

IO – November 2004

Issue # 2004-11

www.eugeneastro.org

Eugene Astronomical Society, Annual Club Dues \$25, President: AC Illig, Treasurer/Secretary: Roscco Wright;
Guy Prouty (guyprouty@msn.com 463-7641, Alicia McGraw, Richard Boyd (BOD Members); IO editor, Sam Pitts, 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:

The Astronomical League
The World's Largest Federation of Amateur Astronomers

Monday- November 1st MEETING EUGENE ASTRONOMICAL SOCIETY At The Science Factory Planetarium

Vote on By-Law Changes (See Page 2 for Details)

The meeting will begin at **7:00 PM** in the Planetarium. Members in good standing will be ask to vote on by-law changes listed on page 2. Make sure your dues are up to date! Membership dues are due in October. Membership dues are \$25.00; any additional amounts would be greatly appreciated as a donation which may be tax deductible.

Guy Prouty is going to do a presentation on the ancient observatories and to present time observatories. Roger Phillips will be giving a presentation on "The Life Cycles of Stars".

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.

Star Party

Madras/Warm Springs has requested for another star party on Friday, November 5, 2004, weather permitting. If there is anyone out there interested please contact Roscco. We are working with Rick at this time and trying to get some compensation for the trip and possibly rooms. Will keep you updated.

Lunar Eclipse Party

We will be doing a Star Party to celebrate the Lunar Eclipse on October 27, Wednesday evening. The moon will rise at 6:22 at about Azimuth 74degrees. The eclipse will have begun. Totality at about 7:30, about 86 degrees Azimuth, and ends 10:50 PM. These are rough figures gleaned from The Starry Night software program. Tentative location is College Hill Reservoir: 25th Ave. & Lawrence. No confirmation at time of printing. Check Web site, Mail list & Meeting.

Magazine subscriptions go to Richard Boyd: checkerkit@aol.com



Join the user List! Keep in-touch with Members and Events!

<http://lists.cmc.net/cgi-bin/mailman/listinfo/eugeneastro>



NOTICE OF PROPOSAL TO AMEND BYLAWS

This serves as notice pursuant to Article II, Section 10 of the EAS Bylaws, that the Board of Directors of EAS will present to the membership for approval, at the next monthly membership meeting on November 1, 2004, the following resolution to amend the Bylaws:

RESOLVED, that Article V of the EAS Bylaws, concerning the duties of the President, Secretary and of the Treasurer, shall be amended to provide as follows:

Section 5.

President: The president shall be the chief officer of the corporation and shall act as the Chair of the Board.

- * Preside at General Meetings.
- * Preside at Board Meetings.
- * Any other duties as may be prescribed by the Board of Directors.

Section 6.

Secretary. The secretary shall have overall responsibility for all record keeping of the corporation. The Secretary shall perform, or cause to be performed, the following duties:

- * Official recording of the minutes of all proceedings of the Board of Directors and Members' meetings and actions.
- * Provision for notice of all meetings of the Board of Directors and Members.
- * Authentication of records of the corporation.
- * Any other duties as may be prescribed by the Board of Directors.

Section 7.

Treasurer. The Treasurer shall have overall responsibility for all corporate funds. The Treasurer shall perform, or cause to be performed, the following duties:

- * Keeping of full and accurate accounts of all financial records of the corporation.
- * Deposit of all monies and other valuable effects in the name of and to the credit of the corporation in such depositories as may be designated by the Board of Directors.
- * Disbursement of all funds when proper to do so.
- * Maintaining current and accurate membership lists.
- * The preparation and filing of all necessary documents with the appropriate governmental authorities, including but not limited to the corporation's annual report, income tax returns, registration with the Oregon Department of Justice, and other necessary filings.
- * Making financial reports as to the financial condition of the corporation to the Board of Directors.
- * Any other duties as may be prescribed by the Board of Directors.

From the Board of Directors

The Board of Directors met October 14th at Rossco's shop. This is the first in an effort to establish a regularly scheduled BOD meeting in hopes of enabling more General members to attend. The second Thursday of each month will be the scheduled BOD meeting. Announcements will be made on the EAS mail list, email in advance of these meetings also.

This time the BOD was flattered by the attendance of three other General members. There was much business to do and we covered a lot of ground. We redefined the tasks of the President, Secretary, and Treasurer. (among 20 other things).

Our next scheduled BOD meeting will be November 11th Thursday.

Please attend. There is way too much work to do. We are all very busy people. Not a one of us is retired. We are each engaged in full time professional and personal lives, and we do our best to do the work of the EAS too. But it happens that EAS tasks get shuffled in favor of crises and priorities. You do not need to be on the BOD to be active in the EAS. You are very welcome at BOD meetings. This is where you would hear something interesting come up for discussion, or you could bring something for discussion, and then you could say "I'll do that" ☺

Rossco Wright
Treasurer

Dear Members,

On Oct 1st, we had a nice Star Party at the Mt. Pisgah Arboretum. There were 10 or 12 scopes. Many EAS members, Arboretum Staff and Arboretum members and guests. Sam Pitts did a splendid presentation of his photos on a screen set up in the Quonset hut. He explained the universe...yep. All in all, a great evening. EAS members had fun checking out each other's cool gear, and showing deep space objects to first time viewers. The weather was great.

Last night we had a very nice meeting. The new Director of the Planetarium, Sue Peterson, spoke to us and told us about herself, and her plans and dreams for working with us to have some fun with the facility there at Science Factory. I think this will be a great opportunity for us all; EAS, Science Factory, and the Public.

We have election results. Last night the following people were elected to the Board of Directors: Guy Prouty, Alicia McGraw, Rossco Wright, Richard Boyd, and AC Illig. The BOD will meet on the second Thursday of each month at Rossco's shop. All members are welcome. Please join in on ideas and planning.

Alicia McGraw did a superb presentation of the Genesis Project. The re-entry was smashing. The Genesis module made a deep impact and a lasting impression. She had overhead projector graphics and a video that cast a huge image overhead, across the Planetarium dome. The effect, in that darkened Planetarium room, was stunning. Please, if you would like to do a presentation for us in that wonderful room, please contact a Board member.

There were new people who joined that night, long missing members who showed up again and joined the fun, and a growing stack of cash and checks as members renewed for the following year.

Please send your membership renewals in to Eugene Astronomical Society, PO Box 7264, Eugene, OR 9740. \$25 checks payable to Eugene Astronomical Society. They are due October 1st.

We will be doing a Star Party to celebrate the Lunar Eclipse on October 27, Wednesday evening. The moon will rise at 6:22 at about Azimuth 74degrees. The eclipse will have begun. Totality at about 7:30, about 86 degrees Azimuth, and done about 10:50 Az 128 degrees. These are rough figures gleaned from The Starry Night software program. We have not researched those Azimuth angles to see if the Science Factory would be good to catch it, (or will it be behind the Autzen?). It would be best to have a clear shot at the horizon, at those compass headings, of course. Does anybody have any ideas for an ideal spot besides Science Factory?

We look forward to a fun filled year ahead. Yet this Fall there may be a few more events. This winter we want to chase away the rainy day astronomer blues by having fun and learning great new things at meetings. I would like to do a mirror cleaning workshop, and a couple of telescope-workshop evenings at my shop where we can collimate and align our scopes. This Spring we will be doing Star Parties for schools. All summer we will do various events with the Science Factory. And then, of course, we have...Astronomy Day. Let's make it a good one! Help us plan it all.

Board member Richard Boyd has undertaken to do the magazine renewal for Astronomy, and Sky and Telescope. He can be reached at checkerkit@aol.com

Thanks
Rossco Wright
Treasurer, Secretary

What's Out This Month

On October 27th a total eclipse of the Moon is visible from Eugene, providing we have clear skies. The eclipse will be underway when the Moon clears the Eastern horizon.

On November 5th, Venus & Jupiter will only be $\frac{2}{3}^\circ$ apart, 45 minutes before sunrise. On November 8-11 the thin waning crescent moon will align nicely with Jupiter, Venus, Spica & Mars. The Taurids Meteor Shower is peaking around November 8-13th. The Leonids Meteor Shower will peak on the morning of November 17.

Pegasus will be directly over head during early evening. M31 Andromeda is nice and high for excellent viewing. Don't forget M33 the Pinwheel is nearby and also a nice bright galaxy.

Around midnight Taurus, The Pleiades (M45) Auriga are up, Orion is not far behind. Early morning hours show the winter constellations and the many objects of Orion are high enough for good viewing around 3:30-5:00 AM.

Jupiter is visible in the early morning hours just before sunrise. Saturn on the other hand, is up many hours earlier for good viewing.

The Moon is a good subject to use you web cams, digital cameras or film cameras on. Take some a-focal or prime focus shots and send them to me for IO's Photo Gallery.

Note: various club members obtaining new telescopes and cameras have caused the rain and clouds in October. Hopefully some clear evenings are ahead in November.

Transits of Jupiter's Moons



11/04	05:53	Io	Transit Begins
	08:07	Io	Transit Ends
11/05	06:20	Ganymede	Transit Begins
11/11	07:53	Io	Transit Begins
11/12	06:46	Europa	Transit Begins
	07:27	Ganymede	Shadow Begins
11/19	07:45	Europa	Shadow Begins
11/27	06:21	Io	Transit Begins

Shadows cast on Jupiter's disk by Transit of its moons may Begin and end after transit times. Begin observing before Times listed. Actual times of events will vary depending on your precise location within time zones. Shadows start before transits and usually end before transits are over.

Daylight Savings Time Ends November 31, 2004

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Roscco Wright
Treasurer

Jupiter's Red Spot Centered PST

11/01	04:57	14:53		11/16	02:25	12:20
11/02	00:48	10:44		11/17	08:12	00:00
11/03	06:36	00:00		11/18	04:04	13:59
11/04	02:27	12:23		11/19	09:51	00:00
11/05	08:15	00:00		11/20	05:42	15:38
11/06	04:06	14:02		11/21	01:34	11:30
11/07	09:54	00:00		11/22	07:21	00:00
11/08	05:45	15:41		11/23	03:13	13:25
11/09	01:37	11:32		11/24	08:00	00:00
11/10	07:24	00:00		11/25	04:51	14:47
11/11	03:16	13:11		11/26	00:43	10:39
11/12	09:03	00:00		11/27	06:30	00:00
11/13	04:54	14:50		11/28	02:22	12:17
11/14	00:46	10:42		11/29	08:09	00:00
11/15	06:33			11/30	04:00	13:56

A Summer Vacation Tracking Down UFOs



Two cameras on MISR made these images of the same part of the Mojave Desert. The camera pointed at an angle of 26 forward saw the flashes from two solar electric power generating stations. These objects are nearly invisible at the other angle.

Erin Schumacher's summer job for NASA was to look for UFOs. Erin is a 16-year-old high school student from Redondo Beach, California, attending the California Academy of Mathematics and Science in Carson. She was one of ten students selected to work at NASA's Jet Propulsion Laboratory (JPL) in Pasadena as part of the Summer High School Apprenticeship Research Program, or SHARP.

But is studying UFOs a useful kind of NASA research? Well, it is when they are "unidentified flashing objects" that appear in certain images of Earth from space. Erin worked with scientists on the Multi-angle Imaging SpectroRadiometer (MISR) project to track down these mysterious features. MISR is one of five instruments onboard the Earth-orbiting Terra satellite. MISR's nine separate cameras all point downward at different angles, each camera in turn taking a picture of the same piece of Earth as the satellite passes overhead. Viewing the same scene through the atmosphere at different angles gives far more information about the aerosols, pollution, and water vapor in the air than a single view would give. Ground features may also look slightly or dramatically different from one viewing angle to another.

Erin's job was to carefully examine the pictures looking for any flashes of light that might be visible from just one of the nine angles. Such flashes are caused by sunlight bouncing off very reflective surfaces and can be seen if a camera is pointed at just the right angle to catch them. Because the satellite data contain precise locations

for each pixel in the images, Erin could figure out exactly where a flashing object on the ground should be. Her job was then to figure out exactly what it was that made the flash—in particular, to see if she could distinguish man-made objects from natural ones.

When Erin began working at JPL, scientists on the MISR project had already identified two large flashes out in the middle of the Mojave Desert in Southern California. These turned out to be from solar power generating stations. Soon, Erin began finding flashes all over the place. She learned how to apply her math knowledge to figuring out how the objects would have to be oriented in order to be seen by a particular MISR camera. One time, she and a team of MISR scientists and students went on a field trip to the exact locations of some flashes, where they found greenhouses, large warehouses with corrugated metal roofs, a glass-enclosed shopping mall, and a solar-paneled barn. For some flashes, they could find nothing at all. Those remain "UFOs" to this day!

Learn more about SHARP at www.nasasharp.com and Earth science applications of MISR at www-misr.jpl.nasa.gov. Kids can do an online MISR crossword at spaceplace.nasa.gov/en/kids/misr_xword/misr_xword1.shtml.

This article was written by Diane K. Fisher. It was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration

IO Photo Gallery:

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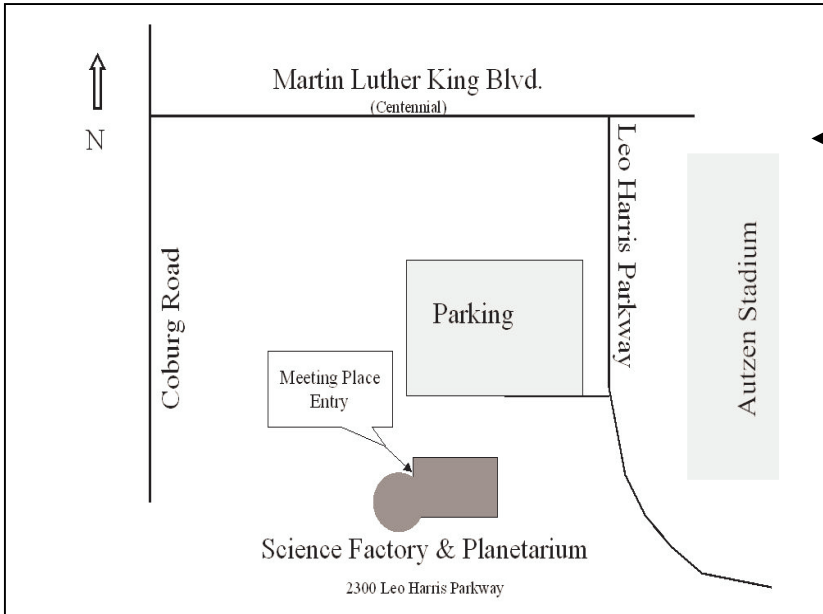


Image Taken By Richard Boyd of Double Cluster East of Cassiopeia. E200 Slide Film



Image Taken By Sam Pitts M31 Andromeda August 20th 2004, Eagles Rest E200 Slide film

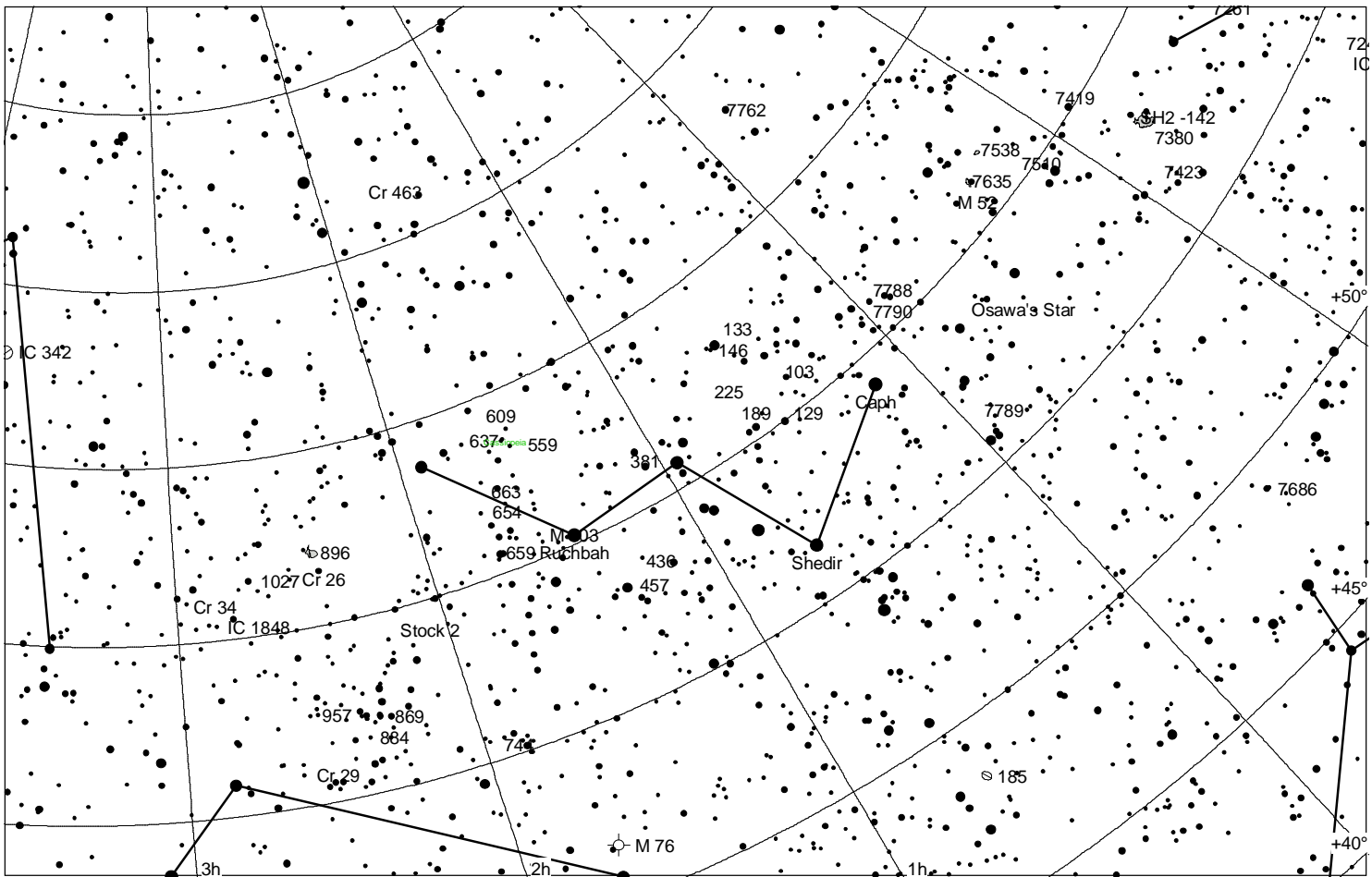
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EAS Meeting Location

Meetings 1st Monday of the Month
7:00PM Come Early & Visit

Cassiopeia Region Star Chart



Some of my favorite Weather Websites:

First a paper from a professional weatherman about astronomical observing conditions:
<http://ma.sao.ac.za/~erasmus/sitemet.htm>

Weather.Com has 10 forecasts and more:
<http://www.weather.com/weather/local/97404>

Even Better is Weather.com's Northwest satellite:
http://www.weather.com/maps/maptype/satelliteusnational/northwestussatellite_large.html
Click on the link to see the map in motion.

Weather.Com's West Coast USA Satellite shows what is still out to sea:
http://www.weather.com/maps/maptype/satelliteusnational/westcoastussatellite_large.html

Weather Underground also has a forecast: <http://www.wunderground.com/cgi-bin/findweather/getForecast?query=97404>

But their satellite picture offers a good close up: <http://www.wunderground.com/satellite/vis/1k/US.html>

Clear Sky Clocks are extremely good: http://cleardarksky.com/csk/prov/Oregon_clocks.html

And you can click on the Light Pollution Map to see the locations of other Clear Sky Clocks in the area.

And, of course, there is always the National Weather Service: <http://www.wrh.noaa.gov/pqr/>

And an honorable mention to Intellects:
http://www.intellicast.com/Local/USNationalStd.asp?loc=usa&seg=Star&prodgrp=Forecasts&product=SkyWatch&prodnv=d1_00&pid=none

Is there any one site that does it all? NO!!! You need to look at the Clear Sky Clocks and Satellites.

Clear Skies
Alan



Don't Forget the Time Change back to Standard time on November 31, 2004
You now need to subtract 8 hours from UT.
Make sure you update your goto mounts with the correct time, along with your laptops.