Sudekum Planetarium

ADVENTURE SCIENCE CENTER™ NASHVILLE

February 2008

10:00 p.m. on February 1
9:00 p.m. on February 15
8:00 p.m. on March 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.

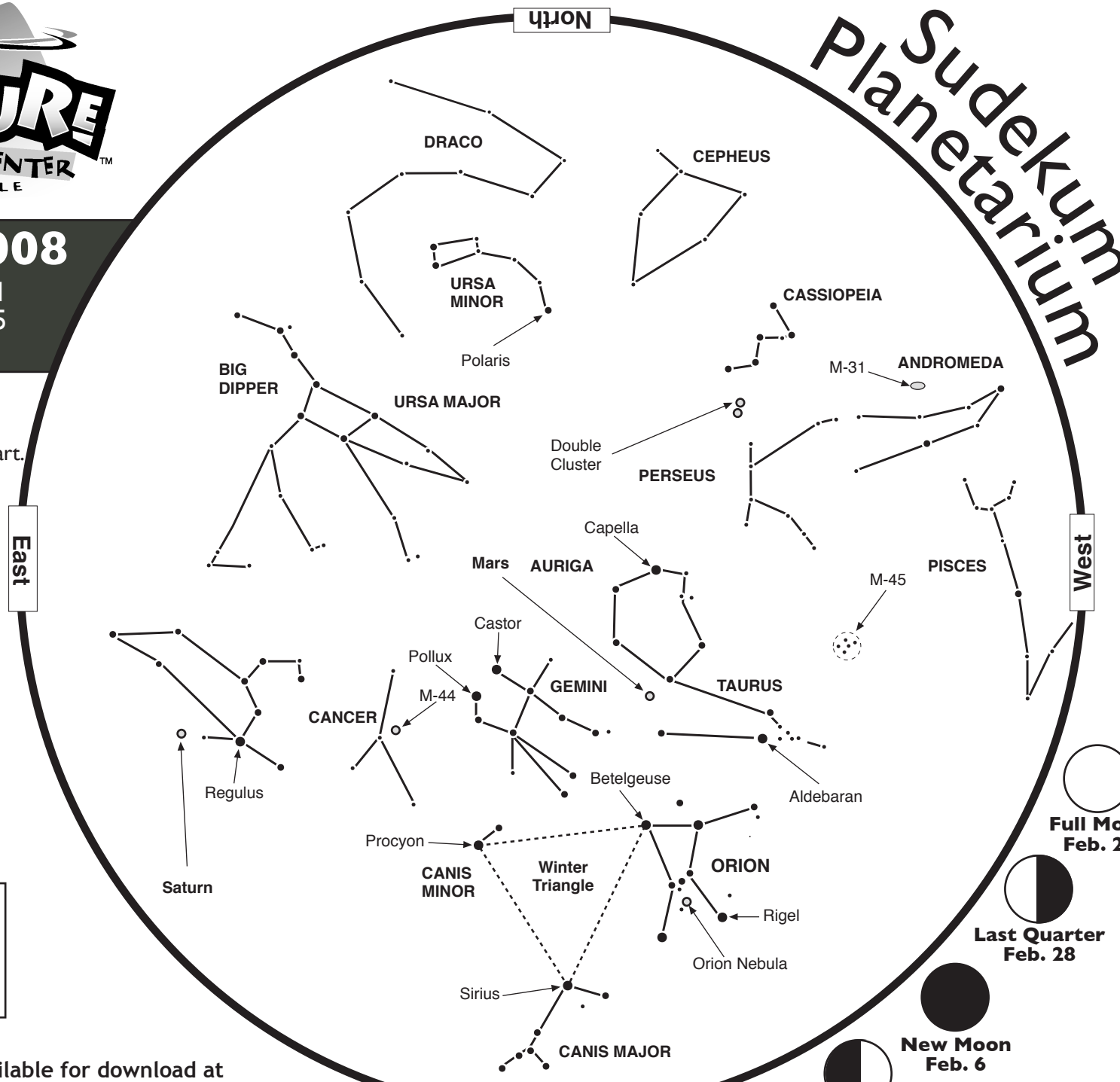
- **Bright Stars**
- **Medium Bright Stars**
- **Faint Stars**

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 Cassiopeia
  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
February 1	6:48 AM	5:13 PM
February 15	6:35 AM	5:28 PM
March 1	6:17 AM	5:42 PM



Full Moon
Feb. 20

Last Quarter
Feb. 28

New Moon
Feb. 6

First Quarter
Feb. 13

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

February 2008

The Stars and Planets This Month

High in the south after sunset, the brilliant star patterns of winter dominate the evening sky. **Orion** the hunter is making his annual journey across the sky followed by his two faithful dogs, **Canis Major** and **Canis Minor**.

Standing in Orion's path, but always backing away to the west as Orion advances, is **Taurus** the bull. Meanwhile, **Gemini** the twins are watching from the sideline. But Orion might want to watch behind him because **Cancer** the crab and **Leo** the Lion are hot on his heels.

Once you familiarize yourself with the brighter stars and constellations, it makes finding planets much easier. For example, **Mars** is currently sitting between Taurus and Gemini, directly above Orion. **Saturn** is rising with Leo in the east just as the Sun is setting. This means Saturn will be visible all night long.

Get up before the Sun for a real treat. As the month begins, **Venus** will be shining like a beacon in the east even with the bright glow of dawn. To the right of Venus, **Jupiter** is not nearly as bright but will still stand out. They will appear especially close together during the first days of the month and slowly separate over the coming weeks.

For a challenge on the morning of the 16th, look for **Mercury** to the left of Venus, about the same distance away as Jupiter is to the right. Sometimes it helps to scan the sky and find Mercury with binoculars before you realize how bright it appears to your unaided eyes.

The **Moon** waltzes through this picture at mid-month. On the evening of the 13th, it will be west of the **Pleiades** star cluster, but it will appear east of the star cluster the following night. On the 16th, the Moon will be near Mars, and on the 20th it will visit the neighborhood of Saturn.

Star Party - February 9, 2008

Join us and the **Barnard Seyfert Astronomical Society** (BSAS) for a FREE public star party from **7:30-9:30 PM on Saturday, February 9** at **Ridgefield at Edwin Warner Park.** Weather permitting, we'll get good views of Saturn and Mars. For directions to Ridgefield and more information about star parties, visit our web site. For more information about BSAS, visit www.bsasnashville.com.

Lunar Eclipse - February 20, 2008

The Moon slips into Earth's shadow this month during the next **total lunar eclipse**. The entire eclipse will be visible from Tennessee, as well as most of North and South America, and western Europe and Africa.

Join us at the **Adventure Science Center** from **7:00 to 9:30 PM on February 20** to learn more about eclipses and to see the eclipse as it happens! **The Barnard Seyfert Astronomical Society** will be on hand with telescopes for this FREE star party. Even if you can't make it to the Science Center, go outside and have a look!

If the weather over Nashville is cloudy or worse, the event at Adventure Science Center will be cancelled. If the weather is iffy, please check our web page or call Sudekum Planetarium's **Astroline** at **(615) 401-5092** before traveling.

Here's hoping we do have clear skies for this eclipse because the **next chance** to see a total lunar eclipse from this area will not be until the wee hours of the morning of **December 21, 2010**.

Wait, my calendar says it's on the 21st!

A lunar eclipse is something that can be seen from many parts of the world simultaneously. Anyone on the night time side of the Earth during the eclipse can see it happen. For events like this that can be seen over many time zones, astronomers often refer to **Universal Time** which used to be called Greenwich Mean Time. The eclipse does in fact take place on February 21st in Universal Time. For us in the United States, the eclipse is on the 20th, local time. If you're in the US and you go out on the night of the 21st, you'll be a day late!

What will I see?

As Earth's shadow creeps across the lunar surface, the Moon will darken and take on a reddish color. The red color is the effect of sunlight passing through the Earth's atmosphere.

Lunar eclipses are perfectly safe to view, and no special equipment is needed, but a telescope or a pair of binoculars can add to the fun. All you really need to enjoy a lunar eclipse are your eyes and good weather.

Eclipse Times, Central Standard Time:

partial (umbral) eclipse begins: 7:43 PM
total eclipse begins: 9:01 PM
total eclipse ends: 9:51 PM
partial (umbral) eclipse ends: 11:09 PM

This eclipse lasts more than three hours, but you don't have to watch the whole thing from start to finish. Take a look every now and then to track the shadow's progress across the face of the Moon.

Just how dark the Moon gets during a lunar eclipse depends on the amount of dust in our planet's atmosphere. If there's been a lot of volcanic activity or forest fires recently, the increased dust can cause the Moon to appear very dark, like an old copper penny. If there's very little dust in the atmosphere, the Moon will appear brighter and more orange in color. The exact color and darkness of any eclipse is unpredictable. There's no way to know ahead of time what the Moon will look like when our planet's shadow blankets the lunar surface.

Meanwhile, if you were standing on the Moon during the eclipse, you'd see the Earth covering up the Sun in the sky, blocking its light except for a reddish ring of sunlight, passing through the Earth's atmosphere.

To learn more about lunar and solar eclipses, visit the NASA Eclipse home page at sunearth.gsfc.nasa.gov/eclipse/eclipse.html.

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.