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20" Mirror is Installed

by Dale Hendricks

Dana, Mitch and I met at Sherman Park at 10:00 and saw the great unveiling of the newly resurfaced mirror. Much condensation when it was first uncovered. As we continued with the installation the condensation slowly disappeared from outside to in. Lots of hard, grunting work getting the mirror, attached to its rack, into the tube. Overcast and some breeze but it was very close inside the roll off and we had towels to wipe sweat to keep it off the mirror. Secondary mirror was installed following installation and positioning of the 20" – couple of fits and starts but the process went reasonably well and quickly. I've included photos taken on site – these are from cell phone. I took a bunch more with Dana's better camera and I'll leave the distribution of those to him



Good work, Mitch and Dana. Now we wait for clear skies, cooler weather and some great viewing/astrophotography.

Onward and upward, everyone.

Photos:

Above: Dana positions the mirror in the mirror mount.

Right: Installed mirror ready for peak observing time.



20" Saturn

by Dana Taylor

This was on a fairly bad night; lots of air turbulence; the mirror was still warm, and Saturn was fairly close to the horizon.

I think the mirror works now. I have never been able to see Cassini's division visually, let alone photographically.



Meeting Notes

Astronomy (discussions) Meeting, July 6

Attendees: Sandra Duncan, Ava Duncan, Bruce Brooker, Craig Cox, Sam Snow, Matt Neilssen, Robert Mitchell, Dana Taylor, Dale Hendricks, Jeff Struve, Karl Adlon and Jim Rutenbeck.

Karl made a presentation on **eyepieces**, power, field of views, pupil diameter, exit pupil, maximum power, minimum power and examples followed by Jeff's demonstration of using Stellarium to see fields of view using various eyepieces and telescopes.

Board Meeting, July 15

Attendees: Dale Hendricks, Dana Taylor, Bruce Brooker, John Baker, Karl Adlon, Steve Van Hyfte and Jeff Struve

- 20" Mirror: OMI called Dana on July 13th to tell him the mirror refiguring and coating was complete and ready to be picked up. The 20" telescope will be available for the next Open House.
- No September 7th meeting as the Bettendorf Library will be closed.
- Dale prepared a Letter of Appreciation for John Robbins' performance as QCAS Secretary which was signed by the Officers and will be sent to him.
- Board Members' News:
 - The Adlons are planning to move within the next year, so a Secretary will be needed in the near future.
 - John Baker will not be able to attend meetings in the future and would like someone to take over as Treasurer.

Business Meeting, July 20

Attendees: Shawna Duncan, Ava Duncan, Dana Taylor, Mitch White, Craig Cox, Matt Neilssen, John Baker, Jeff Struve and Dale Hendricks

Meeting started at 6:45 with a small number of members present.

- 1) Treasurer's report - (From John Baker: ~ \$2,900 minus \$1,500 Dana paid to OMI plus any outstanding donations made to support this effort.)
- 2) New members - Curby Heister and 5 year old daughter Dakota – welcome!
- 3) 20" mirror status Dana, Bruce and Mitch White met at Sherman Park Saturday to install and align the mirror – Dana made a presentation at the meeting)

(continued on page 3)

Calendar

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

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

August 3
Astronomy (dialogs)
Meeting

August 17
Business/Astronomy
Meeting

August 22
SAU's Menke
Observatory Star
Party

August 29
Observatory
Open House

September 7
Labor Day
- No Meeting
- Library is Closed

September 24
Business/Astronomy
Meeting

September 19
SAU's Menke
Observatory Star
Party

September 26
Observatory
Open House

October 5
Astronomy (dialogs)
Meeting

October 9 - 11
Eastern Iowa Star
Party @
Menke Observatory

October 19
Business/Astronomy
Meeting

Welcome

by John Baker

Everyone please welcome our newest member, **Curby Heister**.

Bruce Brooker, and I were out at Sherman Park last night, July 18, helping Dana put the new 20" mirror through its inaugural testing and benchmarks when Curby and his daughter Dakota (5 years old) came over and asked if it would be okay if they set up their telescope. For those of you who are not familiar with the Sherman Park observatory grounds, Curby is a son-in-law of Chuck, the park Naturalist who lives in the house directly across from the block house. He's been interested in astronomy since he was a kid but never had a really nice telescope.

While Dana was taking test photo's through the 20" telescope Bruce went outside and chatted (pitched the club? :-) with Curby and Dakota. Bruce set up one of the telescopes from the block house for them to use and showed them Saturn (and a few other objects?). After a while the sky started to cloud up and the next thing I knew is Bruce, Curby, and Dakota walked in to the observatory and Curby paid his 2015 dues right there on the spot. :-)

Welcome Curby and Dakota!

John Baker
Treasurer,
QCAS

August Nights

August 12, 13 - Perseids Meteor Shower. One of the best meteor showers to observe, producing up to 60 meteors per hour at its peak. It is produced by comet Swift-Tuttle, which was discovered in 1862. The Perseids are famous for producing a large number of bright meteors. The shower peaks this year on the night of August 12 and the morning of August 13. The thin crescent moon will be no match for the bright Perseids this year so be prepared for a great show. Best viewing will be from a dark location after midnight. Meteors will radiate from the constellation Perseus, but can appear anywhere in the sky.

August 14 - New Moon. This is the best time of the month to observe faint objects such as galaxies and star clusters because there is no moonlight to interfere.

August 29 - Full Moon, Supermoon. This phase occurs at 18:35 UTC. This full moon was known by early Native American tribes as the Full Sturgeon Moon because the large sturgeon fish of the Great Lakes and other major lakes were more easily caught at this time of year. This moon has also been known as the Green Corn Moon and the Grain Moon. This is also the first of three supermoons for 2015. The Moon will be at its closest approach to the Earth and may look slightly larger and brighter than usual.

All Month

August is a great month to view Saturn, with the view next month not as good as the planet approaches a viewing angle closer to the Sun.

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
Director: Dana Taylor

Chairpeople

Facilities: Dana Taylor
Web Master: Dana Taylor
Outreach: Tom Bullock

dhusna68@mchsi.com
brookers3@machlink.com
kmja79@yahoo.com
johnbsys@aol.com
dana@nelsontaylor.com

dana@nelsontaylor.com
dana@nelsontaylor.com
tombull58@yahoo.com

Business Meeting Notes, July 20 (continued)

- 4) Member nights at Sherman Park (revisited) – these are available anytime members show up.
- 5) Labor Day Monday “astronomy only” meeting cancelled due to the holiday closing – no rescheduling of the meeting
- 6) Goals and Objectives for the QCAS – Mission-Vision Statement from our web page – “Quad Cities Astronomical Society is a non-profit organization dedicated to educating and informing the public about events and interests in the world of astronomy.” This is what it is now but Bruce Brooker is developing an “add” to this based on our activities and cooperative relationships of the last two years.
- 7) Cooperative work/relationship with QCAS and SAU Menke observatory (Bruce Brooker, Jeff Struve, Dr. Mitchell)
- What has been done cooperatively to this point
 - What are the near term issues to be addressed
 - Longer range goals/vision for our cooperative relationship
 - Loaning of 10” SCT to Menke for visitor nights/viewings
- 8) Dr. Mitchell was very clear about the value of the support he has been receiving from members of the QCAS and that he and the Menke observatory would be nearly at a stop without it. Dale continued to urge that we work together to strengthen the symbiotic relationship that exists between SAU/Menke and the QCAS. Dr. Mitchell will be drafting a list of critical items needed to enhance the value of the Menke facility to the University and to their Open Houses and was asked to consider how and/or if Sherman Park facilities could be used to further enhance the educational offerings to SAU students.
- 9) Continued involvement/working relationships with our public “partners” – i.e., Davenport Parks and Recreation, Bettendorf Planetarium and support of requests from public service/church and other groups for viewing nights. Dale will be following up with these various groups and individuals to confirm that the QCAS membership are dedicated to continuing the relationships we have established with these various groups including, most especially, the Davenport Parks and Recreation Department and Bettendorf High School, the Planetarium and Peter Bruecken and Chris Like.
- 10) Other items of business – the 10” SCT continued to generate a great deal of discussion. The instrument itself is considered to be good (see next page) but the diagonal issue remains unresolved. We plan to use several different diagonals to determine if the diagonal we have now is faulty and needs to be replaced or if we have diagonals that will work to make it what it needs to be. For use at the Menke it needs a dovetail and that is under discussion, review and further action. It was voted on and approved to purchase a diagonal (\$68.00) and Jeff placed the order
- 11) Adjourn - The meeting adjourned at 8:10.

Next meeting:

The next meeting is Monday, August 3 at the Bettendorf Public Library, beginning at 6:30 PM.

QCAS' 10" SCT Check-Up

by Karl Adlon

On July 16, Jeff Struve and I, with permission from the QCAS Board, took the club's Meade 10” SCT “for a spin”.

We took it from the blockhouse over to Menke classroom and set it up; verified the drive was working and aimed it out the window so we'd have a rough focus. Then we took it outside to equalize thermally and wait for a star to appear (Vega).

Because we hear that the diagonal that came with the scope was questionable, we set it aside and first used my Lumicon diagonal and 31mm eyepiece at 80X. We aimed the scope at Vega. Defocused, the secondary was well centered, so we didn't adjust the collimation. In focus Vega was a nice point of light. We tried a 14mm eyepiece but it dewed over, having been in the classroom.

Then we took a look at Saturn. At 80X it looked pretty. We installed a barlow in a configuration giving 160X and wished for more power. So we placed the barlow ahead of the diagonal giving about 250X. At this power, Saturn still looked nice and crisp even with the corrector dew over from the high humidity and fairly clear skies. I had the feeling that the scope could handle higher powers if there wasn't dew.

Conclusion: The optics are good or maybe better than good. BUT, based on what others have said, the scope needs a new diagonal.

Currently the OTA is at Menke and the wedge, tripod and other equipment is back in the blockhouse.

Outreach use: The clock drive worked and held Saturn in the eyepiece. We should consider a dew shield and/or heater for the corrector. The scope consists basically of 2 parts: the tripod with wedge and the OTA and fork-mount. The OTA and Fork-mount is HEAVY. Not everyone in the club will be able to handle it. And 2 people are best, with one holding the OTA and Fork-mount while the other guides the based mounting bolt on to the slot in the wedge. This is not easy single-handedly.

September 27 – Plan Ahead

Sunday night, September 27, is a Total Lunar Eclipse. Partial begins at 8:07 PM. Totality begins 9:11 PM and ends 10:23 PM.

The eclipse starts with the Moon low in the East, about 14.5° above the horizon, so be sure you pick a spot with a good view in that direction.