



Tiny Little Crescent Moon

Longmont Astronomy Society Newsletter
May 2008

From the President:

Our next meeting is this Thursday, May 15, at 7 pm. The speaker will be Dr. Fran Bagenal, Professor Astrophysical and Planetary Sciences and Laboratory for Atmospheric and Space Physics at the University of Colorado. Her presentation will be about NASA's New Frontiers Juno Mission to the magnetosphere of Jupiter. The Juno mission will conduct an in-depth study of Jupiter. Juno's goal is to understand the origin and evolution of the gas giant planet, which will pave the way to a better understanding of our solar system and other planetary systems being discovered around other stars.

Since last month we've been pretty busy supporting local school star parties. The Twin Peaks Charter Academy star party at the Hamm Nature Area was a nice location and reasonably dark. The kids were very enthusiastic and asked lots of great questions. The Cub Scout star lab event at St. Stephens Episcopal Church was the most brightly illuminated star party we've done thus far. It was very difficult to show anything but Saturn with a street light 30 feet away! The Lyons Elementary school star party last Friday was a great success as well. Special thanks to volunteers Gary Garzone, Andrew Planck, John and Jamie Warren, Glen Frank, Mike Hotka, Jim Holder, Ken O'Toole, Leonard Sitongia, Shawn Curry, Kirk Johnson, Marc Wiley, Julie Carmen, Ray Warren, Steve Hartung, Bill Possel, Stan Jarret, and J.D. Birchmeier. I know I've forgotten at least 4 or 5 others --- my apologies, I didn't keep notes.

The last school star party for this school year will be the "Reach for the Stars" event at Platte Valley Elementary, 601 Clark St., Kersey, CO, this Friday, May 16 from 6:30 to 9:30 pm. About 400 people are expected so scopes and volunteers are needed!

Spring seems a couple weeks later this year, but the leaves on the trees are finally coming out and the night time temperatures are warmer. About a dozen folks drove out to Roland's Astro Corral to view the galaxies in Virgo and Coma Berenices. The ring nebula M57, Hercules Cluster M13, and M3 were fascinating to view as well. It was a quite splendid night with almost no wind and mostly clear skies after 10.

The LAS website "Area Star Parties and Locations" pages have been updated and now include links to nearby webcams, weather reports, maps, and directions for Fox Park and RAC. [Check it out.](#)

In the sky this month

Meteor Showers: nothing major

Planets(Borrowed from Vern)

Mercury is visible in the northwest after sunset. It is +0.9 magnitude in brightness

Venus – opposite side of the Sun

Mars is visible about midway up in the western sky after sunset in the constellation Cancer. It is magnitude +1.4 in brightness and its disk is 5.3 arc sec in diameter. It is 91% illuminated. Distance is 165 million miles.

Saturn is visible in the early evening in the south-southwest in the constellation Leo. It is magnitude +1 in brightness and its disk is 18.2 arc sec in diameter. Distance is 853 million miles.

Jupiter rises a few minutes after midnight and may be seen low in the southeast in the constellation Sagittarius. It is magnitude -2.3 in brightness. This puts it straight south at dawn, so take a look.

Club Calendar:

Upcoming Star Parties:

Nebraska from July 27th through Aug 1st in Valentine, NB.

<http://www.nebraskastarparty.org/>

Panhandle Astronomy Club in Nebraska on May 29 – June 1 in ScottsBluff (right next door). Details at: www.panhandleastronomyclub.com

Western Colorado from June 6-8 in the Colorado National Monument. Details at

<http://www.wcacastronomy.org/page6.html>

Fiske Planetarium:

Public shows return on June 5. They're running a kid's camp this June designed for the younger set, so if you're interested, check that out....

Thursday, 6.5.08, at 8:00 pm **Colorado Skies: New Horizons Mission Update**

Friday, 6.6.08, at 8:00 pm **Deep Impact Mission Update**

Friday, June 13: **Poor, Pitiful Pluto: Planet No Longer?**

Internet Resources:

Mystified about black hole jets? <http://www.space.com/scienceastronomy/080428-mm-black-hole-blazar.html> has the whole thing, but it's basically particles being accelerated in a spiral magnetic field – heck, that's no big deal! It's pretty cool how the particle jets come out at the poles of the black hole, reach nearly the speed of light (now that's some acceleration) and reach out a hundred thousand light years or so.... Astronomers have been taking the pictures for about 50 years, stretching back all the way to the discovery of quasars, now they have a mathematical model that works.

Catch the satellite view of the typhoon damage in Burma at <http://www.astronomy.com/asy/default.aspx?c=a&id=6925>

From the Space Weather Workshop in Boulder (maybe get these guys for a meeting?) comes a 4D flight through the ionosphere at <http://www.astronomy.com/asy/default.aspx?c=a&id=6920>

New online tools: Get all the satellite passes, including the ISS, at <http://spaceweather.com/flybys/> Just another service of spaceweather.com, along with the current sunspot info.

Most of the computer using astronomy buffs are familiar with the Google Sky application that lets you do astronomy, zooming in on those Messier objects, etc. Now Microsoft has come out with its version at www.worldwidetelescope.com Go give it a try. A rapid looksee shows that you need a PC running at 2GHz or better, 1 gig of RAM. Since I'm using the wife's old computer when mine broke, that's not going to make it.

Upcoming Space Missions:

The space shuttle Discovery is slated to launch around May 31 on a mission to install the Kibo laboratory and move a storage module. Getting a lot more space on the ISS to do experiments.

NASA's Phoenix lander is getting ready to touch down on Mars and begin an unprecedented investigation of the Red Planet's arctic realm Details at: http://science.nasa.gov/headlines/y2008/13may_phoenix.htm?list937934

Phoenix mission update: The Phoenix mission to the north pole of Mars in a search for life is scheduled to land on May 25th. NASA's Jet Propulsion Laboratory in California will be conducting a live webcast for schools on **Thursday, May 22, at 9:00 a.m. PDT (12:00 p.m. EDT)**. This webcast will preview the events of the entry, descent and landing, the path to Mars so far, and the science mission.

Appropriate for 4th- through 12th-grade classrooms, the program will feature information and video clips for 30 minutes. Four selected schools connected through the NASA Digital Learning Network will engage in Q&A with JPL staff for an additional 20 minutes.

For information on how to view the webcast live, visit <http://dln.nasa.gov/dln/content/webcast/>. Even if you're not a school, just go on and watch the action. If you've got the NASA channel on your cable, it will probably be on there, too.

New Missions:

CU TEAM TO BUILD \$34 MILLION INSTRUMENT

PACKAGE FOR U.S. ENVIRONMENTAL SATELLITE

A \$34 million solar instrument package to be built by the University of Colorado at Boulder, considered a crucial tool to help monitor global climate change, has been restored to a U.S. government satellite mission slated for launch in 2013.

The package will be built by CU-Boulder's Laboratory for Atmospheric And Space Physics for the first flight of the National Polar Orbiting Operational Environmental Satellite System, or NPOESS. The instrument package had been canceled during the 2006 restructuring of the NPOESS program, a joint venture of the National Oceanic and Atmospheric Administration, NASA and the Air Force.

Known as the Total Solar Irradiance Sensor, or TSIS, the CU-Boulder Package will fly on the first flight of NPOESS in 2013 and is anticipated to fly on two subsequent NPOESS missions slated for 2015 and 2020. The two latter NPOESS missions are expected to bring in an additional \$30 million to CU-Boulder, said LASP Senior Researcher and TSIS Project Manager Tom Sparn.

In the News:

Most recent Milky Way supernova found: Astronomers have long thought that supernovas explode two or three times a century here in the Milky Way. They arrive at that figure by watching other galaxies similar to our own, and counting the stars as they explode. But this leads to a mystery: The last time anyone actually saw a supernova explode in the Milky Way was the year 1680, almost 330 years ago. So where are the Milky Way's missing supernovas?

At long last, one of them has been found. Details at http://science.nasa.gov/headlines/y2008/14may_galactichunt.htm?list937934 There will be more on this supernova when Chandra and other telescopes get done analyzing....

Weather report: the lightning storm that Cassini spotted on Saturn five months ago is still going strong. Still not big enough to show up in any of Gary's pictures....

Humor Dept: From the 1982 Deep Sky Monthly



<u>What They Say:</u>	<u>What They Really Mean:</u>
It is a difficult double star.	If you see two stars, it is probably wishful thinking.
This is a test for a 4" telescope.	Use a 10" and maybe you'll see it.
An experienced observer can detect the star's variability.	If you haven't been observing for at least ten years, don't try it.
The color contrast is striking.	One star is white, the other is white.
The spectrum is unusual.	I can't understand it.
The ideal book for an amateur.	Brush up on your math.
The cluster has over two hundred stars.	I counted twenty-five with a 10" telescope.
The slightest haze will obscure it.	You probably won't see it on the clearest night.
The telescope's optics are superb.	They magnify atmospheric disturbances perfectly.
The site offers clear skies year round.	It is two hundred miles from civilization.
A person with average eyesight can split this pair.	Over half the world is blind.
If it is cloudy, other activities are planned.	Let's gobble down some pizza and swill beer.
Observations were terminated at 2 AM because of haze.	I got cold and sleepy, and I ran out of Vanilla Wafers.
"Uh, that's neat." (Spoken by your non-astronomer neighbor after being shown M31).	"How much did you say you paid for this thing?"
I think it is only the wind in the trees or a cow in that field or something.	It will probably eat me and then march on Tokyo.
After moonrise, members ceased deep-sky activities and enjoyed pleasant views of the moon.	Everybody (a) cursed, (b) seared their retinas before packing up, and (c) went home.

I found the views provided by the 2-meter to be very pleasing

**Wow! Would you look at that!
Kowabunga!**