

# IO – March 2006

Issue # 2006-03

[www.eugeneastro.org](http://www.eugeneastro.org)

Eugene Astronomical Society, Annual Club Dues \$25, Board Members: President: Richard Boyd- checkerkit@comcast.net, Stephen Caruana, Fred Domineack, Jacob Stranlien Sam Pitts- IO editor- sampitts@comcast.net 688-7330 Io (*EYE-oh*) is nearest to Jupiter and fastest orbiting of the four Galilean moons

EAS is a Proud Member of:



## Monday- March 6<sup>th</sup> MEETING EUGENE ASTRONOMICAL SOCIETY At The Science Factory Planetarium

The meeting will begin at **7:00 PM** in the Planetarium. EAS's meeting this month will have a presentation & discussion about the Messier objects along with viewing information for the months to come. This is a good time to ask questions about objects. The best way to view them and anything to do with equipment for both observing & imagining. EAS & its members are dedicated to having fun while pursuing the hobby of Astronomy, so come on out and have some fun visiting with others that share a passion for the night skies.

Come early and help others learn about their scopes. Those of you, who are new or not sure about your equipment, show up early and some of our members will assist you in understanding your equipment better. If you are planning on getting a scope please come out and ask questions, we're glad to assist you in making a good solid choice to maximize your viewing pleasure.

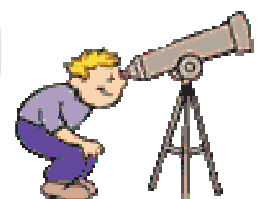
**The Science Factory is at 2300 Leo Harris Parkway, behind Autzen Stadium.**

Check EAS WEB site for up to the minute Information



# Astronomy Day 2006

## May 6th



**Presented by Eugene Astronomical Society in conjunction with The Science Factory**

Will be held at:

**The Science Factory: 2300 Leo Harris Parkway, behind Autzen Stadium.**

**12:00 Noon till 6:00 PM**

**Outside Telescope Observing 7:00 -10:00 PM**

*Depending on Weather*



March 6	March 14	March 22	March 29
First Quarter	Full Moon	Last Quarter	New Moon
Sunset: 6:07 PM	Sunset: 6:17 PM	Sunset: 6:27 PM	Sunset: 6:35 PM
Sunrise 6:40 AM	Sunrise 6:26 AM	Sunrise 6:11 AM	Sunrise 5:59 AM
Moon Rise 10:07 AM	Moon Rise 06:18 PM	Moon Rise 02:08 AM	Moon Rise 06:06 AM
Mercury Sets 7:00 PM	Mercury Sets 5:51 PM	Mercury Rise 5:26 AM	Mercury Rise 5:08 AM
Venus Rise 4:26 AM	Venus Rise 4:20 AM	Venus Rise 4:14 AM	Venus Rise 4:09 AM
Mars Set 1:25 AM	Mars Set 1:15 AM	Mars Set 1:05 AM	Mars Set 12:56 AM
Jupiter Rise 11:21 PM	Jupiter Rise 10:49 PM	Jupiter Rise 10:16 PM	Jupiter Rise 09:46 PM
Saturn Rise 2:20 PM	Saturn Rise 1:47 PM	Saturn Rise 1:14 PM	Saturn Rise 12:46 PM
Uranus Rise 6:35 AM	Uranus Rise 6:04 AM	Uranus Rise 5:34 AM	Uranus Rise 5:07 AM
Neptune Rise 5:37 AM	Neptune Rise 5:07 AM	Neptune Rise 4:36 PM	Neptune Rise 4:09 AM
Pluto Rise 2:02 AM	Pluto Rise 1:31 AM	Pluto Rise 12:59 AM	Pluto Rise 12:32 AM

All times are for Eugene, Oregon Latitude 44° 3' 8" Longitude 123° 5' 8" for listed Date

Events

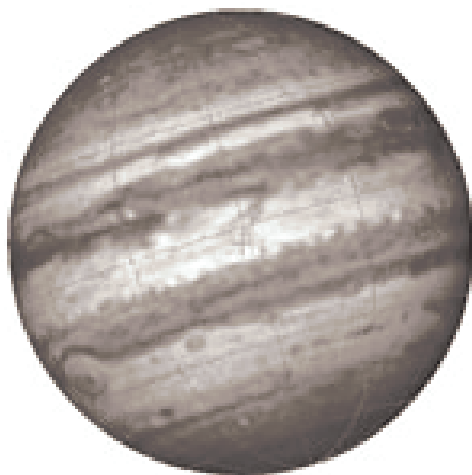
March

1	Asteroid 2 Pallas Occults TYC 1023-01068-1 (10.6 Magnitude Star)
4	Asteroid 3158 Anga Occults HIP 25336 (1.6 Magnitude Star)
4	Asteroid 3 Juno Occults TYC 0704-01473-1 (10.5 Magnitude Star)
4	<u>Asteroid 2006 BZ147 Near-Earth Flyby</u> (0.041 AU)
7	Asteroid 1 Ceres Occults TYC 6907-02016-1 (10.5 Magnitude Star)
13	Mars Occults PPM 93704 (7.4 Magnitude Star)
13	225th Anniversary (1781), William Herschel's Discovery of Uranus
16	40th Anniversary (1966), Gemini 8 Launch (Neil Armstrong & David Scott)
18	Asteroid 1999 AO10 Near-Earth Flyby (0.092 AU)
19	Cassini, Titan Flyby
20	Vernal Equinox, 18:26 UT "Eyes of March" "International Earth Day"
22	Asteroid 2001 FO127 Near-Earth Flyby (0.028 AU)
29	Solar Eclipse (Visible From North Africa & Central Asia)
31	40th Anniversary (1966), Luna 10 Launch (USSR Moon Orbiter)

All times Universal Time (UT), U.S. Pacific Coast Standard Time = UT - 8 hours.

March is a special Month in the North-West. The days are growing longer the nights shorter and some clear skies are usually available. This is the time for Messier Marathons. Take some time and try to log your observations of the 110 Messier objects and earn a pin and nice certificate from the Astronomical League. You don't have to get all of them just 70 to get started.

## Great time to Observe Jupiter

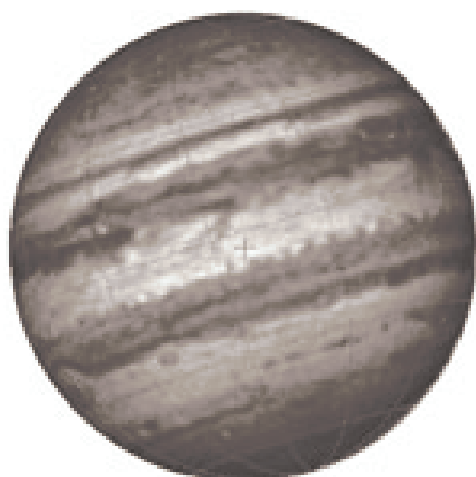


This is how Jupiter will appear through your telescope on March 29, 02:46 AM 2006  
Observed from around Eugene, Oregon



This is how Jupiter will appear through your telescope on March 29, 04:46 AM 2006  
Observed from around Eugene, Oregon

The Morning of March 29, 2006 will present excellent views of Jupiter Great Red Spot Jupiter will rise around 9:50 PM on the evening of March 28, 2006 and by 2:46 AM on the morning of the 29<sup>th</sup> it will be nice and high above the horizon. The Great Red Spot will begin to show around 2:46 AM and will be centered around 4:30 AM. This will be an excellent time to capture the GRS with your webcam, film or digital cameras. Let's hope for a clear night. Below is another good night starting On Friday March 31 at midnight with the GRS centered at 2:00 AM Saturday Morning April 1<sup>st</sup>.



This is how Jupiter will appear through your telescope on March 31, 12:00 AM 2006  
Observed from around Eugene, Oregon



This is how Jupiter will appear through your telescope on April 1, 02:00 AM 2006  
Observed from around Eugene, Oregon

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# Imaging The Sky Conference 2006

New Era for Astroimaging,  
Affordable Dedicated Astroimaging CCD Cameras

**Saturday**

**June 3, 2006**

Oregon Museum of Science and Industry (OMSI)  
1945 SE Water Street

Portland, Oregon Registration

Register early because seating is limited. Registration is \$30.00 by April 30, 2006 and in May and June it is \$40.00. To register send your name, address, email address and registration money (check made out to Imaging The Sky) to

Imaging The Sky Conference

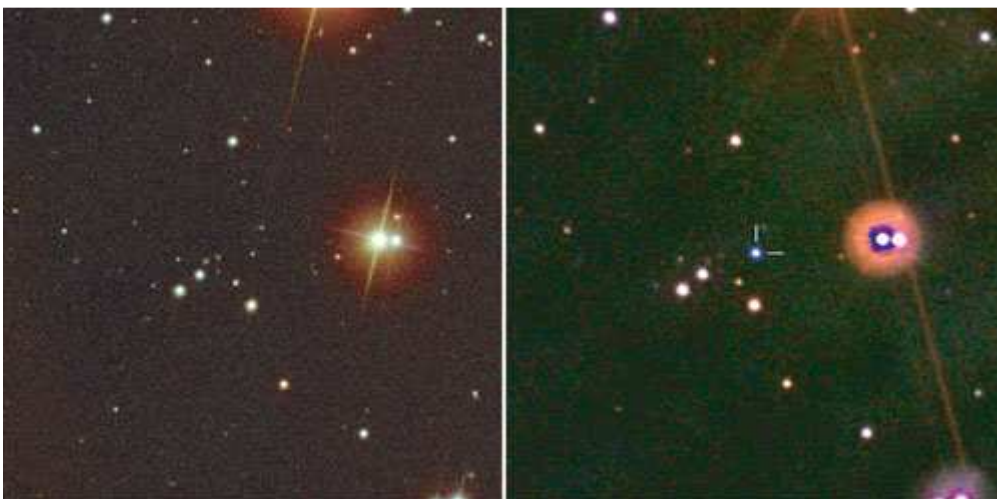
Rick Kang,

PO Box 5795

Eugene, Oregon 97405

<http://www.stargazing.net/david/ITS/>

## SuperNova is Unfolding in Aries Expected to Peak in One Week



Scientists are studying a strange explosion that appeared on February 18, 2006, about 440 million light years away in the constellation Aries. The "before" image on the left is from the Sloan Digital Sky Survey. The "after" image on the right is from NASA Swift's Ultraviolet/Optical Telescope. The pinpoint of light from this star explosion outshines the entire host galaxy. Image Credits: SDSS (left) and NASA/Swift/UVOT (right)

Scientists using NASA's Swift space observatory have detected a cosmic explosion in the constellation Aries, which is expected to reach peak brightness in one week.

Scores of satellites and ground-based telescopes are now trained on the sight, watching and waiting. Amateur astronomers in the northern hemisphere with a good telescope in dark skies can also view it. Coordinates for this burst are: RA: 03:21:39.71 Dec: +16:52:02.6

The explosion has the trappings of a gamma-ray burst, the most powerful type of explosion known. Yet this explosion, detected on February 18, was about 25 times closer and 100 times longer than the typical gamma-ray burst. And it possesses characteristics never seen before.

"This is totally new and unexpected," said Neil Gehrels, Swift principal investigator at NASA's Goddard Space Flight Center in Greenbelt, Md. "This is the type of unscripted event in our nearby universe that we hoped Swift could catch."

The explosion, called GRB 060218 after the date it was discovered, originated in a star-forming galaxy about 440 million light-years away toward the constellation Aries. This is the second-closest gamma-ray burst ever detected.

The burst of gamma rays lasted for nearly 2,000 seconds. Most bursts last a few milliseconds to tens of seconds. The explosion was surprisingly dim, however, suggesting that scientists might be viewing the event slightly off-axis. Yet this is just one explanation on the table. The standard theory for gamma-ray bursts is that the high-energy light is beamed in our direction.

"There are still many unknowns," said John Nousek, the Swift mission director at Penn State University. "This could be a new kind of burst, or we might be seeing a gamma-ray burst from an entirely different angle. This off-angle glance --- a profile view, perhaps --- has given us an entirely new approach to studying star explosions. Had this been farther away, we would have missed it."

A team at Italy's National Institute for Astrophysics (INAF) has found hints of a budding SuperNova. Using the European Southern Observatory's Very Large Telescope in Chile, the scientists have watched the afterglow of this burst grow brighter in optical light. This brightening, along with other telltale spectral characteristics in the light, strongly suggests that a supernova is unfolding.

"We expected to see the typical featureless spectrum of a gamma-ray burst afterglow, but instead we found a mixture between this and the more complex spectrum of a supernova similar to those generally observed weeks after the gamma-ray burst," said Nicola Masetti of INAF's Institute for Space Astrophysics and Cosmic Physics (IASF) in Bologna. "A supernova must be in the works."

Masetti said this could be a Type Ic supernova, characterized by its massive size and the abundance of certain chemical elements. This implies a scenario in which a very massive star has collapsed into a black hole and subsequently exploded; the debris from the explosion is trapping optical light inside and as the dust settles, more and more light will break free.

If they are correct, scientists will have an unprecedented view of a supernova from start to finish across many wavelengths, from radio through X-ray. Radio telescopes in fact have seen this burst from the day it was detected, another first.

Because the burst was so long, Swift was able to observe the bulk of the explosion with all three of its instruments: the Burst Alert Telescope, which detected the burst; and the X-ray Telescope and Ultraviolet/Optical Telescope, which provide high-resolution imagery and spectra across a broad range of wavelengths.

Scientists will attempt observations with the Hubble Space Telescope and Chandra X-ray Observatory. Amateur astronomers in dark skies should be able to see the explosion with a 16-inch telescope as it hits 16th magnitude brightness.

For More Information: [http://www.nasa.gov/mission\\_pages/swift/bursts/oddball\\_burst.html](http://www.nasa.gov/mission_pages/swift/bursts/oddball_burst.html)

### **Some Astro Humor**

Sherlock Holmes and Dr. Watson go on a camping trip. After a good dinner and a bottle of wine, they retire for the night, and go to sleep. Some hours later, Holmes wakes up and nudges his faithful friend. "Watson, look up at the sky and tell me what you see." "I see millions and millions of stars, Holmes," replies Watson. "And what do you deduce from that?" Watson ponders for a minute. "Well, astronomically, it tells me that there are millions of galaxies and potentially billions of planets. Astrologically, I observe that Saturn is in Leo. Horologically, I deduce that the time is approximately a quarter past three. Meteorologically, I suspect that we will have a beautiful day tomorrow. Theologically, I can see that God is all powerful, and that we are a small and insignificant part of the universe. What does it tell you, Holmes?"

Holmes is silent for a moment. "Watson, you idiot!" he says. "Someone has stolen our tent!"

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### Messier Club Chair:

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### The Messier Club.

The Astronomical League offers special recognition in the form of a Messier Club Certificate for those that have observed most or all of the Messier objects. To qualify you must either be a Member-at-Large or be a member of an astronomical society which is affiliated with the League. To obtain an award you must observe the following rules:

#### **Rule 1:**

Observe 70 Messier objects and keep a record of your observations. Your notes must show:

- a. Date of observation;
- b. Time of observation;
- c. Seeing conditions;
- d. Aperture size of telescope;
- e. Power used;
- f. A short note describing your observation of the object.

#### **Rule 2:**

Have your notebook or record examined by an officer of your Society or a suitably qualified second party if you are not a member of a society and have this party forward a letter to the effect that you have made the necessary number of observations.

#### **Rule 3:**

When you have observed the balance of the Messier Objects, have your notebook or records examined again and a letter forwarded to Mr. Kranz again, indicating that you have completed the observations of the Messier Catalog. You will receive an **Honorary** membership certificate signed by the current President of the League. Be sure to indicate the return address.

#### **Note:**

Since the purpose of the Messier Club is to familiarize the observer with the nature and location of the objects in the sky, the use of an automated telescope which finds the objects without effort on the part of the observer is not acceptable. Also "Messier marathon" sessions where all the objects are found in one occasion is to be discouraged if the beginning observer depends on other experienced observers to find the object to be observed.