



Sudekum Planetarium

September 2009
 10:00 p.m. on September 1
 9:00 p.m. on September 15
 8:00 p.m. on October 1

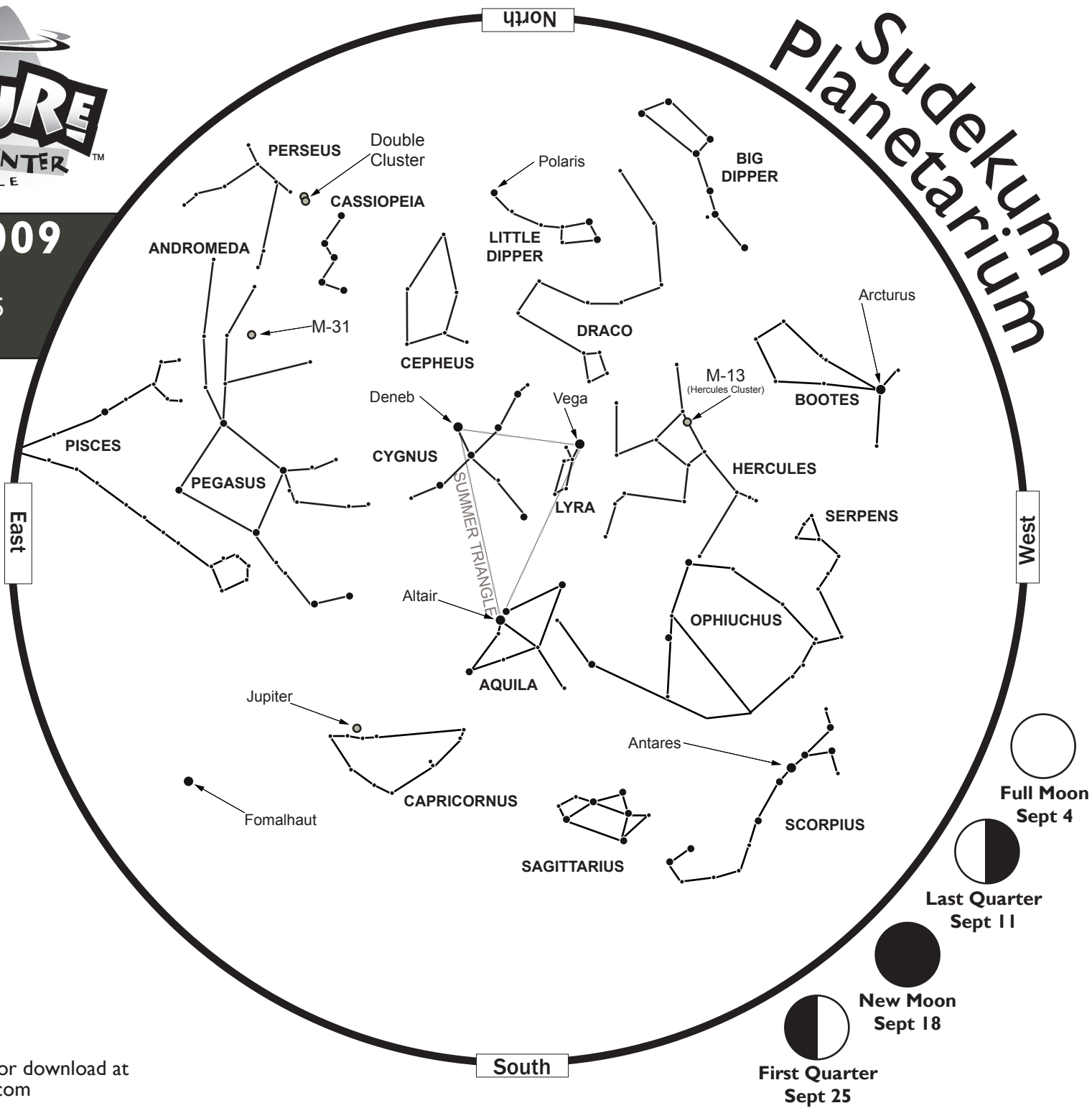
To use this chart: hold the chart in front of you and turn it so the direction you are facing is at the bottom of the chart.

- **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	7:14 PM
Sep. 15	6:30 AM	6:54 PM
Oct. 1	6:42 AM	6:30 PM



Full Moon Sept 4

Last Quarter Sept 11

New Moon Sept 18

First Quarter Sept 25

THE NEW SUDEKUM PLANETARIUM

AT ADVENTURE SCIENCE CENTER

September 2009

September Skies

Is that a chill in the air? Maybe, maybe not. Autumn seems to arrive a little late around these parts. Weather aside, you can look to the skies to see signs of seasonal change. The official first day of autumn is Tuesday, September 22. On this date, the Sun rises almost exactly east and sets almost exactly west. For us in the Northern Hemisphere, the nights will be longer than the days from here on until the first day of spring.

Three bright stars stand out high overhead as the sky darkens. Together the stars **Vega**, **Altair**, and **Deneb** make up the **Summer Triangle**. As summer began, these three stars rose about the same time as the sun set and appeared high overhead around midnight. Now, three months later, the Earth has moved one quarter of the way around in its orbit of the Sun, and the triangle appears high in the sky at sunset. In another three months, the triangle will set with the Sun as winter begins.

Similarly, the **Big Dipper** is getting harder to see as autumn begins. During the spring, the Dipper is high in the north, but now it stays low to the horizon, hiding behind nearby trees and buildings.

Many people use the two stars at the end of the Big Dipper's bowl to locate **Polaris**, the **North Star**. If you can't find the Dipper, try using **Cassiopeia the Queen**. Cassiopeia looks a bit like a stretched out letter "W". Use the three center stars to form an arrow that points toward Polaris. Once you're facing Polaris, you're facing the direction north, no matter what season it is.

Another true sign of fall is **Pegasus the Flying Horse**. Four stars in a square shape mark the horse's body. On a clear, dark night, far from city lights, look nearby for **M-31**, the **Great Andromeda Galaxy**. It will look like a faint fuzzy blur, even in a small telescope. At two million light years away, that blur is among the most distant things you can see without a telescope.

While not necessarily a sign of the seasons, you don't want to miss mighty **Jupiter**, high in the south. It's so bright right now, you'll hardly be *able* to miss it. Check it out in a telescope to see its cloud bands along with four of its moons.

Indoor Astronomy

Looking at the real sky is one of the most enjoyable aspects of astronomy. So is keeping up with new discoveries or studying the people who expanded our understanding of the universe.

The **Barnard-Seyfert Astronomical Society** (www.bsasnashville.com) meets at the Sudekum Planetarium at 7:30 pm on the third Thursday of each month. Meeting programs range from a guided tour of seasonal telescope targets to demonstrations of free software.

Three diverse programs are scheduled for this Fall. The public is invited to attend for free, but you might also consider joining the club.

September 17, 2009 at 7:30 pm

Vanderbilt University Post-Doctoral Researcher Joshua Pepper will discuss **Exoplanet Research and KELT (Kilodegree Extremely Little Telescope)**. This surprisingly small, Earth-based instrument will be used to hunt for earthlike planets circling other stars.

October 15, 2009

Join us early, at **7:00 pm**, to see **Two Small Pieces of Glass** in the Sudekum Planetarium. Get ready for the evening's BSAS program on Galileo by discovering how telescopes have changed our view of the universe.

Starting at 7:30 pm, **Galileo: Contributions and Challenges** will highlight Galileo's contributions to physics and astronomy as well as the challenges he faced after announcing that Earth is not at the center of the universe.

BSAS and Americans United for the Separation of Church and State are offering this program as part of the International Year of Astronomy (IYA) celebrating 400 years of the telescope since Galileo made his first observations in 1609. Learn more about these topics and activities around the world, by visiting www.astronomy2009.org and www.400years.org.

November 19, 2009 at 7:30 pm

Thinking of buying your child (or spouse) a telescope for Christmas? How and where do you buy a telescope? **Dr. Spencer Buckner of Austin Peay State University** will address these questions and more during **All I Want For Christmas Are Astronomy Presents**.

There are lots of great gifts you can give to your favorite amateur astronomer with prices ranging from under \$20 to over \$10,000. Selecting the right gift that fits your budget and the recipient can be a daunting task.

Dr. Buckner will explain the basic types of telescopes and mounts along with their pros and cons. He will also include suggestions on where to find good equipment at reasonable prices and sales people knowledgeable about the products they sell.

Star Parties = Free Fall FUN

At a star party, members of the **Barnard-Seyfert Astronomical Society** set up their telescopes so everyone can look at the planets or other celestial sights.

The next **FREE** public star parties are set: **Saturday, October 24**, from 8:00-10:00 PM at the Longhunter State Park Visitors Center; **Saturday, November 21** from 8:00-10:00 PM at Shelby Bottoms Nature Center; and **Saturday, December 12**, from 7:30-9:30 PM at Edwin Warner Park's Special Events Field.

Directions to star party locations can be found at www.SudekumPlanetarium.com along with helpful hints to enjoy a star party.

Star parties may be cancelled due to poor weather. If the weather is questionable, visit our web site or call **AstroLine** at (615) 401-5092 before leaving home.