

Mercury by Messenger

**Longmont Astronomy Society Newsletter
October 2008**

From the President:

Our next meeting is on this Thursday, Oct. 16th at 7 pm in Community Room at the Front Range Community College.

I wasn't able to schedule a guest speaker, so by default it will be me. The presentation will be about the software tools and techniques I use to produce the weekly "Sky this Week" videos. We'll also discuss some things to see up in the sky over the next few weeks and show some great images.

Please give some thought about volunteering to be LAS officer in 2009. All positions are open for election each year. Nominations for next year's officers will be at the November 20th meeting and the election will be at the December 18th meeting.

LAS has always had a great group of volunteers who provide their time and labor to operate the club and provide equipment and expertise for local star parties and events for schools and other organizations. We also support our parent organization, the Astronomical League in a big way. Terry Frazier is an assistant editor for the quarterly publication of "The Reflector". Mike Hotka is chair of the Globular Cluster Observing club and maintains the database for all the other observing club awards. Five of the seven members of the Astronomical League web team are LAS members (Mike Hotka, Mike Joosten, Brian Simpson, Wayne Green, and myself). Thanks to all who have contributed their valuable spare time to promote amateur astronomy at both the local and the national level!

The more effort you put into any endeavor the more satisfaction you get from making a contribution. Please volunteer to help!

Crow Valley Observatory Update:

The Longmont Astronomy Club is requesting a special use permit from the U. S. Forest Service for a night sky observing area at the Crow Valley Recreation Area near Briggsdale, CO. Please send letters of your personal support for such an area to:

USDA Forest Service
Pawnee National Grasslands
660 "O" Street
Greeley, CO 80631

This is really important and necessary for us to get the site.

In the sky this month:

Meteor Showers – the Orionids peak on October 21st, 20 per hour.

November begins with the peak of the Taurid meteor shower. Although this display generally produces rates of only 5-10 per hour when it peaks around November 4/5, it is notorious for spectacular fireballs that have led many astronomers to believe the meteor stream contains a large population of large pieces generally not present in other showers. The [Leonid](#) meteor shower peaks around the time of November 17/18. This display actually made the news from 1999 to 2002, when it produced rates of several hundred to

several thousand per hour. But, alas, these times are over and the shower has dropped back to its normal mode of producing rates of 10-15 per hour at maximum.

Planets

Mercury; low in the east at sunrise, magnitude -0.9 on November 1st.

Venus: Low in the west at sunset

Mars: very low in the west at sunset and lost in the mountains

Jupiter: still the king and very bright in the southwest at sunset. Venus will approach in late November for a nice conjunction.

Saturn; getting better, low in the east at sunrise

Comets:

Periodic comet Boethin will return mid November, magnitude 8 predicted, passing a few degrees south of M72 and M73.

Interesting Stars/Galaxies: Astronomy magazine gives the directions for seeing 7th magnitude Vesta during November. Other binocular highlights are M2 in Aquarius and M15 in Pegasus, magnitude 6+ for both.

Club Calendar:

Time to do the Great Worldwide Star Count again – the second annual “prove the skies are getting worse” data taking event. Get the directions at http://www.windows.ucar.edu/citizen_science/starcount/ then go outside and take a look. For challenged observers, get someone to help you with the higher numbers. Or even easier, count in the middle of Longmont, where you won't see any. Or maybe in the middle of the softball diamond at Sandstone Ranch?

November 20: Monthly meeting at FRCC Community Room, 7:00

Fiske Planetarium:

7:30pm Tuesday, October 21 -- LIVE TALK in SPANISH: "Charlas de las Estrellas: Vida en otros Planetas" with Tito Salas. Explore the possibility of life beyond Earth, especially on Mars or in orbit around other stars.

7:30pm Thursday, October 23 & Friday, October 24 -- LIVE TALK: "Beyond UFOs" with noted author Dr. Jeff Bennett -- Consider extraterrestrial life with this former CU faculty member as he shows how astrobiology seeks evidence of alien life.

2:00pm Saturday, October 25 -- LIVE BOOK READING & SIGNING: "Max Goes to Jupiter" with authors Dr. Jeff Bennett, Dr. Erica Ellingson & Dr. Nick Schneider! Dogs and kids of all ages are welcome as the authors read their story, bring their dogs to pet, and sign your books!

7:30 Thursday, November 6 **CO Skies: Galaxies (Justin Searles)**

7:30 Friday, November 7 City of Stars

7:30 Thursday, November 13 CO Skies: Extraterrestrial Life (Matt Benjamin)

7:30 Friday, November 14 Many Faces of Hubble

7:30 Thursday, November 20 CO Skies: New Horizons Mission Update (Addie Dove)

7:30 Friday, November 21 Deep Impact with Live Update

Ask for an "Adult Free" coupon at Fiske's ticket window! Anyone under age 18 with paid admission qualifies to bring an adult to Fiske at no cost! You are welcome to photocopy and use these coupons until December 31, 2008.

You may download Fiske's FALL 2008 schedule from our website at <http://fiske.colorado.edu/> -- it is directly under the Astronomy Picture of the Day on the right side of the page.

Internet Resources:

The cover story of the November National Geographic is on the "End of Night" - how the dark skies are disappearing. Check out the info at <http://ngm.nationalgeographic.com/2008/11/light-pollution/klinkenborg-text> and go to the library if you're not a subscriber to see all the pretty pictures.

SOHO celebrates 1500th comet discovery

It's the most successful comet catcher in history. SOHO has just reached a new milestone: It has discovered its 1500th comet, making it more successful than all the other discoverers of comets throughout history put together. You can watch a SOHO comet movie at

http://sohowww.nascom.nasa.gov/bestofsoho/Movies/2comets_C2/2comets_C2.mov this one features two at once!

Sun isn't a perfect sphere! Well, it's almost... Story at http://science.nasa.gov/headlines/y2008/02oct_oblatesun.htm?list937934
Speaking of the Sun, it's been really blank lately.

Received a notice from Richard Greenberg, Lunar and Planetary Laboratory at the University of Arizona, about his new book *Unmasking Europa*. Looks pretty good, covers the discoveries about Jupiter's second wildest moon. About \$15 on Amazon, so I ordered one.

The Internet Archive, (a nonprofit digital library) is working with NASA to create NASA Images, a single searchable collection of the whole 50 years of photographs, film, video, and science images. A test look showed some promising results. Try it for yourself at <http://www.nasaimages.org/> and hit that search box with something weird.

Messenger visits Mercury (cover story)

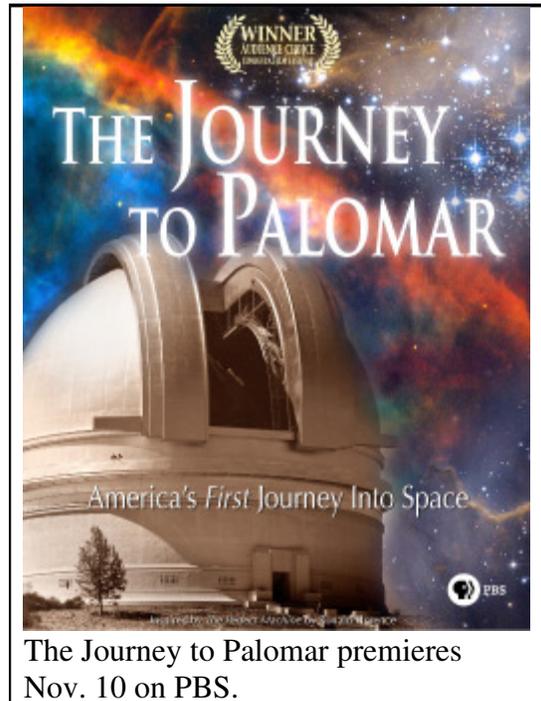
On October 6, Messenger passed Mercury once again, adding another 30 percent to the library of surface pictures. You can read the brief overview at http://science.nasa.gov/headlines/y2008/07oct_firstresults.htm?list937934 and access the newest pictures at http://www.nasa.gov/mission_pages/messenger/multimedia/index.html

Look for the stream of “discoveries” to follow. Messenger will finally settle into orbit around Mercury in 2011 – this gravitational orbit maneuvering does take a bit of time.

TV Tip:

The Journey to Palomar Premieres on PBS

The new primetime PBS documentary on the history of the famed Palomar Observatory will premiere November 10, 2008 (check local listings). The DVD will be available from PBS Home Video simultaneously with the broadcast and includes special features on three future giant telescopes: NASA’s James Webb Space Telescope, The Carnegie Observatories’ Giant Magellan Telescope and Caltech’s Thirty-Meter Telescope. A comprehensive Teacher Guide accompanies the documentary, available for free download from pbs.org. A nationwide live NASA student webcast on October 8th, 2008 will feature the top astronomers from these future telescope projects. For more on the webcast, go to www.journeytopalomar.org.



Upcoming Space Missions:

Hubble mission: with the demise of the communications on the Hubble, the mission has to be re-evaluated to see if the astronauts will replace the broken unit. The retraining and evaluation will take awhile, so look for the Hubble mission to fly in maybe March? Meanwhile, the shuttle Endeavour is released from its backup duties for the Hubble mission and STS-126 is slated to go to the ISS in November. Endeavour will carry a reusable logistics module that will hold supplies and equipment, including additional crew quarters, additional exercise equipment, equipment for the regenerative life support system and spare hardware.

Expedition 18: Replacement crew of Commander E. Michael Fincke, Flight Engineer Yury V. Lonchakov and spaceflight participant Richard Garriott will launch to the station on Oct. 12, 2008.

Expedition 18 Crew Docks with Space Station

Commander Edward Michael "Mike" Fincke and Flight Engineer Yury Valentinovich Lonchakov of the 18th International Space Station crew docked their Soyuz TMA-13 to the Earth-facing port of the Zarya module at 4:26 a.m. EDT Tuesday, 10/14.

2008 October 22 - Chandrayaan 1 - Launch of ISRO (India) Lunar Orbiter

Next Year: the International Year of Astronomy

Sponsored by the Astronomy Society of the Pacific, join amateur astronomers around the globe as together we connect millions with the universe. It has been 400 years since Galileo first pointed his telescope to the sky and opened up a whole new universe to us. Share the

excitement of Galileo's discoveries and engage your visitors in this worldwide celebration. We're not going to have a problem with this, we do enough outreach to do our part, easy.

NIGHT SKY NETWORK: <http://nightsky.jpl.nasa.gov/> for the details.

On October 31st, these resources will be unveiled. Watch for the announcement. You can preview the January IYA Discovery Guide here: http://nightsky.jpl.nasa.gov/download-view.cfm?Doc_ID=300

- Monthly IYA Discovery Guides - Internationally accessible and complete with articles, activities, and finder charts
- A fully searchable online database of Night Sky Network activities and other astronomy resources, many accompanied by online videos
- A calendar of worldwide and nationwide astronomy events for your club to become a part of
- Ways to get more of your club members involved
- Free NASA handouts to active NSN clubs
- Monthly telecons for NSN members on the monthly IYA Themes
- And more goodies for your club throughout the year

> November Telecon with Sue Ann Heatherly

Save Tuesday, November 18th for our next Night Sky teleconference: "How to make an Itty Bitty (sidewalk) Radio Telescope" with speaker Sue Ann Heatherly. Ms.

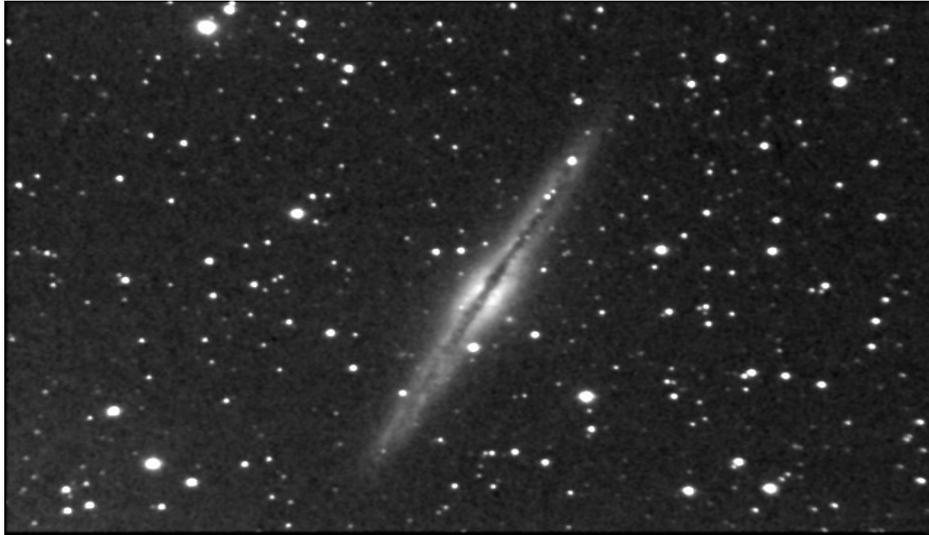
Heatherly is the Education Officer of the National Radio Astronomy Observatory (NRAO) at Green Bank, West Virginia. Sue Ann has been with the NRAO since 1989. Those of you tired of lugging that big optical tube around might want to watch. Contact Birch if you need some help with the electronics part. I've got friends who built bigger radio telescopes in their back yard. Or maybe join up with the radio astronomers on the mountain?

This Month's Wacky Idea:

A 3 Million dollar overhead projector? The Adler Planetarium currently is using a 40 year old Zeiss projector in its planetarium – so old, they no longer make parts for it. Currently, the staff dodge questions about Jupiter (Jupiter is broken and unfixable). The Illinois delegation snuck an earmark into an appropriations bill to fund a new one, with another 7 million to be provided by the Planetarium. The appropriation was denied, incidentally – in spite of what Senator McCain said in debate #2. You can read the Adler statement and look at its old projector at <http://www.adlerplanetarium.org/home.shtml> If the spirit moves you, donate some loose change. (Boy, those things are pricey....)

Editor's Note: Normally, I don't do any political commentary in the newsletter, but this is astronomy! And I've used a 40 year old Zeiss projector at Henry Ford Community

College in my previous life as a science teacher. And our Jupiter worked.... (I spent a lot of time getting it on the right year, since the directions had been lost about 20 years before – we had Jupiter, but in the wrong part of the sky; and the astronomy teacher couldn't figure it out).



NGC 891 from Vern



M2 from Gary