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John Robbins Moves

The latest news is that John is in the process of his move to North Aurora. Especially missed is his “inside” information on NASA activities of interest to us amateur astronomers. We all wish him well and success in his new digs.

Meeting Notes

Business Meeting, May 18

Attendees: Dale Hendricks, Jeff Struve, Karl Adlon, Jacob Wethington, Sam Snow, Bruce Brooker, Robert Mitchell, Dana Taylor, Ava Duncan and Shawna Duncan.

Secretary Elected: Karl Adlon was nominated by Jeff Struve and 2nded by Dr. Mitchell to fill the open Secretary position. He was elected by voice vote.

Bettendorf High School: Pete Bruecken said he was willing to do another event at BHS. Since the school year is ending soon, this would be in autumn.

Geneseo Interest: From Sam Snow - Bruce Bergthold, the pastor at First Congregational Church in Geneseo, has expressed interest in hosting an observing night with the QCAS. The church has around 90 members and frequently holds events for congregation members.

Donations for 20” Mirror Rework: Donations and pledges of at least \$1450 have been received from Wayne Jens, Dana Taylor, Bruce Brooker, Steve VanHefte, John Robbins, Dale Hendricks and 3M Corporation which will defray costs. Thank you!

20” Mirror Rework Presentation by Dana Taylor: Dana showed before and mid-figuring photos of null test Ronchi lines. The original showed roughness and irregularities while the latest shows much improvement. Dana also showed some of OMI current projects.

Next meeting: Solar Observing

NO, we won’t do solar observing; we’ll talk about it.

I’ll (Karl Adlon) present some basic information on the sun and solar observing and Jeff Struve will present info about his equipment and some results he’s achieved. If you have done some solar observing, please join in the discussions.

Definition

From “Astronomy Encyclopedia”, Sir Patrick Moore, General Editor:

The Celestial Meridian is the great circle on the celestial sphere that passes through the north and south celestial poles together with the zenith and the nadir (180° from zenith).

(The line, pole to pole, that passes directly overhead and 180° from overhead.)

New Look

Since the meridian basically splits east from west, I thought it appropriate to put the Meridian name block down the center of the page, splitting it.

Let me know what you think of this new look. I can easily change it.

June Sky Events

Venus and Jupiter are visible in the evening sky, but the best planet to view is **Saturn!** Take a look!

June

- 1 - Saturn 1.9°S of Moon
- 2 - FULL MOON
- 6 - Venus at Greatest Elong: 45.4°E
- 9 - LAST QUARTER MOON
- 9 - Moon at Perigee: 369713 km
- 10 - Moon at Descending Node
- 13 - Venus 0.5°N of Beehive
- 14 - Mars in Conjunction with Sun
- 14 - Mercury 0.0°N of Moon: Occn.
- 16 - NEW MOON
- 20 - Venus 5.8°N of Moon
- 20 - Jupiter 4.7°N of Moon
- 21 - Summer Solstice
- 21 - Regulus 3.6°N of Moon
- 23 - Mercury 1.8°N of Aldebaran
- 23 - Moon at Apogee: 404134 km
- 24 - FIRST QUARTER MOON
- 24 - Mercury at Greatest Elong: 22.5°W
- 24 - Moon at Ascending Node
- 25 - Spica 3.8°S of Moon
- 28 - Saturn 2.0°S of Moon

Calendar

Note: **Meetings** are at the Bettendorf Public Library @ 6:30 PM

Observatory **Open Houses** are at Sherman Park, Dixon (Calimus), IA

May 30
Observatory
Open House

June 1
Astronomy (dialogs)
Meeting

Jun 6
St. Ambrose's Menke
Star Party

June 15
Business/Astronomy
Meeting

June 26
Observatory
Open House

July 6
Astronomy (dialogs)
Meeting

July 11
St. Ambrose's Menke
Star Party

July 20
Business/Astronomy
Meeting

July 25
Observatory
Open House

August 3
Astronomy (dialogs)
Meeting

August 17
Business/Astronomy
Meeting

August 22
St. Ambrose's Menke
Star Party

August 29
Observatory
Open House

June Starter

The objects are only easy if you stay up past 11 PM, as June has the shortest nights of the year.

Looking north, start with Ursa Major's **Big Dipper**.

Then follow the arc of its handle to **Arcturus**, the bright star in Bootes.

Bootes looks like a kite with Arcturus marking its tail.

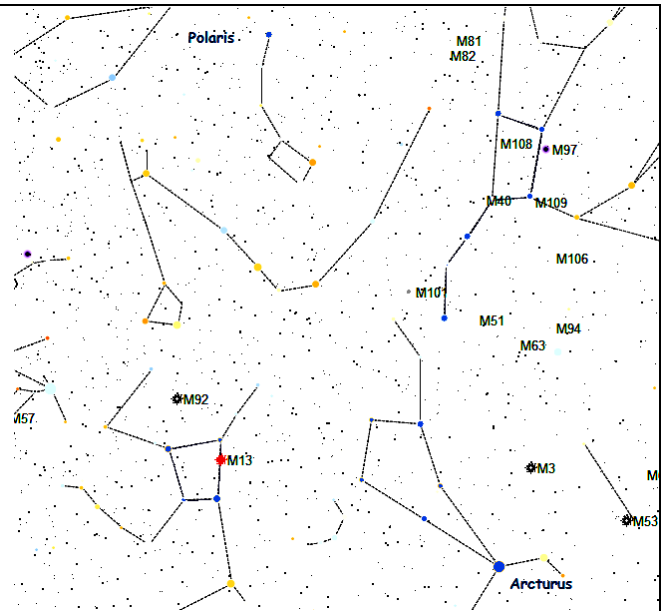
If you are not in a bright location, find the 4 stars marking the Keystone in Hercules.

M13 is a bright globular cluster (relative to other globulars) that lies along the western side of the Keystone. With binoculars or telescope, sweep along the line and, if sky conditions are even mildly acceptable, you should soon find it.

The 13th object in Charles Messier's list and discovered by Edmond Halley in 1714, it is about 25,000 light-years away. M13 contains many hundreds of thousands of stars. Timothy Ferris in his book "Galaxies" even says "more than a million". The darker your location and the larger the 'scope, the more spectacular M13 becomes.

Dana Taylor's image at right, taken with the club's 20" scope, gives some idea of its visual appearance under dark skies.

Later, in Summer, other deep sky objects closer to the plane of the Milky Way come into view. But even then, with insects buzzing and whippoorwills calling and as the twilight fades, M13 is often the first such object viewed before heading to fainter, more challenging objects.



QCAS Correspondence:

Please contact the society at: P.O. Box 3706, Davenport, IA, 52808.

Members are welcome and encouraged to submit articles for The Meridian. Submit any and all interesting items (via e-mail) to: Karl Adlon, Secretary.

QCAS Officers and Contacts:

Officers

President:	Dale Hendricks
Vice-Pres:	Bruce Brooker
Secretary:	Karl Adlon
Treasurer:	John Baker
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Classifieds

For Sale:

- Meade 4000 f/6.3 SCT reducer; \$75
- New, never used, Orion StarShoot Solar System Color Imager IV, \$75

Contact Craig Cox if interested in either of these at admiralcox2000@yahoo.com

For Sale: Canon 20D DSLR. Good astrophotography starter camera. Also good for everyday photography. Includes manuals, software, timer, external power supply, extra memory cards and card reader. \$100 (to be donated to QCAS). Contact Karl Adlon if interested at

kmja79@yahoo.com

Ramblings – Possible Future Programs

In this space I'll provide some ideas that, with member input, could come to fruition.

A Trifecta - That is where 3 groups of us present the same presentation at 3 different locations simultaneously; Jeff Struve broadcasting the Mallincam via the internet and the other groups all having scopes for live viewing of the same objects. Ideas and thoughts on this are welcome by Jeff.

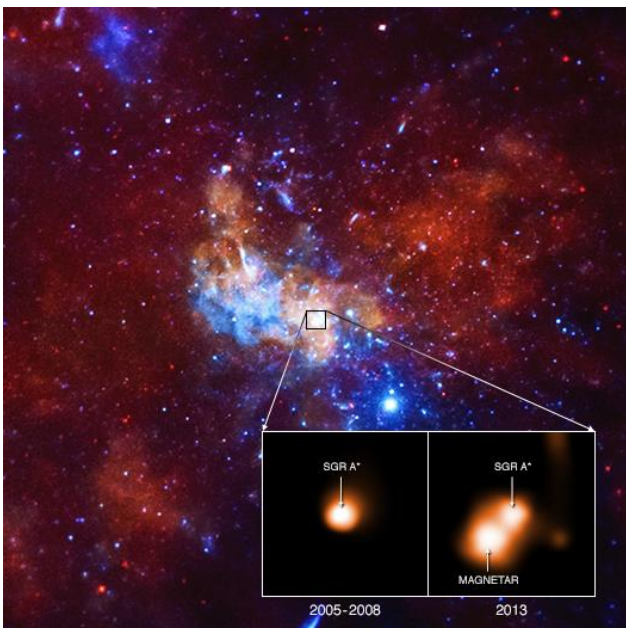
Members' Goals – At a non-business meeting, we would go around the room, each member having the opportunity to express what they wish to accomplish in the coming year. Depending on the goal, we might be able to point them to where they can find help, one or more members may be able to help or a presentation could be made at a meeting.

What ideas do you have?

Editorial – It's Your Club

This being my first Meridian as the new Secretary, I thought I'd share some thoughts on QCAS and our newsletter. First, they are both yours! They will be what you make them. Want to learn more about some aspect of astronomy? Let me or another Board Member know that. Think the Meridian can be better? Let me know that. Have an idea for a club activity? Let a Board Member know that. Want to make the club better? There are plenty of opportunities to do that. Here're some: Give or help with a presentation or suggest a presentation. Help with Open Houses and star parties, even if it's just to direct new people to the telescopes. Write a paragraph for the Meridian about something you've done or read.

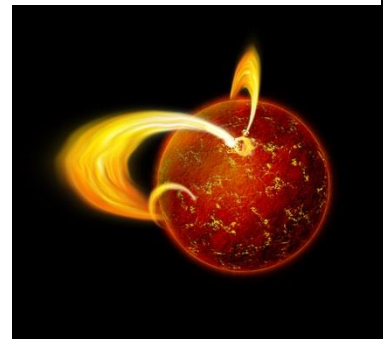
SGR 1745-2900: Magnetar Near Supermassive Black Hole Delivers Surprises



From the Chandra X-Ray Observatory website (<http://chandra.si.edu/photo/2015/sgr1745/>)

- * A magnetar near the Milky Way's supermassive black hole is exhibiting some unusual behavior.
- * Since its discovery in 2013, this magnetar has been monitored by Chandra and XMM-Newton.
- * The X-ray output from this magnetar is dropping more slowly than others and its surface is exceptionally hot.

The researchers suggest that bombardment of the surface of the magnetar by charged particles trapped in twisted bundles of magnetic fields above the surface may provide the additional heating of the magnetar's surface, and account for the slow decline in X-rays. These twisted bundles of magnetic fields can be generated when the neutron star forms.



(See the link to read more.)

Hubble Observes One-of-a-Kind Star Nicknamed 'Nasty'



From the Hubble Space Telescope website:

(<http://hubblesite.org/newscenter/archive/releases/2015/21/image/a/>)

Astronomers using NASA's Hubble Space Telescope have uncovered surprising new clues about a hefty, rapidly aging star whose behavior has never been seen before in our Milky Way galaxy. In fact, the star is so weird that astronomers have nicknamed it "Nasty 1," a play on its catalog name of NaSt1. The star may represent a brief transitory stage in the evolution of extremely massive stars.

First discovered several decades ago, Nasty 1 was identified as a Wolf-Rayet star, a rapidly evolving star that is much more massive than our sun. The star loses its hydrogen-filled outer layers quickly, exposing its super-hot and extremely bright helium-burning core.

But Nasty 1 doesn't look like a typical Wolf-Rayet star. The astronomers using Hubble had expected to see twin lobes of gas flowing from opposite sides of the star, perhaps similar to those emanating from the massive star Eta Carinae, which is a Wolf-Rayet candidate. Instead, Hubble revealed a pancake-shaped disk of gas encircling the star. The vast disk is nearly 2 trillion miles wide, and may have formed from an unseen companion star that snacked on the outer envelope of the newly formed Wolf-Rayet. Based on current estimates, the nebula surrounding the stars is just a few thousand years old, and as close as 3,000 light-years from Earth.

(See the link to read more.)

Bootleg Star Party Report by Karl Adlon

This was my first time at Bootleg and the weather did not cooperate. Still, the weather (except for a little rainy storm), was enjoyable as was talking with other amateur astronomers on Saturday, the only day I was able to go.

Begun in 2007, this was the 9th annual event and has held from Friday afternoon, May 15 to Sunday afternoon, May 17 at the Green River Conservation Area in Harmon, IL. While some star parties provide speakers and have astrophotography and telescope building judging, there is none of

that here. Just a nice, low-key star party in about the best skies for a hundred or more miles around.

Mid-afternoon, one person presented items he was selling for the widow of an amateur astronomer. At left, Jim Rutenbeck inspects and eyepiece and Jeff Struve eventually purchased an Erfle eyepiece. Why, because he didn't have one and he like the word Erfle, leading to humorous jibes back and forth with the seller. Craig Cox was also present and joined in on the fun.

Later, dark clouds appeared on the southern horizon and we received a steady rain for maybe ½ hour. Then it partially cleared, as shown at right and after that a nice sunset (at left).

Door prizes were drawn and every one of the 19 present received something

I'm already looking forward to next year. (This site is better than Sherman Park, hint, hint.)

"Bootleg Astronomers: Pillaging The Universe One Star At A Time"
<http://bootlegastronomy.com/>



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