The WASP (Warren Astronomical Society Paper) is the official monthly publication of the Society. Each new issue of the WASP is e-mailed to each member and/or available online www.warrenastronomicalsociety.org. Requests by other Astronomy clubs to receive the WASP, and all other correspondence should be addressed to the editor, Cliff Jones, email: cliffordj@ameritech.net

Articles for inclusion in the WASP are strongly encouraged and should be submitted to the editor on or before the first of each month. Any format of submission is accepted, however the easiest forms for this editor to use are plain text files. Most popular graphics formats are acceptable. Materials can be submitted either in printed form in person or via US Mail, or preferably, electronically via direct modem connection or email to the editor.

Disclaimer: The articles presented herein represent the opinions of the authors and are not necessarily the opinions of the WAS or the editor. The WASP reserves the right to deny publication of any submission.

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Astro Chatter
by Larry Kalinowski

Looks like the crater near the Yucatan peninsula is a piker compared to what was found in Antarctica. There’s satellite evidence that a 300 mile crater lurks a half mile under the ice in Antarctica. Changes in soil density, which is revealed as a Mascon, shows the 300 mile ring. That means there has been more than one mass extinction in the Earth’s past.

Norway, the land of the midnight Sun, has been christened with a sensational meteor landing, according to Internet reports. The impact occurred and could be heard and recorded seismologically by NORSAR, a research center in Karasjok, Sweden. The trail of the meteor was witnessed by Peter Bruvoki and was also photographed. Reports from all over Sweden are being scrutinized so that the landing site can be accurately determined. NORSAR estimates that the impact was the equivalent of a bomb about the size of the Hiroshima explosion back in 1945. Anyone that might have picked up any of its pieces are asked to bring them to scientific institutions for scrutiny.

According to Robert Roy Britt, senior science writer at Space.com, the International Astronomical Union (IAU) will be coming up with a definition of a planet during the meeting of the union in September, 2006. I’ll believe it when I see it. If you look at the history of the committee that’s supposed to do the deciding, they’ve been passing the buck to other committees, simply because they can’t even decide on what parameters to use for defining a planet. The only agreement they’ve been able to come to was the fact that newly discovered bodies have to orbit the Sun. Anyone can add an adjective to the word planet to define the mess, like asteroidal, gaseous, giant, spheroidal, high inclination or extra solar to separate the wheat from the chaff, but that’s not a scientific definition. Let’s face it, all objects formed and orbiting the Sun are planets. Do we have to subdivide those objects into categories like we subdivide humans by country or color?
We're all humans. Looks like astronomers are going to have to learn more about these things we call planets before any decisions can be made.

Chalk up two more moons for the planet Pluto. That brings its count to four. The Hubble space telescope photographed the two new moons recently and the IAU has given them the names Hydra and Nix.

Our secretary, Dale Partin, has proposed joining the Astronomical League. We have been a member of the League in the past but decided to drop our membership a few years ago because our large membership created quite a large bill to join. In fact, it’s become a trend with large societies. Large groups feel it isn’t worth the price. The best part of the League is its publications and awards. If you’re an ambitious amateur looking for recognition for your observing or contributions, it might be worthwhile to join as an individual. Our club didn’t have many individuals that wanted awards and the one publication that members received quarterly was the only thing the League offered to all our members. If you’re into awards, conventions, observing handbooks, astronomical books and collectors items with the League logo, this might be a good investment for you. League members get a ten percent discount on any items the League sells.

Open houses at the Stargate Observatory will be on July 29 (picnic), August 19, September 16, October 14, November 11 and December 2. All these dates occur on a Saturday.

If you have anything to swap or sell, bring those items to the July 29 club picnic at Stargate observatory. The site will be opened at 12 noon, if you like to arrive early for setting up any equipment and getting a favorite spot to observe. As before, the club will provide hotdogs and some burgers, however, you are required to bring some kind of dish or condiments to participate in the eating activities.

Be prepared to have your picture taken at the upcoming club picnic on July 29. There’s talk about getting a group picture and some individual pictures of members and their telescopes for adding some recent club activity pictures on our web site.

Last month’s discussion/computer group covered methods for analyzing stocks, Seti At Home, voice over the Internet and MP3 and Wave files. July’s discussion/computer group meeting will be on the 27th, (the fourth Thursday of the month) at Gary Gathen’s home in Pleasant Ridge. He lives at 21 Elm Park Blvd., three blocks south of I-696 and about a half block west of Woodward Ave. Meeting will start at 8:00 PM. You can reach Gary at 248-543-3366, or me, at 586-776-9720 for any further information.

By the way, There is a meeting, at Cranbrook, on July 3, in case you weren’t sure about it.

All space photos are courtesy of SPACE.COM and SPACEWEATHER.COM, unless otherwise noted.

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THE SWAPSHOP

This column is for those who are interested in buying, trading or selling items. Call 586-776-9720 (cometman@mybluelight.com) if you want to put an item for sale or trade in this section of the WASP. The ad will run for six months. The month and year, the ad will be removed, is also shown.


FOR SALE. Ten inch, box, Dobsonian telescope. F4.5, 1/8 wave parabolic mirror. 50 inch long tube. Two inch (with 1¼ in. adapter) rack and pinion focuser. An 8X50 right angle, upright image, dovetail mounted, crosshair finder with interchangeable eyepiece capability and an inch and a quarter 12mm eyepiece.
Telescope ring time, less than one second. $500. Larry Kalinowski, 856-776-9720 (10-06)

FOR SALE 6" and 4" refractors
I just received a TMB 6" APO refractor so am selling off 2 of my refractors.
The 6" is a Sky Watcher f8, 1200mm focal length achromat. The optics have been indexed and colimated, the tube has been modified so it will take both standard eyepieces as well as a binoviewer (like a Burgess) without needing a relay lens. It also has large brass focus knobs. The tube was signed by David Levy of comet finder fame. I will sell this scope by itself or...
You can also buy both the 6" and a 4" (105mm, 1000mm focal length, f 9.5) with Vixen optics AND a Aries Chromacor that was custom made for me to order by Val Derushin to convert both of these matched scopes to TRUE APO. If you want the APO setup I will only sell the complete set of two refractors and the converter. The 4" is also able to come to focus with a binoviewer without a relay lens in addition to standard eyepieces. I will not sell the converter by itself.
Asking $400 for the 6"....$1300 for the matched set of two scopes and converter. Both scopes also include mounting rings, dovetails, finder scopes and a red dot finder.The 6" also includes a wheeled carrying case. Both have outstanding optics, have internally baffled tubes, and the APO conversion is amazing. It does not include a mount.

Want to delve more deeply into a specific field of interest in astronomy? Joining a sub-group just may be the answer. Please contact the chairperson listed by the subgroup of interest for more information, meeting times and location. Current sub-groups are:

Discussion/Computer Group    - Larry Kalinowski
Lunar/Planetary/Double Stars - Alan Rothenberg
Deep Sky Group               - Phil Martin

Solar Group                  - Marty Kunz
Hands on Group               - Riyad Matti

WAS Meetings scheduled for 2006

Cranbrook Meetings – Every 1st Monday
July 3     Aug  7   Sep 4   Oct 2
Nov 6   Dec 4

Macomb Meetings – Every 3rd Thursday
Jul 20    Aug 17   Sep 21   Oct 19
Nov 16    Dec  *
* Banquet date to be determined.

Presentations for 2006

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May 2006 Calendar

Monday, July 3 • 12:37 pm: First Quarter Moon; Earth is at Aphelion (94.5 million miles from the Sun); 12:25 am: Asteroid 2004 XP14, will whiz by about 269,000 miles from the Earth
Tuesday, July 4 • 1:00 pm: The Moon passes 0.1° south of Spica
Wednesday, July 5 • 10:00 pm: The Moon passes 5° south of Jupiter
Monday, July 10 • 11:02 pm: Full Moon
Thursday, July 13 • 1:33 pm: The Moon is at perigee (226,358 miles from Earth)
Monday, July 17 • 3:13 pm: Last quarter Moon
Tuesday, July 18 • 3:00 am: Mercury is in inferior conjunction
Saturday, July 22 • 2:00 am: Mars passes 0.7° north of Regulus; 8:00 pm, The moon passes 6° north of Venus
Tuesday, July 25 • 12:31 am: New Moon
Thursday, July 27 • 1:00 pm: The Moon passes 1.1° North of Mars
Friday, July 28 • Southern Delta Aquarid meteor shower peaks
Saturday, July 28 • 9:02 am: The Moon is at apogee (251,908 miles from Earth)
Monday, July 31 • 9:00 pm: The Moon passes 0.4° south of Spica

2006 Stargate Observatory Open House Schedule

Aug 12 – Start at 6 P.M.: Public Meteor Shower open house (sponsored by the Park Service)
August 19 – Start at 6 P.M.: General observing.
September 16 – Start at 6 P.M.: General observing.
October 14 – Start at 6 P.M.: General observing.
November 11 – Start at 6 P.M.: General observing.
December 2 – Start at 6 P.M.: General observing.

Notes:
1. Normal closing time will depend on events, weather, and other variables.
2. The observatory may be closed one hour after opening time if no members arrive within the first hour.
3. Contact me for other arrangements, such as late arrival time.
4. An alternative person will be appointed to open the observatory if I cannot attend a scheduled date or opening time.
5. Members may arrive before or stay after the scheduled open house time.
6. Dates are subject to change or cancellation depending on weather or staffing availability.
7. An e-mail will be posted no later than 2 hours before starting time incase of date change or cancellation.
8. It is best to email me up to 2 hours before the posted opening with any questions you may have. I will not be able to receive e-mail after 2 hours before open time.
Generally only strong rain or snow would prevent the open house...even if it is clouded over I plan on being there. Often the weather is cloudy but clears up as the evening progresses.

2006 Stargate Observatory Open House Schedule

Bob Berta

Special notices:

Meeting Minutes

Warren Astronomical Society
Minutes of BOARD Meeting
June 5, 2006 - Cranbrook

The meeting was called to order at 6:32 pm.

Attendance:
Norman Dillard, Marty Kunz, Dale Partin, Bob Berta, Phil Martin

Phil Martin reported that our balance in the club checking account is $4129.12 and that the petty cash account has $32.04. Approved.

Phil also said that an insurance policy that the club has was cancelled effective April 26. Phil and Norman will look into this.

Other officers gave their reports.

Dave DONofrio sent a request for a contribution of $250.00 for speakers and expenses for the GLAAC Kensington Star Party to be held September 29-30, 2006. Approved.

It was agreed to ask Ken Bertin to head the WAS 2006 Banquet Committee.

We received a communication from Christine Guarino of the Macomb Cultural Center about a Science and Space Exploration event to be held there on November 18 and 19, 2006. John Glenn will be a featured speaker. Norman will follow up with some possible things that WAS could do to contribute to the event.

The meeting was adjourned at 7:26 pm.

Respectfully submitted,
Dale Partin

Warren Astronomical Society
Minutes of club meeting
June 5, 2006 - Cranbrook
The meeting was called to order at 7:38 pm.

Jim Sickles was introduced as a new visitor.

The officer and committee reports were given.

Bob Berta said that there was a good turnout for National Astronomy Day. Also, plans continue for a class on CCD imaging this summer.

Dale Partin gave a talk entitled Pupil Dynamics. Phil Martin gave a talk on the Texas Star Party 2006. Gary Ross gave a talk in which he showed the pictures of Mark John Christensen.

29 people attended the meeting.

The meeting adjourned at 10:01 pm.

Respectfully submitted,
Dale Partin

Warren Astronomical Society
Minutes of club meeting
June 15, 2006 - Macomb

The meeting was called to order at 7:40 pm.

The officer and committee reports were given. Phil Martin reported that the club checking account has $4129.12, and the loose cash account has $45.04. Dale Partin presented the minutes of the last WAS meeting at Cranbrook.

Bob Berta said that he is still working on getting a new focuser for the clubs 12.5 inch Cassegrain telescope and working on the observatory roof. He said that there will be an open house on June 24\textsuperscript{th} and the club picnic on July 29\textsuperscript{th}.

Ken Bertin has agreed to find a speaker for our December banquet.

Norman discussed our involvement in a Science and Space Exploration Event at the Macomb Cultural Center. Possible dates for us to be involved are November 10 and 17 (subject to change).

Larry Phipps showed a video of the Cadillac Star Party Spring 2006. Don Klaser, president of the Ford Amateur Astronomy Club then gave a talk entitled, The Calendar and Western Culture.

23 people attended the meeting.

The meeting adjourned at 10:05 pm.

Respectfully submitted,
Dale Partin

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Member’s Astrophotos

(Pictures of note along with background data may be submitted to the WASP editor for publication)

All, Attached (above) are two images I got while at Bill Beers Cadillac Star Party...had a great time and two nights of excellent seeing/imaging. I spent most of the time setting up the new scope on the first day and did the imaging on the second day.

Here is the black and white image of the Veil and also the color version using Ha for Luminance bin 1 and Ha, OIII and SIII binned 2. These are three 10 minute shots median combined in each of the emisssion filters and one 20 minute Ha shot for the Luminance layer. The shots aren’t bad although there is a bit of field curvature due to the cobbled together focal reducer which is a Celestron f6.3 from the SCTs. That will be corrected once I get the
dedicated large format focal reducer (being machined now to attach to the STL camera). The camera is the SBIG STL 6303e with the AstroDon emission filter set and my 6" AstroTech Engineering, A&M APO refractor with TMB triplet optic. I don’t have the large format focal reducer yet nor the motorized focuser yet...hope to have both in a month or two. But was happy with the results I got. These are full frame uncropped images.

The scope shows lots of resolution in the nebulosity and stars and the colors from the emission filters are really interesting. Will be trying some other combinations down the road with the same shots. You can assign the Ha, OIII and SII filters to any combination of the RGB translation and get completely different "versions" of the image. I thought it was interesting that the central colors tended to be in the green violet area whereas the nebulosity near the upper corner had more of the yellows. This is due to the different types of gasses in the nebula. On my monitor you can see lots of very faint areas of nebula that go out a long way. You don’t see this type of detail even when looking through a very large scope. Goes to show that a camera and a small aperture (6") refractor can do some pretty amazing things.

Bob Berta

From Dr. Phil Martin’s collection:

M27

M16

Great Lakes Star Gaze 2006
September 22nd thru September 24th

Great Lakes Star Gaze. The Gladwin location provides excellent observing without having to travel hours into northern Michigan. Limiting magnitudes are estimated to be around 6.5 at the zenith with some minor light domes from the cities of Mt. Pleasant and Midland (approximately 30 miles away).

We mix interesting talks and events during the day with great observing at night. Some great door prizes have been given out in past years, and this year will be no exception. This event is well attended and provides a great opportunity to network with other amateurs. The range of equipment that people bring is awesome and there are some good views to be had.

Sponsors & Donations

Great Lakes Star Gaze gets strong support from local and national vendors, who provide us with a fantastic selection of door prizes. See last year’s sponsors for details.

For a copy of the Flyer in PDF, go to the web page: http://www.boonhill.net/sunset/PDFforms/GLSG4Flyer.pdf

For a copy of the registration form in PDF, go to: http://www.boonhill.net/sunset/PDFforms/GLSG4Reg.pdf
Celestron’s Revolutionary Sky Scout
Star and Planet Locator:
Reg. $399 – Now only $379
(With your Rider's RED card)
Announcing...

The Cadillac West 2nd Annual
"SUMMERFEST"
STAR PARTY

August 23 – 27, 2006
(Wednesday thru Sunday)

Hosted By: Bill Beers (Warren Astronomical Society)
Located 14 miles west of Cadillac, Mich. at Bill Beers cabin (RSVP for map)

***DARK SKIES***

**Saturday Barbecue**

Accommodations Available:
Limited Floor Space in Cabin
Plenty of Space for Tents/Campers
Best Value Inn (231-775-2458) 12 miles east
Driftwood Lodge (231-775-2932) 12 miles east
Caberfae Peaks (231-862-3300) 1 mile east

----- A/C POWER AVAILABLE -----

For More Info Contact:
Bill Beers Phone #586-566-8367 or E-mail “BEEZOLL@AOL.COM”

(PLEASE RSVP IF YOU ARE PLANNING ON ATTENDING)

**This will be a find the “Fairy Ring” event**
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.
New GOES-N satellite launches, carrying an imaging radiometer, an atmospheric sounder, and a collection of other space environment monitoring instruments.