UNA Planetarium Newsletter

Ocober, 2013

We now know a lot about the universe. Since the invention of the telescope and the advent of the space age, we have gained greater and greater understanding of our solar system, what makes stars shine, how the universe started and if there are other planets around other stars. The ever elusive quest for life beyond earth continues, but thousands of plants are now known around other stars, with more being discovered every day.

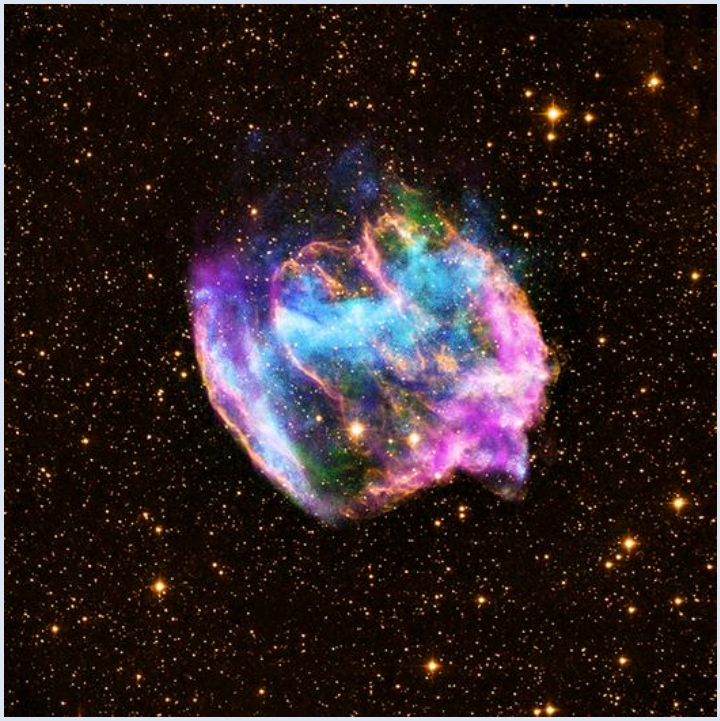
Often breakthroughs in our understanding of the cosmos come when new technology is invented that lets us see farther or see things not previously possible. We can now launch telescopes to study the universe at energies not visible from the ground due to the Earth's atmosphere. We can also send probes to other places in the solar system to study comets, asteroids and other planets. We have robots on Mars exploring its surface, and we have satellites orbiting Saturn, Mercury and Mars. One hundred years ago such technology did not exist.

One technology that did exist one hundred years ago is our eyes. We can still walk outside and observe the natural cycles and phenomena of the night sky. We can watch the Moon slowly change is shape and location in the sky on its monthly cycle. With our eyes we can see the occasional flash of a meteor or the slow drift of the constellations from west to east over a few hours. Despite all our technology, there is still no substitute for simply watching the sky.

Mel Blake.

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

Image of the Month



The Chandra X-ray observatory observes some of the galaxy's most energetic objects. This image shows the supernova remnant W49B, which is 26000 light years away and is estimated to be only 1000 years old. Studies show that this remnant of an exploding star is very distorted, suggesting that the material was ejected mostly from the poles of the dying star. Most such explosions produce a neutron star, a compact spinning object about 50 kilometers across. No such object is observed, suggesting that this explosion may have produced a black hole instead. If confirmed, the object would be one of the youngest black holes in the galaxy. **Courtesy NASA.**

Astro Quote: *"Two possibilities exist: Either we are alone in the Universe or we are not. Both are equally terrifying."*

Arthur C. Clarke.

Upcoming Events

Oct 8 **Planetarium Public Night**

Oct 12 **Observe the Moon Night**

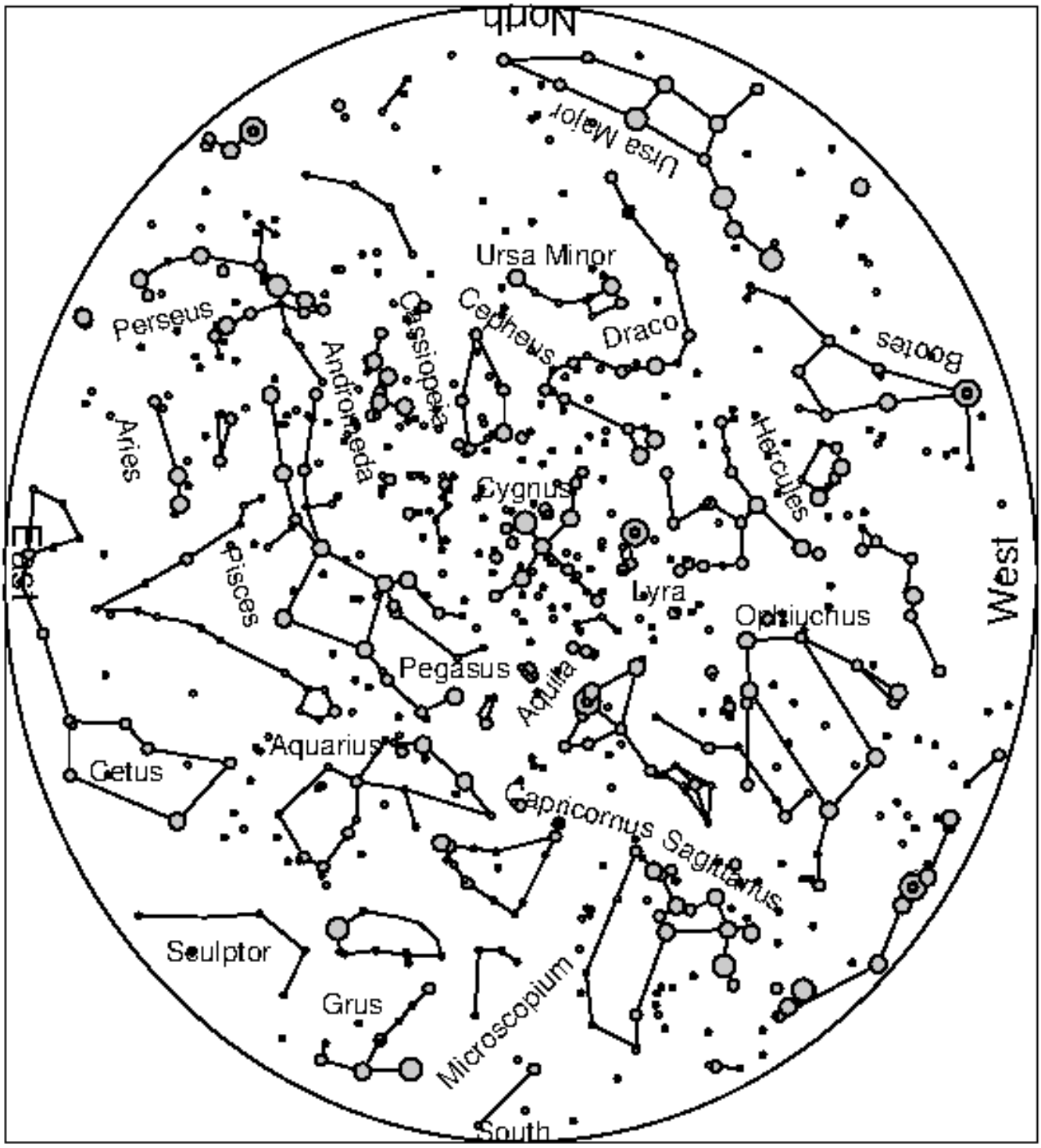
Oct 13 -19 **Earth Science Week**

Oct 21 **Orionid Meteors**

Oct 22 **Planetarium Public Night**

Oct 29 **Planetarium Public Night**

The October 2013 Sky for North Alabama



How to use this Chart: The sky is shown for 8:00PM, October 15th 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/.

Observe the Moon Night Oct 12

For the third year in a row, UNA Planetarium and Observatory is participating in the popular International Observe the Moon Night on the evening of Oct 12th. Starting at 6:30PM we will show a video about NASA's lunar exploration program. We will then move to the observatory where people will be given the opportunity to take a photo of the Moon with their cell phone cameras. If you ever wanted your very own photo of the craters and mountains on the Moon then this will be your chance!

2013 Cassini Scientist for a Day Essay Contest

The Cassini Scientist for a Day contest challenges students to become NASA scientists studying Saturn. Participants examine three possible observations taken by Cassini and choose the one they think will yield the best scientific results. This year's targets are Saturn and its moons Iapetus and Dione. After researching the three options, students write an essay under 500 words explaining their choice.

The contest is open to all students in the United States in grades 5-12. The essays will be divided into three groups for scoring: grades 5-6, 7-8 and 9-12. All submissions must be students' original work. Participants may enter as individuals or as part of a team of up to four students.

The deadline for entries is Oct. 25, 2013.

For more information, visit http://saturn.jpl.nasa.gov/scientistforaday/.

UNA Planetarium is expanding its activities for Earth Science week Oct 13 19, 2013. In partnership with the Society of Physics Students and we will be offering activities five days in a row to celebrate the connections between our Earth and the cosmos we inhabit.

Oct 14, 3PM. Solar Observing at UNA Planetarium

We will show a video about the Solar Dynamics Observatory and if weather allows use our solar telescopes to observe the Sun.

SOCIETY OF PHYSICS STUDENTS
An organization of the American Institute of Physics

Oct 15, 5PM. Earth Science Week Lecture.

GUC Performance Center

The Society of Physics Students is excited to present a lecture by Dr. Gregory Good, director of the Center for the History of Physics at the American Institute of Physics, Washington, DC. Dr. Good will give a special guest lecture "Earth's Cosmic Environment". This lecture is being supported by Student Allocation Funds, the Department of Physics and Earth Science and the Hampton Inn.

Oct 16, 7PM "Switch. Discover the Future of Energy" (98 minutes).

This award winning documentary was supplied to us by the American Geosciences Institute discusses current energy sources and how we might modify it in the future towards "green" energy sources.

Oct 17, 10:00AM – 11:45AM. Gems and Minerals

With Dr. Richard Statom of the Department of Physics and Earth Science, we will have a gem and mineral display in the GUC lobby. Come learn about rocks and minerals and careers in Earth Science.

Oct 18, 3pm. Meet the Meteorites at UNA Planetarium

Tons of rocks fall from space every day. Most of it ends up in the ocean, but some of it is collected by scientists who can study them to learn about the early solar system. We will do an interactive program about impacts, show how geologists ID meteorites and give people a chance to hold meteorites from our collection.