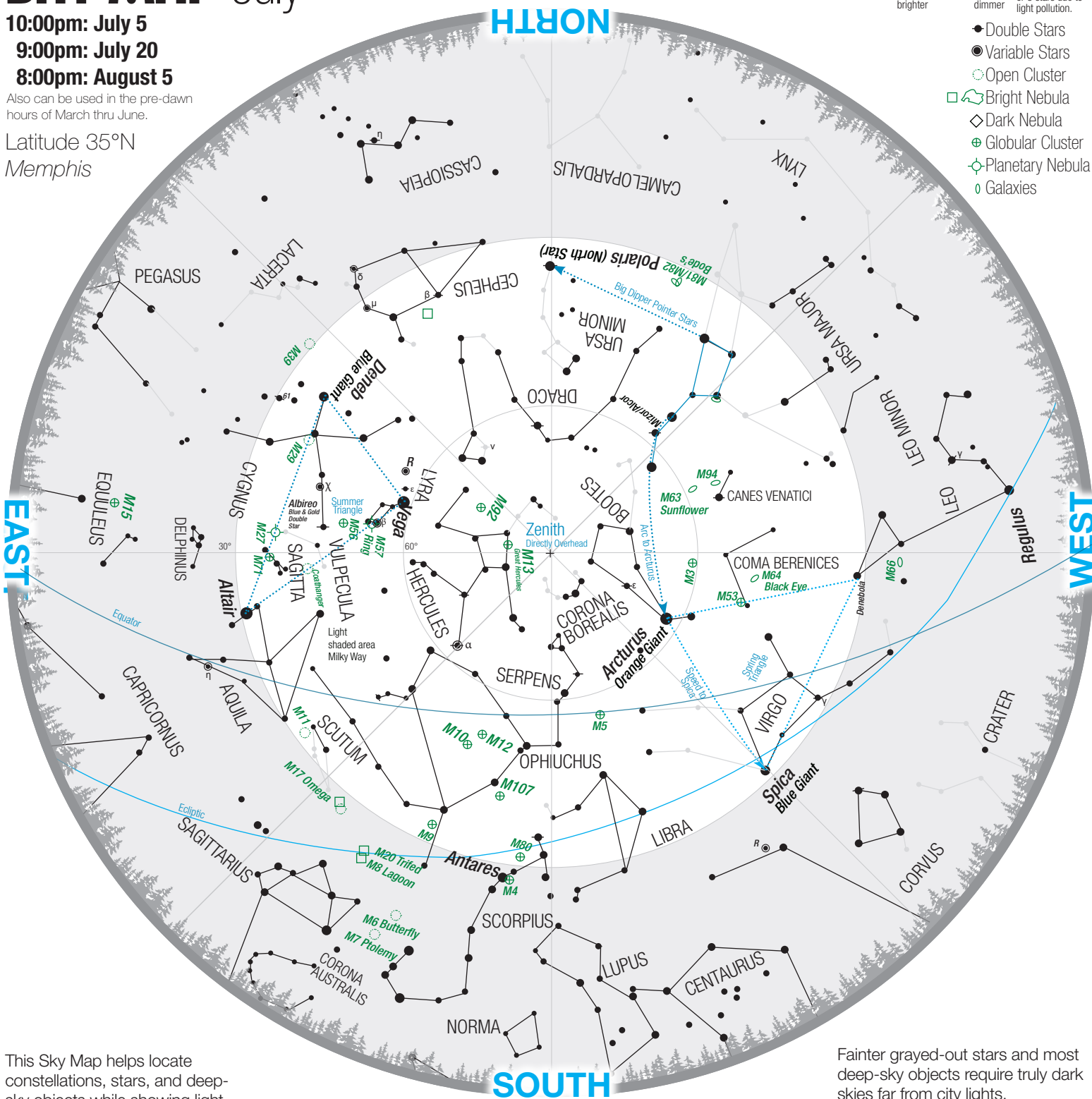
Grey items will not be seen in light polluted cities

Magnitude (Brightness)

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

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).



Observing List July

Naked Eye Objects				Light Years*	Binoculars Objects				Light Years*	Binoculars Objects (Continued)				Light Years*
•	Altair	Aquila	Brightest star in Aquila. Name means "the flying eagle".	16.8	☉	η Aquilae	Aquila	Bright Cepheid variable. Mag varies between 3.6 & 4.5 over 7.166 days.	1200	☉	M7	Scorpius	Superb open cluster. Visible to the naked eye. Age is 260 million years.	780
•	Arcturus	Bootes	Giant K star. "Bear watcher"	37	☉	M3	Canes Venatici	Easy to find in binoculars. Might be glimpsed with the naked eye.	590	☉	M5	Serpens	Fine globular star cluster. Telescope will reveal individual stars.	25k
☉	δ Cephei	Cepheus	Cepheid prototype. Mag varies between 3.5 & 4.4 over 5k days. Mag 6 companion.	887	☉	μ Cephei	Cepheus	Red supergiant. Herschel's Garnet Star. Long period variable (Mag 3.4 to 5.1.).	3.1k	☉	Mizar & Alcor	Ursa Major	Quadruple star system. Good eyesight or binoculars reveals 2 stars.	82
☉	α Herculis	Hercules	Semi-regular variable. Magnitude varies between 3.1 & 3.9 over 90 days. Mag 5.4 companion.	360	☉	M39	Cygnus	9° from Deneb.	1k	☉	CR 339	Vulpecula	Coat hanger	780
•	Regulus	Leo	Blue-white star with at least 1 companion in Leo.	77	☉	χ Cygni	Cygnus	Mira type. Long period pulsating red giant. Magnitude varies between 3.3 & 14.2 over 407 days.	553	☉	v Draconis	Draco	White double stars. Excellent in binoculars.	98
•	Vega	Lyra	The 5th brightest star in the sky. A blue-white star.	25	☉	M13	Hercules	Excellent globular. Discovered by Halley in 1714.	2.3k	☉	M92	Hercules	Fainter and smaller than M13. Use a telescope to resolve its stars.	27k
•	Antares	Scorpius	Red, supergiant star. Name means "rival of Mars".	136	☉	R Lyrae	Lyra	Semi-regular variable. Magnitude varies between 3.9 & 5.0 over 46.0 days.	298	☉	ε Lyrae	Lyra	Famous Double Double. Binoculars show a double star. High power reveals each a double.	162
☉	Polaris	Ursa Minor	The North Pole Star. A telescope reveals a mag 8 companion.	433	☉	M12	Ophiuchus	Fainter and smaller than M13. Use a telescope to resolve its stars.	27k	☉	M10	Ophiuchus	3 degrees from the fainter M12. Both may be glimpsed in binoculars.	14k
•	Spica	Virgo	Latin translation: "ear of wheat" Spica held in Virgo's left hand.	250	☉	M15	Pegasus	Globular with a planetary nebula	30k	☉	M8	Sagittarius	Lagoon Nebula.	5.2k
					☉	M22	Sagittarius	Excellent globular, better in telescope	10k	☉	M25	Sagittarius	Near teapots lid	1.9k
					☉	M4	Scorpius	A close globular. Can see with eye with good conditions.	7k	☉	M6	Scorpius	Butterfly Cluster. 30+ stars in 7x binoculars.	1.9k