



# Sudekum Planetarium

**September 2012**  
 10:00 pm on September 1  
 9:00 pm on September 15  
 8:00 pm 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.

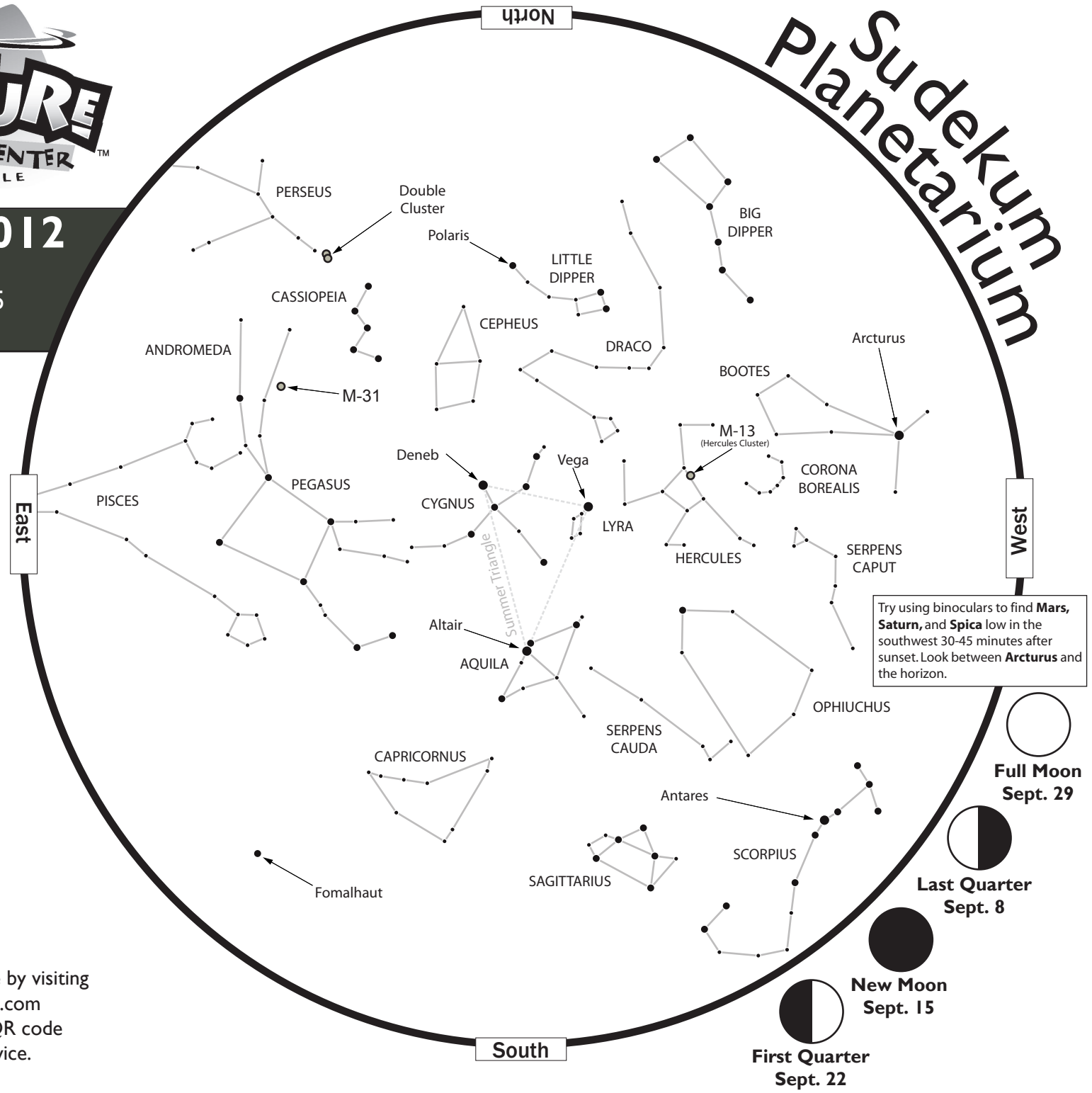
- M-13: The Hercules open star cluster
- M-31: The Andromeda Galaxy
- Double Cluster in Perseus

From Nashville:

	Sunrise	Sunset
Sept 1	6:19 AM	7:14 PM
Sept 15	6:30 AM	6:54 PM
Oct 1	6:43 AM	6:30 PM



Find this chart online by visiting [SudekumPlanetarium.com](http://SudekumPlanetarium.com) or by scanning this QR code with your mobile device.



Try using binoculars to find **Mars**, **Saturn**, and **Spica** low in the southwest 30-45 minutes after sunset. Look between **Arcturus** and the horizon.

 **Full Moon**  
 Sept. 29  
 **Last Quarter**  
 Sept. 8  
 **New Moon**  
 Sept. 15  
 **First Quarter**  
 Sept. 22

# SUDEKUM PLANETARIUM

JUDITH PAYNE TURNER THEATRE

September 2012

## Time For Another Season

Autumn is almost upon us. The Sun sets earlier every evening, which means we can go out and do some stargazing earlier, maybe even *before* dinner.

The **Autumnal equinox** occurs on **September 22 at 9:49 am**. It is on this date that the Sun rises due east and sets due west. The word equinox means “**equal night**”. In the southern hemisphere, it is the Vernal equinox, the first day of spring.

Last month, **Spica**, **Saturn**, and **Mars** put on a show in the southwestern sky after sunset. This month, they are diving toward the horizon and will soon be lost in the glow of the twilight.

The star **Spica**, in **Virgo the maiden**, and the planet **Saturn** sit close to the western horizon as the sky gets dark. Trees and haze can make your search somewhat challenging. Scan the sky with binoculars about thirty minutes after sunset to pick them out of the twilight. Saturn will appear above and very slightly to the left of **Spica**.

Mars may be an even greater challenge to find. Look for its dim, tiny, orange disk some distance to the left of Saturn and a little higher above the horizon. Again, binoculars will help.

If you are still having trouble locating these objects, the **Moon** will be along in the middle of the month to point the way. On the evening of **September 17**, a very thin crescent Moon will lie almost directly below Saturn. On the evening of the **18<sup>th</sup>**,

the Moon will be to the left of Saturn. On the evening of **September 19**, the crescent Moon will appear just to the left of Mars at roughly the same altitude above the horizon.

The **Summer Triangle** continues to dominate the evening sky, hanging high overhead. The three bright stars of **Vega**, **Deneb**, and **Altair** are each the brightest star of their own constellation. **Cygnus the swan** is pretty easy to spot under a moonless sky. **Lyra the harp** looks nothing like a harp. Look at its line drawing on this chart. What else can you imagine in that pattern, besides an equilateral triangle and a parallelogram?

This will also be your last chance for a while to catch **Scorpius the scorpion**. Scorpius scoots across our southern horizon every year from June into September, but it will soon disappear at sunset along with **Sagittarius the archer** close behind. The Big Dipper is also hanging lower in the northwest every evening. Pretty soon, the trees will get in its way as well.

If the early evening stars and planets leave you unsatisfied, come back out near midnight. The constellation **Taurus the bull** will be rising in the northeast. The v-shaped cluster of stars called the **Hyades** forms the face of the bull, with the bright star **Aldebaran** marking one eye.

The **Pleiades star cluster** rides on the shoulder of the bull. Also known as the **Seven Sisters** or **M-45**, it is often mistaken for the Little Dipper. It's much smaller than the real Little Dipper -- maybe it's a micro-dipper.

Also hanging around the bull's horns right now is **Jupiter**. The planet far outshines any of the nearby stars in **Taurus the Bull**, **Auriga the charioteer**, or **Orion the hunter**. The bright Moon will outshine Jupiter when it appears close by late on the evening of **September 7**.

Outshining all but the Moon is **Venus**. This brilliant planet rises into the eastern sky

around 3 am. The Moon will pass near Venus in the wee hours of **September 12**.

## Meanwhile on Mars and Elsewhere

The newest Mars rover **Curiosity** completed a dramatic touchdown on August 6. After several weeks of systems checks, the one-ton rover will set out to explore Mount Sharp (*Aeolis Mons*) in the middle of Gale Crater.

The main objective of the two-year mission is to find evidence that Mars could have supported life in the past when there was liquid water on the surface. With seventeen cameras, a laser, a drill, spectrometers, and on-board laboratories to analyze soil and rock samples, **Curiosity** is a fully decked-out robot geochemist.

While **Curiosity** has been hogging all the press lately, countless other spacecraft continue to explore and survey our solar system. **Cassini** continues chugging around Saturn, **Solar Dynamics Observatory** is keeping tabs on the Sun, and **Mars Rover Opportunity** keeps on trucking on the side of Mars opposite big sister **Curiosity**.

The **DAWN** spacecraft has spent the last year orbiting and surveying the second largest asteroid **Vesta**. **DAWN** is scheduled to say *Hasta la Vista Vesta* in early September to begin a trip to dwarf planet **Ceres**, where it should arrive in early 2015.

## Come Look Through Telescopes

There is a free public star party this month: **Friday evening, September 21 from 8:00 to 10:00 pm at Bells Bend Outdoor Center**. Members of the Barnard-Seyfert Astronomical Society (BSAS) will set up telescopes to provide views of double stars, and more.

Star parties are weather dependant. Visit our web site for updates before making the trip, especially if the weather is iffy. You'll also find star party tips and a calendar of future events.