Someplace up there is a Red Spot – I think it's the little cloudy patch.
(Photo by Gary Garzone)

Longmont Astronomy Society Newsletter
July 2007

From the President:

Hello astronomers,

The home planet stellar views have been good to us this past month. Heat wave going on in Colorado, good reason to head north to Fox park for new moon adventures once again. On the new moon dark sky weekends ,we always play the weather game, should I stay or should I go now?? I always figure you just go for it, if it rains, at least we tried. The weather outlook was bad but we headed for Fox park anyway. Friday it rained heavy at times till about 11 PM, looked totally socked in. Dan L knocked at my motor home door at 11PM or so and said how come we were not out looking yet? We went outside and it had started to clear, and by the time I pulled the soaked covers off scope and mopped up the water inside the bottom, it was almost totally clear. We managed to stay up till past 3 AM, pretty good after all that rain we had earlier, who would have guessed it would clear up so nicely. Heavy dew was a problem, but Vern saved the day with a tent heater, just hold up to secondary for several minutes and it heats up the diagonal enough for another hour or so. Works way better and faster than anything else I have ever seen. Kendrick heaters are fine but you need to connect wires and batteries

Vern R. and Dan L. both found comet 2006 VZ13 (Linear), about 9th mag but seemed way brighter in the darkness of Fox park. In the 30 scope it looked awesome, greenish color can be seen in Vern's picture he took that night. We all found comet after that, good to have something new to hunt down.

Old friend Dave Dunn showed up with ATM 8 inch he bought from some guy. Motor drive and all hand made, pretty good job. Dan Laszlo also bought new 25 inch scope, Obsession from old Bob Luffell scope? Bob Ross first had? Hey old timers , ring some bells from the past. Marty Curran brought his new 20 inch Telekit, very awesome , it was looking like big dob valley, along with Mike Roo's 16 inch, , Dan's 9 1/4 inch, Vern's 11 inch, John's 10 inch, Dave D 8 inch, plenty of aperture for the night.

John Fijoski, Mike Roos, Marty Curran , Dave Dunn, Dan Laszlo, Dan Lafaive, Vern Raben, Derik, Carol and myself had a pretty good weekend. We had the entire east field for just us astronomers, no 4 wheelers. The place has become popular for more than astronomers. Heck, I consider it our space and anybody else is trespassing. Reality is we need our own space someday, Or lease a private piece of land for astronomers only. Dark sky spoiled we are, I did not drive that far for campers with lights. The bugs did not bite so bad this past trip. The month before they could have carried you away. Low temperature of 33 Friday, Saturday was 29 degrees with frozen dew on scope at 3 AM.

Well at 3 AM I was saying one more good one, then well another, probably did 20 more objects, 4 AM then. Starting to get light in the east, time for bed. Wow - great new moon night at my favorite dark sky place.

See you at Fox Park next month for WUTS weekend under the stars new moon adventures. This is one of our favorite star parties of all. If you have never seen the Milky way at 9200 feet elevation in clear dry transparent skies, you have not done it all. Worth the long drive. Thanks to Marty and Marcy Curran and gang who have kept this going all these years for all to enjoy.

I went 4 wheeling with my small quiet ATV , Moose hunting with my camera, and wow!! Moose found Friday and Saturday nights at dusk about 3 miles from camp. I even got pictures, Way cool to see a huge animal like this just hanging out in the wilds. He

was in the very marshy and moraine areas, just off the tree lines into valleys. Very hard to find them. My persistence paid off. I was looking last month but missed them. Just got to keep trying, and sometimes I just get lucky.

Boy scouts are still looking for Volunteers to sign up. We need construction design and ideas, all thoughts are welcome, we are still trying to plan dome and budget . We need to keep this going for Kirk and Scouts. I was hoping to get something built before winter?

We are heading to Fort Carson astronomy night, July 27th, Friday night only. It's for soldier's children who are here in Colorado , soldiers away in middle eastern countries, Iraq, etc. We need some volunteers, but you should have already signed up for clearance, before hand. Dead line is over, hope a few will help me out, or should I say help out the kids?

Perseids meteor shower is on WUTS week. This is supposed to be a good meteor shower, maybe best of the year? Keep looking up those nights, (Aug 12-13) you might just see some.

We are looking for guest speakers or volunteers for LAS talks, know somebody who is willing and we will lend a ear. Help me out, everybody knows somebody in astronomy world here in Colorado, . See you all at next new moon dark sky adventures, which will be at WUTS weekend. There is no preregistering necessary, be there if you can, this is extreme astronomy at it's best, bring warm clothes, it's cold at nights up there. Watch out for my moose, he lives there too. Bye, Gary

Volunteer Opportunity:

#1: For those members who have some time on their hands, the Galaxy Zoo project out of Oxford University in England needs some help. They've got about a million pictures of galaxies, and the computer program that was supposed to analyze them couldn't do the job. If they can get 10,000 volunteers, it will all be done in a couple of months (you watch, they'll add more pictures…) Go to http://www.galaxyzoo.org/ take the tutorial and the practice test (I hate to brag, but 15/15!) and help them out. This just started on July 11th, so it will be all over by the time it shows up in the Astronomy magazines. OK, I did a couple of dozen – the images are very fuzzy, look like enlargements from the Hubble Ultra Deep Field or someplace. When the images of galaxies get pixilated on the edges, you start consulting the crystal ball. A couple other LAS members emailed me with the same comment. Incidentally, I had a student who did this for the SDSS for a couple of years to work her way through the University of Michigan.

#2: See Gary's mention above about volunteers to design/build the observatory for the Boy Scout Camp. If you've always wanted to build your own observatory in the back yard, this will give you a chance to experiment on someone else's dime! And maybe you can learn something along the way, like how to avoid the mistakes we made building it.

In the sky this month: A good month for watching the skies.

Meteor Showers - This is the year for the Perseids, and there's a New Moon at the peak. Now for the clear skies…. The Perseids start the end of July, and continue thru at least August 24, with the peak on August 12-13. Best observing is just before dawn… More details are at http://science.nasa.gov/headlines/y2007/11jul_greatperseids.htm?list937934 There's a

few Delta Aquarids passing through your field of view also. Pack along the quart of DEET, find a dark spot, and lay out with your eyes to the heavens. If you want to do a "scientific" meteor count, check out www.skyandtelescope.com > Observing > Celestial Objects > Meteors for details – this is probably the best meteor shower to give that kind of stuff a try.
Lunar Eclipse – closing out the month on August 28th. Have to get up early to watch – begins at 2:52 MDT, and the Moon will set just about at the end, so the mountains will start getting in the way about 5AM or so.

Planets:
Mercury – very low in the East at sunrise to start August, then drops out of sight. Superior conjunction on the 15th of August.
Venus - fading in the evening sky, only 26 up in the Western sky at the end of July, then declining fast to the inferior conjunction with the Sun on the 18th of August. By the end of August, it's now a morning star!
Mars – finally reaching some decent visibility, rises at 1 AM the beginning of August, passing the Pleiades, then moving into Taurus. Opposition and best viewing in mid December.
Jupiter – brighter and brighter in the south at twilight in Scorpius. Good time to watch the retrograde motion with binoculars, and you should make a sketch instead of "remembering". Still good views (maybe Gary will finally get the Red Spot in the camera?) as we pull away in orbit.
Saturn – sinks into the sunset at the beginning of the month and out of sight for the month.

Comets: Linear is fading fast, way past the best seeing.

Asteroids: Vesta is magnitude 7.2 and passes 0.4" north of Jupiter on August 29th for easy viewing. Check and sketch the day before and after for the record.

Interesting Stars/Galaxies – listen to Vern's talk at the July 19th meeting for the late summer viewing sights.

Club Calendar:
July: Meeting: 19th – Topic: Summer observing by Vern Raben.

We are also doing the Fort Carson kids astronomy night on July 27th. You need to be signed up for pre check clearance to go, for kids and security reasons.

Aug: New Moon: 11th – Fox Park Weekend August 9-11
Meeting: 16th – Topic TBA

Other Calendars:
Weekend Under the Stars – near Fox Park, Wyoming on August 9-12. Contact Marty Curran 307-635-5944 or curranm@bresnan.net Website at home.bresnan.net/~curran

Fiske Planetarium:

Internet Resources:

http://www.nasa.gov/mission_pages/cassini/main/index.html Some image processing wizardry from the Cassinni mission has shown Saturn's moon Hyperion to have a whole bunch of mixed organic / hydrocarbon materials on the surface. Implications of "just how common are these things in the universe?" will come to mind. I think scientists are beginning to regret the choice of orbits of the Cassinni mission, where the orbiter visits Titan most of the time and ignores the other moons. Hyperion was passed only once in 2005, and this imagery is from that pass.

That led to the discovery of the Space Science Institute http://www.spacescience.org/index.php on Walnut east of Foothills Parkway in Boulder, which does the imaging for the mission. They have some nice stuff on their website.

The "Amateur Astronomer's Introduction to the Celestial Sphere" is a new book that was ripped by a reviewer, forcing the author to correct some pieces and put them online. You can try the "Lab Manual" for the book at http://www.cambridge.org/resources/052167123X/3707_Chapter8_workbook_2.pdf

This month's field trip:

The National Museum of the Air Force **http://www.nationalmuseum.af.mil/** at Wright-Patterson Air Force Base on the east side of Dayton, Ohio is one of the prime viewing sites for plane junkies. Imagine standing in one spot and seeing a B-52, a B-58, a B-36, B-29, B-25, B-1, B-2 (one mean looking machine…) – and those are just some of the bombers! There's a hangar full of WWI and WWII planes for the historical crowd, and some space things for the modern buffs – this is where you can add the Apollo 15 to your "I saw it" collection, which is why I went. For the older Cold War fans, this is the only time I ever saw a Bomarc missile – other than the model I had hanging from my bedroom ceiling back on the farm, that is. You'll like the pricing – free admission, free parking – your tax dollars at work. How can you beat the deal? Allow a half day and take your camera. Great gift shop, too.

Exciting extension: If you're a fossil nut, check with me about the places in the vicinity. Lots of mid-Devonian branchiopods. ("clamshells" to the stargazers)

Upcoming Space Missions:

The Phoenix Lander Mission is slated to depart for the polar cap of Mars during the first weeks of August. Made from leftover parts from cancelled missions, the lander will stay in place, dig trenches, and analyze the chemistry of the polar area. Plans are to keep working through a Martian year and measure the climatic changes. Websites are:

http://phoenix.lpl.arizona.edu/ (main site) and **http://mars.jpl.nasa.gov/** the latter site also has the pictures and most recent data from the "senior citizens of the Solar System", Spirit and Opportunity.

The Japan Space Agency has Selene ready to launch in mid-August. Selene is slated to survey the polar regions of the Moon, doing a global survey and some mineralogical work. Website is **http://www.isas.ac.jp/e/enterp/missions/selene/index.shtml** , and a knowledge of Japanese is not required for the site.

Telescope Trivia: (new department suggested by Vern)

When I set up my telescope for tracking, the Celestron handcontrol gives suggestions as to what stars to use for alignment. Late at night this time of year the default is often the star "Navi". Curious as to where the star "Navi" was, I searched a bit on the Internet to see in which constellation it was located. The star "Navi" is "Gamma Cassiopeia", the middle of the star of the Cassiopeia "W" or "M" asterism. The origin of the name is quite interesting. During training for the Apollo missions to the moon, the astronauts needed to learn about celestial navigation so that they could periodically make adjustments to the inertial guidance system. Apollo 1 crew member Gus Grisholm changed the names of 3 stars on the charts they were using for training. Nobody at NASA noticed and the names were used for the remainder of the program. The star "Navi" is Grisholm's middle name, "Ivan", spelled backwards. He renamed "Iota Ursae Major" to be "Dnoces". "Dnoces" is "second" spelled backwards and refers to fellow astronaut Ed White II who was the second man to walk in space. The bright star "Gamma Vellorum" was named "Regor" for the third crew member, Roger Chaffee.
Sadly, they were all killed when a fire occurred during a launch simulation on January 27, 1967 at sunset.

So – what you got for us in August, Vern?