



Observer

Newsletter of the Racine Astronomical Society

www.rasastro.org

Spring 2012

~ Work Party ~

Saturday April 7th is our Work Party. The rain date will be on Saturday April 14th. Your help is always appreciated. Pizza will be provided.

~ General Meeting ~

Saturday April 21st, 7:30pm at the Observatory.

- Astronomy Day ~

The date for Astronomy Day this year is April 28 from 8:00 – 11:00 P.M. at the Observatory.

This event was started in 1973 by Doug Berger, the president of the Astronomical Association of Northern [California](#). His intent was to set up various [telescopes](#) in busy urban locations so that passersby could enjoy views of the heavens. Since then the event has expanded and is now sponsored by a number of organizations associated with astronomy. Local astronomical societies, planetariums, museums, and observatories will be sponsoring public viewing sessions, presentations, workshops, and other activities to increase public awareness about astronomy and our wonderful universe.

Highlights for this years Astronomy Day :
Saturn, Mars, Venus, Moon, Jupiter, Orion Nebula

Please come out and join us. It gives astronomy-lovers a chance to share their passion with the astronomy-curious. Last year we had a large turnout so if you have a scope you would like to set up it would be a big help. Hope to see you there!!!

~ Venus Transit 2012 ~

On Tuesday June 5th, Venus will transit the sun. The last transit occurred on June 8, 2004. This is a very rare event with only six Venus transits known to have been observed by humans. The first was in 1639 and the others were in 1761, 1769, 1874, 1882 and 2004. The Observatory will be open to the public from 5 PM until 8:30 PM to observe this event. Take the afternoon off and come on out to see it! The next transits of Venus will be in December 2117 and December 2125.

~ This Month in the night sky (April) ~

MARS

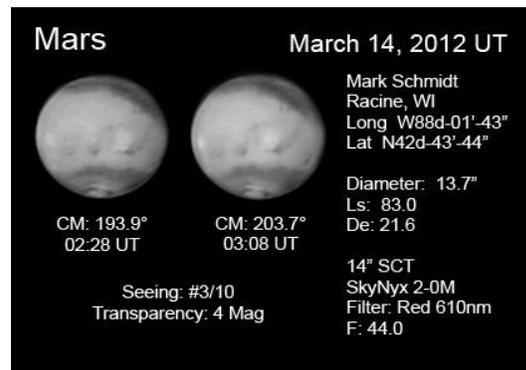
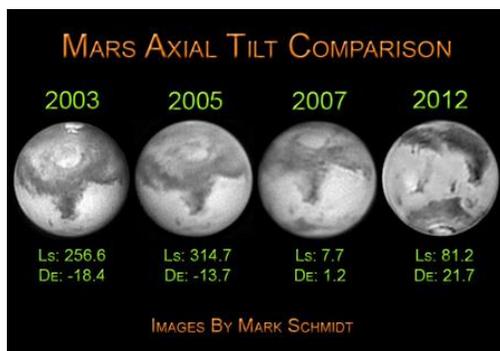
By mid-evening, as Venus and Jupiter set in the west, Mars stands two-thirds of the way from the southeastern horizon to the zenith. It spends the month floating 5° or less from Regulus (Alpha Leonis).

Through a telescope, the Red Planet's disk will appear no bigger than 12" across, still rather small even at high magnifications. In a 6-inch telescope on a night of good seeing, you should be able to make out the north polar cap, limb hazes, dark surface markings and occasional white clouds or dust storms.

Mars is never easy to study, and its small diameter this April presents a special challenge. The best telescope for planetary observing is a large apochromatic refractor with first-rate optics, but fine planetary views have also been obtained with Schmidt-Cassegrains like the one at our club. In the end, the limiting factor is atmospheric seeing. Studying the planets means spending a lot of time at the eyepiece, waiting for brief glimpses through steady air. Just as important, the longer you watch, the better trained your eye becomes.

One last thing - color filters. They are an important aid for planetary observing and improving the delicate contrast of Martian features. Sometimes filters can even steady the seeing slightly. The improvements are subtle, but with experience they become important.

Our Observatory Director **Mark Schmidt**, took the following Astrophotography shots last month.



~ Saturn ~

Saturn rises at the end of evening twilight as April begins. It shines high in the southeast, among the stars of Virgo the Maiden and close to the brilliant Spica, by midnight. Saturn reaches opposition and peak visibility on the 15th, rising then around sunset. Opposition is about when a superior planet attains its maximum apparent size and brightness.

At this opposition, Saturn is at magnitude +0.3 and its globe is 19"-wide. The rings span 42", more than double the planet's disk, and tilt 14° to our line of sight. You should have no trouble spotting the Cassini Division, a thin black gap in the rings named in honor of G. D. Cassini, who discovered it in 1675.

Saturn's rings are one of the spectacles of the night sky when seen through a decent telescope. When Galileo trained a primitive telescope on the planet for the first time in 1610, he was misled. From the poorly resolved image in his viewfinder, he believed Saturn to be a triple-system, with a large body in the center and smaller ones on each side.

The rings may be much younger than the planet itself, and great mathematicians have found them worthy of contemplation. Laplace and James Clerk Maxwell calculated that Saturn's rings must consist of many smaller objects, all moving round the planet in the manner of tiny moons. There is no mystery about their composition; they are made up of ordinary water ice.

RAS Board Member **Timothy Tadyak** took this shot of the ringed planet last year with our clubs 14" Schmidt-Cassegrain.



~2012 Event Calendar~

March

24 - Spring Star Party

April

7 - Work Party (9 AM))
14 - Work Party (Rain Date)
21 - General Meeting (7:30 PM)
28 - Astronomy Day (8-11 PM)

May

11 - Public Night (8-11 PM)

June

5 - Venus Transit Day (5 - 8:30 PM)
15 - Public Night (8:30-11:30 PM)

July

21 - Summer Star Party
21 - General Meeting (7:30 PM)
27 - Public Night (8:30-11:30 PM)

August

10 - Public Night (8-11 PM)

September

15 - Picnic (4 PM)
22 - Public Night (8-11 PM)
(Observe the Moon Night)

October

13 - Fall Star Party
13 - General Meeting (7 PM)
20 - Astronomy Day (7-10 PM)

November

10 - Work Party (9 AM)
17 - Work Party (Rain Date)

December

15 - Christmas Party (7:30 PM)

~ From the Editor~

If you have submissions for the newsletter, questions, comments, or ideas, please send me an e-mail.

Also, if you are still receiving you're newsletters via postal mail and have access to e-mail you can opt to receive them in a PDF format via e-mail instead. You'll get them a little faster and save the RAS a few bucks. Club updates and reminders are sent out on regular basis via e-mail. If you would like to change you're delivery method please let me know.

Timothy Tadysak

The free Adobe Acrobat reader can be downloaded here:

<http://get.adobe.com/reader/>

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