



Presidential Ramblings

by Dale Hendricks, April 5, 2016

This morning I stepped outside to pick up the paper and seeing that the skies were, strangely, clear I walked out further to see Mars and Antares. Saturn and Jupiter were bright and prominent as well. Wanting to be more specific about what I was seeing here is the sky for this week – Mars, Saturn, and Antares at dawn, early April 2016:



It was a stunning sight – with Saturn to the East of Mars and Jupiter in the SW I enjoyed the perspective of the heavens I had that I am certain most QC residents did not have or did not know was available to them. That I saw it and went outside knowing that I would see it sets me, as a very amateur astronomer, apart from the majority of

people, not just in the QC but in the US or the world. And knowing how many of you are far more than the amateur astronomer I am means that I am in very good company, indeed. At night, now, I go outside to look at and enjoy my winter sky friends Orion, Sirius, Aldebaran and the Pleiades and steel myself to say goodbye to them as they fade in the west and look forward to seeing them again this winter. While I was at the Naval Academy, I played in the Drum and Bugle Corps (I played bugle) and we practiced for the Army Navy game on Farragut Field which was on the Chesapeake Bay. During our practices I would gauge the time to Christmas Leave by the rising of Orion over the Bay. Since then, Orion and Friends have been my favorites in the sky.

These are a couple of reflections and memories that explain why I am so honored and rewarded by being a member of the QCAS. I love astronomy and all the things we do as a club and why I am willing to work hard to keep the club strong and, hopefully, recruit new members who have the same passion.

Meridian Editor, as I See It

by Karl Adlon

You probably know from Dale's email that I've picked up the assignment of Meridian Editor.

An Editor is a person who edits written material for publication says one internet definition.

Several members have submitted articles and they are to be thanked. THANK YOU!

I'd like to see more members help out and here are a few ways:

- ★ Of course, submit an article
- ★ Supply a photo you took with a few words about it
- ★ Let me know of especially interesting articles or books you have read
- ★ Or videos you have watched
- ★ Let me know of improvements that could be made to make the Meridian better and/or more of what you want it to be.

Thanks for your consideration on this topic. –Karl

With your help, we can make the Meridian newsletter more useful to you and other readers. THANK YOU!

Note – I'm aiming to issue the Meridian in the middle of the month for the coming month, similar to subscription magazines, so this is the May issue.



Occupy Mars!

If you can't do that, come to our June 11 Mars viewing on June 11 at Credit Island. Early birds can aim at the Moon, then Jupiter and when all have seen Mars, Saturn will be favorably placed.

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Calendar of Opportunities

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

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

Other **QCAS Events** as noted

Monday, April 18
QCAS Monthly Meeting

Saturday, April 30
Observatory Open House

Saturday, May 7
SAU Star Party @ Menke Observatory

Monday, May 9
Rare Transit of Mercury Across the Sun; will have just begun at SUNRISE, St. Ambrose University

Monday, May 16
QCAS Monthly Meeting – Presentation by OMI

Saturday, May 28
Observatory Open House

Saturday, June 4
SAU Star Party @ Menke Observatory

Saturday, June 11
Mars Observing Event at Credit Island

M101 - The Pinwheel Galaxy

I really like images of M101 such as this one taken with a 14" at f7.7 and posted on Cloudy Nights. The lack of symmetry indicates something is going on.



Wikipedia says: M101 is asymmetrical due to the tidal forces from interactions with its companion galaxies. The pinwheel shape is visible in an 8" scope

in dark sky locations under favorable conditions.

Currently, at about 11 PM looking north-east, the galaxy is located below Mizar and Alkaid as shown in the Stellarium screen shot below.



Happy hunting!

May Nights

10 PM early May, Jupiter is to the south of the Virgo galaxies; The Whirlpool galaxy is almost overhead and Mars is near the eastern horizon.

Following is from <http://www.universetoday.com/>

May 05- The Eta Aquariid meteors peak at ~20:00 UT/4:00 PM EDT with an estimated ZHR of 40 favoring SE Asia.

May 06- Double shadow transit (Io-Callisto) of Jupiter occurs from 11:38 PM - 1:44 AM CST.

May 09- A **transit of Mercury** across the face of the Sun occurs, 7 hours and 23 minutes in central duration centered on ~14:57 UT for viewers around the Atlantic Ocean region. The only transit of the planet Mercury since 2006 and until 2019.

May 21- A Blue Moon occurs, in the sense of the 3rd in an astronomical season with four Full Moons.

May 22- Mars reaches opposition at 11:00 UT/7:00 AM EDT.

May 30- Mars is at its closest until the July 30, 2018 close approach.

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:

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Mercury Transit

by Dr. Robert C. Mitchell

On May 9, the innermost planet Mercury will move across the face of the Sun from 6:12 AM to 1:42 PM, Central Daylight Time. Such an event is known as a transit, and from Earth, this can happen with Mercury or Venus. Because their orbits are tilted relative to Earth's, a transit can only happen when either planet is at one of its orbital nodes (points in its orbit where it cross the plane of Earth's orbit) at the same time the planet is at *inferior conjunction* (directly between Earth and the Sun). Venus transits, in fact, only happen twice per century at the most, and the next one won't occur until 2117. Mercury transits happen more frequently; the last one was in 2006, and the next will be November 11, 2019.

Interested viewers will need to use a telescope, since Mercury's disk appears too tiny to see without magnification. Astronomers recommend at least 50x. Since the transit involves viewing the Sun, it is vital to exercise safe viewing practices. Use the telescope to project the Sun's image onto a white card, or use a properly-designed solar filter on the front of your telescope for direct viewing. **(NEVER EVER, as in NEVER, try to view the Sun without protection, or with an eyepiece-mounted solar filter!!)**

Mercury will appear to move across the Sun in a northeast to southwest direction during the transit. Dr. Robert Mitchell will have a filtered telescope set up on the campus of St. Ambrose University, beginning around 8:00 AM the morning of May 9. I'll be setting up the telescope on the patio just outside the main entrance to Christ the King Chapel at St. Ambrose University.



Above is from Stellarium, giving an idea of the size of Mercury compared to the Sun.

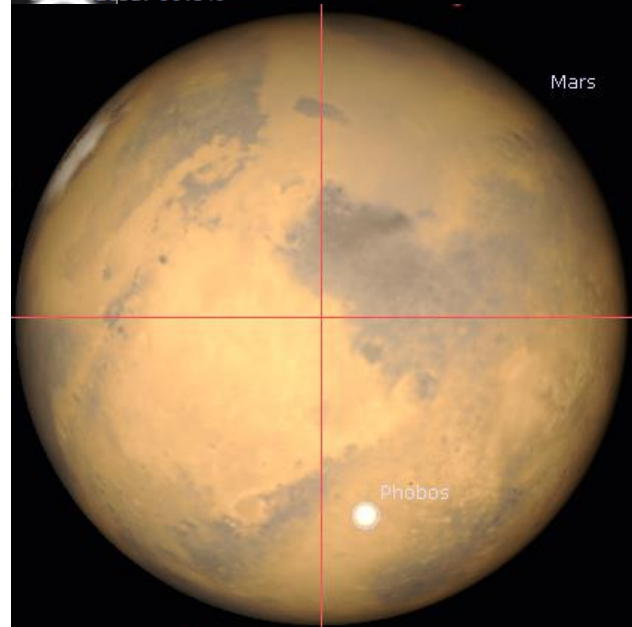
Mars Close Approach

As you know, the Mars closest approach occurs on May 30 and on June 11 is our Credit Island observing event. I hope you all plan to be there and help out.

If you want a head start, here's the view on May 15 @ Midnight and with decent skies you should be able to see the dark mark called Syrtis Major.

Mars

Type: planet
Magnitude: -1.92 (extincted to: -1.60)
Absolute Magnitude: 31.06
RA/Dec (J2000.0): 16h05m57.26s/-21°42'25.6"
RA/Dec (on date): 16h06m55.72s/-21°44'54.3"
Hour angle/DE: 22h30m39.42s/-21°42'43.6" (apparent)
Az/Alt: +157°22'37.6"/+23°23'00.3" (apparent)
Ecliptic longitude/latitude (J2000.0): +243°40'13.9"/-0°50'10.2"
Ecliptic longitude/latitude (on date): +243°54'02.0"/-0°50'09.0"
Ecliptic obliquity (on date): +23°26'14"
Galactic longitude/latitude: -8°12'43.4"/+22°12'03.6"
Mean Sidereal Time: 14h37m32.4s
Apparent Sidereal Time: 14h37m32.1s
Distance: 0.522AU (78.127 Mio km)
Apparent diameter: +0°00'17.9"
Sidereal period: 686.97 days (1.881 a)
Sidereal day: 24h37m22.7s
Mean solar day: 24h39m35.2s
Phase Angle: +5°23'26"
Elongation: +171°49'43"
Phase: 1.00
Illuminated: 99.8%



Syrtis Major Planum is a "dark spot" (an albedo feature) located in the boundary between the northern lowlands and southern highlands of Mars just west of the impact basin Isidis in the Syrtis Major quadrangle. It was discovered, on the basis of data from Mars Global Surveyor, to be a low-relief shield volcano, but was formerly believed to be a plain, and was then known as Syrtis Major Planitia. The dark color comes from the basaltic volcanic rock of the region and the relative lack of dust.

Image of the Month

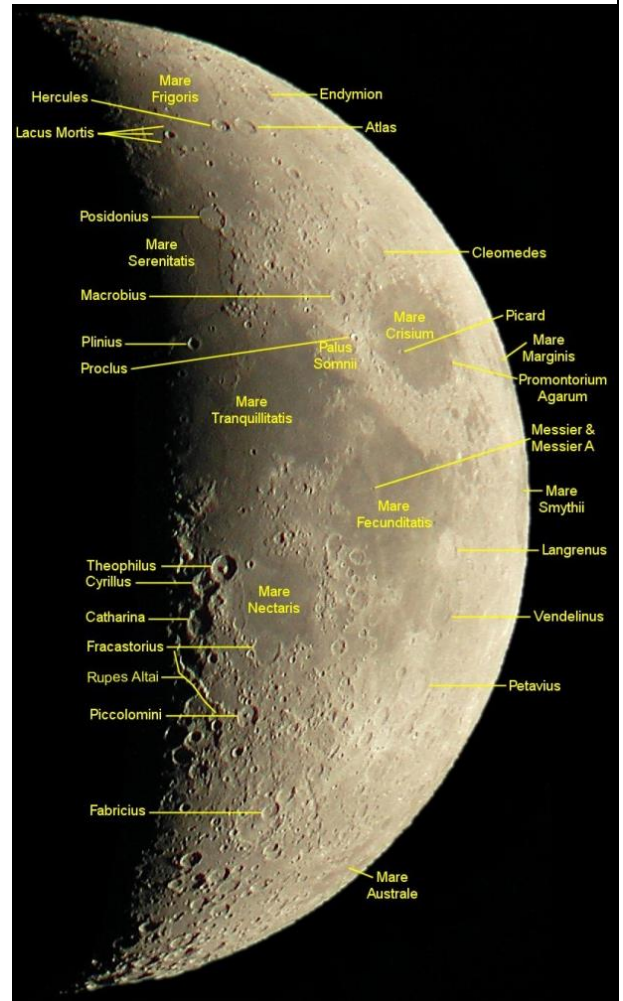
At left is Bruce Brooker's image of the Moon taken with a scope and cellphone.

At right is an annotated image, about the same moon phase, taken off the internet.

This method of aiming the camera into the telescope eyepiece and taking a picture is called the "afocal method".

I was about to say "Don't try this on a nebula" but stopped myself. Try this on a nebula. Or a star cluster. The only way to know for sure that it won't work is to try it.

Don't forget: Turn flash off!



A Volunteer

I was surprised to find this guy on our patio last week. Apparently a plant we had on the table dropped a seed last year and it survived – a volunteer.



Volunteers are a good thing. They come in all sizes – big ones who carry more load and smaller ones that help with the small things that need to be done. Without volunteers, charities would not survive.

Neither would astronomy clubs.

Sometimes we just need people to show up and lend moral support to the members that seem to do it all. You don't need a telescope and you don't need to be an expert on anything and you will still be helping the Club to do the things we do better. And *you* will be a volunteer, too.

Spring Cleaning

Before the observing season gets started in earnest it's a good time to take a look at your equipment.

Has dust gathered on the tube or mount? Start by gently wiping off the dust with a soft clean cloth. I prefer Sparkle for cleaning fingerprints and the like.

Do the optics need cleaning? There's lots of guidance on the internet, but I suggest www.televue.com. If it's good enough for them, ...

Does any lubricant need to be refreshed? As best as possible, wipe off the old lubricant first, then re-lube. Many amateurs use SuperLube. At low temperatures it continues to lubricate without becoming stiff. It actually could be too slippery for old focusers that rely on the grease stiffness to hold the focuser tube in position.

Is it time to clean out the closet? Take a look at any equipment you haven't used in the last couple years. Maybe it's time to see if someone else can use it. Maybe it would be a good starter scope for someone. Some call that "thinning the herd".