

The OBSERVER

The Newsletter of the Twin City Amateur Astronomers, Inc.

June 2006 Volume 31, Number 6



JUNE 3 POS ASTRONOMICALLY SUCCESSFUL

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The title of this article says it all. One of the TCAA's best public observing sessions in recent memory took place on Saturday, June 3, at Sugar Grove Nature Center. With a crowd of about 55, eight operating member and club telescopes, and a great talk by Kevin Brown, the night was one to remember. Events began as daylight turned to darkness with observations of the first quarter moon, Jupiter, Saturn, and Mars. At 9:05 p.m. Kevin presented a 15-minute PowerPoint orientation to Jupiter and its 63 moons. At around 9:20 p.m. observing began in earnest.

Mike Rogers led observing with the 20-inch telescope; Lee Green put out his C14. There were several 10-inch instruments staffed by Mac M., Duane Yockey, and several others whose names escape the author. Dan Miller commanded an 8-inch, and William Carney ran the SGO 12-inch telescope.

The evening was dark and clear,

and provided many remarkable images. A warm but gentle breeze kept everyone comfortable, the mosquitoes at bay, and dew away. There was much excited commentary throughout the observing session that lasted until after 11 p.m. thanks for the many volunteers.

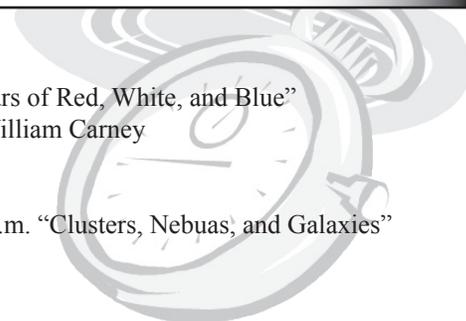
OBSERVING AT PERKINS OBSERVATORY

By Carl J. Wenning

On June 9th I returned to the observatory where I had done much of my undergraduate astronomical work. The place, Perkins Observatory near Delaware, Ohio. I arrived at 8 p.m. along with my 10-year-old nephew, Jerromy, who had never looked through a big telescope. I promised him an evening to remember using the 32-inch telescope housed in the observatory's huge dome that once housed a 69-inch telescope, the

TCAA Calendar of Events

- June 24, MOOS
Coordinator: 1. Carl Wenning
- July 1, POS at SGO, 9 p.m. - 11 p.m. "Stars of Red, White, and Blue"
Coordinators: 1. Brian Barling, 2. William Carney
- July 22, MOOS/Picnic
Coordinators: ?
- July 29, POS at SGO, 8:45 p.m. - 10:45 p.m. "Clusters, Nebulas, and Galaxies"
Coordinators: ?
- August 19, MOOS/Picnic



The Observer

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The Observer is a monthly publication of the Twin City Amateur Astronomers, Inc., a registered 501(c)(3) non-profit educational organization of amateur astronomers interested in studying astronomy and sharing their hobby with the public.

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Membership Dues

Individual Adult/Family \$40
Full-time Student/Senior \$25

To join the TCAA, send your name, contact info, and dues payment to:

Duane Yockey
508 Normal Avenue
Normal, IL 61761

third largest telescope in the world at the time it was constructed in 1923, and the "Telescope" of "Sky & Telescope" magazine.

We started the evening by checking in with the "management" and then took a stroll down, what was for me, memory lane – literally. We started with a walk through "Dr. Keenan's Observatory Garden" that had recently been uprooted by workers removing pine trees that had been killed by the Pine Bark Beetle. We then walked past the small observatory dome that once contained a 16"-24" Schmidt camera, and out to the field of the "Big Ear," the radio telescope that had been used for SETI work for many years, and was associated with the "Wow!" signal. Unfortunately, neither the Schmidt camera nor the radio observatory was still in place. The Ohio Radio Survey Telescope had been taken down in 1998 and the land filled with golf course and a housing development. The 16"-24" was carted off at this time to Anderson Mesa in Arizona where it can be used to photograph the sky once again. In 1998 Ohio State University formally broke its ties with Ohio Wesleyan University and Perkins Observatory. Hence, the removal of the radio telescope and Schmidt camera.

The area around Perkins Observatory had become "developed" and the sky is no longer readily visible with a limiting magnitude of about 3 at its best. We

were still able to do some viewing that evening with the 32-inch telescope, but better views were obtained with a good 18" Obsession telescope and an 8-inch ball-mounted telescope.

All is not lost however. Perkins Observatory is open many nights each year for public viewing. It is operated by OWU under that able leadership to Tom Burns (an amateur astronomer) in cooperation with some very supportive members of the Columbus Astronomical Society.



FROM THUNDERSTORMS TO SOLAR STORMS...

by Patrick L. Barry

When severe weather occurs, there's a world of difference for people on the ground between a storm that's overhead and one that's several kilometers away. Yet current geostationary weather satellites can be as much as 3 km off in pinpointing the true locations of storms. A new generation of weather satellites will boost this accuracy by 2 to 4 times. The first in this new installment of NOAA's Geostationary Operational Environmental Satellites series, called GOES-N, was launched May 24 by NASA and Boeing for NOAA



(National Oceanic and Atmospheric Administration). (A new polar-orbiting weather satellite, NOAA-18, was launched May 2005.)

Along with better accuracy at pinpointing storms, GOES-N sports a raft of improvements that will enhance our ability to monitor the weather—both normal, atmospheric weather and “space weather.”

“Satellites eventually wear out or get low on fuel, so we’ve got to launch new weather satellites every few years if we want to keep up the continuous eye on weather that NOAA has maintained for more than 30 years now,” says Thomas Wrublewski, liaison officer for

NOAA at NASA’s Goddard Space Flight Center. Currently, GOES-N is in a “parking” orbit at 90° west longitude over the equator. For the next 6 months it will remain there while NASA thoroughly tests all its systems. If all goes well, it will someday replace one of the two active GOES satellites—either the eastern satellite (75°W) or the western one (135°W), depending on the condition of those satellites at the time. Unlike all previous GOES satellites, GOES-N carries star trackers aboard to precisely determine its orientation in space. Also for the first time, the storm-tracking instruments have been

mounted to an “optical bench,” which is a very stable platform that resists thermal warping. These two improvements will let scientists say with 2 to 4 times greater accuracy exactly where storms are located. Also, X-ray images of the Sun taken by GOES-N will be about twice as sharp as before. The new Solar X-ray Imager (SXI) will also automatically identify solar flares as they happen, instead of waiting for a scientist on the ground to analyze the images.

Flares affect space weather, triggering geomagnetic storms that can damage communications satellites and even knock out city power grids. The improved

imaging and detection of solar flares by GOES-N will allow for earlier warnings. So for thunderstorms and solar storms alike, GOES-N

will be an even sharper eye in the sky.

Find out more about GOES-N at goespoes.gsfc.nasa.gov/goes. Also, for young people, the SciJinks Weather Laboratory at scijinks.nasa.gov now includes a printable booklet titled “How Do You Make a Weather Satellite?” Just click on Technology.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

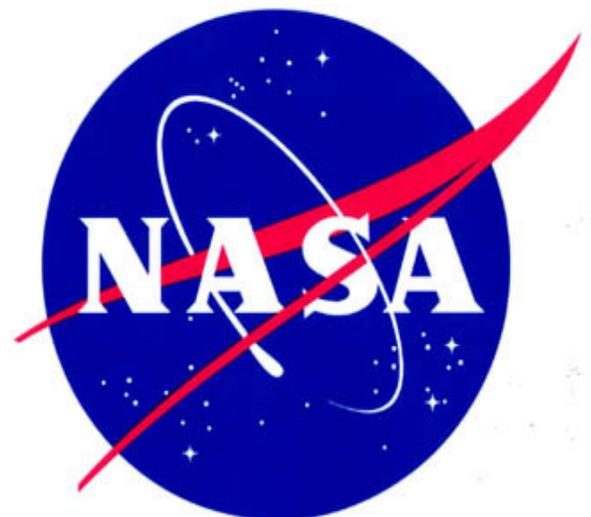
METEOROID HITS THE MOON

Information from TCAA Listserv,
submitted by Michael Rogers

A meteoroid was observed hitting the moon on May 2, resulting in a new crater 14 meters wide and three meters deep. The video recording of this event can be viewed online from NASA at http://science.nasa.gov/headlines/y2006/13jun_lunarsporadic.htm?list6694.



New GOES-N satellite launches, carrying an imaging radiometer, an atmospheric sounder, and a collection of other space environment monitoring instruments.



TCAA Treasurer's Report – May 2006

OPERATING FUND BALANCE – April 30, 2006- \$ 1,981.18

Income

James Wharton (Sen. Dues Renewal) - \$ 25.00

Expenses

Rebecca Wenning (May Observer) - \$ 10.60

OPERATING FUND BALANCE – May 31, 2006 - \$ 1,995.58

OBSERVATORY FUND BALANCE – April 30, 2006 - \$ 1,350.74

Income

None - \$ 0.00

Expenses

None - \$ 0.00

OBSERVATORY FUND BALANCE – May 31, 2006 - \$ 1,350.74

TOTAL TCAA FUNDS – May 31, 2006 - \$ 3,346.32

Respectfully submitted,
L. Duane Yockey, Treasurer
Sugar Grove Observatory

Listing of Official Keyholders (Paid \$10 deposit/\$5 renewal)

Duane Yockey (April 2001, renewed through 2006)
Michael Rogers (August 2001, renewed through 2006)
William Carney (March 2002, renewed through 2006)
Carl Wenning (January 2004, renewed through 2006)
Brian Barling (February 2004, renewed through 2006)
Lenore Trainor (December 2004, renewed through 2005)
Kevin Brown (May 2005, renewed through 2006)
Sothilingam family (June 2005)
Christopher Franklin (July 2005, renewed through 2006)
Kal Kumar (renewed August 2005)
David Osenga (January 2006)
Gerry Schoeder (February 2006, renewed through 2007)
Karen & Ed Duran (February 2006)



*“Stars of Red,
White, and Blue”*

Public Observing Session
Sugar Grove Observatory
July 1, 2006
9 p.m. - 11 p.m.



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Are Your Dues Due?

The Dues Blues?

If you see a check in the box above,
it means your dues are due. To retain
membership, please send your dues
renewal to our esteemed Treasurer:

Duane Yockey
508 Normal Avenue
Normal, IL 61761