



# June 2007

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

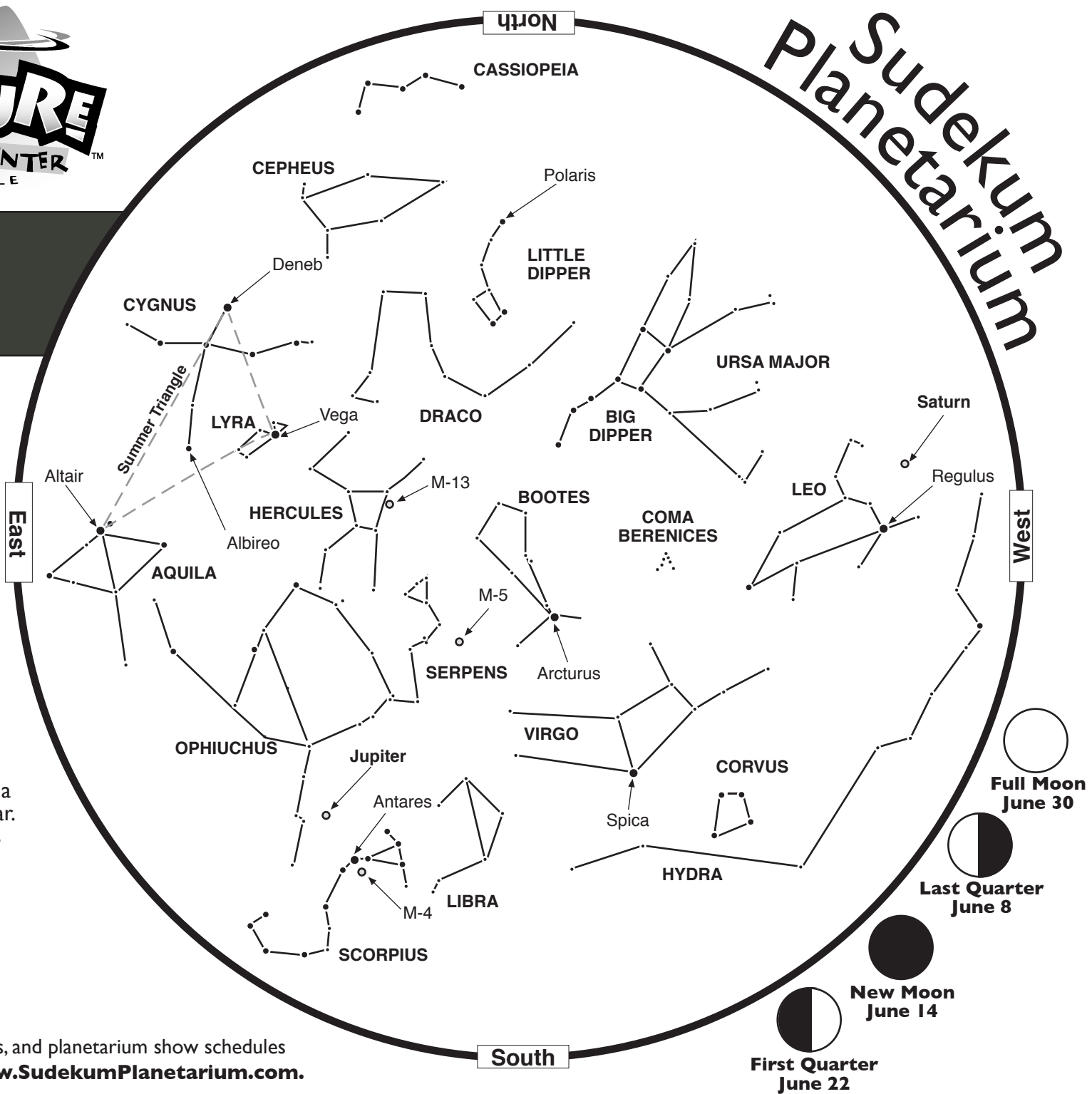
**Scan the sky with binoculars:** the darker the sky, the better.

Globular star clusters:  
 M-13 in Hercules  
 M-4 in Scorpius  
 M-5 in Serpens

Look at the star Albireo through a telescope. It's actually a double star. One star is blue and the other is yellow.

From Nashville:		
	Sunrise	Sunset
June 1	5:31 AM	7:59 PM
June 15	5:29 AM	8:06 PM
July 1	5:33 AM	8:08 PM

Monthly star charts, feature articles, and planetarium show schedules are available on our web site at [www.SudekumPlanetarium.com](http://www.SudekumPlanetarium.com).





June 2007

## Venus and Friends

Venus continues to shine brightly in the western sky after sunset. It's easy to spot as the brightest single point of light anywhere in the night sky. Keep an eye on its surroundings, there's a lot going on this month.

As June begins, Venus is appearing higher each night, approaching **Saturn**. Saturn's a much bigger planet than Venus, but it's also much farther away, so it doesn't look as bright.

Keep drawing the line from Venus to Saturn and you'll soon end up at the star **Regulus** in the constellation **Leo** the Lion. On the 17th, a thin crescent **Moon** joins the lineup, just below and to the right of Venus. On the 18th, the Moon is between Venus and Saturn. On the 19th, the Moon is less than half a degree distance from Regulus - very close! With binoculars or a low magnification telescope, you'll be able to see both of them at the same time.

As all of this is going on, Venus is continuing to get closer to Saturn. On June 30 and July 1, the two planets will be just about half a degree apart. Again, you'll be able to see both at the same time in binoculars or a small telescope! Through the binoculars, Saturn will appear oval-shaped because the binoculars cannot resolve the rings from the disk of the planet. Through a telescope, look for Saturn's beautiful rings. Venus also might not look entirely round in a telescope. Because it orbits closer to the Sun than the Earth, Venus goes through phases, similar to the way the Moon seems to change shape. Between June 1 and June 30, Venus goes from a quarter phase to a crescent phase.

To catch all the action, be sure to go outside early, before 9:00 pm or so. Our celestial line-up starts setting in the west not long after.

Far away from the action, giant **Jupiter** has returned to the summer skies, rising in the southeast in the early evening. Second only to Venus in brightness (except for the Moon, that is), Jupiter is another great telescopic sight. Even with just a good pair of binoculars, you can spot its four biggest moons.

## Half a Degree... That's Really Cold, Right?

You'll often hear astronomers talk about degrees, or even half degrees. And while it's true that many amateur astronomers brave sub-freezing temperatures to view a crystal clear starry winter sky, in this case they're not talking about temperature. They're talking about "angular distance".

If you want to measure how big or how far apart objects appear in the sky, you *could* use a ruler, but where would you put it? Up close to your face? At arm's length? What if my arm is shorter than yours? This sort of measuring system just doesn't work all that well in the sky.

Instead, astronomers use angles. The sky over our heads can be divided into 180 degrees, from the horizon, to straight overhead, to the horizon on the opposite side. If an object is 90 degrees up, it's directly overhead. If it's 0 degrees up, it's right on the horizon.

You can also measure the angular distance between two objects in the sky. For example, if we say that Venus and Saturn are half a degree apart, we mean that the angle between the two objects (with your head as the vertex of that angle) is half a degree. By the way, half a degree is just

about the width of the full moon.

But how can you measure angles in the sky? You can make approximate measurements just by using your hand. Held out at arm's length, the tip of your pinky finger is about 1 degree across. You can cover a Full Moon with the tip of your pinky. Next, make a fist. At arm's length, your fist is about 10 degrees across. Again, these are only approximations, but they work. You can improve your measurements by comparing your hand at arm's length to a known angular distance. For instance, try measuring the **Big Dipper**. From the end of the handle to the bottom of the bowl is about 25 degrees. Try it out!

## 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 - there's no moon 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 about BSAS, visit their web site at [www.bsasnashville.com](http://www.bsasnashville.com).

## Watch Us Grow!

Keep an eye on our web site for the latest pictures of our construction project. You'll see a lot of change this month!

For information about programs and events at the Sudekum Planetarium and Adventure Science Center, visit [www.SudekumPlanetarium.com](http://www.SudekumPlanetarium.com)

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