



September 2010

10:00 p.m. on September 1
 9:00 p.m. on September 15
 8:00 p.m. on October 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.

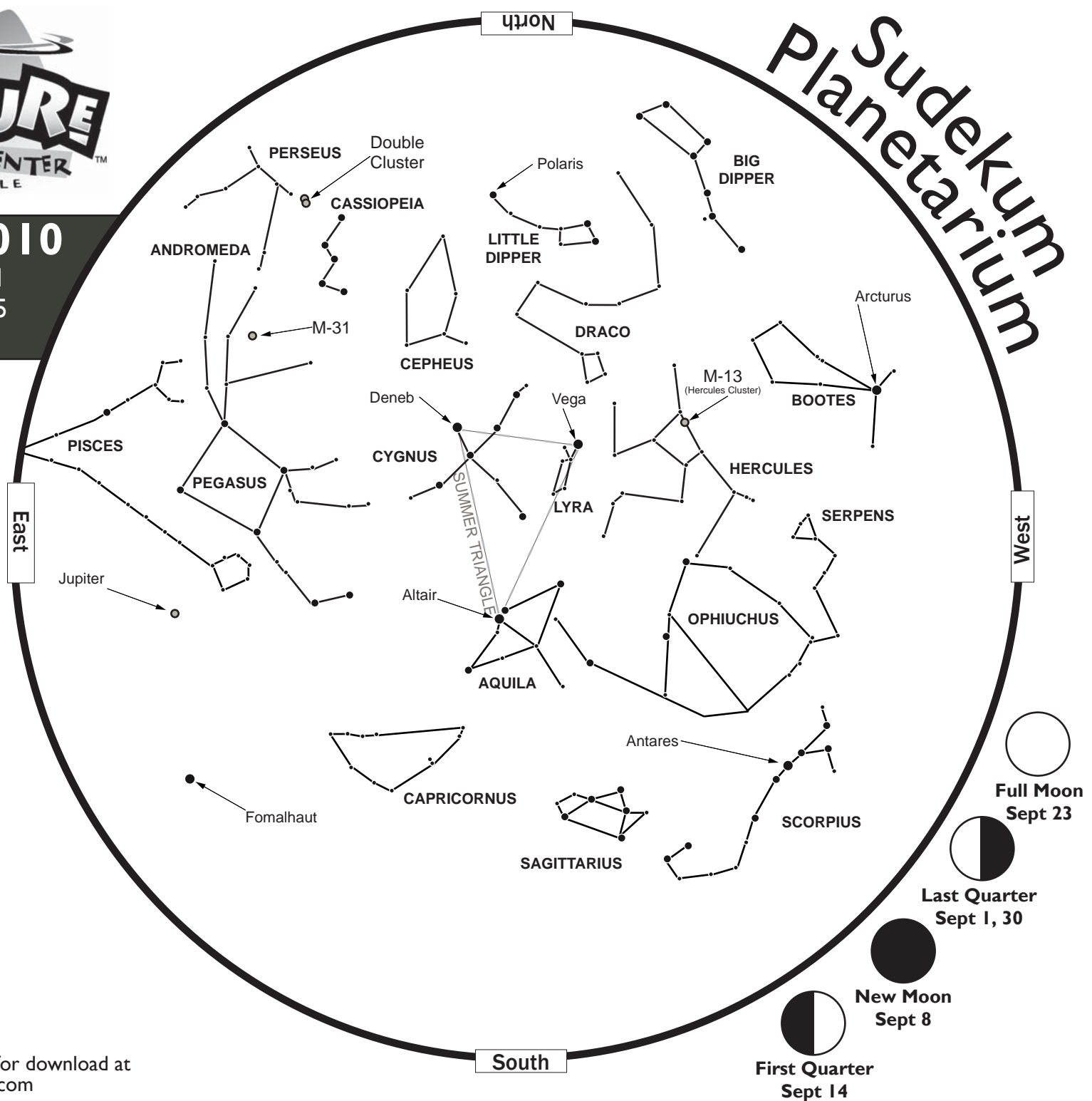
M-13: The Hercules open star cluster

M-31: The Andromeda Galaxy

Double Cluster in Perseus

From Nashville:		
	Sunrise	Sunset
Sep. 1	6:19 AM	7:15 PM
Sep. 15	6:30 AM	6:54 PM
Oct. 1	6:42 AM	6:31 PM

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



— THE NEW — **SUDEKUM PLANETARIUM**

JUDITH PAYNE TURNER THEATER

September 2010

New 'Star' Rising

Vibrant **Venus** has been the 'evening star' since late February, but it's about to disappear in the glow of sunset. Every night this month it sets earlier and earlier. Observers with a small telescope should be able to watch as sunlight shining on Venus narrows to a thin crescent before the planet passes between the Earth and Sun in October.

Mars is also there, hiding in the twilight, much fainter than Venus. To find it you must have binoculars or a telescope, plus a clear sky and a fair amount of patience. A **slim crescent Moon** will help you locate Mars on the evening of **September 10**. Use your binoculars to find the bright star **Spica** just above the Moon. Mars will be a dim dot above Spica, about the same distance that Spica sits above the Moon. If you can't spy Mars, Venus will still make a pretty sight shining to the left of the Moon.

On the following night, **September 11**, a slightly wider crescent Moon will appear to the left of Venus. Impress friends and strangers by identifying the bright 'star' near the Moon.

Venus, the Moon, and Mars will vanish no more than 30 minutes after sunset. Fortunately there are plenty of other sights in the sky to hold your attention for the rest of the evening.

Low in the southwest lies the constellation of **Scorpius the scorpion**. The scorpion never gets very high in the sky from this part of the world, and this is your last chance to spot it until it returns to the evening sky next July.

High in the southern sky, look for three bright stars that form the **Summer Triangle**. These stars point the way to the constellations

Cygnus the swan, **Aquila the eagle**, and **Lyra the harp**. Unless you have good, dark skies, it may be difficult to spot the details of these star pictures, but the three corner stars of the Triangle are easily visible even under light polluted skies. These summer stars will be conveniently visible until early December.

By mid-evening, around about 9 pm, new stars are coming up in the east. The **Great Square of Pegasus** is the most prominent star pattern. Yet, the brightest 'star' glaring in the darkening sky is mighty **Jupiter** in the relatively faint constellation of **Pisces the fish**.

During this month Jupiter reaches its closest approach to the Sun in its twelve yearlong orbit around the Sun. That means Jupiter is closer to us on Earth, making it even brighter than usual, bigger in telescopes, and providing one of Jupiter's best appearances in years.

A steady hand and a good pair of binoculars will reveal Jupiter's four largest moons. Watch the positions of the moons over several nights as they orbit around the giant planet. Track the moons by sketching what you see with a pencil and a piece of paper.

Look at Jupiter through a telescope, and you may just observe a mystery in progress. Jupiter is well known for the cloud bands that run around the entire planet, like the horizontal stripes on a shirt. This past May, one of the two major bands disappeared! The last time this occurred was in 2007, but astronomers are unable to explain why it happens. It's possible another layer of clouds has formed and is blocking the **Southern Equatorial Belt** from view. When will the band reappear? Keep watching!

Out of Sight; Not Out of Mind

Even as Mars retreats from our evening sky and prepares to pass around behind the Sun, our thoughts remain on the red planet.

Mars Exploration Rover **Spirit** is still trapped in the soil of the Columbia Hills and has remained silent through the chilly Martian winter. Mission managers think the earliest chance of communication with Spirit will not be until

October or November. Cross your fingers. You can also send Spirit a postcard at beamartian.jpl.nasa.gov/spiritpostcards.

Meanwhile, Spirit's twin rover **Opportunity** is hustling toward an enormous crater called Endeavour. JPL rover drivers knew this was an ambitious goal when they started in that direction almost two years ago. Now, the rim of this 13-mile wide (20 km) depression on Mars is within sight and almost in reach. Get the latest updates about both rovers at marsrovers.jpl.nasa.gov.

If all goes well, both rovers could celebrate seven years on Mars in January 2011. That would mean they lasted twenty times longer than they were designed to work!

Next up for Mars exploration is the much larger Mars Science Laboratory rover named **Curiosity**, scheduled for liftoff in fall 2011. Learn more about Curiosity's mission at marsprogram.jpl.nasa.gov/msl.

Upcoming Star Parties

The next **FREE** public star party is set for **Friday, September 17**, at the **Bells Bend Nature Center** from **8 to 10 pm**. Members of the **Barnard-Seyfert Astronomical Society** will set up their telescopes so visitors can get up close and personal with Moon, Jupiter, the Andromeda Galaxy, and more.

Saturday, September 18, has been designated **International Observe the Moon Night**, and we will be observing the Moon from the grounds of the **Adventure Science Center** that evening from **8 to 10 pm**. Of course, you can also use the telescopes to check out Jupiter and other objects. Learn more about International Observe the Moon Night at observethemoonnight.org.

Star parties may be cancelled due to cloudy weather. If the weather is questionable, call **AstroLine** at (615) 401-5092 or check our web site before traveling. Twitter fans can also follow @adventuresci for star party status. Visit our web site for driving directions and a list of useful star party tips.