

July 2008

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.

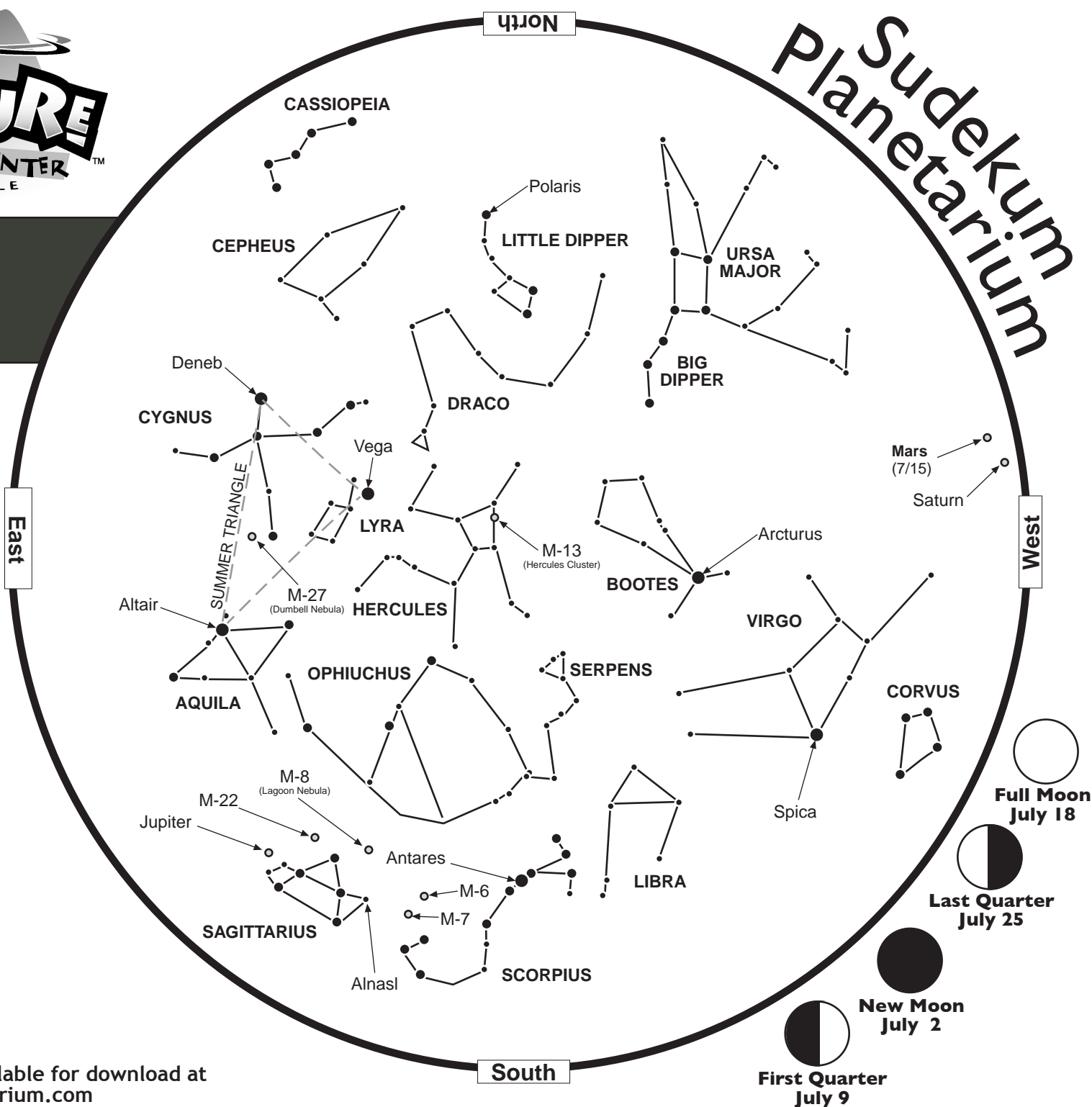
- **Bright Stars**
- **Medium Bright Stars**
- **Faint Stars**

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 | 5:34 AM | 8:08 PM |
| July 15 | 5:42 PM | 8:04 AM |
| August 1 | 5:54 PM | 7:52 AM |



THE NEW SUDEKUM PLANETARIUM

AT ADVENTURE SCIENCE CENTER

July 2008

Evening Planets

On Monday evening, **June 30, 2008**, as the sky gets dark shortly after sunset, keen observers will want to look low in the west, just above the horizon. The red planet **Mars** will appear right next to the blue-white star **Regulus**, which marks the heart of **Leo the lion**. The contrast in colors makes this an interesting pair.

Above and to the left of this dynamic duo is the pale yellow dot of the planet **Saturn**. If the weather cooperates over the next two weeks, watch as Mars slowly pulls away from Regulus moving toward a close pass by Saturn on **July 10, 2008**. When two astronomical objects appear near each other, astronomers call the event a **conjunction**.

During this time, all the objects involved are moving. Earth is orbiting the Sun while Mars and Saturn do the same. The distance between Earth and Mars is increasing because of their orbital motions. Mars moves much faster through our sky than Saturn not only because it's closer to us, but also because it orbits the Sun more quickly.

On Wednesday evening, **July 9**, go out after sunset, turn around and face east. **Jupiter** will be rising as the Sun sets in the west. Astronomers would say that Jupiter is now at

opposition. Opposition occurs when a planet or other object is directly opposite the Sun as seen from Earth.

As the month draws to a close, Regulus, Mars, and Saturn will start to become lost in the glare of the setting Sun. Mighty Jupiter will begin to dominate the evening sky as it rises in the east. However, its ascension will be challenged by **Venus** as it peaks above the western horizon on its way to becoming the evening star. Over the next few months, Venus will be higher in the sky when the Sun sets and will be a center of attention through the end of the year.

Evening Stars

Sunset is fairly late this time of year, so you can enjoy dinner and even do the dishes in plenty of time to take in the night sky. Before heading outside to do any stargazing, be sure to apply some **insect repellent**. Get a **cool drink** and **lawn chair** and a **friend or two**. Turn off your cell phone, and **relax**.

High in the eastern sky, opposite from where the Sun sets will be three bright stars that form a triangle. Together they're called the **Summer Triangle** because these three stars are up all night during the summer.

The brightest star in the triangle is **Vega** in the constellation of **Lyra the Harp**. Vega is the fifth brightest star visible in the night sky of Earth, but Lyra itself is not such an impressive star pattern.

The faintest star in the triangle is **Deneb** which marks the tail of **Cygnus the swan**. With Deneb at the tail, it's not too hard to draw an imaginary line through the body down

the long neck to the head of the swan as it flies toward the south. Wide wings stretch out to either side, and if your sky is dark enough, it looks like the swan is flying along the path of the Milky Way.

The last star in the triangle is **Altair**, marking the shining eye of **Aquila the eagle**. Aquila is flying north along the Milky Way, toward a head-on collision with Cygnus.

The summer is also the only time Middle Tennessee gets a good look at **Scorpius** and **Sagittarius** as they drift just above the southern horizon. Scorpius is supposed to be a scorpion in the sky, but some people find it easier to imagine a giant fish hook or a saxophone in this group of stars.

Summer Star Parties

The next **FREE** public star party is scheduled for **Saturday, July 12**, from 8:30 - 10:30 PM at the Visitors Information Center at Longhunter State Park. The next one after that is **Saturday, August 9**, from 8:30 - 10:30 PM at the special events field in Edwin Warner Park. For directions to the locations and weather information, check our web site.

For those who have never attended a star party before, members of the **Barnard-Seyfert Astronomical Society (BSAS)** www.bsasnashville.com will set up their telescopes to provide views of the Moon, Jupiter, and other summer splendors.

If it is cloudy or raining, the star party will be canceled. If the weather is questionable, call AstroLine at 401-5092 or check www.SudekumPlanetarium.com before leaving home.

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.