

# UNA Planetarium Newsletter

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2009

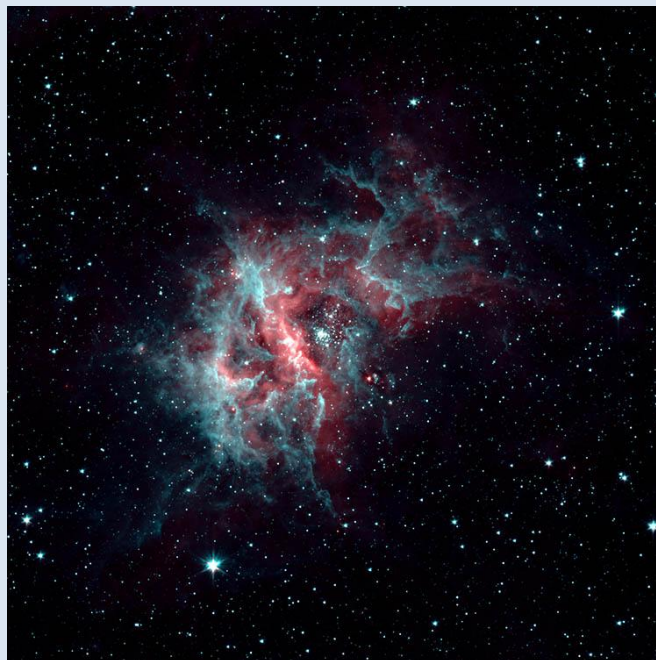
*This issue of the UNA Planetarium Newsletter marks our one year anniversary. Based upon the positive feedback I have gotten, it seems to be well received. Up to now, every word in the newsletter has been my own, or taken from NASA educational press releases. However, I am happy to say that for the next little while I will have two of our talented honors students helping me with the newsletter as part of their honors contract for my Descriptive Astronomy class (PH125). So I welcome Ashley Wills and Cara Depew and to my newsletter staff. They will contribute a monthly column to the newsletter each month. I am sure you will find their articles interesting. I've given them free reign to write about whatever they want related to science and space.*

*Any scientist who has seen a website or newspaper article about science has no doubt cringed at the errors and misrepresentation of science. 80% of the wealth in the US in the last 10 years is from science and technology, yet hardly any newspapers have a regular section on science. A great service would be to establish a science journalism program to help address this issue. Journalists often are the only source of science news by the general public and they often have much bigger audiences. We need journalists trained in communicating science to the public. Such journalists would offer great service to both journalism and science.*

*Mel Blake.*

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

## Image of the Month



Astronomers make use of many energies of light beside optical – the light you can see everyday. One particularly useful region is infrared. Infrared light passes easily through gas and dust and lets us see inside star forming regions which are obscured in visible light. This image is from the orbiting Spitzer Space telescope. Spitzer until recently has been cooled, but the cooling has run out after 5 years and now it is running in “warm mode”. This pre-warm image shows the star forming region RCW49. This star forming region is home to about 2200 stars. The cyan is at wavelength 3.6micron while the red is 4.5microns. Polycyclic aromatic hydrocarbons (PHA's) Are detected from this region. Astro-chemistry is an important subject when studying star forming regions. The presence of molecules helps regulate the cooking of the clouds that form stars. **Image courtesy NASA.**

### Astro Quote: “I

*We are at the very beginning of time for the human race. It is not unreasonable that we grapple with problems. But there are tens of thousands of years in the future. Our responsibility is to do what we can, learn what we can, improve the solutions, and pass them on.”*

Richard Feynman

### Calendar for August. 2009

**Sept 1st.** Planetarium Public Night.

**Sept 8<sup>th</sup>.** Planetarium Public Night.

**Sept 15<sup>th</sup>.** Planetarium Public Night

**Sept 21.** Fall Equinox

**Sept 22<sup>nd</sup>.** Planetarium Public Night

**Sept 29<sup>th</sup>.** Planetarium Public night.

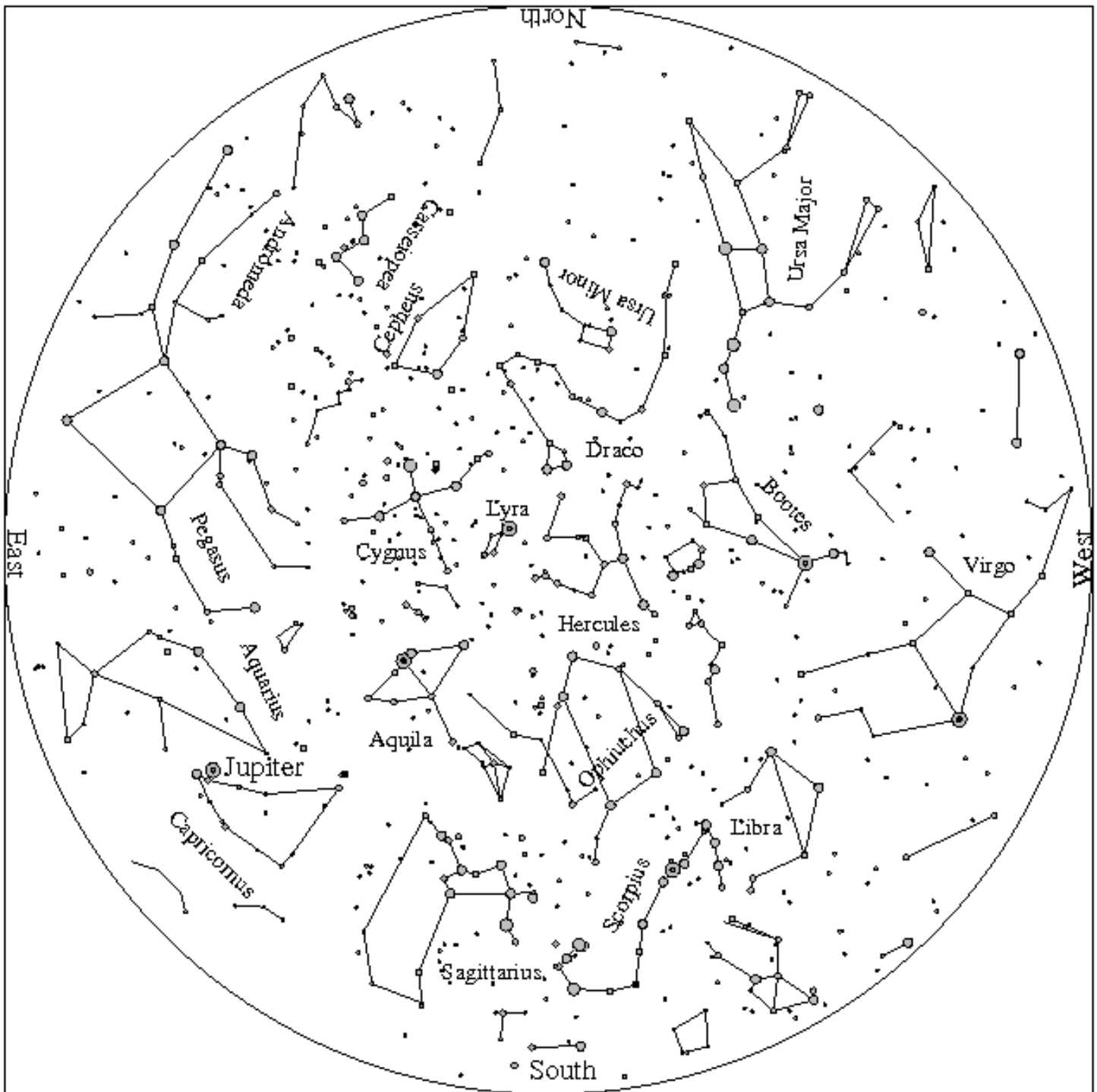
Planetarium tours start at 7:30PM.

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

Watch for Jupiter in the southern sky in Capricornus.

## The September 2009 Sky for North Alabama



**How to use this Chart:** The sky is shown for 8:00PM, Sept15<sup>th</sup> 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/>.

## The Lost Planet

By Cara Depew

“My Very Educated Mother Just Served Us Nine Pizzas,” or any variation on the previous statement, was a thing that we all grew up hearing. Many of us were taught that phrase throughout grade school in hopes that it would help us learn the order of the nine planets in our solar system, starting with the nearest to the Sun. However, as of August 24, 2006, Mother no longer serves pizzas, pickles, or pies. The “P” in the acronym that the phrase was based on, M.V.E.M.J.S.U.N.P., was dropped forever when the members of the International Astronomical Union (IAU) officially defined the word “planet,” and Pluto didn’t fit the bill. Now, left with only eight true planets in our solar system, many earthlings are still wondering why Pluto is excluded. Why isn’t Pluto, now more appropriately dubbed “134340,” considered a planet?

According to the members of the IAU, a planet is an object that orbits the Sun, is shaped like a sphere, and has a gravitational pull that allows it to clear its path of space debris. After extensive debates, the IAU decided to demote Pluto from its position in the solar system because, unlike the other planets, it does not clear a path for itself and it has a very eccentric orbit. Pluto is now recognized as the largest body in the Kuiper Belt, a distinct population of objects composed primarily of rock and ice. With Pluto’s new identity and new home, many astronomy enthusiasts feel that our solar system just isn’t the same without it. “Pluto, you’ll always be a planet to me,” is a phrase that is now plastered on t-shirts and coffee cups across the world. Indeed, Pluto (134340) is gone but certainly not forgotten.



Artist's concept of the view from Pluto. NASA.

## Andromeda: Safe or Serious?

By Ashley Wills

In our local group of over thirty galaxies, the largest is Andromeda. Discovered in 964 CE by Abd al-Rahman al-Sufi, the galaxy was originally referred to as the “Little Cloud.” However, the galaxy was not accurately described until 1612 by Charles Messier, who has also been given credit for discovering the galaxy. The Andromeda galaxy, named after a Greek mythological princess, is a spiral galaxy that is roughly 2.5 million light years away. Its large size makes it visible to the naked eye and boasts over one trillion stars.

Also known as M31, the Andromeda galaxy has recently been termed a “cannibal” galaxy. As it grows more massive, it is taking over other, smaller galaxies. During this process, the smaller galaxies are not destroyed, but the stars are moved around, changing how one would view the sky.

As these findings may suggest, our home galaxy (the Milky Way) and Andromeda are racing towards each other at 140 kilometers every second! When these two galaxies finally collide, they will form one giant, elliptical galaxy. Therefore, instead of the spiral arms rotating around the center, the galaxy would look the same from any angle. Not to worry—this collision isn’t expected to take place for another 2.5 billion years.



The Andromeda galaxy. Image by John Lanoue. Used with permission.

### Girl Scouts Visit the Planetarium

Girl scouts from two Alabama troops visited the UNA planetarium in August. One troop drove nearly 3 hours to get here. The girls completed their qualifications for their astronomy badges which were awarded after the program.

Here the scouts work on making their comet models.



### Girl Scouts Visit the Planetarium

Comet models, named after the discoverer Blakeley!

