UNA Planetarium Newsletter

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2012 should prove to be an exciting year as we try to quash the end of the world predictions and try to present a more optimistic view of the cosmos. While it is true that there are plenty of ways the universe has to do us harm, most of those things are not predictable as some would have us believe. A gamma ray burst could indeed cause problems if it were nearby. An as-yet undiscovered asteroid could hit the Earth. A solar eruption could damage satellites – but would not cause nuclear warheads to launch. Yes, there are plenty of things that could go wrong.

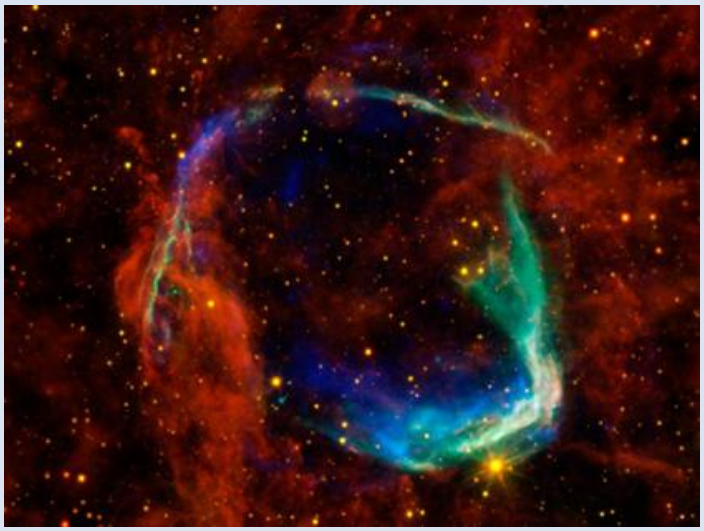
However, conditions on Earth have allowed life on to thrive for billions of years. The Sun generates a very steady supply of energy to keep us warm and for plants and animals to grow and prosper. The Moon stabilizes the spin axis of the planet and provides tides which help keep the oceans healthy. The drift of continents ensures recycling of the crust and ensures nutrients becoming available for future life. All of these things should continue to go on no matter what short-term disasters may occur. Somehow life continues although individual species may disappear.

When we predict the end of the world, what people really mean is the end of humanity. To ensure that does not happen we should learn about the universe around us, both how it helps us and how it could harm us and take appropriate actions. One of the best ways to ensure our species' future is to leave Earth and spread through the Galaxy. Then no one disaster can take us out. 2012 can be the start of that journey if we choose to accept the exciting challenge.

Mel Blake.

UNA Planetarium and Observatory, is operated by the Dept. of Physics and Earth

Image of the Month



In 185AD Chinese astronomers recorded a guest star in the sky that brightened and faded away. The remains, RCW 86, is the oldest recorded supernova, and was recently imaged by the Chandra X-ray observatory. This false color image shows the expanding shell of gas from that stellar explosion. The image also includes data from the Spitzer infrared space telescope and from the WISE (Wide-field Infrared Survey Explorer) mission. The expanding gas is moving fast and seems to be moving through a cavity created by the star which exploded. The object is 8000 light years away in the constellation of Centaurus. **Image courtesy NASA.**

Astro Quote: *"Do there exist many worlds, or is there but a single world? This is one of the most noble and exalted questions in the study of Nature."*

— Albertus Magnus, c. 13th Century.

Planetarium tours start at 7:00PM. Tours include a planetarium star show, a video presentation and observing through a telescope if weather allows. $3/person, UNA students free. No reservations are required.

Observing Highlights

Look for Venus shining brightly in the southwest after sunset.

Jupiter continues to shine high in the southwest before midnight.

Calendar for Jan/Feb. 2012

Jan 20 Planetarium Public Night

Jan 24 Planetarium Public Night

Jan 26 Shoals Astronomy Club Meeting

Jan 27 Planetarium Public Night

Jan 31 Planetarium Public Night

Feb 3 Planetarium Public Night

Feb 4 Space Rocks at Florence Public Library

Feb 7 Planetarium Public Night

Feb 10 Planetarium Public Night

Feb 14 Planetarium Public Night

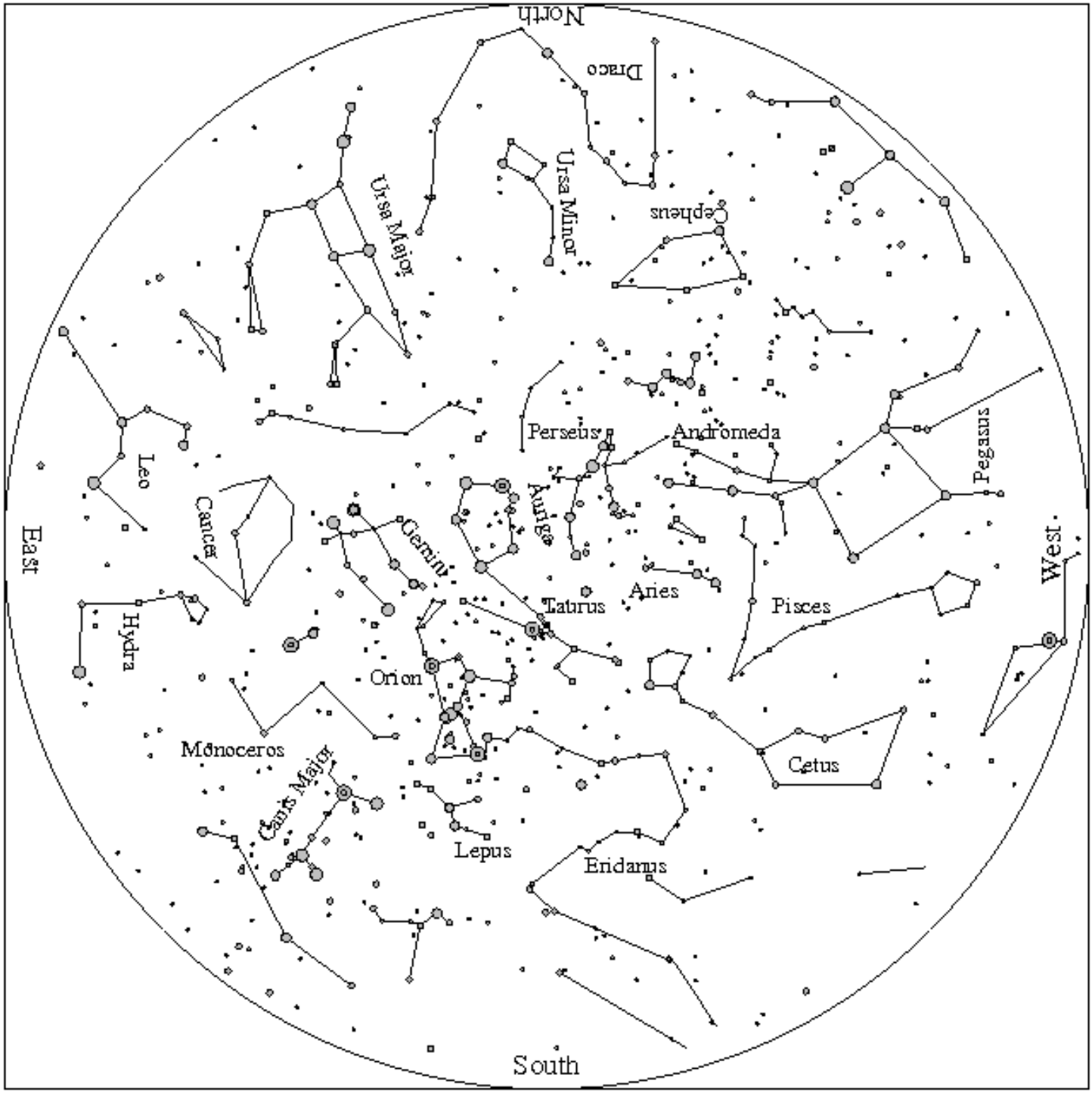
Feb 17 Planetarium Public Night

Feb 21 Planetarium Public Night

Feb 24 Planetarium Public Night

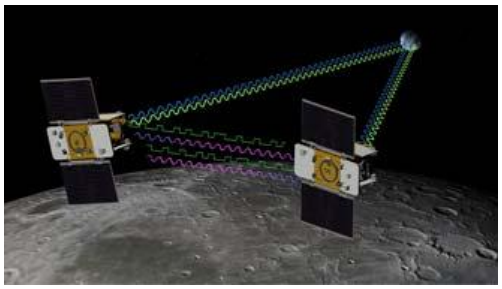
Feb 28 Planetarium Public Night

The January 2012 Sky for North Alabama



How to use this Chart: The sky is shown for 8:00PM, January 20th for Florence, Alabama. It will appear this way one hour earlier for each week difference in time. The stars brightness's are represented by different sized dots. The faintest stars you can see are the small dots; the brightest ones are large dots. Hold the chart with the direction you are facing down. So if you are facing north, hold the chart with north down. The circle represents the horizon and the center of the chart the point directly over your head. So an object half-way between the center and edge of the chart is half-way up in the sky. This chart was prepared using the SkyNow software of R. M. Blake. This chart may be reproduced for non-commercial purposes with the following acknowledgement included: Courtesy UNA Planetarium and Observatory. http://www.una.edu/planetarium/.

Grail Mission Education Opportunity



NASA image.

The Gravity Recovery and Interior laboratory (Grail) mission has a unique opportunity for middle school students to become involved in studying the Moon. The Grail mission consists of two lunar orbiters that will use minute changes in the acceleration of the two spacecraft to study the interior of the Moon. However, Grail is also the first lunar mission to carry cameras that are dedicated to education and outreach. The MoonKAM project allows students to decide what areas of the Moon to photograph from the orbiters for studying the surface of the Moon. The program will start in March and is open to classes across the U.S. You can find out more about this exciting opportunity to access your very own lunar orbiter at the following site:

https://moonkam.ucsd.edu/

Space Rocks at Florence Public Library Feb 4th

UNA Planetarium and the Shoals Astronomy Club will once again partner with the Florence Public Library to bring our Space Rocks event to the public. We will have interactive activities related to meteorites, impact craters and asteroids at the public library starting at 11AM and continuing until 2PM on Feb 4th. The activities take kids about 30 minutes to do. There is no charge and all age groups are welcome although most activities are targeted towards younger kids such as the popular "make your own impact crater" activity. The program uses materials supplied to the Shoals Astronomy Club by NASA's Night Sky Network.

UNA Planetarium on Social Media

Did you know Jupiter contains more mass than everything else in the solar system except the Sun? You would if you followed us on Facebook and Twitter! UNA Planetarium hopes to help you learn about recent events and interesting things about space using the social media sites Twitter and Facebook. Find out what events happened today in the history of astronomy and space exploration. Learn what new observations tell us about the Universe and what is going on at the UNA Planetarium by following our Facebook and Twitter feeds. We'll do our best to keep you up to date. On Twitter we are unaplanetarium, and on Facebook you can find us as UNA Planetarium.

Shoals Astronomy Club

If you are interested in astronomy and space and want to share your interest with others, the Shoals Astronomy Club is for you. The club meets at the UNA Planetarium the last Thursday of each month to discuss the Universe. Club activities include discussions about astronomy, club observing nights and outreach activities. All age groups with all levels of experience and knowledge are welcome. Whether you are young or old, a novice or an experienced observer, you are welcome to join. The Shoals Astronomy club is part of the national Astronomical League, the largest amateur astronomy group in the U.S. and is also part of the NASA Night Sky Network. Join us and explore the universe!