



Just like your back yard when you were a kid – the skies of Fox Park  
by Gary Garzone, LAS member

**Longmont Astronomy Society Newsletter**  
**September 2013**

**From the President:**

Just a quick reminder that our monthly meeting is happening Thursday (tomorrow) at 7PM in our usual room at FRCC. Please join us at 6 PM for a pre-meeting dinner at Basil Flats on Hover.

Our speaker will be Stephen Albers and he is giving a two part talk:

Part I: Comet Ephemerides with Geometry and Visibility Info

Part II: Simulated All-Sky Images Compared with the LAS All-Sky Camera

You can read Steve's bio on our home page at:

<http://longmontastro.org>

See you there.

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Bill Tschumy

**In the sky this month:**

Meteor Showers

Orionid*	Orion (SE)	Oct. 21	10-20 per hour	1P/Halley
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**Planets**

Mercury: visible in the West after sunset decently high

Venus: still high in the West at sunset

Mars: rises at 3 A.M., improving

Jupiter: pretty much over head at dawn

Saturn: high in the West at sunset for awhile

**Current Extra-solar Planet count:**

905 proven, 3588 candidates; 4493 total

**Interesting sky things:**

Most powerful magnetic field in universe that is 20 trillion times stronger than a fridge magnet

The strongest magnetic field in the universe has potentially been discovered – a dead star SGR 0418+5729 that packs the equivalent mass of our sun into an area just 12 miles across. The dead star is a kind of neutron star called a magnetar – the dead core of a once massive star that has collapsed in on itself.

Astronomers estimate that it produces a magnetic field around 20 trillion times stronger than a standard refrigerator door magnet.

### **Club Calendar:**

Looks like Bill is right up there with Vern for picking dates for star parties, but a flood is something extra!

October meeting: Thursday 10/17

**Fiske Planetarium:** Admission costs \$3.50 for kids and seniors and \$6 for adults still closed for remodeling, loose talk about “winter” for the Digital Fiske (gonna have to go see this baby, maybe schedule a meeting there?)

### **Internet Resources:**

The complete list of ZooUniverse Projects. OK, for those who don't want to classify galaxies, maybe listen to whales talk? Look over the list at

[https://www.zooniverse.org/?utm\\_campaign=SocialBoost&utm\\_content=Norm&utm\\_medium=Email&utm\\_source=Newsletter](https://www.zooniverse.org/?utm_campaign=SocialBoost&utm_content=Norm&utm_medium=Email&utm_source=Newsletter)

Stunning time-lapse video of the Northern Lights at <http://vimeo.com/70456669>

What's on the desktop?

[http://hubblesite.org/newscenter/archive/releases/2013/35/image/a/format/web\\_print/](http://hubblesite.org/newscenter/archive/releases/2013/35/image/a/format/web_print/)  
the Cosmic Caterpillar!

<https://www.youtube.com/watch?v=ENg9Hci9y3M> NASA satellites with penetrating radar discover a Mega canyon on Greenland.

Highlights from the Solar Dynamics Observatory <https://www.youtube.com/watch?v=tY2n2CHMXfI>

Sky and Telescope now has several eBooks available to registered users. Register, then download your copies (FREE!!) at <http://www.skyandtelescope.com/about/Free-eBook-Library-203205721.html> Mars landings, Saturn, watching meteors, astrophotography, and Black Holes are available now.

ISS videos:

time lapse of night cruise through the sky:

[http://www.huffingtonpost.com/2012/07/22/iss-at-night-video\\_n\\_1692874.html](http://www.huffingtonpost.com/2012/07/22/iss-at-night-video_n_1692874.html)

<http://www.youtube.com/watch?v=FG0fTKAqZ5g>

YouTube space videos:

<http://www.youtube.com/watch?v=EmsYCbYu-LA> the attractions of Hot Jupiters (exoplanets)

<http://www.youtube.com/watch?v=BxxqCLxxY3M> strange flames on the ISS

<http://www.youtube.com/watch?v=1hIF36ty1Eo> mystery objects at the edge of the spectrum

<http://www.youtube.com/watch?v=QO27Wjl8e9c> What's inside Jupiter?

[http://www.youtube.com/watch?v=cch\\_xBEELfA](http://www.youtube.com/watch?v=cch_xBEELfA) Collision of Andromeda and the Milky Way

<http://www.youtube.com/watch?v=ko1nqwtwhiw> Amateurs discover galactic bubbles

### **Upcoming Space Missions:**

<http://space.mit.edu/micro-x/> My ex-student Meredith is heading for Wallops Island in a U-Haul truck to launch this mission.

LADEE, managed by NASA's Ames Research Center in Moffett Field, Calif., is scheduled for launch at 11:27 p.m. EDT on Sept. 6 from Pad 0B at the Mid-Atlantic Regional Spaceport, at NASA's Wallops Flight Facility, Wallops Island, Va.

NASA's Lunar Atmosphere and Dust Environment Explorer (LADEE, pronounced like "laddie") is a robotic mission that will orbit the moon to gather detailed information about the lunar atmosphere, conditions near the surface and environmental influences on lunar dust. A thorough understanding of these characteristics will address long-standing unknowns, and help scientists understand other planetary bodies as well.

### **Current Space Missions:**

Earth Flyby of NASA's Juno mission

The Juno mission to Jupiter will be flying past Earth around mid-day on Wednesday Oct 9th. The large spacecraft (with three 30-foot solar panels) should be visible from the ground - but over South Africa. We are planning some public and press events associated with this flyby but the specifics are not finalized yet. There is likely to be at least a Google Hangout online. Stay tuned on the DPS and Juno websites:

[http://www.nasa.gov/mission\\_pages/juno](http://www.nasa.gov/mission_pages/juno)

[http://aas.org/meetings/dps45/science\\_program](http://aas.org/meetings/dps45/science_program)

**From the city:** I am writing to you to see if the Longmont Astronomical Society has a newsletter that we could advertise City Boards and Commissions vacancies. The City of Longmont has 22 boards and commissions that we recruit for twice a year, mid-year and end of year. I have put our little blurb in the newsletter at First Evangelical Lutheran Church a few years ago and got an overwhelming response from doing that. So I would like to broaden our base and reach out to more people who may be interested in giving back to the City they call home. Partial list of vacancies is at <http://www.ci.longmont.co.us/boards/vacancy.htm> The editor is on the Parks Board...

**Conventions:**

The American Astronomical Society's Division of Planetary Sciences (AAS/DPS) is having its annual meeting in Denver this October 7th-11th. While most of the meeting is aimed at professional planetary scientists, there are 3 events that might be of more general interest to the public and the amateur astronomy community.

Here's the meeting website:

<http://aas.org/meetings/45th-meeting-division-planetary-sciences>

**Sagan Medal Public Talk**

by Donald Yoemans (JPL)

"Near-Earth Objects: Finding Them Before They Find Us" Sheraton Hotel, Downtown Denver, 7.30pm Monday Oct 8th, in the main ballroom downstairs. The evening event is free and open to the public.

**Pro-Am Workshop**

Organizer: Our own Fran Bagenal, University of Colorado  
Sheraton Hotel, Downtown Denver, 5:00pm-10:00pm Thursday Oct 10th  
(downstairs, main ballroom).

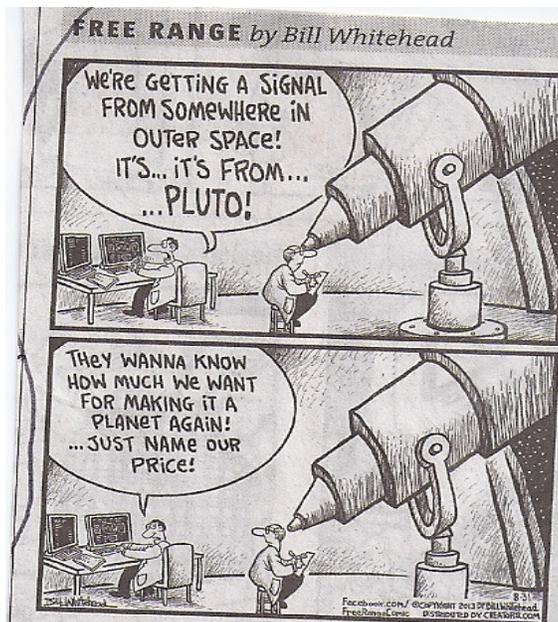
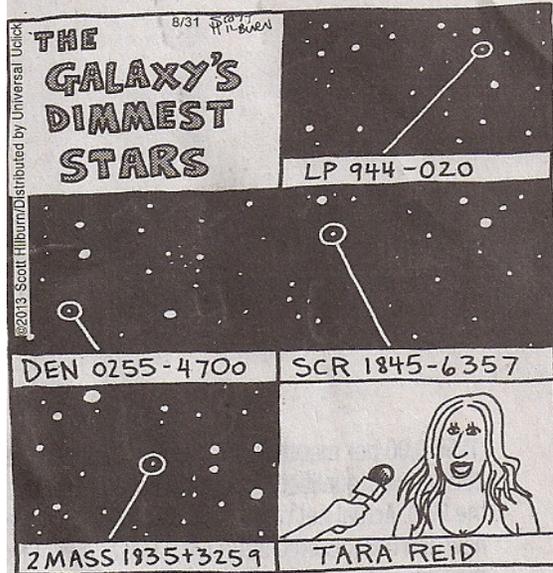
Professional-amateur workshop where professionals present what opportunities are out there for collaborations with NASA missions, and amateurs show samples of their observations.

Examples: observing Pluto during New Horizons flyby, observing Jupiter's clouds while Juno flies over the poles, taking images of comet ISON to find time-variability, light-curves of asteroids, follow-up on NEOs, searches for Moon impacts (perhaps related to LADEE), Mars observations during MAVEN, etc, etc, etc). Similarly, there are many amateurs who have their own observing projects that they might like to share with everyone. The meeting will be free and open to all. Participants wishing to present (e.g. 5 mins, 5 slides) please send title & description (<200 words) to [frbagenal@gmail.com](mailto:frbagenal@gmail.com). We will open the DPS space to the public at 5pm, while the poster sessions are running so that people can see the posters, talk with the DPS scientists and see the exhibits. The actual workshop will probably start around 6-6.30pm.

**Humor Dept:**

# ARGYLE SWEATER

Scott Hilburn



And now, from our local imagers:



Our first nova picture by Jim Pollock



Lefty H images the crescent Moon



OK, just one of Gary's globular clusters....