



July 2007

11:00 p.m. on July 1
 10:00 p.m. on July 15
 9:00 p.m. on August 1

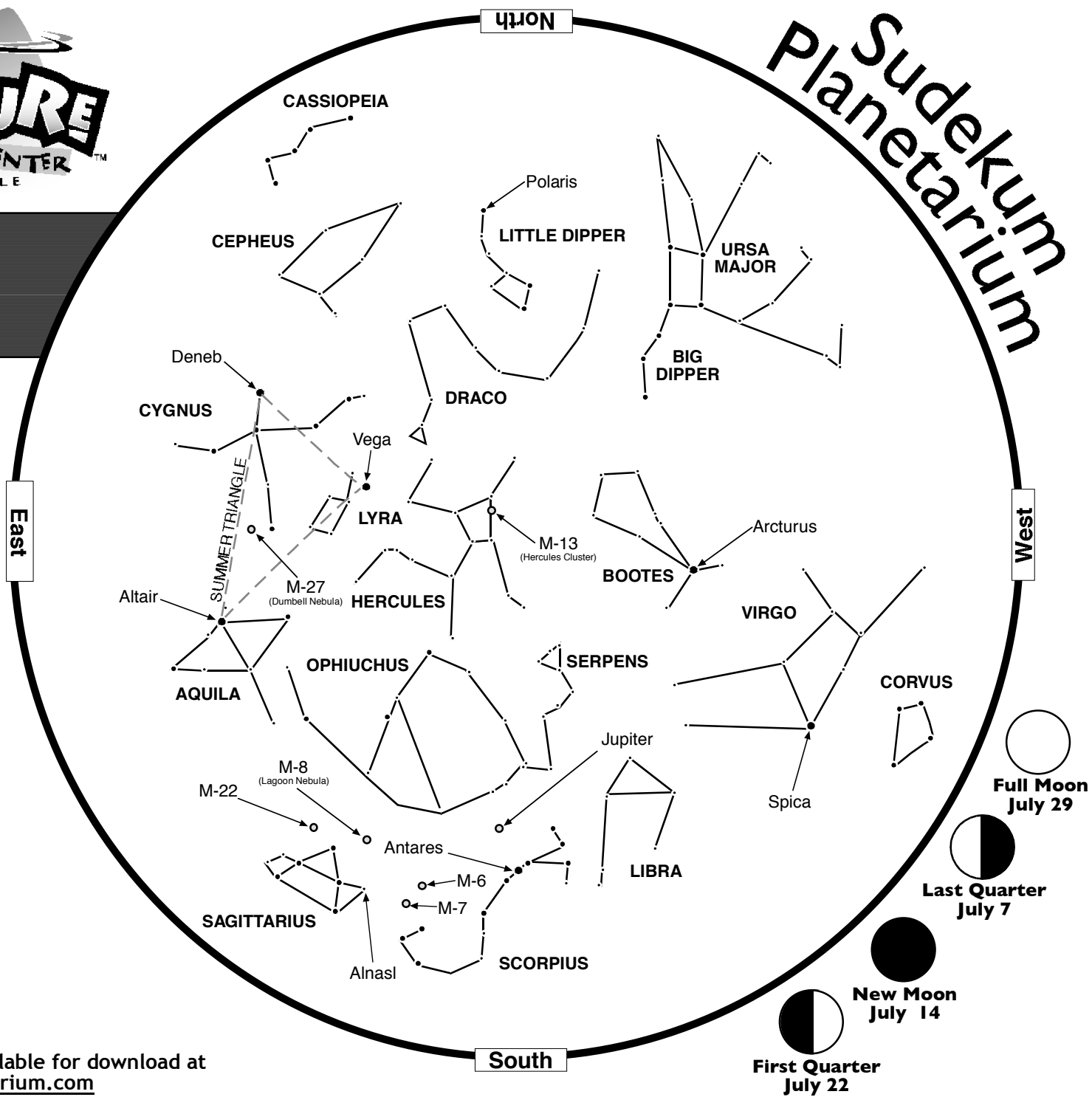
To use this chart: hold the chart in front of you and turn it so the direction you are facing is at the bottom of the chart.

- **Bright Stars**
- **Medium Bright Stars**
- **Faint Stars**

Scan the sky with binoculars: the darker the sky, the better.

- M-4: Globular star cluster in Scorpius
- M-6 and M-7: Open star clusters in Scorpius
- M-8: The Lagoon Nebula
- M-13: The Hercules open star cluster
- M-22: Globular star cluster in Sagittarius

From Nashville:	Sunrise	Sunset
July 1	5:33 AM	8:08 PM
July 15	5:41 PM	8:04 AM
August 1	5:54 PM	7:53 AM



FREE monthly star charts are available for download at www.SudekumPlanetarium.com



July 2007

Crescent Venus

July begins with **Venus** and **Saturn** low in the west just after sunset. On July 1, the two planets appear very close together, as seen from our vantage point on Earth. Each night after that, they drift apart from each other. Watch on **July 16**, when a thin crescent **Moon** appears between the two planets.

Every night through July, Venus sets a little bit earlier. By the end of the month it will set before the sky is completely dark after sunset. If you have a telescope, keep watch! You'll see the bright planet change phases from just past first quarter to a thin crescent.

Around the middle of August, Venus will reach a 'new' phase, situated almost directly between Earth and the Sun. By then it will be so close to the Sun in the sky, we won't be able to see it!

Sadly, no matter what phase Venus is in, you never see much detail on the planet itself. The thick atmosphere reflects so much of the Sun's light that it appears white in color, and practically featureless. Actually, it is possible to see some vague features in the clouds, but it takes calm, still, cloudless skies, a quality telescope, and the right filters to cut down on the planet's distracting glare. Determination, practice, and patience are also essential.

If you've ever seen dramatic pictures of Venus where it looks like a mottled, technicolor orange, be careful! You're seeing a false-color view of the planet's rocky surface. The same thick atmosphere that makes Venus so bright in our

sky also blocks any chance of seeing Venus' surface in visible light.

The *Magellan* spacecraft arrived at Venus in 1990 and used sensitive radar to peer through the clouds and create a detailed, three-dimensional map of the surface we will never otherwise see. The bright colors were added to black and white images to highlight geologic features. It's a fascinating view of the second planet from the Sun, but it's not what it really looks like from space.

Lots More to See

As we say good-bye to Venus this month, we bid farewell to Saturn as well. If you have a good western horizon, this is your last chance to catch a close-up of those beautiful rings before they too are lost in the glare of sunset.

Meanwhile, bright **Jupiter** rules the skies to the south. It should be easy to find near the red star **Antares**, marking the heart of **Scorpius** the Scorpion. With just a good pair of binoculars you can see four of Jupiter's moons.

While you're scanning that part of the sky, don't just stop at Jupiter! If you're reasonably far away from light pollution, you'll be able to see a wide variety of fuzzy patches in the southern summer sky, mostly in the region around Scorpius and its next-door neighbor **Sagittarius** the Archer. This is because you're looking in the direction of the center of our Milky Way galaxy. Here, you'll find plenty of **star clusters** and **nebulae**, distant clouds of dust and gas. Through binoculars and small telescopes most just look like blurry stars. Larger telescopes can reveal more detail.

Early birds may catch a glimpse of **Mars**, high in the east before sunrise, but Mars is moving quickly through the sky. As July begins the unmistakably red planet is near **Aries** the Ram,

but as the month ends, it lies close to the **Pleiades**, a bright star cluster in **Taurus** the Bull. Don't like to get up early? Mars will return to evening skies this autumn and will be especially bright at the end of the year.

Summer Star Party

Join us and members of the Barnard-Seyfert Astronomical Society (BSAS) for the Perseid Meteor Shower! The next FREE public star party is scheduled for **Saturday, August 11, 2007 from 8:30 - 10:30 pm at Edwin Warner Park**. Weather permitting, this should be a good one - the Moon won't be up, so the skies will be dark. Jupiter will also be visible.

This star party will be at a different location than usual. We'll be at Ridgefield, accessed behind picnic shelter #4 in the park. Future star parties will be back at the Special Events Field, once improvements there are finished. For directions to Ridgefield, call Warner Park Nature Center at 352-6299 or check our website.

For more information about BSAS, visit their web site at www.bsasnashville.com.

If you are unable to join us for the Meteor Watch, find a location with a clear eastern horizon and as few outdoor lights as possible, Set up a lawn chair with some insect repellent, a cool drink, and a light blanket. Then, just sit and watch. With clear, dark skies, you might see as many as 50 meteors per hour - with the best viewing between midnight and dawn.

Getting Taller

This month the new Sudekum Planetarium gets taller, construction workers add the giant 6-sided pyramid to the top! Keep an eye on our web site for the latest pictures of our construction project.

For information about programs and events at the Sudekum Planetarium and Adventure Science Center, visit www.SudekumPlanetarium.com

For current night sky information, call AstroLine at 615-401-5092.