

# THE MERIDIAN

## Newsletter of the Quad Cities Astronomical Society

[www.qcas.org](http://www.qcas.org)



## NOVEMBER 2016

### 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

Welcome to November! A lot of first going on for us... new officers, new editor for the Meridian (This could be you!), slightly different newsletter format (again), and we continue to gain new members... welcome Mike Dannenfeldt (joined at the last meeting)!

...of course we don't want to forget a few other recent members, Mike Ombrello, Dave Ruddy, Ian Spangenberg, and Greg Weinberg... I apologize if I missed anyone.

At this time, I'd like to officially announce the new officers, and express on my and their behalf a thank you...

President:	Jeff Struve
Vice-Pres:	Craig Cox
Secretary:	Dr. Robert Mitchell
Treasurer:	Matt Neilssen
Director:	Dale Hendricks

Also, on behalf of the club and new officers, a hearty thank you to Dale for his leadership over the past few years as President, and all of the hard work and achievement accomplished by his team, Vice-President Bruce Brooker, Treasurer John Baker, and last but not least, Secretary and Meridian Editor Karl Adlon.

So, as the new officers and I begin in our roles to serve the club, I'd like to salute past officers with a quote originally attributed to Bernard of Chartres and popularized by Isaac Newton which surely applies here... "If I have seen further, it is by standing on the shoulder of giants."

Clear Skies!  
Jeff

### Last Society Meeting Minutes

#### **Date/Time Location**

6:30 PM on Monday, October 17  
The Credit Island Lodge

#### **Attendance**

John Baker, Ken Boquist, Craig Cox, Mike Dannenfeldt, Dale Hendricks, Dr. Robert Mitchell, Dave Ruddy, Jim Rutenbeck, Jeff Struve

### **Presentation**

Jeff Struve was elected to the President's office and provided an impromptu overview of some of the goals and objectives that he would like to present to the club for review.

Jim Rutenbeck gave a talk about his recent attendance at various star parties including the Florida Keys, Bootlegger, EISP, Okie-Tex and SolarFest.

There were high level discussions on PoleMaster, Plate Solving and software packages such as Astro-Tortilla and Sequence Generator Pro.

Mike Dannenberg is interested in investigating German Equatorial mounts and video astronomy... a bit of discussion on those topics followed.

### **Old Business**

Dale Hendricks and John Baker ran the election process. Jeff Struve was elected President. Winning unopposed offices included Craig Cox for Vice President, Matt Neilssen for Treasurer, and Dr. Robert Mitchell for Secretary.

### **New Business**

Jeff announced that the agenda for Society meetings will be adjusted so that the presentation is at the beginning of the meeting following the greeting and preceding a short business meeting. Jeff also introduced topics to be discussed such as the club rejoining ALCON, having an annual Messier Marathon, holding an Astronomy Swap Meet, holding 2 major public events – Meteor Shower Viewing and Astronomy Day, and reviewing the Bylaws to ensure that ambiguities are eliminated.

A brief discussion on our club meeting date was discussed and it was decided to leave the meeting on the 3<sup>rd</sup> Monday of the month.

### **Other**

The club was invited to the Village Inn located in downtown Bettendorf to continue the comradery. Craig Cox, Mike Dannenfeldt, Jim Rutenbeck, and Jeff Struve attended.

## Last Board Meeting Minutes

**Date/Time Location**

**Attendance**

**Presentation**

**Old Business**

**New Business**

## Next Society Meeting

**Date/Time Location**

6:30 PM on Monday, November 21  
Bettendorf Library – Check the bulletin board for which room...

**Presentation**

Craig Cox will be giving the presentation at the November meeting. At this time, there are 2 possibilities for topics. Weather and finding a suitable location, the talk will be on the PoleMaster. If this doesn't work, he will have a show and tell type presentation.

**Old Business**

11/04 Adams School Event  
11/18 Putnam Museum Event  
Don't forget, it's club dues time!  
Village Inn?

## Next Board Meeting

**Date/Time Location**

TBD

**Attendance**

**Agenda**

- Moving public open house at Jens-Wendt to the Saturday nearest the new moon
- Reviewing and rewriting bylaws
- Society Meeting Location
- Reviewing the Mission Statement
- Discussing the standing committees
- Discuss joining ALCON
- Discuss a High School Ambassador Program
- Discuss organizing the Messier Marathon, Astronomy Day, Perseid Meteor Shower, Eastern Iowa Star Party, and a swap meet.
- Coordinating info on our website and Facebook pages.
- Having a single QCAS contact for all outreach endeavors.
- Club project – Build a Poncet mount for the clubs Dob
- Club project – convert the 20" scope into a truss system
- Clean and convert the block house into a warm room/viewing center
- Take inventory of club equipment

## Submitted Articles

**Look! Up in the sky! It's a...???**

*By Jeff Struve and as published in the September 04, 2016 Moline Dispatch, Rock Island Argus, and the Autumn 2016 issue of Reflector magazine*

So it's nearing sunrise... sunset... the middle of the night... or most anytime, and you notice something up in the sky that for some reason has caught your eye, but what is it? So before calling Mulder and Scully, I thought I would give you a brief overview of the common objects noticed... those of an identified nature of course!

Is the object stationary? If so, you more than likely are seeing a star or planet. Common to notice are the planets Venus and Jupiter... and sometimes Mars and Saturn. Venus is very commonly seen at sun rise and sunset and is commonly referred to as the 'Morning Star' or 'Evening Star'. Jupiter is generally seen when skies are slightly darker and appears a bit larger. Mars is a bit harder to pick out and has a red hue to it. Both Mars and Saturn are generally seen with the aid of darker skies. It is beneficial to view the planets under dark skies, but the ones mentioned here can easily be seen under moonlight skies and even from inside our city limits. During the middle of September, you'll be able to see Jupiter and Venus follow the Sun as they set in the West after 7:00 PM and as skies darken, you'll see Mars and Saturn toward the West.

It seems obvious to mention stars as we generally equate stars with the night sky. There are a number of very bright and large ones to note. Some of the most popular are Sirius, Arcturus, Vega, Capella, Rigel, and Betelgeuse. Don't say that 3 times though!

Other somewhat stationary objects include comets and a few deep space objects that can be slightly visible to the naked eye... primarily the Andromeda Galaxy which would appear as a smudge in the sky and a few star clusters such as the Pleiades which can appear anywhere from a smudge to a small, very close grouping of stars. Less common and therefore highly publicized are the appearances of comets. Comets look a lot like stars with a cloud around them causing them to appear tear drop shaped or with tails.

But you say it's moving? The first thing to note is whether or not it is flashing... not twinkling as stars do, but the light is pulsating. If so, you probably have an airplane of sorts. If it isn't flashing you could be seeing a meteor or a satellite... but which is it???

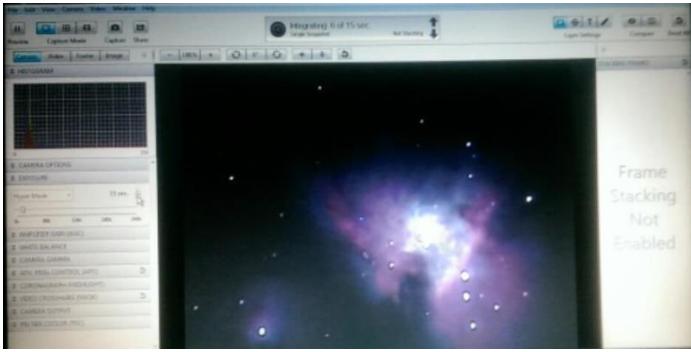
A meteor is an object that is burning up as it passes through the atmosphere, therefore is short lived... you see a little flash of light out of the corner of your eye, and then it's gone. It is not uncommon to see them last 10 to 15 seconds, especially during meteor showers. Astrophotographers often capture the paths of meteors and satellites as they photograph objects. A white line that goes from edge to edge of the picture would indicate a satellite or the International Space Station (ISS) as lights from these types of objects do not normally flash. An airplane path, as you may have guessed would look like a dotted line. A meteor generally appears as a short streak in the picture as the camera captures its entry into the atmosphere and its abrupt burnout.

So hopefully I have left you with a few questions... ok, it's probably not ET, but what is it? You also may be wondering if you can see satellites and the ISS during the day...

Thanks to the advent of computers and the smart phone, there are a lot of free programs and apps that can help you precisely identify what you are looking at just by aiming your smart phone at the object.

A few of the apps that can help identify stars, planets, comets and other deep sky objects include Google Sky Map, Stellarium, Mobile Observatory, SkyEye, Distant Suns, and SkySafari. If you want to see a satellite or the International Space Station, there are apps to help with that as well... they can let you know where and when to look, again by using your smart phone. The apps I use for this include Satellite Safari and ISS Detector.

Clear Skies!  
Jeff



M42 – Orion Nebula by Craig Cox

This is first light with Craigs Mallincam Jr. Pro. It is a screen scrape of a 20 second single exposure. Essentially, it is the real time view seen on a computer screen.



NGC7380 - Flying Horse Nebula by Mike Ombrello

The image is made up of 6 light frames (25 minute unguided exposures at ISO 800), 5 dark frames (previously taken), 25 flat frames and 25 bias frames. The raw frames were shot with a Nikon D7200 DSLR, attached (prime focus) to an Explore Scientific 127mm Triplet refractor scope, mounted to a Losmandy G11 mount.

The key to the unguided exposure times was use of the PoleMaster polar alignment camera and software.

The raw images were calibrated, registered, stacked (integrated) and post processed using PixInsight.



M33 – Triangulum Galaxy by Ken Boquist

Nineteen 5 minute exposures using a guided 5.1" F8 Astrophysics refractor. Problems with the stacking process caused a few issues with color (Not that this editor can tell!)

## Last Month IN QCAS

Dr. Mitchell invited a number of guests to visit Menke Observatory on 10/22. Mike Dannenfeldt and Jeff Struve assisted. Ken Boquist, Craig Cox, and Mike Ombrello also attended, setting up their gear for use and display to the guests.

While Dr. Mitchell gave a tour of the facilities, Jeff set up the observatory scope and Mike worked on the dome correcting issues that have been experienced while trying to engage the drive system which turns the dome. Mike has a number of other upgrades in mind to further improve functionality.

Craig had first light with his Mallincam Jr. Pro and was achieving excellent live views of the Orion Nebula and the moon.

Ken and Mike did imaging, and we all look forward to their results.

Dr. Mitchell, Ken Boquist, Mike Ombrello, and Jeff Struve attended the Popular Astronomy Club's Annual Dinner held at the Moline Viking's Club on 10/21. PAC was celebrating their 80<sup>th</sup> anniversary. Guest speakers included Mr. Floyd Perkins, who worked many years with Dr. James Van Allen on Air Density/Injun Explorer Satellites, and Mr. Carroll Iorg, Media Officer and Convention Coordinator for ALCON, who presented an award to PAC President Alan Sheidler.

Dale has advised that additional follow up regarding the August 21 2016 Solar Eclipse will be taken over the next few months and an update should be available after the first of the new year.

Jim, Mike, met with Craig, Ken, and Jeff met at the Elmore Village Inn on 10/29 so that they could do a run through of their presentations on AstroTortilla and PixInsight... when presented, the club is in for a treat... very interesting!



## For Sale – Wanted

Mitch White's Super C8 is For Sale - \$500.00

Contact Karl Adlon at [KMJA79@mchsi.com](mailto:KMJA79@mchsi.com)

Includes:

- optional Starbright Coatings
- finder scope
- fork mount with Byers worm gear drive
- wedge and field tripod
- aluminum case
- includes 3 eyepieces, each in a container:
  - 7mm Orthoscopic
  - 12.5mm Plossl
  - 26mm Plossl
- a camera adapter
- a 1-1/4" diagonal
- a battery pack able to run the scope
- a 12v cable to plug in a car outlet
- Thousand Oaks full aperture Solar Filter (-\$50 if not wanted)
- a JMI Motofocus electronic focuser drive (-\$50 if not wanted)
- off-axis guider with 0.62X reducer
- set of six color filters
- a Minolta film camera and cable

## Calendar of Events

### 2016

11/04/16 – 6:00 pm to 8:00 pm Adams School

11/18/16 – 1:00 pm to 4:00 pm Putnam Museum  
Astronomy Day

### 2017 TENTATIVE

01/16/17 – Society Meeting

01/28/17 – Open House at the Jens-Wendt Observatory?

02/20/17 – Society Meeting

02/25/17 – Open House at the Jens-Wendt Observatory?

03/20/17 – Society Meeting

03/24-26/17 – Messier Marathon at Menke Observatory

03/25/17 – Open House at the Jens-Wendt Observatory?

04/17/17 – Society Meeting

04/29/17 – Astronomy Day

04/29/17 – Open House at the Jens-Wendt Observatory

05/15/17 – Society Meeting

05/27/17 – Open House at the Jens-Wendt Observatory

06/19/17 – Society Meeting

06/24/17 – Open House at the Jens-Wendt Observatory

07/17/17 – Society Meeting

07/22/17 – Open House at the Jens-Wendt Observatory

8/12/17 – Public viewing of the Perseid Meteor Shower

08/19/17 – Open House at the Jens-Wendt Observatory

08/21/17 – Solar Eclipse

08/21/17 – Society Meeting

09/18/17 – Society Meeting

09/22-24/17 – Eastern Iowa Star Party

09/23/17 – Open House at the Jens-Wendt Observatory

10/16/17 – Society Meeting

10/21/17 – Open House at the Jens-Wendt Observatory

11/18/17 – Open House at the Jens-Wendt Observatory?

11/20/17 – Society Meeting – Annual Dinner

12/16/17 – Open House at the Jens-Wendt Observatory?

12/18/17 – Society Meeting

### 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!

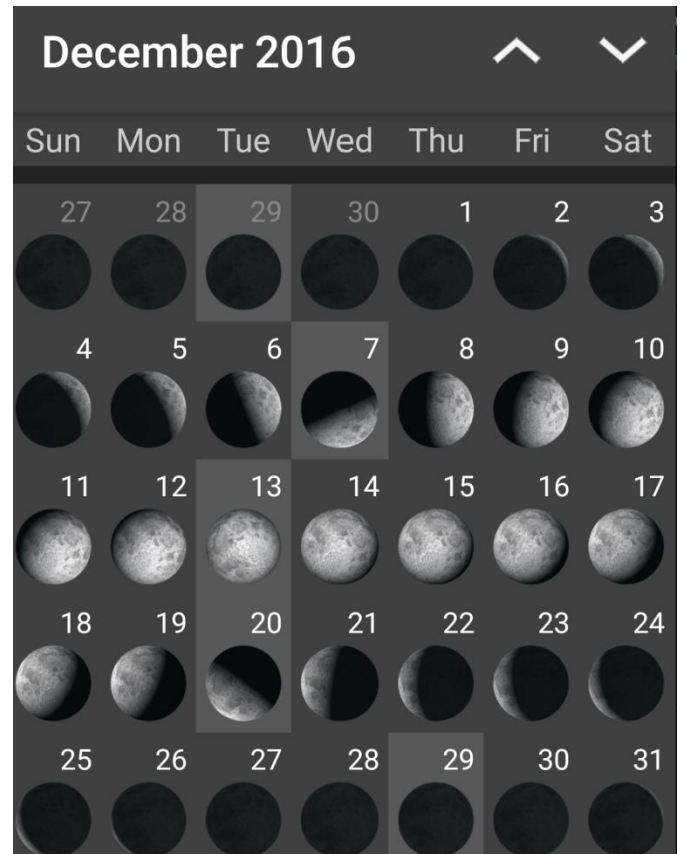
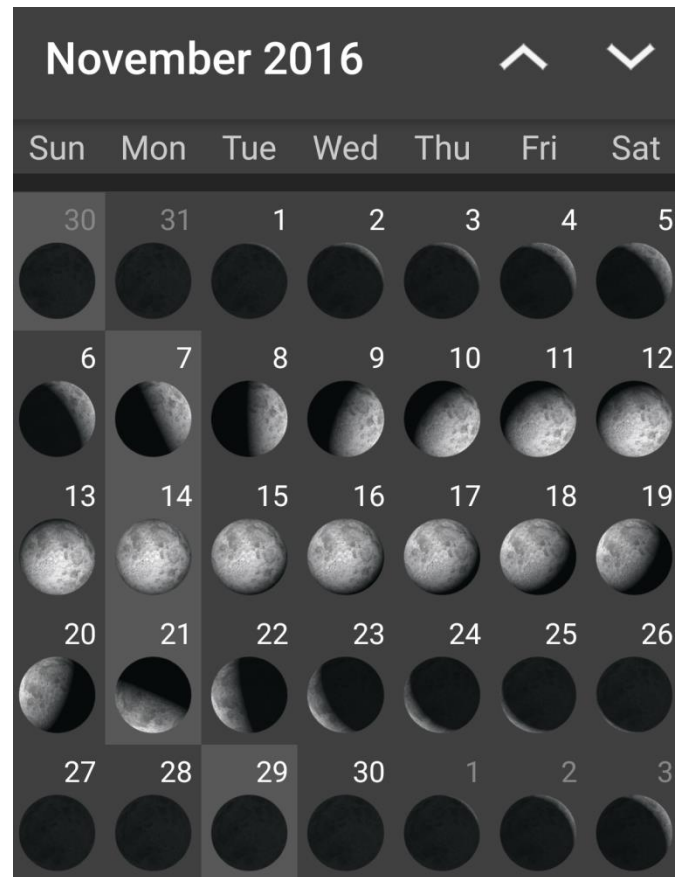
Types of articles that would really be interesting could include equipment reviews, experiences you've had in astronomy, pictures you've taken and how they were done, sketches you've drawn, trips you've taken to observatories or star parties, a high level overview of your favorite astronomer, movie,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

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

*Ps... A special thank you to Mike, Ken, and Craig for their photo contributions and Dr. Mitchell for his excellent note taking during the 10/17 meeting... it really helped in putting together this issue!*



## 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](mailto:PwrHsePro@aol.com) and [MitchellRobertC@sau.edu](mailto:MitchellRobertC@sau.edu)

## QCAS Officers and Contacts:

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