



**Longmont Astronomical  
Society Newsletter  
February 2016**

Image Credit: Gary Garzone

## Next LAS Meeting Feb 18<sup>th</sup>



The speaker at the Feb 18th meeting will be Dr. John Bally, Dept. of Astrophysics and Planetary Science University of Colorado at the February 18th LAS meeting. His topic is "Observations of Orion with ALMA, Gemini, and HST".

### Bio



Dr. John Bally received his undergraduate degree from the University of California at Berkeley in 1972. In 1980 he received his Ph.D. from the University of Massachusetts at

Amherst. For 11 years he worked with the group at AT&T Bell Laboratories that discovered the Cosmic Microwave. He researches the interstellar medium, star formation, feedback and the self-regulation of star formation. His other research interests include the formation of clusters and massive stars, proto-stellar outflows and jets, molecular clouds, astrobiology, black-holes and cosmology. Observations from visual to radio wavelengths. Instrumentation. Major recent projects include the Bolocam Galactic Plane Survey and the Herschel Galactic Plane Survey (Hi-GAL). He gives popular talks on astronomy and cosmology to the general public and amateur astronomy groups. He and Bo

Reipurth and have written a popular book, [The Birth of Stars and Planets](#)

### Location:

The meeting will be at the IHOP Restaurant, 2040 Ken Pratt Boulevard, Longmont. Please join us for coffee, dinner, or just desert around 6 pm; The general meeting and presentation will begin at 7 pm.

## Upcoming Events

**February 17<sup>th</sup> 6pm – Space Foundation Community Night** at Erie High School, 3180 Co Rd 5, Erie, CO 80516. The Space in the Community program is designed to inspire students about the wonders of space and to reignite the imagination of all members of the community. Program



will feature Dr. Leroy Chiao, a former NASA astronaut and commander of Expedition 10.

**February 18<sup>th</sup> 7 pm – “Observations of Orion with ALMA, Gemini, and HST”** presentation by Dr. John Bally at IHOP Restaurant, 2040 Ken Pratt Blvd, Longmont, CO.

**March 3<sup>rd</sup> 6 pm “Hawk Air Voyage to Pluto”** at Hygiene Elementary, 11968 N 75th St, Longmont, CO 80503.



# January 28<sup>th</sup> Meeting Notes

by Joe Hudson

Annual Banquet and Business Meeting

There were 32 people present.

Vern Raben opens and moderates:

Welcome to all, introduction and identification of officers (all were present):

Vern Raben – President

Gary Garzone – Vice President

Mike Fellows – Treasurer

Brian Kimball – Board Member

Jim Elkins – Board Member

Tally O'Donnel – Board Member

Joe Hudson – Secretary

## ***LAS Announcements and upcoming events***

- Space Foundation event 2/17 6 pm at Erie High School
- LAS meeting, Dr John Bally  
Observations of Orion 2/18 7 pm at IHop

## ***2015 Year in Review - Outreach***

22 start parties scheduled / 9 canceled (LAS averages ~ 20 annually)

- January: City of Superior, Carrie Martin (cancelled)
- February: Mead HS
- March: Skyline High School
- April: MackIntosh Academy, Boulder Open Space (cancelled), Carrie Martin (cancelled)
- May: Mountain Shadows (cancelled), City of Longmont Rec

(cancelled), Rinn Valley 4H (cancelled)

- June: Boulder Open Space, Carbon Valley Rec (cancelled)
- July: City of Longmont Rec
- August: City of Longmont Library, City of Superior Rec,
- September: LDS boy scouts, Lyons Elementary, Boulder Open Space
- October: Louisville Library
- November: Louisville Library (solar event), National Center for Interactive Learning
- December: Meade HS (cancelled), Northridge Elementary (cancelled)

## ***2015 Year in Review - Guest Speakers***

- February 19 – Observing the Moon by Andrew Planck
- March 19 – Comets as Solar Probes by Dr. Paul Bryans
- April 16 – Image Differencing by Steve Hartung
- May 21 – Weirdest Stars in the Universe by Dr. Emily Levesque
- June 18 – New Horizons Mission to Pluto by Dr. Fran Bagenal
- July 16 – Open Forum
- Aug 20 – Beginners Spectroscopy by Vern Raben
- Sept 17 – Timely Discussion about Time by Dr. Suzanne Metlay
- Oct 15 – Mr. Messiers Neighborhood by Mike Roos
- Nov 19 – Imaging Equipment

### **2015 Year in Review – Library Telescope Project**

- Modified and donated 6 library telescopes to Longmont Library (purchased 6 kits and 5 scopes – \$1710). One scope donated by Horkheimer Foundation / Astronomical League
- As of this meeting, 36 people are waiting to check the scopes out (2 week period checkout)

### **2016 Officer Nominations**

Vern explained the process and voting schedule. Nominations remain open until the vote.

Board nominees:

Brian Kimble

Jim Elkins

Chris Fauble

Tally O'Donnell

Officer nominees:

Vern Raben President

Gary Garzone Vice President

Mike Fellows Treasurer

Joe Hudson Secretary

Other nominations solicited – none offered.

Motion to close nominations - motion seconded.

There was voice vote for nominations – all aye, no objections.

### **The Year Ahead 2016 – Outreach**

- Jan 16 City of Longmont Rec (done)
- Feb 17 Space in the Community St Vrain Schools Erie
- Mar 3 Hygiene Elementary – Hawk Air 'Voyage to Pluto)
- Mar 16 Mead High School in March
- Majestic View Nature Center Arvada April 16
- Longmont Rec / Sandstone June 11
- June 25 Hall Ranch (36 and hwy 7) BCPOS Astronomy Our planetary neighbors
- Aug 12 Superior Star Party Aug 12
- Sept 23 BCPOS All Things Being Equal

### **Upcoming Projects in 2016**

(some planned / some still open)

- Planning for total solar eclipse Aug 21, 2017
- NW Nebraska Star Party Aug 5-7
- Astro Workshop at Hall Ranch after June 25 / Sept 23 star parties
- Upgrade All Sky Camera
- Radio Telescope project
- Extend the library telescope project to other libraries

### **Suggestion for events in 2016**

- High Plains Library in Firestone ( on open hill...) very receptive library staff (we can turn the parking lot lights off!)

Meeting adjourned

## February Celestial Highlights

### *Moon*

New moon: Feb 7<sup>th</sup> 7:40 am  
First quarter: Feb 14<sup>th</sup> 12:48 am  
Full moon: Feb 21<sup>st</sup> 11:21 am  
Third quarter: Mar 1<sup>st</sup> 4:12 pm

### *Mercury*

Take a look at Mercury around 6 am low in the east-south-east sky this month. It begins the month at magnitude 0 in apparent brightness and 7.4 arc sec across. By month end it dims to -0.4 magnitude and is 5.2 arc sec across.

### *Venus*

The best time to view Venus is about 6 am in the southeast. It begins the month at magnitude -4 and is 12 arc sec across. By the end of the month it decreases to 11 arc sec across and is magnitude -3.4 in brightness.

### *Mars*

Optimum time to view Mars this month is between 5:40 and 5 am. It is in the constellation Libra. Mars begins the month with an apparent brightness of 0.8 and is 6.9 arc sec across. At the end of the month it will be magnitude 0.4 and will be 8.1 arc sec across. Mars opposition will be on May 22<sup>nd</sup>.

### *Jupiter*

Jupiter is in the constellation Leo. Jupiter is in good position for viewing about 2:50 am as the month begins. That time

changes by about ½ hour earlier per week as the month progresses (12:23 am by the end of the month).

Jupiter opposition is on March 8.

GRS mid transits above 20° altitude this month:

Feb 2 3:03 am alt 56°  
Feb 2 10:45 pm alt 29°  
Feb 4 4:41 am alt 46°  
Feb 5 12:32 am alt 47°  
Feb 6 6:19 am alt 29°  
Feb 7 2:10 am alt 56°  
Feb 7 10:01 pm alt 23°  
Feb 9 3:49 am alt 48°  
Feb 9 11:39 pm alt 42°  
Feb 10 5:26 am alt 35°  
Feb 12 1:17 am alt 55°  
Feb 14 2:55 am alt 54°  
Feb 14 10:46 pm alt 37°  
Feb 15 4:33 am alt 40°  
Feb 17 12:24 am alt 52°  
Feb 18 6:11 am alt 21°  
Feb 18 2:02 am alt 56°  
Feb 19 9:53 pm alt 32°  
Feb 21 3:40 am alt 45°  
Feb 21 11:31 pm alt 49°  
Feb 23 5:18 am alt 27°  
Feb 24 1:09 am alt 57°  
Feb 24 9:00 pm alt 26°  
Feb 26 2:47 am alt 50°  
Feb 26 10:38 pm alt 45°  
Feb 28 4:25 am alt 33°  
Feb 29 8:07 pm alt 21°

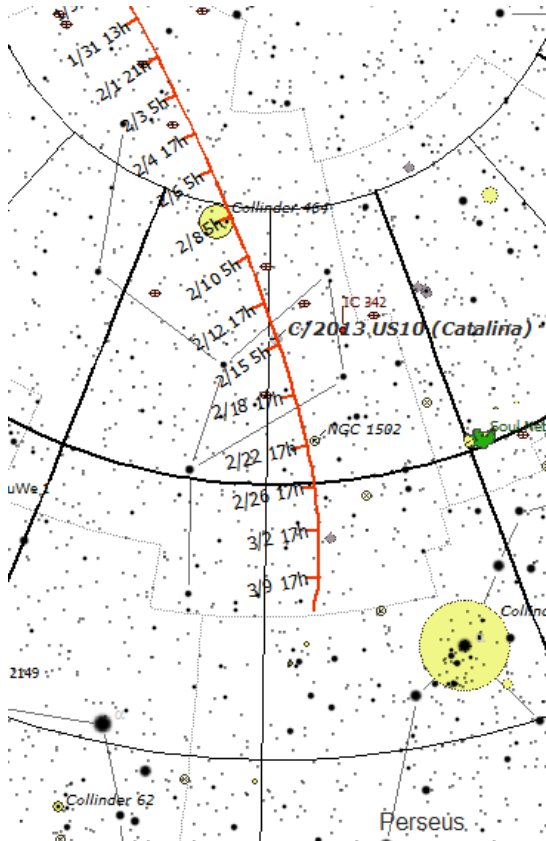
### *Saturn*

Best time to view Saturn this month is around 5:45 am. Saturn is in lower part of the constellation Ophiuchus. It is magnitude +0.5 in brightness and is 16 arc sec across.

### Comet C/2013 US10 (Catalina)

Comet C/2013 US10 (Catalina) begins the month at magnitude +6.5 in constellation Camelopardalis. It fades to magnitude +8.8 at month end.

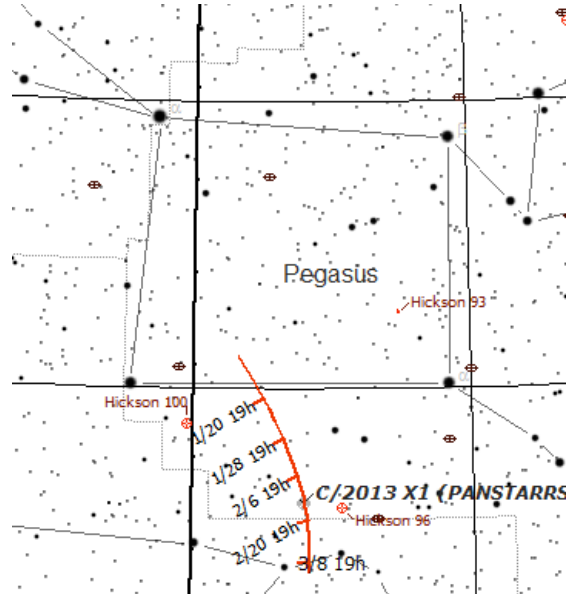
Positions in February are:



### Comet C/2013 X1 (PANSTARRS)

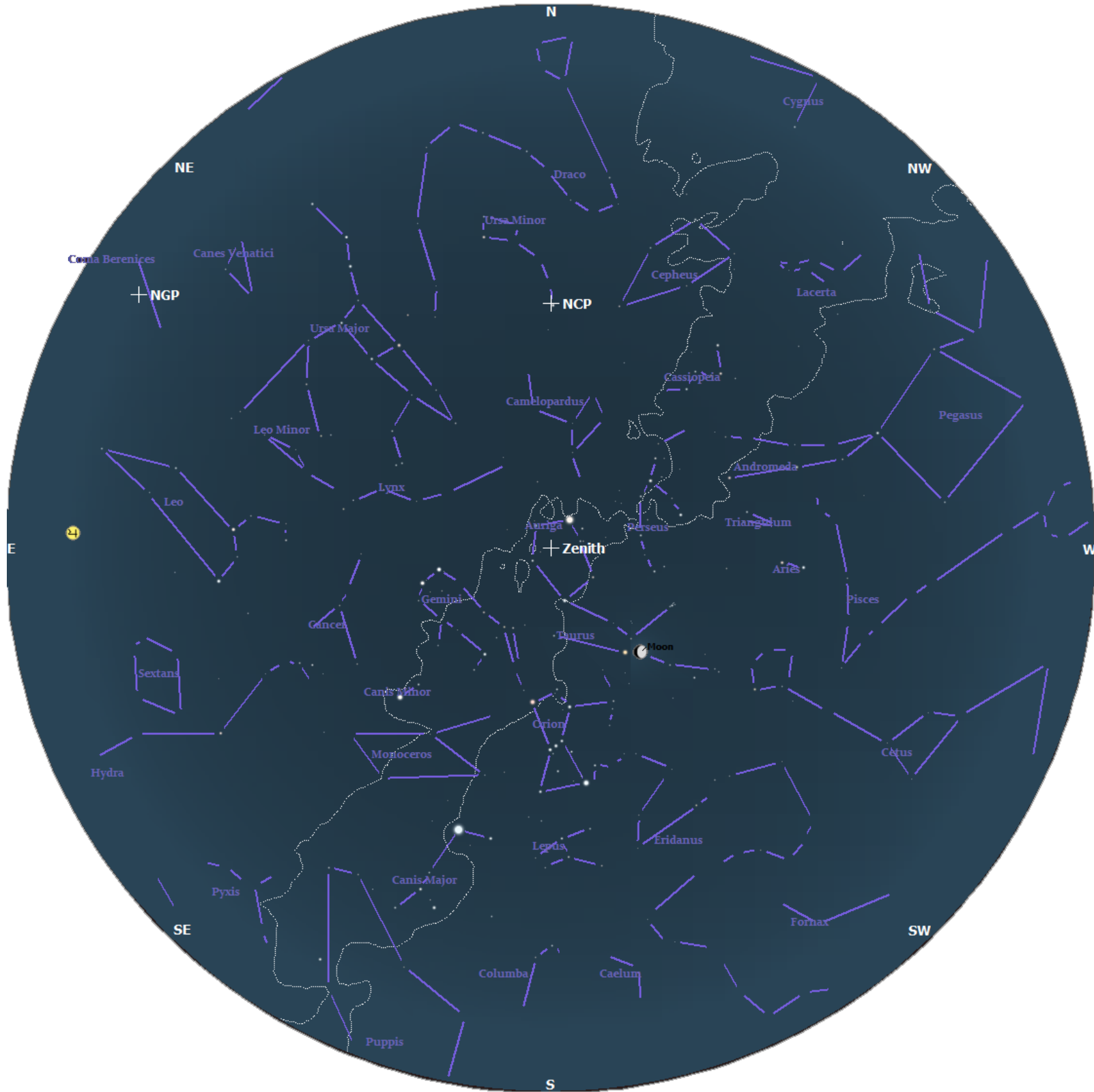
Comet C/2013 X1 (PANSTARRS) is magnitude +8.7 in constellation Pegasus.

Positions in February are:



# Overhead Star Chart for

Feb 15 8 pm







Orion Nebula by Gary Garzone on Jan 1<sup>st</sup>



C/2013 US10 (Catalina) by Paul Robinson on Dec 6





Aurora by Paul Robinson on Jan 1<sup>st</sup>





M1 by Tally O'Donnell on Jan 28