



The Meridian

The newsletter of the
Quad Cities Astronomical Society

June 2010

<http://www.qcas.org>

Secretary's Notes

Joe Bannon

WELCOME! Chris Day and family, who joined recently!

Members in attendance at the May meeting:

John Baker	Al Cattoir	Chris Day	Steve VanHyfte
Joe Bannon	Craig Cox	Chris Hebel	Cecil Ward
Ken Boquist	Jay Cunningham	Jim Rutenbeck	

The Treasurer reported there is \$1,834.14 in the club account.

Much of the meeting was spent discussing how to avoid conflicts when someone wants to use the 20" scope for visual observing and others want to use it for astrophotography. The idea of a calendar on the club's web site was discussed but this will take a little time to implement. Pending this, the discussion focused on ways to better communicate amongst members.

All agreed that going forward, if someone plans to go to the observatory to use the 20", they should send an e-mail to everyone letting them know the date, time and what they're planning to do (visual v. photography). The e-mail should confirm the person's intention to be there and not be a general request looking for someone to be the required second person. (As a reminder, club's rules require two members to be present whenever the 20" scope is used.)

First come, first served was agreed to, with the caveat that no one should send an e-mail "reserving" the next four month's worth of new moon nights. On this point there was some discussion about how far in advance you could reserve, how many times a year everyone got, or even allocating a specific number of reservations to each member. None of these were advanced any further and all agreed to try the e-mail notification system. Jim piped up that we've done pretty well with no system and if everyone would exercise a little courtesy and judgment, while following this new procedure, we'll probably be fine.

Joe said the distribution list for the Meridian is current and some e-mail systems will allow you to copy it to create your own. Alternatively, he can send a list of names and e-mail addresses so you can manually create your own.

Cecil reviewed the presentation to the Cub Scouts on May 15. The evening started off cloudy, so Cecil began with a presentation on the solar system and Dana then demonstrated the different types of telescopes and how they work. By the time he finished, the clouds had partially cleared and the boys and adults got to do some observing. Craig and Gary brought their scopes and helped keep the 23 scouts from having to stand in a line for too long. The Leo Triplet was reported to be the big hit. Thanks to all who helped and to Dr. Mitchell for letting us use the Menke classroom.

Joe mentioned a request for an observing session from Big Brothers/Big Sisters, and July 23 or 24 were discussed as possible dates at Emeis Park. Members seemed split between Friday night and Saturday night. Joe said he'd follow up with BB/BS to see if they have a preference. It was mentioned that contact would need to be made with the Davenport Parks and Rec for an after-hours permit. It was also mentioned that since the club last held a star party at Emeis, additional baseball fields and lights have been added. Joe said he'd contact Parks and Rec to determine the baseball schedule and any permit requirements.

Members were reminded of cleanup day at the observatory, scheduled for Saturday, May 22, beginning at 4:00. A photo inventory of items that potentially can/will be donated to the Putnam Museum will be collected as well.

Steve asked about the 8" refractor, noting it hasn't been used in a while and asked if it was worth keeping. According to Steve, the tube is too short and that requires a user to sit on the ground when observing. This obviously is a detriment to its use and Steve also said his experience was that the images weren't very good. Other members expressed different opinions related to the quality of its images. Jim suggested we attempt to bring this scope up to a state where it can be used in the next 2-3 months. Once it is usable, we can assess the quality of images and from there we can determine what to do with it.

Astrophotography and Imaging Tips

Karl Adlon

Trees - Thinking of taking multiple images and stacking them? I found (the usual way) that with trees in the background, the program I used stacked the images by aligning on trees, giving multiple star images.

Carefully - Somewhere I read that you can't get a car really clean unless you touch it - touchless car washes will not do - and at some point someone or something will have to touch the car. I think the same is true at some point for your optics (but be extremely careful!).

I keep my Orion 10" Dob capped and covered when not in use. Last year I noticed the images didn't seem to be as bright or clean as I remembered, but the optics being dirty didn't occur to me. One night observing I noticed that the mirror clips seemed to cause serious degradation of high power images, so I shined a light down the tube to check them out. Yes, they were big - too big - and I later trimmed them down. But what really surprised me was the film of dirt on the mirror. I'm wondering if it's due to the dirt road to the observatory.

There's lots of advice on cleaning optics on the Internet. If you want to clean a mirror the Obsession Telescopes website has good guidance. If you want to clean eyepieces or other lenses, the TeleVue website would be where I recommend you look.

Yup, I trimmed the tabs and cleaned the mirror late last year!

Now - There are plenty of reasons to find a location with dark skies to the south and to stay up late, including Scorpio, Antares, Rho Ophiuchi and M4. I like to start with Antares – trying to see how much nebulosity I can see around it as well as faint globular clusters – then sweep west until I pick up M4. There are smaller NGC numbered clusters in this area too. I recommend a star map to help identify what you've found or want to find.

In the lower middle of this picture I took is a dark nebula. For a long time I've read it called the Pipe Nebula. Lately, I've seen it and the portion above called the Horse Nebula. To me it looks like a horse with one of its legs taking a step forward. I've never been any place dark enough to see it visually, but I'm going to keep trying.

Finding the Lagoon and Trifid are fairly easy, but you need a map to pick out other goodies. And don't be afraid to take some pictures! You can enjoy them later when you can't get out observing.

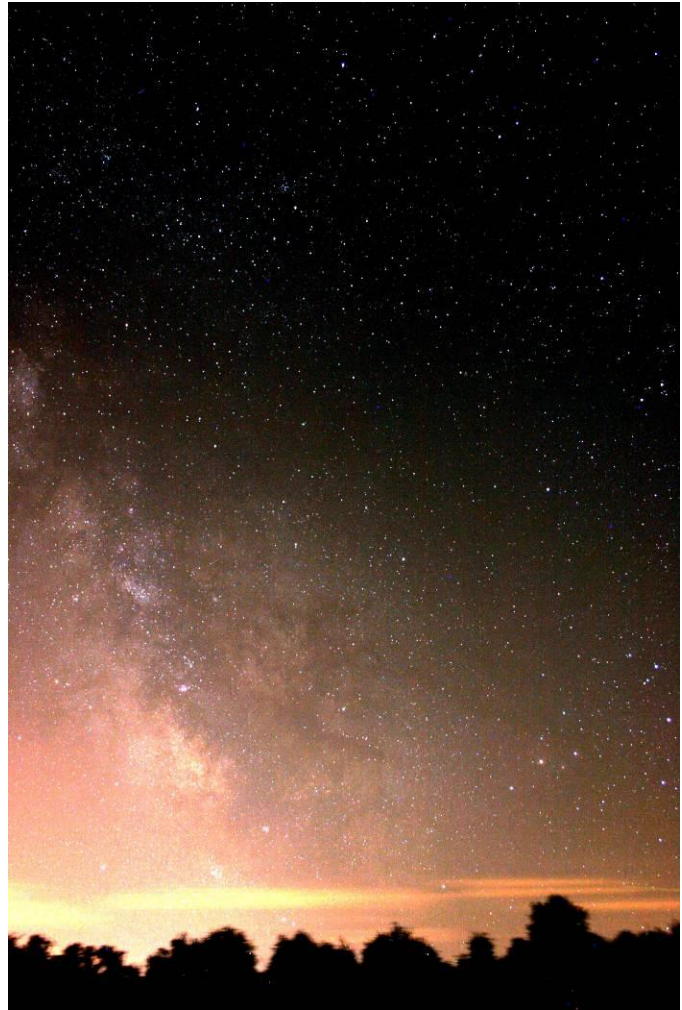
Imagers' Corner - Up until a few weeks ago I didn't realize there were so many different types of calibration images you could take for use by an image stacking program. Then I came across a list of definitions, which I made into a guide for my next imaging session. I share it in the hope that it helps you. Take the following:

1. Bias- 1/8000 sec dark (cover the eyepiece and use the body cap).
2. Flat dark - Almost the same as above but ISO 100-200 at 1/25 sec.
3. Flat - A shot of the clear sky in focus. Use ISO 100, (this maps out the light across the CCD from the lens you are using).
4. Dark Frames - Same length of time and ISO as the images you take but with the CCD in the dark again as in the first two.
5. Light frames - Sky images.
6. Another dark frame.

Some imagers take more than one dark frame, so I plan to take at least two. Dark frames capture the amount of thermal noise in the sensor, which changes with chip temperature.

The flat maps out lens vignetting and dust on your sensor so the stacking program can correct for those. You need an even light source and the lens / scope set-up in the configuration you'll use to take your sky images. If you plan to change set-ups during the night, you need an even light source to re-take them. Your fellow astronomers won't like that. An option for an all-nighter is to take a flat once the sky lightens.

Hopefully, this helps you obtain a better final image – if so, let us see it please.



A Trip to the Zoo?

Gary Charnoski

A while ago at an Astrofest star party I learned about a program where we can help professional astronomers classify galaxies. This is real and a chance for us amateurs to do some real research type work. I've been doing it in my spare time on the computer.

If you would like to check it out, go to www.galaxyzoo.org read up about it and see if it's of interest to you. There is a registration but it does not cost anything and you get a chance to see galaxies that are from just shortly after the Big Bang. Check it out.

Upcoming Celestial and Club Events

June 1	Predawn - Ceres passes through southern part of the Lagoon Nebula
June 3	Evening - Mars is less than 2 ⁰ right of Regulus
June 6	Dawn – Jupiter and Uranus are approximately 6 ⁰ lower right of the Moon Evening - Mars is approximately 50' upper right of Regulus
June 8	Dawn – Uranus is 26' left of Jupiter; closest proximity all month
June 10	Dawn – Mercury visible in binoculars 9 ⁰ below Moon in the east
June 11	Dawn – Moon is approximately 6 ⁰ to Mercury's left Evening – Venus, Pollux and Castor form a near straight line in west-northwest
June 14	Evening - Venus is approximately 4 ⁰ above the Moon
June 16	Evening – Mars, Regulus and the Moon form a triangle
June 18	Evening – Saturn visible approximately 9 ⁰ above the Moon, and Ceres at opposition all night
June 19	Menke Public Star Party
June 19-20	Venus is less than 1 ⁰ from the center of M44, the Beehive Cluster
June 21	Summer solstice
June 26	QCAS Public Star Party

Jens-Wendt Observatory – Quad Cities Astronomical Society – Located at Sherman Park in Dixon, Iowa

Monsignor Menke Observatory – St. Ambrose University – Located at Wapsi River Environmental Education Center in Dixon, Iowa

QCAS Contacts

Elected Officers			Volunteers and Committees		
President	Dana Taylor	dana@nelsontaylor.com	Facilities	Jim Rutenbeck	jrutenbeck@frontier.com
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Director	Karl Adlon	Kmja79@yahoo.com			
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All other contacts can be sent to the club at P.O. Box 3706, Davenport, IA, 52808.

Members are also reminded that anyone can submit articles for *The Meridian*. Submit articles to Joe Bannon at jbannon@midamerican.com and mzbannon@aol.com.

FOR SALE

Cecil is selling this Pristine TeleVue 101 refractor for a friend. This scope was used only occasionally and has been meticulously taken care of. Included: TeleVue OTA with TeleVue Qwik Point, TeleVue Telepod, TeleVue padded hard case, TeleVue 20mm Plossl, Orion 9mm orthoscopic, Orion Skyglow and 80A filters, Meade #140 2X Telenegative Amplifier, 2' diagonal, and padded eyepiece case. The tripod does show some minor marks, the 20mm Plossl has very minor use marks, and the Meade 140 is missing the set screw. New this would sell retail for over \$4,000; selling price is \$3,000. Shipping to CONUS paid by buyer. Money order or certified check.

