

IO – August 2006

Issue 2006-8

Eugene Astronomical Society,
Annual Club Dues \$25, Board Members:
President: Richard Boyd- checkerkit@comcast.net,
Stephen Caruana, Fred Domineack,
Jacob Stranlien Sam Pitts

www.eugeneastro.org

EAS is a Proud Member of:



IO editor- sampitts@comcast.net 688-7330
Io (*EYE-oh*) is nearest to Jupiter and fastest orbiting of the four Galilean moons

Monday- August 7th MEETING EUGENE ASTRONOMICAL SOCIETY At The Science Factory Planetarium

The meeting will begin at **7:00 PM** in the Planetarium. Discuss what's up and out for viewing in August? Discuss and plan future events and star parties. 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
www.eugeneastro.org

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August 2 (31)	August 9	August 15	August 23
First Quarter	Full Moon	Last Quarter	New Moon
Sunset: 8:34 PM	Sunset: 8:25 PM	Sunset: 8:16 PM	Sunset: 8:03 PM
Sunrise 6:01 AM	Sunrise 6:09 AM	Sunrise 6:16 AM	Sunrise 6:25 AM
Moon Rise 2:45 PM	Moon Rise 9:00 PM	Moon Rise 11:24 PM	Moon Rise 00:00
Mercury Rise 4:51 AM	Mercury Rise 4:35 AM	Mercury Rise 4:51 AM	Mercury Rise 5:36 AM
Venus Rise 4:06 AM	Venus Rise 4:20 AM	Venus Rise 4:34 AM	Venus Rise 4:53 AM
Mars Set 9:44 PM	Mars Set 9:26 PM	Mars Set 9:11 PM	Mars Set 8:50 PM
Jupiter Set 12:05 AM	Jupiter Set 11:39 PM	Jupiter Set 11:17 PM	Jupiter Set 10:48 PM
Saturn Rise 6:22 AM	Saturn Rise 5:59 AM	Saturn Rise 5:40 AM	Saturn Rise 5:13 AM
Uranus Rise 9:52 PM	Uranus Rise 9:24 PM	Uranus Rise 9:00 PM	Uranus Rise 8:28 PM
Neptune Rise 8:49 PM	Neptune Rise 8:21 PM	Neptune Rise 7:57 PM	Neptune Rise 7:25 PM
Pluto Set 3:04 AM	Pluto Set 2:36 AM	Pluto Set 2:12 AM	Pluto Set 1:41 AM

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

Events

AUGUST 2006

1	Alpha Capricornids Meteor Shower Peak
2	Sky Camp Star Party-EAS- 7:30 setup (Courageous Kids-Star Party) Camp Caretaker Linda Host Cheryl
4	Asteroid 6 Hebe At Opposition (7.8 Magnitude)
7	Mercury At Its Greatest Western Elongation
10	Mercury Passes 2.2 Degrees From Venus / Neptune at Opposition / 40th Anniversary (1966), Lunar Orbiter 1 Launch
11	Asteroid 1998 DK36 Near-Earth Flyby (0.035 AU)
12	Perseids Meteor Shower Peak
14	Asteroid 2001 OC36 Near-Earth Flyby (0.099 AU)
16	Voyager 1 Reaches 100 AU From The Sun (93,000,000,000 Miles) / Asteroid 1 Ceres At Opposition (7.6 Magnitude)
18	Asteroid 9007 James Bond Closest Approach To Earth (1.264 AU)
20	Mercury Passes 0.5 Degrees From Saturn / Asteroid 2006 ON1 Near-Earth Flyby (0.043 AU)
23	Asteroid 13070 Seanconnery Closest Approach To Earth (0.749 AU)
24	Oregon Star Party 2006, Ochoco National Forest, Oregon (24-27)
25	Northern Iota Aquarids Meteor Shower Peak
26	Venus Passes 0.1 Degrees From Saturn
28	STS-115 Launch, Space Shuttle Atlantis, MEPSI 3A & 3B, (International Space Station 12A)
29	Asteroid 2002 VZ91 Near-Earth Flyby (0.088 AU)

All times Universal Time (UT), U.S. Pacific Daylight Time = UT - 7 hours (May-October) UT-8 (Nov.-April).

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Lunar II Observing Club Chair:

Al Dorn
2507 Jefferson Street
Bellevue, NE 68005-5423
(402) 291-5595
E-mail: lunar_two@yahoo.com

The Moon is the nearest celestial object in our observable universe and is always a public favorite at star parties. It was the target of past manned and robotic exploration missions, and it is likely that public interest will be stimulated again as new lunar missions are announced and executed. Many avid lunar observers voiced their desire for a second, more challenging program to follow the very popular Lunar Club. In response the Astronomical League formed a club for experienced lunar observers called Lunar II.

Lunar II Club goals include stimulating and maintaining a continued interest in lunar observing. This new program will also require participants to make at least 100 observations of the Moon. It is designed to help members improve their observing skills and expand their knowledge of the visible lunar surface. It is similar in some ways to the Messier Club, and it requires participants to go farther than the Lunar Club had before. For example, prominent features like the Sea of Crises and Tycho Crater will be revisited, observing them in greater detail and/or in varied sun-lighting. New targets, such as the Cordillera Mountains have been added. Some observations will be relatively easy, such as finding and describing the Sea of Isles; others, like hunting domes and rilles will be more challenging and require greater observing skill. Participants will also create a small, basic map of the visible face of the Moon.

Rules and Requirements

To earn a Lunar II certificate and pin you must:

1. Be an Astronomical League member in good standing, through membership in an affiliated local club or society, or as a League member-at-large.
2. Have previously completed all Lunar Club requirements (either nominated for the Lunar Club or awarded a Lunar Club certificate).
3. Complete 100 or more of the observing tasks specified in the Lunar II target list.
 - a. Several targets must be observed twice, in different light/shadow conditions, as specified in the target list.
 - b. Several optional observing tasks are available, allowing you to make a few substitutions if you so choose.
 - c. Where this target list overlaps the Lunar Club list, assume Lunar II requires more observation and deeper study than before. If previous log entries include all information required for Lunar II, they may also be used for this certification.
4. Keep a detailed log of your observations.
 - a. Maintain a log similar to those required by most other League observing programs. Logs may be kept on paper or in an electronic file.
 - b. Notes for all observations should include:
 - target name and/or number
 - date & time
 - observing location(s)

4. **Additionally**, you should record:
- both formal and common names of each target, if applicable. For example, Mare Crisium is also called the "Sea of Crises".
 - the lunar phase the observation was made at. Use either named phase (i.e., "waning gibbous moon") or lunation day (i.e., "16 day moon").

c. Log written descriptions and/or sketches as specified in the target list. Written descriptions will be required for about three-quarters of your observations, and simple sketches will be required for the other one-quarter. For the sketches, label any major feature your sketch includes, such as additional craters sketched, mountain chains or peaks, or other annotations that will explain certain features of the sketch, like "this area is very rough", or "top of crater has a flat ring". The goal here is to build observing and record keeping skills, not to make an artist of you.

d. Optionally, you may present images (film or digital) in place of some (but not all) of your sketches, as allowed in the target list.

5. Identify and locate individual lunar surface features personally. You may use telescopes with "Go To" capability or other forms of automation, provided that automation is not used for anything other than steering to the Moon itself. Computerized lunar charts are also permitted so long as they are not linked to identify features or to steer your telescope.

Award Nomination

To nominate yourself for the Lunar II award:

1. Submit a copy of your observing log to the Lunar II club coordinator for review and certification (it will not be returned to you). You may send a printout, a scanned document, or a text file.
2. Include your name, Lunar Club certificate number (or mention Lunar Club nomination), postal address, e-mail address and telephone number if available, and the name of your local astronomy club/society. If you are a member-at-large, identify your status.
3. If you wish to have your Lunar II certificate and pin forwarded to your local club/society for presentation, please include the name and postal address of your club (or its president, awards officer, etc.) If you do not know your officers, just mention your desire for local presentation and we will contact them on your behalf.

To nominate a club/society member for the Lunar II award:

1. Forward a copy of your member's observing log to the Lunar II coordinator, and include your name/contact information (for questions and for mailing the award package).
2. Once your astronomy club/society has an officer who has completed Lunar II, you may elect to have that person review logs locally and nominate members to the Lunar II coordinator by letter or email. The Lunar II coordinator will continue certifying logs for AL members-at-large and as requested. Each nomination must include:
 - a. A statement that the nominee's observing log meets all requirements;
 - b. All nominee contact information listed above;
 - c. The name, title, Lunar II certificate number, and contact information of the nominating officer.

Lunar II Award

After your log has been reviewed to verify you have completed all requirements, you will receive a congratulatory letter, a Lunar II certificate and [Lunar II pin](#). Your pin & certificate will be similar in some ways to those awarded for the Lunar Club, but will have a Roman numeral "II" featured prominently. Your name and club affiliation (if applicable) will be recorded on this League website and also listed in an upcoming issue of our national quarterly newsletter, The Reflector.

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Oregon Star Party 2006 Aug. 24-27

After July 28th
all Registration is On Site
<http://www.oregonstarparty.org/>

The Oregon Star Party is an astronomy adventure featuring quality deep sky viewing. It attracts intellectually curious outdoor lovers who enjoy the romance of a renaissance gathering. All ages enjoy camping among ponderosa, juniper, mountain mahogany, and sage. Past attendees have told us emphatically how much they have enjoyed the camaraderie and dark skies of Indian Trail Spring, and that they will return again!

In the evening, a forest of telescopes and bustling observers grows on the high prairie. Beauty and quality are apparent in personally engineered and constructed instruments. Large telescopes, personal computers, and sophisticated tracking systems promise power and ability. But high technology does not overshadow the great personal satisfaction of using small telescopes, binoculars, and naked eye viewing. Many who attend are astro-imagers, others are logging Messier, Herschel I & II objects, or the objects found in their OSP Observers' packet. Still others may just enjoy the clear dark skies from the comfort of a lawn chair.

Almost everyone welcomes a polite request to share a telescopic view; this is the spirit of our star party. All of us thrill at the glitter and soft glows of starlight mixed with friendly whispers punctuated by the shouts of success. It's emotionally unforgettable. We invite you to join us in 2006!

Remember: sunset at this time of year is around 8:00 PM. Please try to arrive before dark, but if unable to do so, be cautious of deer or other animals on the roads, particularly around dusk or dawn. Anticipate an hour's drive from Prineville to the site. Roads are paved except for the last four miles, which are gravel, and in decent shape. Before leaving home, please check our web site for any possible detours.

OSP Weather and Site Conditions - Since the OSP site is located on Forest Service lands; we do need to adhere to their conditions for use. The hill and prairie the site is located on is treeless, so there is limited shade. It can be hot during the day, but pleasant at night (light jacket). However there have been monsoon type downpours, lightning strikes inside the site and dust devils powerful enough to lift tents, ice chests and telescopes. There are some camping restrictions. However these restrictions change from year to year and you'll need to pick up the latest information from a volunteer at the registration tent.

For clothing, bring warm and cool weather clothes and rain gear. Do bring sunscreen, sunglasses and head covering. If you have a special medical condition or needs, there are volunteer medics on hand to help; primarily they just provide first aid help. The nearest medical facility is in Prineville.

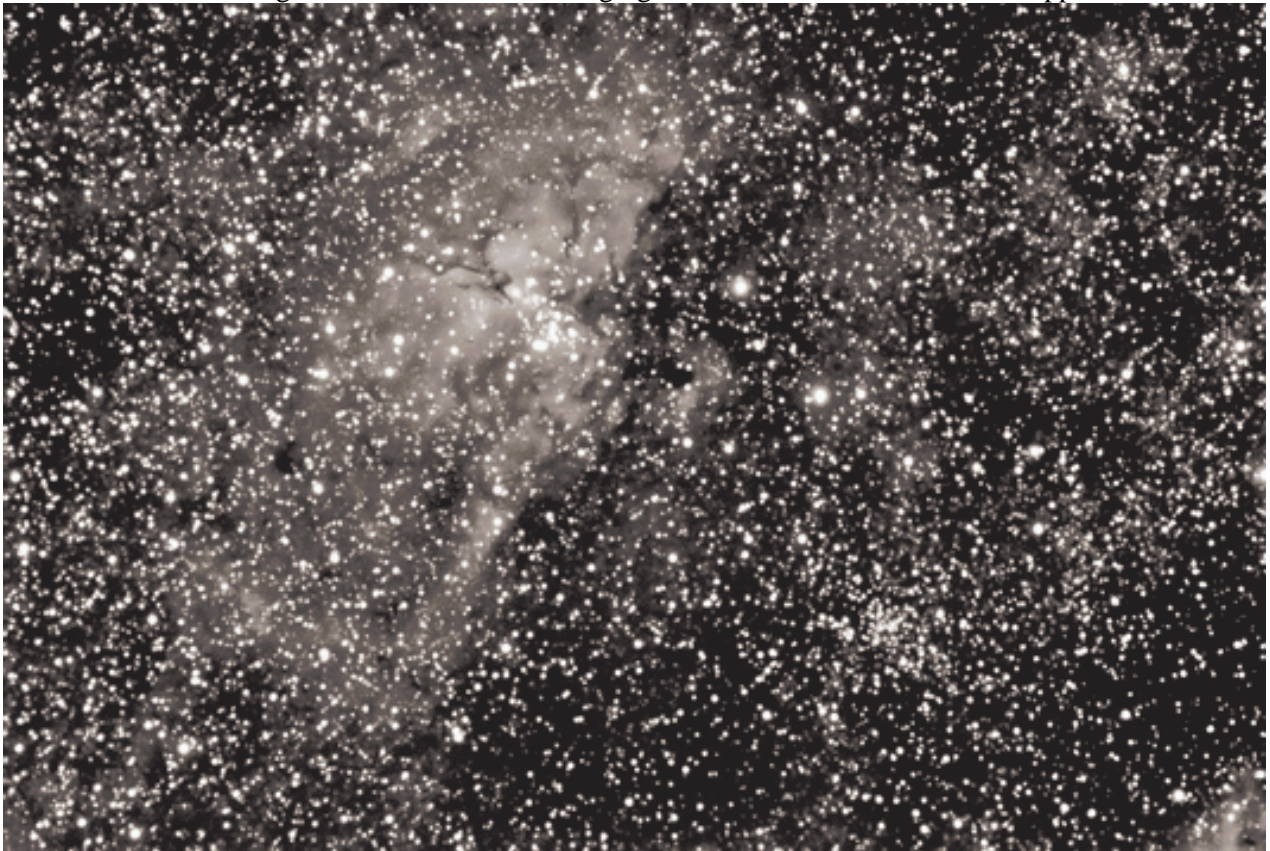
Usually there is a severe fire risk warning for the area, so there are no open fires, electric generators are (generally) restricted to medical needs, food vendors and main activities tent. It is a good idea to pack extra water and food.

Cell phone access is spotty at best. There is no guarantee that your cell phone will work at OSP. There is a satellite Internet access provider on site for a fee.

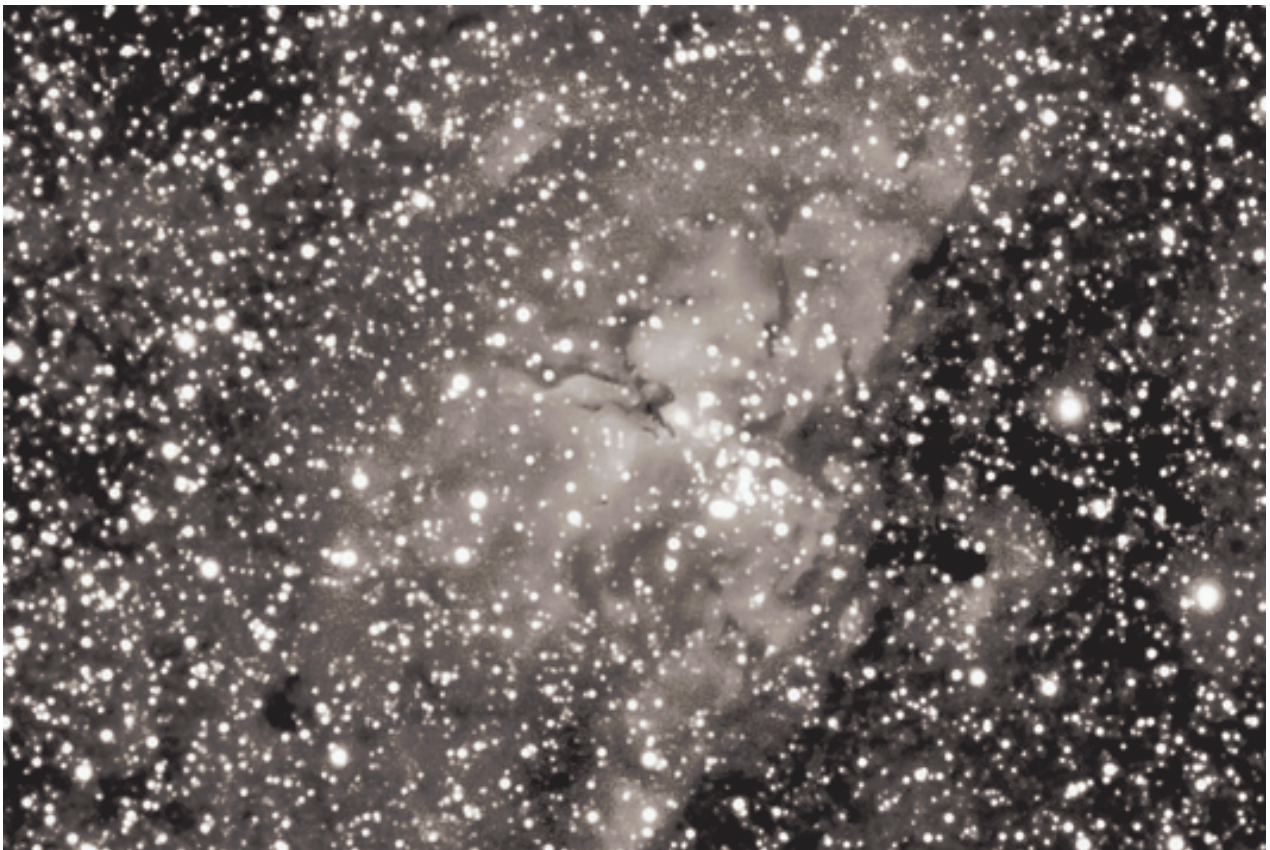
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First Light with ST8e & ED80 imaging M16 1st is normal FOV 2nd is cropped



Full View



Cropped (by Sam Pitts)