

**January 2009**  
 10:00 p.m. on January 1  
 9:00 p.m. on January 15  
 8:00 p.m. on February 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.

- **Open Star Clusters:**  
 M-44 - The Beehive  
 M-45 - The Pleiades  
 "Double Cluster" between Perseus and Cassiopeias  
 The Hyades form the face of Taurus
- **A Spiral Galaxy:**  
 M-31 in Andromeda
- **A Nebula:**  
 M-42 - the Orion Nebula

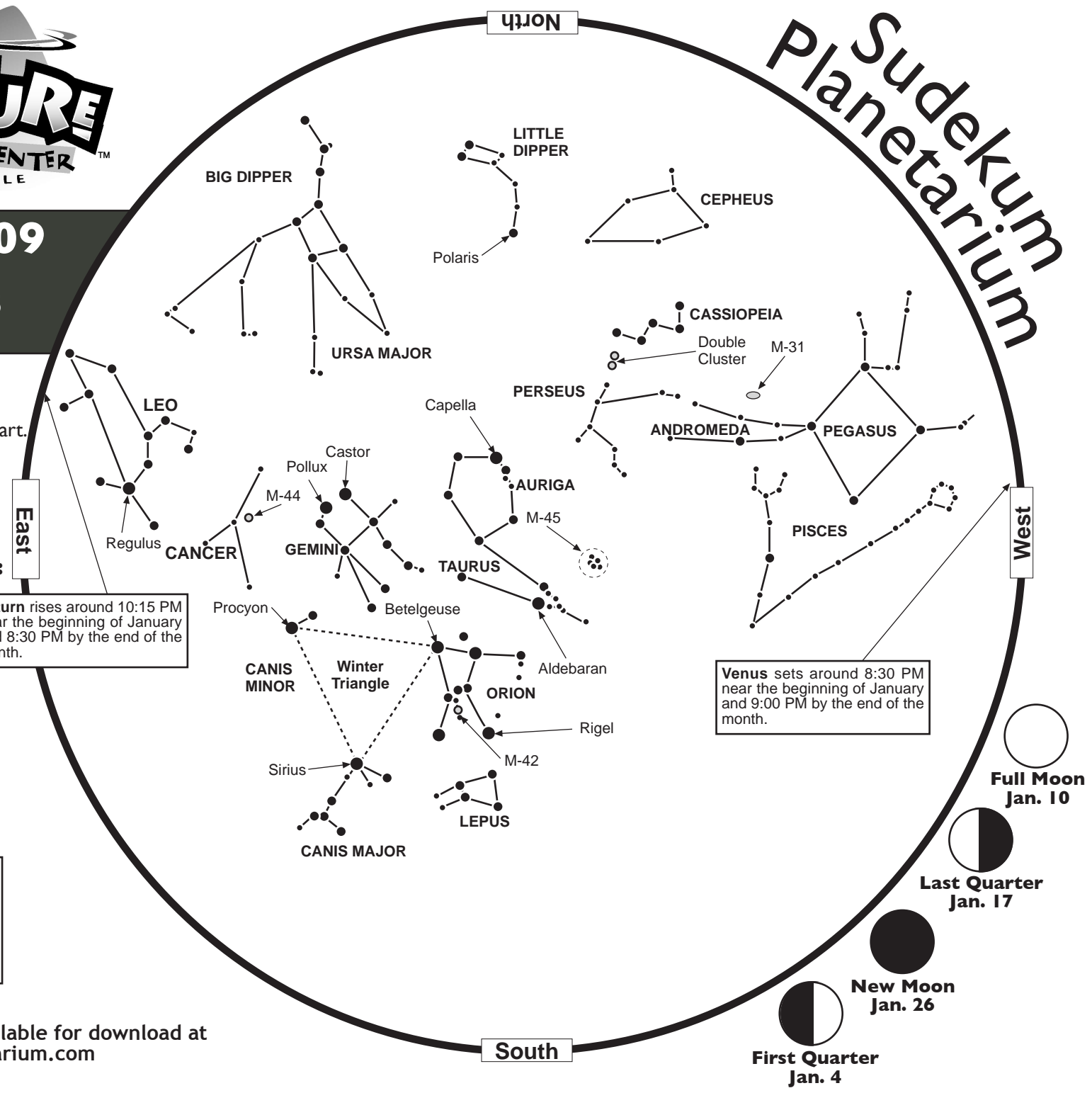
**Saturn** rises around 10:15 PM near the beginning of January and 8:30 PM by the end of the month.

**Venus** sets around 8:30 PM near the beginning of January and 9:00 PM by the end of the month.

From Nashville:

	Sunrise	Sunset
January 1	6:58 AM	4:44 PM
January 15	6:57 AM	4:56 PM
February 1	6:48 AM	5:14 PM

FREE monthly star charts are available for download at [www.SudekumPlanetarium.com](http://www.SudekumPlanetarium.com)





January 2009

## Begin the New Year Right: Start Watching December 28th

After all the food, fun, and football, be sure to step outside in the early evening, between 5:00 and 5:30 PM, to enjoy some of nature's most beautiful gifts. As **December draws to a close**, **Jupiter** will appear closer to the horizon each night. On **December 28th**, a **skinny crescent Moon** may barely be visible just above the horizon and below Jupiter right after sunset. Get out your **binoculars**, because between Jupiter and the Moon will be another point of light, the elusive planet **Mercury**.

On the next night, **December 29th**, the Moon will be 'above' Jupiter with Mercury almost directly below. On **December 30th**, Jupiter and Mercury will appear even closer together.

Then, on **New Year's Eve**, look toward the west after sunset to see the Moon near brilliant **Venus** with Mercury slightly above Jupiter. Binoculars should make them easier to spot against the bright twilight sky. This is your last chance to see Jupiter before it disappears into the glare of the Sun.

Jupiter will be on the opposite side of the Sun from Earth on January 24, and won't be easily seen again until the early morning hours of March 2009. Mercury drops into the western horizon just a few days after Jupiter. This elusive little planet will be between the Earth and Sun on **January 20**. Mercury will peek above the eastern horizon before dawn in the latter half of February.

Venus has been a beacon in the evening sky for months, and this 'evening star' will continue to grab your attention into the middle of March. On the evenings of **January 29 and 30**, Venus will be the bright object near the pretty crescent

Moon. Impress your friends and family by predicting this spectacular event.

**Saturn** is becoming prominent in the late evening sky as it rises with the constellation of **Leo the lion**. Early in January Saturn peeks above the eastern horizon at 10:15 PM. Toward the end of January, Saturn is rising closer to 8:30 PM. Should you turn binoculars or a telescope toward the 'ringed planet', you might start asking "where are the rings?"

It just so happens that at this time as Saturn is orbiting the Sun, our view from Earth lies almost exactly in line with the edge of the rings. Because the rings of Saturn are so thin, they are practically invisible from this angle. You can see this effect by looking at the face of a dollar bill and then tilting it so you are looking at the narrow edge.

As Earth orbits the Sun, we'll get to see the rings only a little better in May, but they will be edge-on again August through October. Astronomers won't get a wider view of Saturn's rings until 2010. Fortunately for us, the Cassini spacecraft is orbiting Saturn, studying the planet, its moons, and the rings in greater detail than possible from Earth almost a billion miles away.

## January in Space

\* 1/3/2004 - Mars Exploration Rover **Spirit** landed in Gusev Crater on Mars. The vehicle was designed to last three months. As of mid-November, the plucky little rover was still communicating with Earth and performing measurements even though its available solar power was running low.

\* 1/24/1989 - **Voyager 2** flew past **Uranus** and returned the first close up pictures of the seventh planet, its moons, and the dusty, dark rings.

\* 1/24/2004 - Another Mars rover, **Opportunity**, landed at Meridiani Planum in 2004, on the opposite of Mars from sister Spirit. In the last five years, this rover has driven more than four miles, examined rock layers, craters, and dunes and provided data indicating there was liquid water on Mars in the past.

\* 1/27/1967 - The **Apollo 1** fire killed astronauts Grissom, White, and Chaffee.

\* 1/28/1986 - **Space Shuttle Challenger** was destroyed 73 seconds after launch.

\* 1/31/1958 - **Explorer 1** was the first successful Earth satellite launched by the United States.

## It's C-c-c-c-cold-d Outside: Perfect Season for Star Parties

The next **FREE** public [star party](#) is Saturday, January 31, from 7:30 - 9:30 PM at the Special Events Field of Edwin Warner Park with another one set for Saturday, February 28, 2009, from 7:30 - 9:30 PM, at Shelby Bottoms Park. Admission to the star parties is **FREE**, but please call Warner Park at (615) 362-6299 or Shelby Bottoms at 862-8539 to reserve your place.

Unfortunately, there won't be any planets visible at these star parties, but be prepared to explore fascinating deep-sky objects such as the Andromeda Galaxy, the Orion Nebula, the Pleiades star cluster, and more. Telescopes are provided by members of the [Barnard-Seyfert Astronomical Society](#) (BSAS).

The most important thing to do before heading out to the star party is **DRESS WARMLY!** Putting on layers, instead of just one big coat, increases your insulation from the chilly air. Tuck pant legs into socks and shirtsleeves into gloves to better protect your ankles and wrists. Bring along some hot chocolate or coffee to keep your insides warm. Everyone will have more fun if you aren't shivering in the cold!

For directions, check the Sudekum Planetarium web site where you can find more helpful tips for enjoying a star party. If it is cloudy or raining, the star party will be canceled. If the weather is questionable, visit our web site or call AstroLine at (615) 401-5092 before leaving home.

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

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