



December 2008

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

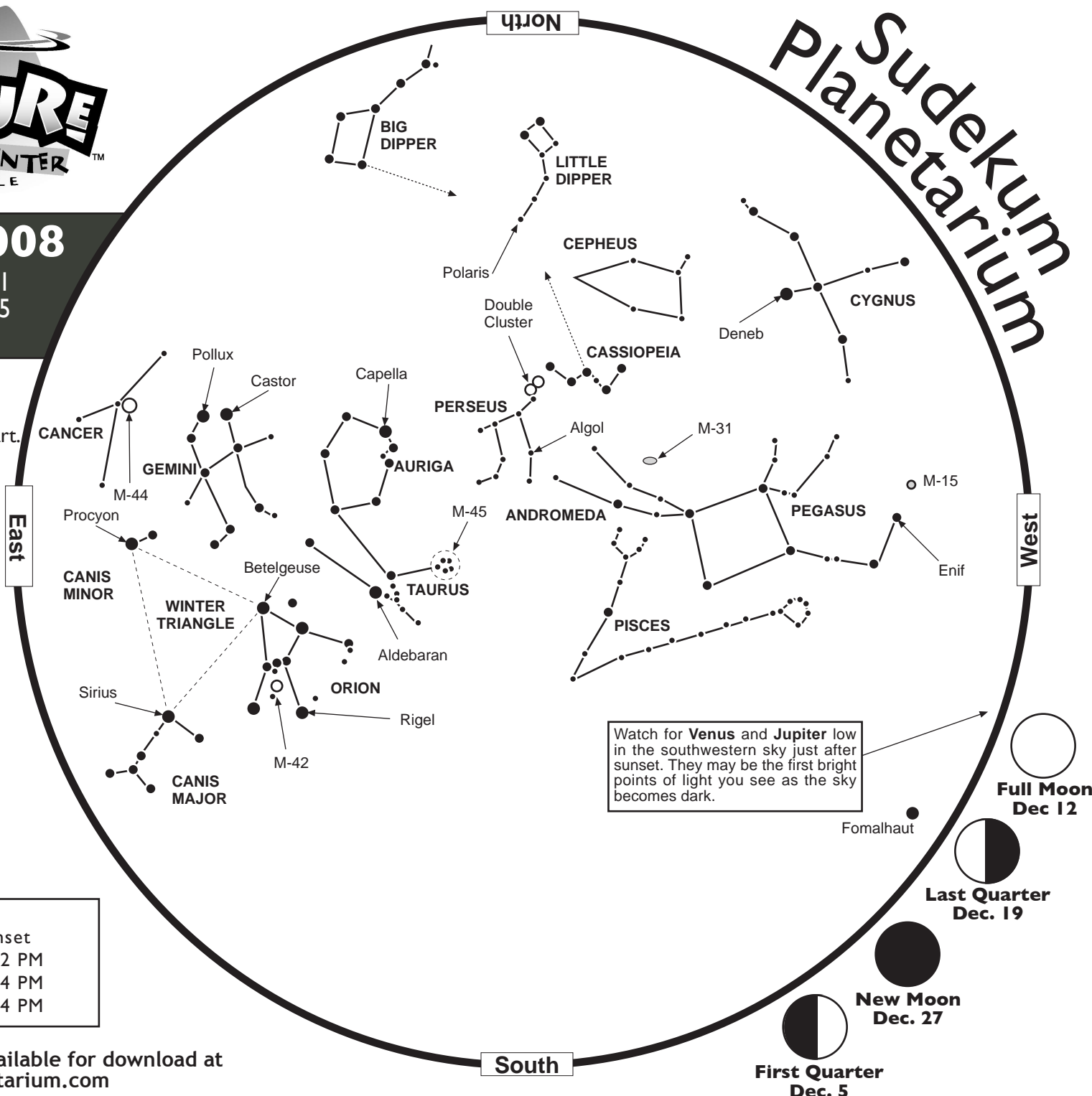
Scan the sky with binoculars: the darker the sky, the better.

- **Globular Star Cluster:**
M-15 in Pegasus
- **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

From Nashville:

	Sunrise	Sunset
December 1	6:40 AM	4:32 PM
December 15	6:51 AM	4:34 PM
January 1	6:58 AM	4:44 PM

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



THE NEW SUDEKUM PLANETARIUM

AT ADVENTURE SCIENCE CENTER

December 2008

Don't Miss It!

with contributions by Quame Traylor, Big Picture Intern

Some events in the night sky are visible over weeks or months. Some are only visible for an instant. Some are best on one specific date. This December features all three.

If you've been out any clear night recently, you almost couldn't help but see brilliant **Venus** hanging low in the southwest after sunset. Venus dominates the evening sky until it disappears below the horizon.

On **December 1st**, Venus will be first to grab your attention after sunset, but just to the right of Venus is **Jupiter**. It may be the largest planet in the solar system, but Jupiter is no match for the only planet named after a woman.

As if that wasn't enough, a pretty **crescent Moon** will sit right next to Venus and Jupiter on that same evening. Don't just look on that one night, though. On **November 30th**, a really slim crescent will lie below and to the right of the planetary pair. On **December 2nd**, the Moon will appear higher in the sky, further away from the picturesque arrangement.

Venus, Jupiter, and the Moon may look nice to your unaided eyes, but the view should be spectacular through binoculars.

As December flies by, Venus will appear higher above Jupiter every night. Remember, not only is the Earth orbiting around the Sun, but so are Venus and Jupiter. All the planets orbit at different speeds, so they won't appear in the same places in the sky this time next year. In

other words, don't rely on the December 2008 star chart to find planets in December 2009!

Each night, Jupiter will appear closer to the horizon, but keep an eye on it. On **December 28th**, a skinny crescent Moon may be visible just above the horizon and below Jupiter right after sunset. Get out your binoculars again, 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 higher above Jupiter with Mercury almost directly below Jupiter. On **December 30th**, Jupiter and Mercury will appear even closer together. Finally, on **New Year's Eve**, take another look toward the west after sunset to see the Moon near Venus and Mercury slightly above Jupiter.

With so much attention focused on the motions of the planets, don't forget to take a look at the Moon. Notice how the Moon changes position in the sky from night to night as it orbits around the Earth. Enjoy how the phase of the Moon changes, from the smiling crescent or "banana" Moon to first quarter and so on.

With binoculars or a small telescope, take a closer look at the features on the Moon's surface. The dark areas are called maria, or seas, because early astronomers thought they were water. Today, the lunar maria are known to be great lava flows from the Moon's distant past.

To see the most detail on the Moon, focus your attention on the 'terminator,' the line where light and dark meet. The long shadows cast by craters, mountains, and ridges stand out best near the terminator.

For those who don't mind going out late for their astronomy, **Saturn** will rise above the eastern horizon around midnight. Saturn has a pale golden color that helps it stand out against the background stars. Another way to tell it from the stars is to remember that planets normally do not twinkle.

Now, what in the night sky is only visible for an instant? A **meteor** from this month's **Geminid**

meteor shower. Considered one of the two best annual meteor showers, the Geminids peak around **December 13th** each year and can provide as many as 50 meteors per hour. Unfortunately, this year, there will be an almost full Moon in the sky to wash out the show, but mark your calendar for 2009. Next December, the sky will be free of moonlight. Add to that Mars and Saturn, and sounds like a good time for a star party.

Star Parties

The next **FREE public star party** is **Saturday, December 13**, from 7:30 - 9:30 PM at the **Special Events Field of Edwin Warner Park** with another one set for **Saturday, January 31, 2009**, from 7:30 - 9:30 PM, also at **Warner Park**. Admission to the star party is **FREE**, but **please call Warner Park at 362-6299 to reserve your place**.

Members of the **Barnard-Seyfert Astronomical Society (BSAS)** will set up their telescopes to provide views of the Moon, the Andromeda Galaxy, the Orion Nebula, the Pleiades star cluster, and more. Unfortunately, there won't be any planets visible at these star parties, but be prepared to explore fascinating deep-sky objects like galaxies, nebulae and star clusters.

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 shirt sleeves 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 and Adventure Science Center, visit www.SudekumPlanetarium.com

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