Issue 2012-10

IO - October 2012

Eugene Astronomical Society
Annual Club Dues $25
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EAS is a proud member of:

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

Next Meeting: Thursday, October 25th

A Tour of the New Planetarium

by Sue Peterson

In January 2010, the Science Factory Planetarium was upgraded to a full-dome theater and renamed the Exploration Dome. The upgrade included installation of a Mediaglobe II full-dome digital projector, a state of the art surround sound system, enhanced lighting, and a small stage area for lecture-demonstrations. For our October meeting, we'll be going to the Exploration Dome for a demonstration of what the new projection system can do. Planetarium Director Sue Peterson will show us the new system's capabilities now that they've gone completely digital. It should be quite a show! Don't miss it.

The Exploration Dome is at the Science Factory, 2300 Leo Harris Parkway, behind Autzen Stadium. The meeting starts at 7:00.

Next First Quarter Friday: October 19th

Our September 21st star party and September 22 backup were clouded out. Here's hoping for better luck in October.

Our next First Quarter Friday will be October 19th, with a backup date of Saturday, October 20th if the 19th is cloudy. First Quarter Fridays are laid-back opportunities to do some observing and promote astronomy at the same time. Mark your calendar and bring your scope to the College Hill Reservoir (24th and Lawrence in Eugene) and share the view with whoever shows up. Here's the schedule for the rest of 2012:

October 19 (28% lit) November 16 (15% lit) December 21 (69% lit)

Dues are Due!

EAS membership runs from October thru September. If you haven't renewed already, please do so at the October 25th meeting or mail your dues to the Eugene Astronomical Society, PO Box 7264, Springfield, OR 97475. Dues are $25. Make your checks payable to Eugene Astronomical Society, or just EAS if your pen is low on ink.

Jerry will also be happy to accept dues at our October 19th star party.

Celebrating John Dobson's Recent 97th Birthday: a Tale of Glass and Scheming

by Mel Bartels

Many years ago, Mike Dilley, a local amateur with a classic domed observatory in his backyard sporting a 5 inch Jaegers refractor, and I decided to look for porthole glass. Glass blanks are expensive today and they were expensive back then.

You see, we had read about John Dobson discovering Shangri-La at California ship salvage yards. We decided that Portland would be good hunting grounds. As far we knew, under the Eugenian influence, we were the only amateurs in Oregon doing thin plate glass mirrors in our bell bottom jeans and long side burns. However, I drew the line at tie-dyed decorated telescope tubes and outfits.

Speaking of tie-dye telescopes, the Renaissance Fair was held downtown where Ken Kesey Square is now. There used to be a fountain there. We set up solar scopes and entertained Eugenians with free views of sunspots. We started when we heard that someone was charging a quarter per view (remember, 1970's dollars). Indignant, we flooded the Fair with scopes with free solar views.

Mike and I would drive up to the Portland marine salvage places and ask for salvaged port holes. Every place we went said they no longer had them. It seems that a long silver-haired middle-aged monastic dude from California had come through and bought out everything.

John Dobson. Photo by Alan J Wylie at en.wikipedia

We had to use my car to drive to Portland since Mike's car was under the weather. He had just bought it from a local dealership. The driver side door had fallen off a couple of weeks later. Mike, a gentle person, seemed strangely upset over this. He took it back to the car lot and demanded to see the salesman. The salesman looked at the door, hanging off its broken hinges and after stroking his chin for a while, declared that Mike was opening and shutting the door too much. From that episode on, no one mentioned Mike's car to his face. Those strange facial tics and body jerks were not conducive to smooth mirror grinding after all.

On one of our last stops as we headed out the door, a workman came up and said that there was some glass in the back that the owner hadn't known about and consequently not sold to Dobson. We went in back and there was it was — a hundred portholes with sizes up to 16 inches! I found it hard to act disinterested while drooling at the same time, as we nonchalantly inquired as to how much money it might take to relieve him of this pile of useless glass that was taking up space in his warehouse. We agreed on a price of $400. We said that we'd return next week since we didn't have $400 on us and it would take time to gather up the money.

We returned with a check for $400 in our hands. But the pile of glass had shrunk in size! In our best *Mission Impossible* (the original TV series) style, Mike and I signaled our plan to each other. Mike was to distract the burley ex-marine owner while I looked for the missing glass. I found it around the next corner and hid it by putting it in the station wagon first. After loading up the remaining glass, I pulled around to the

front and thinking that he might have a shred of guilt said, "Ok, $400 is a lot of money, how about $300 for that pile of glass in my wagon?" He said the marine equivalent of no. So I handed him the check and we tore out of there, the station wagon bouncing on its rear axle thanks to hundreds of pounds of glass. As we drove away, Mike said, "Say, did that check have your address on it?"

Mike and I ground mirrors from that pile of glass for years, He got his 16 inch and we experimented with all sorts of crazy things like roofing tar for pitch and big plastic bags of titanium oxide for polishing compound and had the grandest time, thanks to John Dobson and a burly marine salvage place owner who tried to cheat us.

September Meeting Report

At our September 21st meeting, Sam Pitts, Jerry Oltion, and Wes Magyar displayed some of their astronomy equipment and talked about the strengths and weaknesses of various items of gear. It was a total gear-fest with cases and cases of equipment: telescopes, binoculars, finders, eyepieces, filters, flashlights, charts, cameras, you name it. Wes showed off his brand new Celestron Nexstar 130 SLT go-to scope, and Jerry showed off various scopes and binoculars and eyepieces, but Sam stole the show with his TEC 140 apochromatic refractor on an Astrophysics 1200 mount, the setup he uses to capture many of his stunning astrophotos.

Sam Pitts with his TEC 140 and AP 1200 mount

Audience members had plenty of questions and gear-related observations of their own. The meeting ran for nearly two hours of informal discussion, and seemed highly enjoyed by all.

Some of Jerry Oltion's scopes & binoculars

Our next meeting will be on Thursday, October 25th, at 7:00 PM at the Science Factory Planetarium. **Note that this is not our usual meeting site.**

Here's our meeting schedule for the rest of 2012. We're back at EWEB for the last two. Note that we don't get regular Thursdays anymore, nor are we in the same room every time. EWEB has had trouble scheduling its meeting space to meet all the demand, so we've had to take what we can get.

November 21 (Wednesday, Community Room) December 20 (Thursday, Training Room)

Looking for Dark Skies in All the Wrong Places, or How I Learned to Love Bad Roads

By Mel Bartels

Lynn Carroll introduced me to Holland Meadows forty years ago. Its star attraction was that for a bit longer drive than Eagles Rest, you could be observing from darker skies at a higher altitude of 5000'. Plus the large plateau tends to produce very steady seeing, much like the Oregon Star Party's site.

Barbara, Kathy, Jerry and I decided to revisit the site. One starts by driving out Highway 58 towards Willamette Pass, then turning onto Deception Creek Road just before Oakridge. From there it's a short windy distance to the top where broad open meadows with beautiful flowers soak in the sun.

Directions to Holland Meadows from Google Maps

Unfortunately, it's never the same the second time around. The road is in terrible shape. I do not recommend traveling it after dark because there are spots that will swallow your car — seen readily in the daytime but at night, who knows.

What used to be open areas, clear cuts and the like are now tall stands. We couldn't find anywhere that had a good enough view. We stopped at an old fire clearing to celebrate Jerry's birthday with chocolate cake made using a long-cherished Oltion family recipe, but the view there was filtered at best.

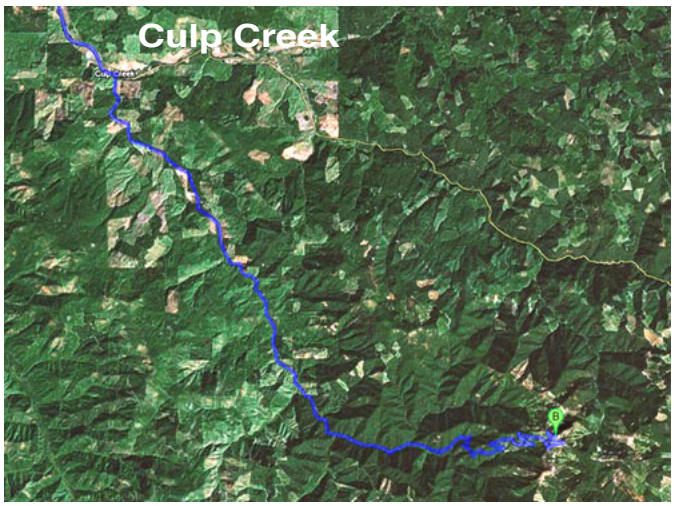
A burnt forest making a comeback

We split up, Barbara and I heading back to Cottage Grove via Road #22 to Disston and Kathy and Jerry back the way we had come. We had the better of the deal because Rd #22 is paved all the way and

Barbara, Jerry and Kathy celebrating Jerry's birthday

becomes a regular two lane road after descending into the canyon.

On the way back I noticed signs to Fairview Peak and Bohemia Mtn (both even higher at 6000'). We decided to take another trip, this time towards Fairview Peak Lookout. We didn't make it, thanks to the internet. You see, the internet with its maps and spotty reviews can give a false impression of road travelability. Heading out Row River Road from Cottage Grove then turning onto Sharps Creek Road looked promising because we travelled on two-lane paved roads. Unfortunately this changed in a heartbeat at beautiful Mineral Camp Trailhead. We travelled three miles going steeply uphill on a rough four wheel drive road of dirt and rocks with quite the scenic drop-off before deciding to call it a trip and turn

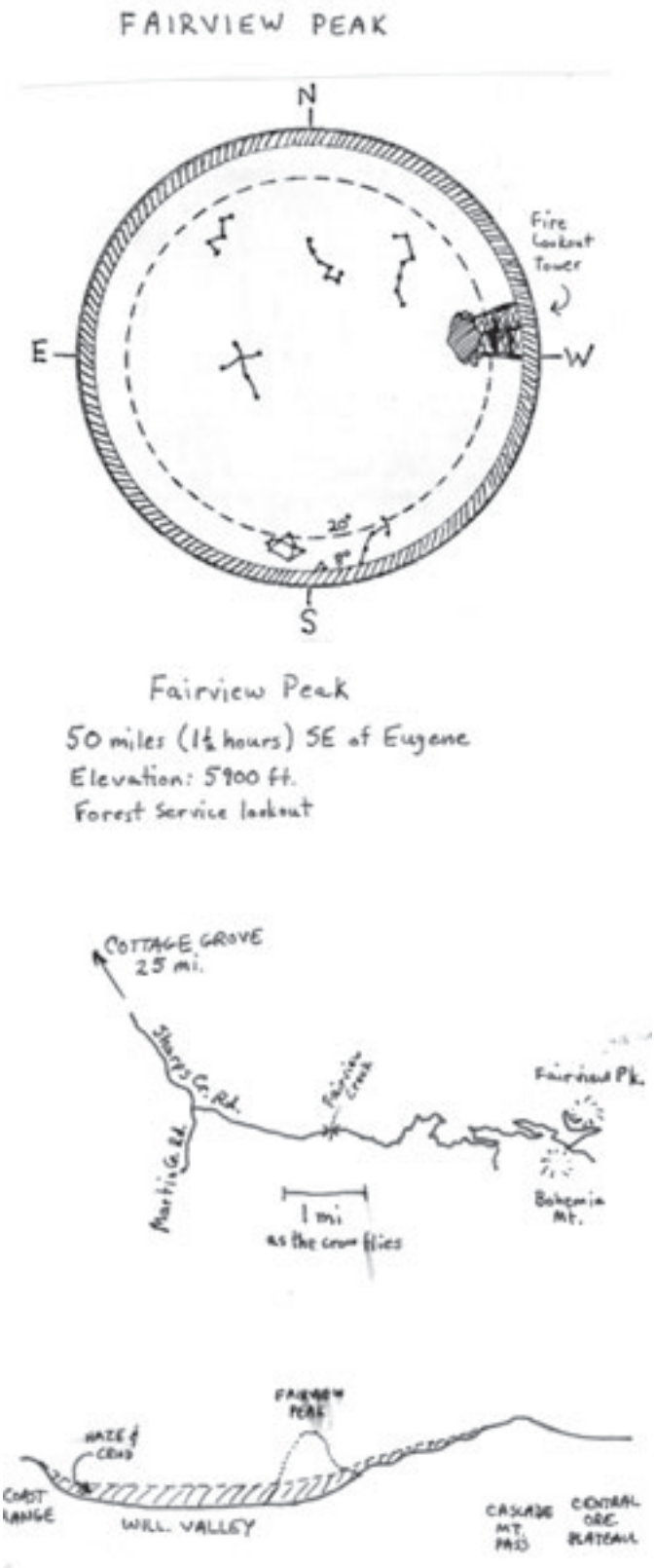


Directions to Fairview Peak via Sharps Creek Road from Google Maps

around at a wide switchback. I'd never take a scope on that road because it would be shaken to pieces, so no point in showing off the off-road capability of my truck. Investigating further, it appears that the access from Road #22 (Cottage Grove to Disston to Bryce Canyon Rd.) that also reaches Holland Meadows (see next page) is now the preferred route. Another trip waits!

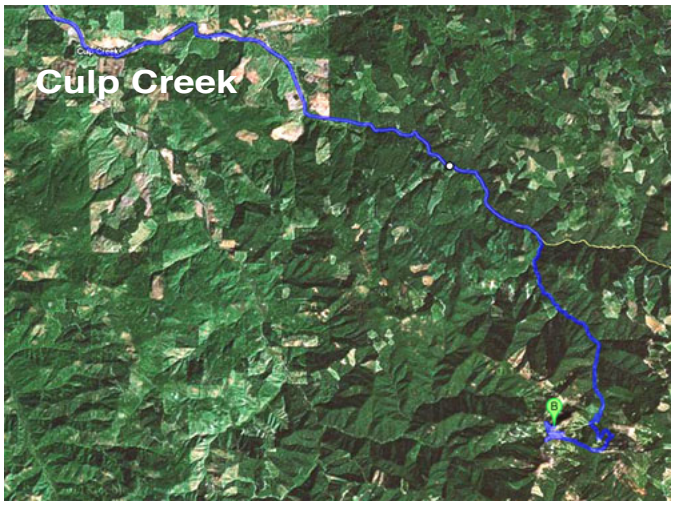
Here are comments about Fairview Peak from an EAS newsletter many years ago.

"Take I-5 south to Cottage Grove (exit 174). Follow the signs to Dorena Lake (Row River Road). The road forks just before the lake; take either side. The roads rejoin at Dorena. 4.3 miles farther (just past the town of Culp Creek) turn right on Sharps Creek Road. After another 10.3 miles turn left to stay on Sharps Creek Road (#2460). The pavement stops here. After two more miles you will cross Fairview Creek. You have only seven miles to go, but you have



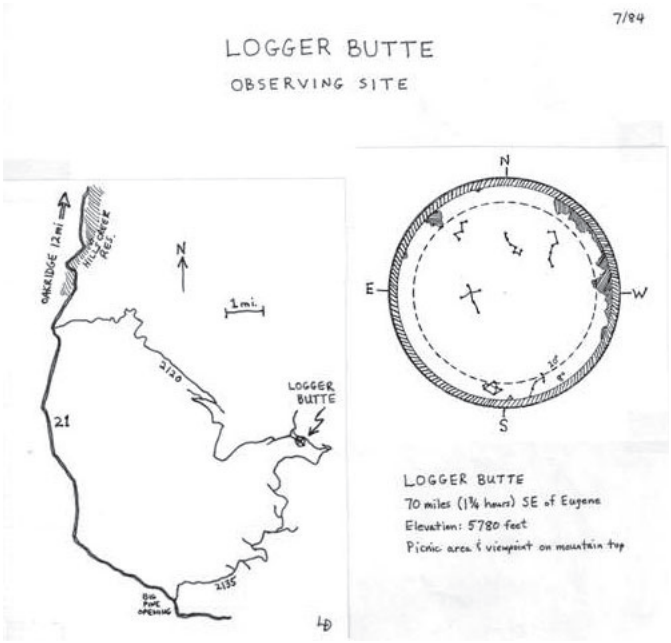
Previous EAS notes on Fairview Peak (all sky image by Larry Dunn)

to gain 4200 feet. That's an average of 11% grade. That's why the road suddenly heads up. It also becomes horribly rocky, bumpy, skinny, twisty, scary, and downright treacherous. A jeep is recommended. DO NOT TRY TO HAUL A TRAILER! Three miles past Fairview Creek, stay on #2460; follow the sign to Bohemia Saddle. After 2.7 more miles you are at Bohemia Saddle; turn left onto road 0679/773. About a mile up this road there is a switchback and the road gets REALLY steep — you'll need a running start, but it is so bumpy it is guaranteed to knock your scope out of alignment and knock your teeth out of their sockets. Finally you are at the top and it's all worth it. (Frank Szczepanski swears he'll never go up there again.)



Directions to Fairview Peak from Road #22 and Champion Creek Road from Google Maps

"There are no viewing obstructions except for the fire lookout tower to the west and a low rock outcrop to the Northwest. There is a large level gravel area for setting up and even a couple of outhouses for relief. There are no lights for many miles. The diagram shows why the air is good even when sites farther east are hazy. The view is great in the daytime and the road goes by the ruins of several Bohemia gold mining operations. For a real thrill, take the road in the other direction from Bohemia Saddle and come back down on the Champion Creek Road. It's even worse, if you can believe it."



Logger Butte

Ah, the things we do for the love of dark skies.

Several years ago a University of Oregon professor doing a study on the Bohemia Mountain mines mentioned that the area is under review to be a superfund site. He said that a major paved road would have to be built to near the summit. We got to talking astronomy and observatories and he said that an organized and funded group proposing an observatory on the site could be attractive to the government as a multi-use example.

Another possibility from the old days is Logger Butte. Who's willing to explore it?

Thank You Castle Storage

For the last five years, Castle Storage has generously provided EAS a place to store its telescopes and equipment. EAS would like to thank Castle Storage for their generosity and support for our group. Please give them a call if you need a storage space, and tell your friends. They are great people and offer secure and quality storage units.

Greentop a Little Too Green

by Jerry Oltion

Overgrown road to lower site

Alas, they've filled in. And up. The side road to the lower site was heavily overgrown, and when we bushwhacked our way to the site we found it surrounded by trees 30-40 feet high. There's still enough sky to do some observing overhead, but it's hardly worth the drive (about 30 miles from Eugene).

The upper Greentop site

And unfortunately, new sites aren't as easy to find as they once were. While Jon and I were up there we found two new clearcuts that would have provided new opportunities for a few more years, but they're on private land behind locked gates and the owner won't grant us access. So for now our Eagle's Ridge site is our premier location...until it, too, grows up.

On September 10th Jon Schwartz and I decided to check out Greentop, a favorite observing area for amateur astronomers about 25 years ago. At the time there were two good sites up there on log landings in recent clearcuts. Using a map from an old *Io*, Jon and I drove out Winberry Road past Fall Creek Reservoir and up Horn Butte Road to see what those sites look like today.

The lower Greentop site

The upper site is another mile up the road and another 200 feet in elevation (2385 ft). Alas, it has grown up even more. There's no horizon in any direction, and trees up to 45 degrees all around.

Such is the fate of most forest observing sites.

The view from Mt. Salem. Alas, private property.

Several Nights on Eagle's Ridge

We had good sky during the dark phase of the Moon this month, and many EAS members and guests took advantage of it on multiple trips up to our Eagle's Ridge observing site on the northeast flank of Mt. June. Alan Gillespie made a great panoramic shot of the sky from there on the night of September 12th. It

The sky from Eagle's Ridge. Copyright © 2012 by Alan Gillespie

shows the Milky Way rising up from Sagittarius in the south (right) through Aquila and Cygnus overhead and descending through Perseus in the east (left). The Pleiades are just rising out of the trees to the east.

Remember This in March

Eugene, Mahlon Sweet Field (KEUG)
Last Update on 15 Sep 11:54 PDT

Partly Cloudy, 71°F, (22°C)
Humidity: 47 %
Wind Speed: N 7 MPH
Barometer: 30.15 in (1020.70 mb)
Dewpoint: 50°F (10°C)
Visibility: 10.00 Miles

Today: Mostly sunny. Highs around 80. North wind 5 to 10 mph.
Tonight: Mostly clear. Lows around 50. North wind 5 to 10 mph.
Sunday: Mostly sunny. Highs 80 to 85. North wind 5 to 10 mph.
Sunday Night: Clear. Lows around 50. North wind 5 to 10 mph.
Monday: Sunny. Highs around 90. Light wind.
Monday Night: Mostly clear. Lows around 50.
Tuesday: Mostly sunny. Highs around 85.
Tuesday Night: Mostly clear. Lows around 50.
Wednesday: Mostly sunny. Highs 80 to 85.
Wednesday Night: Mostly clear. Lows 45 to 50.
Thursday: Partly cloudy in the morning...then mostly sunny. Highs 80 to 85.
Thursday Night: Mostly clear. Lows 45 to 50.
Friday: Mostly sunny. Highs around 80.

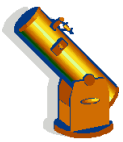
Sharpless 171/NGC 7822 and Berkeley 59

by Brandt Schram

In early September, Brandt Schram spent several nights capturing this beautiful image. He writes: "As I understand it, from our perspective we are peeking through a hole in the gas bubble being formed by the hot young cluster. The black section left of center is gas and dust in the foreground and the teal/blue is the background forming the far side of the bubble.

"The colors are mapped using the Hubble palette as SII-Red, Ha-Green and OIII-Blue.

"The exposure times were 5 hours of Ha and 12 each of SII and OIII with all frames shot as 20 minute subs binned 1x1 (.63 arcsec) over 5 nights with a very bright moon. Images were acquired using CCDAutoPilot, Maxim and TheSkyX. Processing in PixInsight and PS5."



Observing in October


Last Q


New


1st Q


Full

October 8	October 15	October 21	October 29
Mercury Set: 7:15 PM	Mercury Set: 7:09 PM	Mercury Set: 7:03 PM	Mercury Set: 6:55 PM
Venus Rise: 3:53 AM	Venus Rise: 4:08 AM	Venus Rise: 4:21 AM	Venus Rise: 4:39 AM
Mars Set: 8:31 PM	Mars Set: 8:20 PM	Mars Set: 8:11 PM	Mars Set: 8:01 PM
Jupiter Rise: 9:21 PM	Jupiter Rise: 8:57 PM	Jupiter Rise: 8:32 PM	Jupiter Rise: 7:59 PM
Saturn Set: 7:22 PM	Saturn Set: 6:57 PM	Saturn Behind Sun	Saturn Rise: 7:22 AM
Uranus Set: 6:36 AM	Uranus Set: 6:06 AM	Uranus Set: 5:42 AM	Uranus Set: 5:09 AM
Neptune Set: 3:31 AM	Neptune Set: 3:03 AM	Neptune Set: 2:39 AM	Neptune Set: 2:07 AM
Pluto Set: 11:12 PM	Pluto Set: 10:45 PM	Pluto Set: 10:21 PM	Pluto Set: 9:50 PM

All times: Pacific Standard Time (Nov 4, 2012-March 10, 2013) = UT -8 hours or U.S. Pacific Daylight Time (March 11-November 3, 2012) = UT -7 hours.

Date	Moonrise	Moonset	Sunrise	Sunset	Twilight Begin	Twilight End
10/1/2012	19:26	08:52	07:11	18:52	05:35	20:28
10/2/2012	19:59	09:52	07:12	18:50	05:36	20:26
10/3/2012	20:35	10:51	07:13	18:49	05:37	20:24
10/4/2012	21:16	11:46	07:14	18:47	05:38	20:23
10/5/2012	22:03	12:38	07:16	18:45	05:40	20:21
10/6/2012	22:55	13:25	07:17	18:43	05:41	20:19
10/7/2012	23:51	14:07	07:18	18:41	05:42	20:17
10/8/2012		14:45	07:19	18:40	05:43	20:15
10/9/2012	00:51	15:19	07:20	18:38	05:44	20:14
10/10/2012	01:54	15:50	07:22	18:36	05:46	20:12
10/11/2012	03:00	16:20	07:23	18:34	05:47	20:10
10/12/2012	04:08	16:49	07:24	18:33	05:48	20:08
10/13/2012	05:19	17:19	07:25	18:31	05:49	20:07
10/14/2012	06:33	17:52	07:27	18:29	05:51	20:05
10/15/2012	07:48	18:28	07:28	18:28	05:52	20:03
10/16/2012	09:04	19:10	07:29	18:26	05:53	20:02
10/17/2012	10:19	19:59	07:30	18:24	05:54	20:00
10/18/2012	11:28	20:56	07:32	18:23	05:55	19:59
10/19/2012	12:29	21:59	07:33	18:21	05:57	19:57
10/20/2012	13:21	23:07	07:34	18:19	05:58	19:56
10/21/2012	14:04		07:35	18:18	05:59	19:54
10/22/2012	14:40	00:16	07:37	18:16	06:00	19:53
10/23/2012	15:11	01:24	07:38	18:15	06:01	19:51
10/24/2012	15:40	02:30	07:39	18:13	06:02	19:50
10/25/2012	16:06	03:35	07:41	18:12	06:04	19:48
10/26/2012	16:33	04:38	07:42	18:10	06:05	19:47
10/27/2012	16:59	05:41	07:43	18:09	06:06	19:46
10/28/2012	17:28	06:42	07:45	18:07	06:07	19:44
10/29/2012	17:59	07:43	07:46	18:06	06:08	19:43
10/30/2012	18:34	08:42	07:47	18:04	06:10	19:42
10/31/2012	19:14	09:39	07:48	18:03	06:11	19:41

All times are for Eugene, Oregon, Latitude 44º 3' Longitude 123º 06' for listed date

Items of Interest This Month

Good month for Vesta and Ceres (near Jupiter)
10/6 Io shadow transit 11:40 pm – 1:49 am
10/14 Io shadow transit 1:33 am – 3:42 am
10/17 Europa shadow transit 9:14 pm – 11:37 pm
10/19 First Quarter Friday Star Party
10/18-10/22 Mars near Antares
10/20-10/22 Orionid meteor shower
10/22 Io shadow transit 9:55 pm – 12:05 am
10/24 Europa shadow transit 11:50 pm – 2:13 am
10/29 Io shadow transit 11:49 pm – 1:59 am
10/30 Ganymede shadow transit 11:38 pm – 1:40 am
Late October/Early November: Taurid meteors

For Current Occultation Information

Visit Derek C. Breit's web site

"BREIT IDEAS Observatory"

http://www.poyntsource.com/New/Regions/EAS.htm

Go to Regional Events and click on the Eugene, Oregon section. This will take you to a current list of Lunar & asteroid events for the Eugene area. Breit continues to update and add to his site weekly if not daily. This is a site to place in your favorites list and visit often.