

THE MERIDIAN

Newsletter of the
Quad Cities
Astronomical Society

www.qcas.org



JANUARY 2018

QCAS Mission Statement:

To stimulate an interest in the science of astronomy in the Quad Cities Area, to nurture an ongoing desire by Quad Cities Astronomical Society members to study the cosmos and to provide members of our community opportunities to experience the beauty and joy of Astronomy.



Presidents Greeting:

Happy New Year!

As 2018 is upon us, we can look forward to another year... new opportunities await all of us... but make sure that you take some time to reflect on the past year too!

Should auld acquaintance be forgot, And never brought to mind? Should auld acquaintance be forgot, And days o' lang syne.

For auld lang syne, my dear, For auld lang syne, We'll tak a cup o' kindness yet, For auld lang syne.

We twa hae run about the braes, And pu'd the gowans fine, But we've wander'd mony a weary foot Sin' auld lang syne.

We twa hae paidl't in the burn Frae morning sun till dine, But seas between us braid hae roar'd Sin' auld lang syne.

And there's a hand, my trusty fiere, And gie's a hand o' thine, And we'll tak a right guid willie-waught For auld lang syne.

And surely ye'll be your pint' stoup, And surely I'll be mine. And we'll tak a cup o' kindness yet For auld lang syne!

Basically, "Auld Lang Syne," is about remembering friends from the past... the rest is, for the most part, filler... a lot of fun Scottish words... The crux of the song (pun intended) and why it works so well this time of year is the tradition it signifies and that it spurs us on to take a moment and raise a glass to remember those that should never be forgotten.

2018 will be another year to make memories... thank you for allowing QCAS to be part of your life!

Clear Skies, always,
Jeff



Last Society Meeting Minutes:

Date/Time Location

6:30 PM on Monday, December 18th,
105 McCarthy, St. Ambrose University, Davenport, IA

Attendance (11 in attendance)

Jeff Struve, Ken Boquist, Alan Sheidler, George Bailey, Mike Ombrello, Craig Cox, Paul Levesque, Matt Neilssen, Robert Mitchell, Don Robinson, Steve VanHyfte

Presentations

New Gear

- Jeff purchased a HoTech CT Collimator for SCT's on Cloudy Nights and is offering to host a collimation party for members to get together and do a bit of tweaking on their SCT.
- Alan was having issues with his SCT mount, enlisted help to remove and replace various components in the circuitry... and now, all is well!
- George acquired a Cambridge Double Star Atlas, an excellent resource book for double stars.

Member Outings

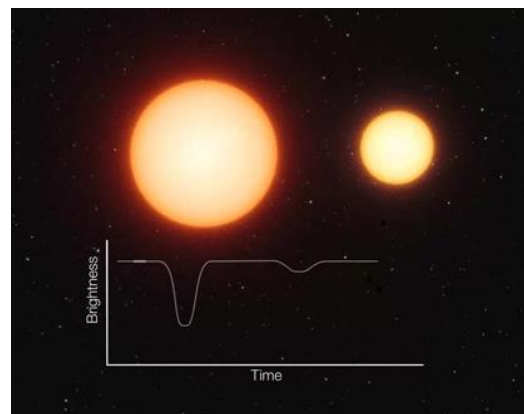
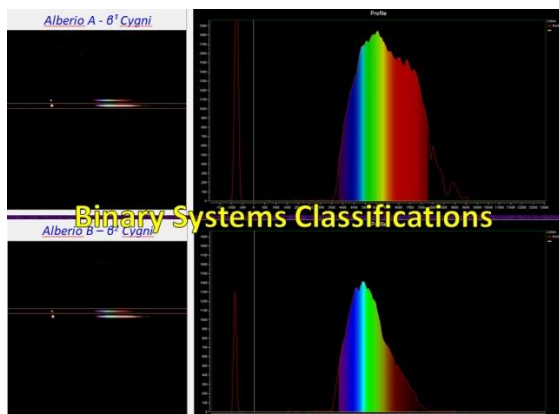
- 12/01 – Jeff Struve went out to the Menke Observatory to check out how well the mount changes worked on the 14" SCT. It looks like significant improvements were achieved... but we are going to do a bit more tweaking!
- 12/16 – We had a public open at Jens Wendt Observatory. Jeff, Ken, Byron, Don and Craig were in attendance.
- 12/16 – The Popular Astronomy Club held an observing session at Paul Castle Observatory
- Ken Boquist continues to work toward Astronomical League certification on Planetary Nebulae and Stellar Evolution Programs.
- Paul advised that there was going to be a Christmas Star program held at the Bettendorf High School Planetarium on the Wednesday before Christmas.
- Matt talked about his recent visit to Meteor Crater in Winslow AZ.

Announcements

- Our annual Messier Marathon will be held at Menke Observatory from March 16th through the 18th. All amateur astronomers are invited!
- The Eastern Iowa Star Party is scheduled to be held from September 7th through the 9th. So far, two of the three speakers have committed to the event. Dr. Paul Sipiera will be speaking on and bringing samples of space rocks, and Dr. Jennifer Anderson will be speaking on impact craters.
- Mark Roberts, Education Coordinator, Clinton County Conservation is posting our 2018 calendar on line.

Main Presentation

Jeff gave a presentation on binary star systems. The presentation is one of a number of presentations that Jeff is putting together for use at our public outings. The slide presentation has audio recorded and is automated.



Treasurers Report

- Matts and Jeff need to get together to secure funds that Matt received through Verizon's grant program
- Membership dues begin in January
- At the time of this report we have \$4449.38 in our bank account
- Please try to remember to check with your place of employ to see if they have a grant program.

Review of Minutes

The November Minutes as per the November Meridian were approved.

Old Business

- New meeting location for 2018 is St. Ambrose – Room 105 McCarty Hall. This is the large building facing Gaines at the corner of Gaines and Lombard in Davenport. It's best to park in the back as that door should always be unlocked.
- We need volunteers to give presentations at meetings... please contact Jeff for details!
- We are still hoping to move our observatory to the Menke site. The Board will be drawing up a series of sketches to use as demonstrating the project to prospective donors.
- 2018, December 16th we held a public open at Jens Wendt Observatory. Jeff, Ken, Byron, Don and Craig were in attendance.
- March 16 – 18 2018 is our Messier Marathon... please plan to attend!
- September 7 – 9 2018 is the EISP... speakers are shaping up!
- Steve brought up doing a bit of work on our 20" Newtonian:
 - Drive cover replacement
 - fix focuser flip mirror to work properly
 - Primary mirror is binding – repair
 - Adjust the altitude for proper polar aligning

New Business

- Jeff decided to simplify the Meridian format and not use the dual column format.
- We voted to change our meeting start time to 7:00 PM. Jeff plans to have the room available at 6:30 PM, and you are welcome to join early for open discussion, and comradery.

Next Society Meeting:

Date/Time Location

6:30 PM on Monday, January 15th
105 McCarthy Hall, St. Ambrose University, Davenport IA

January Presentation

At this time, Jeff is looking for volunteers to give presentations and is asking the membership to advise what types of topics that they are interested in hearing about... Please submit your suggestions to PwrHsePro@aol.com

Jeff Will be giving a presentation on "The Moon"

Presentations for future meetings include Christian Allen on weather forecasting the QCA, Jeff Struve on the RSpec Spectroscopy software, and a presentation on The Moon, Carl Wenning on the Astronomical League. Contact Jim Rutenbeck or Jeff Struve if you'd like to make a presentation.

Other Business

None at this time

Last Board Meeting Minutes:

Date/Time Location

Monday, December 4th, 6:30 PM to 8:30 PM
Village Inn – Elmore, Davenport

Attendance

Jeff Struve – Present
Craig Cox – Present
Robert Mitchell – Present
Matt Neilssen – Present
Dana Taylor – Absent
Jim Rutenbeck – Absent

GUESTS

Mike Dannenfeldt - Present

Agenda

- November Dinner Meeting
 - Good to do again next year
- 2018 Society Meeting Relocation to SAU
 - Advertise in the SAU News Letter, The Buzz
 - Cancel December 2017 library room reservation
- Jan 2018 Board meeting date change
 - Thr, Jan 4th
- 2018 Calendar
 - March F16, S17, S18 – Messier Marathon
 - April Sat 21 – Astronomy Day w/evening Public Night – BHS
 - BHS is on board!
 - August Sat 11 – Meteor Shower Party w/Constellations and Mars – PVHS
 - No word from Ian yet
 - September 7-9 EISP
 - Dr. Siperia – Honorarium - \$100
 - Dr. Anderson Honorarium - \$200
 - 3rd speaker? – Student \$75
 - Charge \$25 for EISP
 - 03/14/18 (Wed) – Sherman Park requested event for the Iowa Association of Naturalists Statewide Workshop – Placed on 2018 calendar
 - Public Nights
 - Lights Off Signs and Parking Area Signs
 - Craig will investigate
 - Canned Presentations
 - Board approved the idea
 - Add SAU Menke Nights
- Wayne Jens
 - Jens Solar Day – June 21st, Wayne’s Birthday
 - Added to the 2018 QCAS calendar
- Administrative
 - Agenda topics for 2018
 - New Website
 - Moving to Menke
 - Building structure ideas
 - Treasurer Report
 - We now have a debit card that we can use for purchases
 - Balance \$4384.38

- 2017/18 Biennial Report – Next one in 2019
- Trifolds
- Membership Registration/Renewal Forms
- Membership Cards
- Haul away old shingles from Jens Wendt
 - Mike will contact Sam Foley about dumpster
 - Craig will haul w/help (done)
- Web Site
 - 2018
 - Treasurer Info (Board Member Access)
 - Minutes
 - Applications
 - Approved budget of up to \$2500.00 for web site less picture gallery

Next Board Meeting:

Date/Time Location

Unless otherwise noted, Board Meetings will be held on the 1st Monday of the month at 6:30 PM at the Village Inn Restaurant on Elmore and 53rd in Davenport, IA. Please notify Jeff Struve if you plan on attending so seating arrangements can be made. Ordering from the menu is Dutch treat.

Agenda

- Observatory Relocation
- Discuss the new web site
- New documents
 - Trifold
 - Application Form
 - Membership Renewal Form
 - Membership Cards

New Business

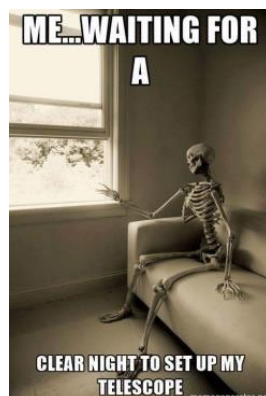
- Discuss work to be done on the 20”
- Discuss continued inventory
- Discuss selling our heavy fiberglass step ladder and replacing it with an aluminum ladder for use in the roll off roof building.

Secondary Topics

- Intro to Spectroscopy Class
- PixInsight meetings

Member Spotlight:

None at this time



Submitted Articles:

March Messier Marathons

By Ken Boquist

The maximum number of Messier Objects than can be observed in a Messier Marathon falls around the time of the March equinox because of their distribution in the sky. There is only one M object between right ascensions 21:40 and 0:40. This object is M52, which just happens to be high in the northern sky, so that it is circumpolar. A large portion of the sky in this three hour gap is not visible (or is visible for a very short period of time) in a dark sky in March due to the times of sunrise and sunset. Had more M objects been in this gap, then it would not be possible to observe all of them in one night in March. Although the winter skies have longer nights, the distribution of M objects is such that not as many objects can be seen in one night.

Altogether, there are about eight objects that just happen to be on, between, or about 10 to 15 minutes of RA before or after the above times. Five of them are circumpolar but are low in the sky in March, one has a moderately high declination (M15), but is fairly low in the evening skies in March, and M2 and M30 are at -1 and -23 degree declination, respectively, so they are also very low to extremely low. Incidentally, my previous e-mail's reference to M2 should have been to M30. At -23 degrees declination, M30 is quite a challenge. Most observers who have seen it without electronic aids report that they had very good skies. Our humid skies tend to work against us, especially if the farmers have just started getting out into the fields.

In reality, you can have a Messier Marathon at any time of the year. You just won't see as many at other times of the year. It would be interesting to see how many objects could be snagged in a dusk to dawn marathon in, say, December and again in June.

December 16, 2018 Public Open

By Jeff Struve

It ended up being a pretty nice night out at Sherman Park last night, Saturday December 16th.

A special thank you to Byron, and Ken, who brought their SCT's... Don, who along with me, brought a Dob, and Craig, who was prepared to man the 20"....

Unfortunately, we did not have any public show up.... although, that meant we had a nice opportunity to enjoy the weather and the clearing skies by observing objects that we might not necessarily look at if there were guests in attendance.

I was able for the 1st time to actually find Uranus and Neptune! Objects like the Little Dumbbell and the Blue Snowball along with the Double Cluster, Orion Nebula, Alberio and Almach were very pretty as well. Hopefully we will have more good weather in the following weeks so that more of us can attend these get togethers.

Working on the Menke 14" Edge

By Jeff Struve

So, I got out to the observatory a little after 7pm, signed in, cleaned the left over tape from taping the PoleMaster to the mount, opened the dome, unwrapped and cabled up the scope, booted up the computer, and found that I had to do a new home position as removing the scope from the pier in order to put the Teflon in between the pier and the mount, and adding the center screw to fasten the mount more securely to the pier kinda messed things up.

After that was done, it was obvious that the finder scope was also not in alignment any more so I used the moon to get a rough alignment between the scope and the finder scope. Then I started the multi star alignment. I found that I had to replace the batteries in my reticle eyepiece of course, so after that was done, I was ready to go.

The scope was quite out of alignment as expected. I did a 6 star alignment, and things seem to work properly using the goto to find various objects.

I slew the scope to the star that I used last time, HIP106157, and found that there was a cluster very much near there! I had never seen that cluster before, and found that it was the Pegasus cluster. It will be a good object to look at on a new moon night rather than a night like tonight where the moon is nearly full and I am aiming very close to the moon!

So the test begins... the star is in the center of the reticle in the eyepiece and its 7:50 pm... I have the crosshairs in a piece aiming up down left and right. The eyepiece is a 12mm with a 40° field of view yielding a power of about 350 X...

8:04 pm and the star has moved up about 1/8 of the way and is on the left reticle line...

8:16 pm... Wow... scared me! The star was gone! Then I saw that I needed to move the dome... whew! Now the star is about 3/16 up and a bit further left...

8:30pm... not quite half way up... but a little more to the left... Seems to be a bit better since we added the Teflon and the center bolt... I don't know for sure, but I think the drift is in the opposite direction... I'm thinking that now that I have a better way of affixing the PoleMaster to the mount that when we have darker skies, I'll give that another shot...

8:40 pm... on my 3rd cup of coffee... and finishing up a wrapper of chocolate graham crackers... the star is now about half way up... and about 2 reticle spaces to the left... that would be 2 of the widths as between the double cross hairs... this does seem quite a bit better than before... Maybe I had a bit of mount drift going on after centering the star... I can never remember if you go up and left or down and right or what on the final slewing to the object...

8:50 pm... pretty steady movement, slightly more up and left... if I was going to do this again, I'd use my other eyepiece, the reticle is gauged... the star has to stay in the FoV at least until 9:33 pm to meet the previous test...

9:00 pm... Not quite 5/8 up by about 3 widths left...

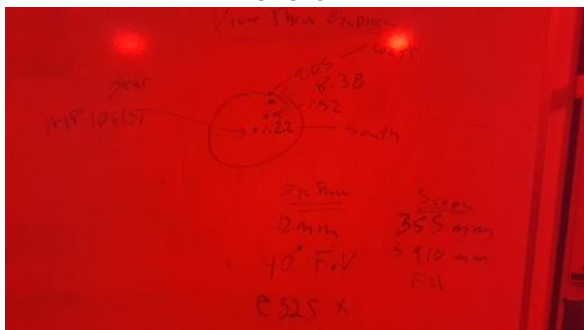
9:15 pm... 3/4 of the way up to the edge from the center...

9:30 pm... Well... this kinda sucks... had to move the dome again, but I lost the star. I'm thinking that it is still in the FoV, but hidden due to the very bright moon light and sky glow in the West... I knew it was going to be a challenge tonite...

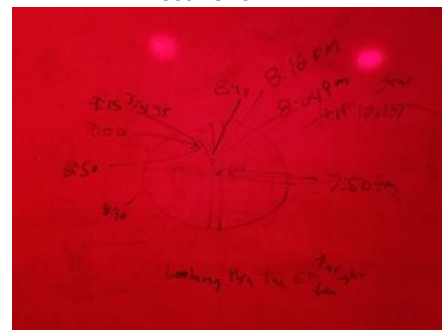
I think it would be a fair estimate to say that we gained at least 17 minutes...

940 pm... Ok... time to pack up and contemplate tonite's exercise... probably stop by VI for a bowl of soup...

Pre Teflon



Post Teflon



Double Stars

By Jeff Struve

Have you ever gone outside on a beautiful night, looked up at the sky and wondered just how many stars that there were? Did you know that about eighty percent of the points of light you are seeing are actually Binary Star Systems... aka double stars?

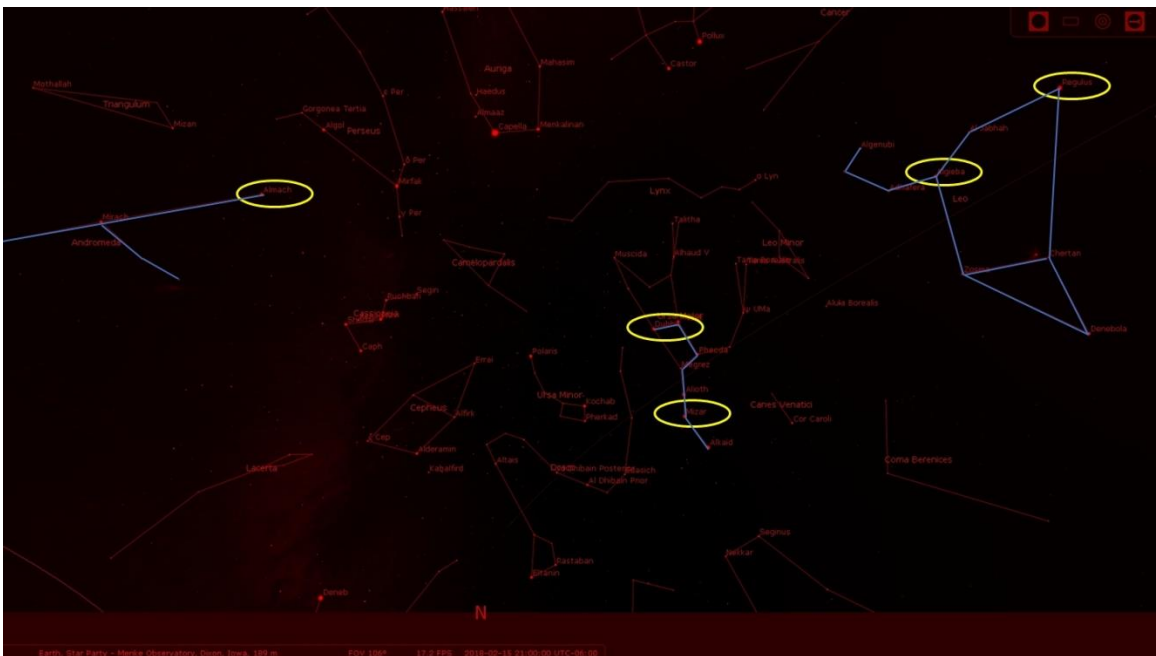
Unfortunately, to fully appreciate double stars, a telescope is required, but don't despair! It doesn't take the Hubble to see them; even a common set of binoculars can do the trick for many of these gems!

So what is a double star... a Binary System? Well, commonly it is two or more stars in very close proximity to each other... Some double stars just happen to line up in the sky, and appear close together... even touching, but they are so far apart that their travels in the sky have no impact on each other. We call these Visual Doubles. Then we have the binary systems where there are actually two or more stars that are physically close to each other... enough so that they do have an impact on each other. We call these Gravitational Doubles. They circle one another, many times growing closer and closer to each other where over millennia that they may collide and result in super nova... an example of this is star system J0806 where the stars circle each other once every 321 seconds... they are expected to super nova in a mere 340,000 years!

A few very common and easy to find, and see, double stars this time of year include Algieba and Regulus, both found toward the East in the constellation Leo... Almach toward the West in the constellation Andromeda, and toward the North, in our friendly constellation that we call the Big Dipper, aka Ursa Major, we can find Mizar, and Dubhe.

When viewing the double stars I've mentioned, you'll notice that many of the stars have hues ranging the full spectrum of the rainbow. For instance, Algieba (In Leo) has green and yellow stars, while Almach (In Andromeda) has golden orange and bluish green stars...

So... what are the colors of the other double stars that I have mentioned? Well, the best bet is to take a peek and check them out on the next clear night! Another great option is to attend one of the many public open houses held by the Popular Astronomy Club or the Quad Cities Astronomical Society, or events put on by St. Ambrose University and held at Menke Observatory... You can also cheat and google them... but the best googling is done with your eyes trained at the skies!



Gallery

Did you see this On Line... in the newspapers... on TV... hear about it on the radio?



For Sale – Wanted

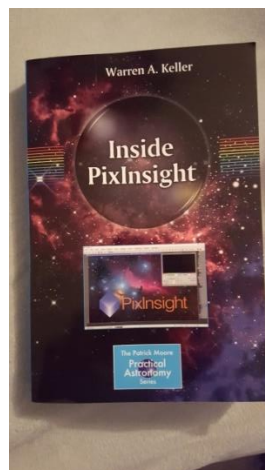
For Sale:

- A gentleman by the name of Jerry Hansen is selling his telescope, filters, and other associated equipment. If you are interested in finding out more about it, please let me know and I will send you his contact information so you can find out more and negotiate directly with him (if interested). It looks like a nice unit. Thanks. Al Sheidler. ADSheidler@gmail.com

INSTRUCTION MANUAL 6", 8" & 10" STARFINDER REFLECTING TELESCOPES



- New 2nd Addn "Inside PixInsight" by Warren Keller. \$30.00 – 1 left! Contact Jeff Struve at PwrHsePro@aol.com



- iOptron ZEQ25 mount with battery style counterbalance weight - \$650.00 Contact Greg Weinberg at DrHappyTooth@gmail.com



Editor's Note:

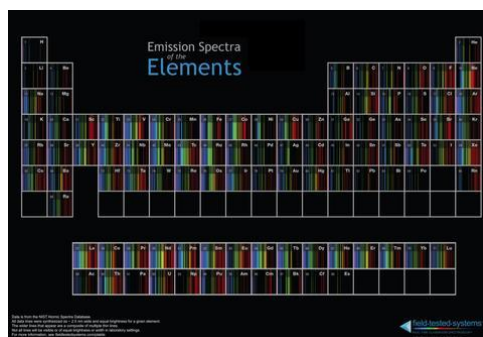
Please help improve the substance of our newsletter by submitting articles and pictures for publication. Variety is the spice of life... be spicy!

Types of articles that would really be interesting could include What's In the Sky This Month, equipment reviews, experiences you've had in astronomy, sketches you've drawn, trips you've taken to observatories or star parties, a high level overview of your favorite astronomer, movie, book or article reviews, list astronomy gear that you want to buy or sell, and of course pictures you've taken and how they were done...

If each member submitted 1 article per year we could have an incredibly varied and interesting newsletter... that is my challenge to you!

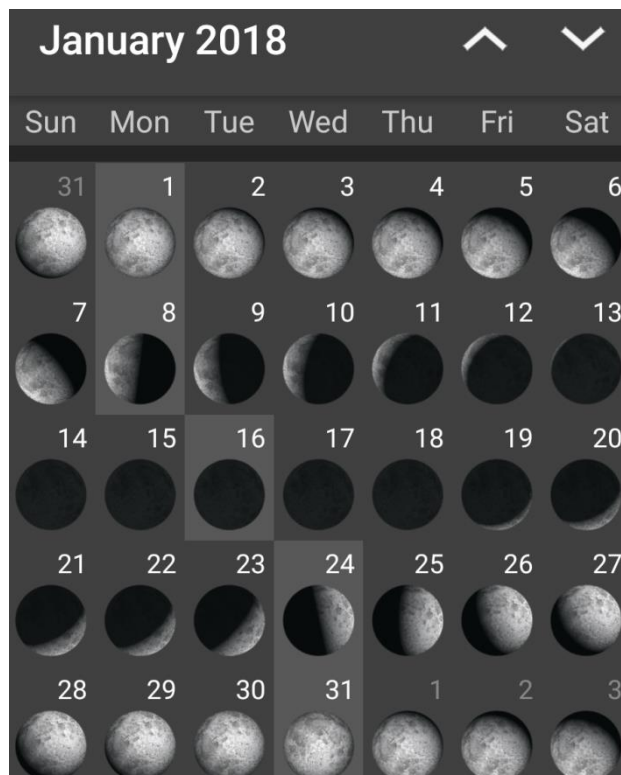
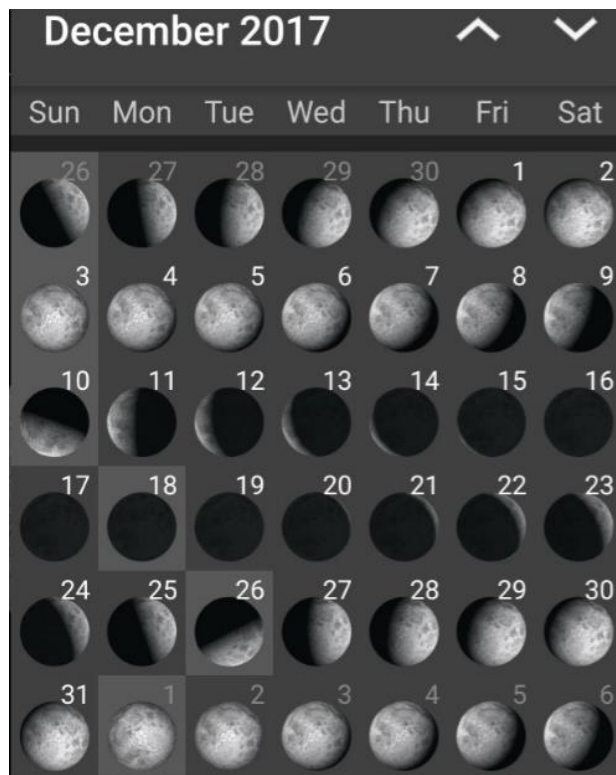
Also.... Drop an email, text, or make a phone call or two... members want to get together outside of normal club events to discuss and work on our hobby!

Jeff



Calendar of Events – 2018

01/04/18 – Board Meeting
01/15/18 – Society Meeting
01/20/18 – Public Night at Jens Wendt (Waxing Crescent 5:00 PM Intro to Spectroscopy and Double Stars Presentation)
02/05/18 – Board Meeting
02/17/18 – Public Night at Jens Wendt (Waxing Crescent 5:30 PM Intro to Imaging Presentation)
02/19/18 – Society Meeting
03/05/18 – Board Meeting
03/14/18 – Sherman Park requested event for the Iowa Association of Naturalists Statewide Workshop
03/16-18/18 – Messier Marathon
03/19/18 – Society Meeting
03/24/18 – Public Night at Jens Wendt (First Quarter 7:00 PM Orion and Other Nebulae Presentation)
04/02/18 – Board Meeting
04/16/18 – Society Meeting
04/21/18 – Bettendorf High School Astronomy Day w/evening Public Night at Jens Wendt (Waxing Crescent 8:00 PM EAA Presentation)
05/05/18 – Menke Public Open
05/07/18 – Board Meeting
05/19/18 – Public Night at Jens Wendt (Waxing Crescent 8:30 PM Presentation???)
05/21/18 – Society Meeting
06/04/18 – Board Meeting
06/09/18 – Menke Public Open
06/16/18 – Public Night at Jens Wendt (Waxing Crescent 8:30 PM Star Cluster Presentation)
06/18/18 – Society Meeting
06/21/18 – Wayne Jens Memorial Solar Observing Day
07/02/18 – Board Meeting
07/07/18 – Menke Public Open
07/14/18 – Public Night at Jens Wendt (Waxing Crescent 8:30 PM Presentation???)
07/16/18 – Society Meeting
07/21/18 – Niabi Zoo w/PAC
08/04/18 – Public Night at Jens Wendt (Last Quarter – 8:00 PM Planets Presentation)
08/06/18 – Board Meeting
08/11/18 – Pleasant Valley High School – Meteor Shower Party w/Constellations and Mars
08/18/18 – Menke Public Open
08/20/18 – Society Meeting
09/06/18 – Board Meeting
09/07-09/18 – Eastern Iowa Star Party
09/15/18 – Menke Public Open
09/17/18 – Society Meeting
09/29/18 – Public Night at Jens Wendt (Waning Gibbous – 7:00 PM Moon Presentation)
10/01/18 – Board Meeting
10/13/18 – Public Night at Jens Wendt (Waxing Crescent 6:30 PM Andromeda and other Galaxies Presentation)
10/15/18 – Society Meeting
10/20/18 – Niabi Zoo w/PAC
11/05/18 – Board Meeting
11/10/18 – Public Night at Jens Wendt (Waxing Crescent 5:00 PM Presentation???)
11/17/18 – Niabi Zoo w/PAC
11/19/18 – Society Annual Dinner Meeting and Elections
12/03/18 – Board Meeting
12/15/18 – Public Night at Jens Wendt (1st Quarter 4:30 PM ISS, Satellites, Iridium Flares Presentation)
12/17/18 – Society Meeting



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: PwrHsePro@aol.com and/or MitchellRobertC@sau.edu

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