February 2006

### The Warren Astronomical Society Paper

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www.warrenastronomicalsociety.org

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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**

The Rider’s-FAAC astronomical swap shop was well attended on the 28th, in Livonia. The WAS had three tables of goodies for sale, along with seventeen more tables by the other clubs. In our group, Steve Greene made a big showing with his table of goodies, which had a complete range of telescope building hardware. I didn’t get a chance to attend them but four lectures were given during the show, making attendance well worth the five or six dollars you might have paid if you were there. My table gave away more of those Chandra CD’s and posters. Astronomy prevailed, of course, but I could see a lot of film cameras for sale. The bell is tolling for chemical photography. Eyepieces were in abundance too. Some telescopes were sold along with some mounts. The range of prices varied from $50 to $3000. Since I missed last years show, I was anxious to attend this one. It was good to see all the other astronomy enthusiasts there too. Attendance was over 100, not including those who registered before the day of the show. One of these shows each year, isn’t enough. There should be more.

If I had to pick two of the most important inventions of the twentieth century, I’d pick the LASER and the CCD chip array. We’ve all seen the growth of the LASER, especially in the medical field and just how important it’s become in the weapons field, is not for the general public to know, for the time being. The second device, the CCD chip, is advancing astronomy by leaps and bounds as we enter the twenty-first century. You and I use CCD chip arrays in general photography and recognize how far its come in astronomy. The truth is, you ain’t seen nothin’ yet in the astronomical field. The Kepler Space Probe, due to be launched sometime during next year, is going to revolutionize the field of exoplanet hunting. A large CCD array will be placed in orbit and will have the capability of measuring thousands of stars at regular intervals to help find short and...
long period planets around other stars. The array will be using the transit method for period measurements and astronomers think the first year alone will reveal at least 500 more discoveries to our present list. As the years roll by, the list will grow into the thousands or tens of thousands.

New Horizons, the Pluto space probe is on its way. It’s going to take nine years to reach its target. That’s long enough to make me forget what the probe is out there for. Will it solve the problem of Pluto being a planet or an asteroid? Good question. I for one have always said that if it’s spherical, it’s a planet. Moons are excluded because they orbit other planets.

New measurements by a team of scientists working under Frank Bertoldi at the University of Bonn, in Germany, have found more evidence that the newly discovered tenth planet, 2003 UB313, is larger than Pluto. They made their measurements with infrared devices and came up with the figure of 1864 miles, for its diameter.

The board of directors has tossed a hat in the ring by discussing the possibility of attracting new members by giving them a free one year membership if they buy a telescope at one of the Rider’s hobby shops. Only first time newcomers will get the membership.

Lou Faix, one of our “old time” members, who now lives in Arizona, is looking for slides from one of our past solar eclipse expeditions. Specifically, the eclipse that took place in Canada, in the late seventies. He says he remembers seeing a slide, or a photo, showing our club banner and logo that was taken in Canada at the Windsor airport. If you are the holder of some of the slides taken during that eclipse trek, contact him at lfaix@robsoncom.net. He wants to make a presentation about amateur eclipse expeditions, to the Tucson astronomical society. If I remember correctly, there was a 16mm, sound, motion picture made of that expedition also. Some one in our club has a copy of that 16mm film reel. The Canadian government paid a film board to shoot our story and it would be great to resurrect that film.

The speakers during February will be John Schroer and Steve Uitti. John’s talk is titled “Listening To The Universe” at the Cranbrook science museum, on Monday, February 6. Steve’s talk has yet to be determined, but will take place at the MCCC, south campus, room 209, bldg. B., February 23. Both meetings start at 7:30 PM.

Open houses at the Stargate Observatory will be on January 21, February 25, March 18, May 6 (Astronomy Day) and May 20. All these dates occur on a Saturday. The Cranbrook Science Center will also have a special program for the public during the Astronomy Day afternoon. Solar and planetary viewing are possible if the cloud conditions are favorable. Stargate’s event occurs during the evening hours. Members are asked to help out at these events, if possible, so bring your telescopes, binoculars and sky pointers.

February’s discussion/computer group meeting will be on the 23rd, (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-96 and about a half block west of Woodward Ave. Meeting will start at 8:00 PM. You can reach him at 248-543-3366, or me, at 586-776-9720 for any further information. January’s meeting brought up some questions about how well the seeing was during the last blackout, observing the southern cross from south Florida and a pair of 25X100 binoculars for $169.00.

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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.** Sceptre Dragon Eye 16” Color monitor. The monitor has great picture quality and contrast ratio. Dot pitch is .29 mm and the highest resolution is 1024 x 768 with over 16 million colors. Dimensions is 16” x 16” x 16” and weighs around 30 pounds and the color is beige. Awesome monitor for astro photos. Asking cost is $45. Contact Michael Robacker
Mark Christensen, of the Fox Valley Astronomical Society, in Illinois, reports that a friend of his passed away and he has agreed to help sell the astronomical equipment in the estate. The stuff is arranged in lots.

Lot #1. Celestron C-11 Telescope with CL 700A Motorized mount/Controller and heavy duty tripod. 3 Celestron boxes, Celestron visual back 1 ¼ in., Celestron 2 inch diagonal, 26 and 25 mm Plossl eyepieces, 2-25 lb weights, heater system and sliding astronomy chair. $3200 or best offer.

Lot #2. Takahashi FSQ Quadruplet Flouride Refractor Telescope with 106mm objective and 530mm focal length lens. Includes an EXQ 1.6X extender, Celestron Box and Takahashi 1 ¼ in. diagonal. $2800 or best offer.

Lot #3. Meade series 4000 eyepieces. Includes a 56mm ($140), 40mm ($140), 32mm ($100), 14mm($100) 2 in dia. eyepieces and a 6.7mm 1 1/4in Ultra Wide eyepiece ($50).

Lot #4. Canon camera and assorted astrophotography equipment and accessories. 7X50 binoculars. Approximate value $200. Contact Jim Griffin at kanecountyastro@yahoo.com, or by phone, during the day, at 630-232-8070. (5-06).

FOR SALE. Meade 10-inch LXD55 SN-10 with UHTC, Schmidt-Newtonian with Autostar. Includes the following: Meade 26mm Super Plossl eyepiece, Scoptronics 40mm Plossl eyepiece, Scoptronics 15mm Plossl, 2X Barlow lens, 12mm standard eyepiece, Orion Stargazers 4 filter set, Orion accessory case, Orion red dot EZ finder II, Meade AC adaptor and battery pack, Meade camera adaptor and 2 inch eyepiece adapter, new declination motor drive replaced 5-25-05. Telescope is in good condition with excellent optics. $850, pick up only. Jdbuhl@aol.com. (4-06).

FOR SALE. Celestron G-5 with motor drive, Bushnell 80mm refractor with “you-go-to” feature, Swift 114mm Newtonian, many binoculars, all at cost or below! Contact Bob Johnson at 248-541-0914. (4-06).

FOR SALE. Pool cover for in-ground pool. 20X35 ft. for 15X30 pool or smaller. Never Used. $30. 586-776-9720. Cometman@mybluelight.com. (4-06).

Warren Astronomical Society
Minutes of BOARD Meeting
January 2, 2006
Cranbrook
Meeting started at 6:37pm.

Members in attendance:
Norman Dillard, Riyad Matti, Bob Berta, Ken Bertin, Steve Uitti, Marty Kunz, Larry Phipps, Dale Partin

The minutes of the Board meeting and of the regular meeting at Cranbrook from December, 2005 were approved as amended.

The duties of new officers were discussed.

Bob Berta will write a letter thanking Bob Naeye for being the speaker at our annual December banquet. Ken Bertin will sign it.

The desirability of approaching other astronomy clubs for WAS speakers was discussed. Encouraging ladies to give talks to the club was also discussed.

There was discussion about offering a one year free membership to any non-member who buys a minimum amount of astronomy-related equipment from Ryders in Livonia. Further action was tabled until a future meeting.

There was discussion about having a raffle of astronomy equipment for WAS members only. Those who are non-members could participate, and WAS membership would be automatic. The cost for such non-members to participate could possibly be larger than for current members. Further action was tabled until a future meeting.

Larry Phipps discussed his work in producing videos of WAS speakers. It is taking up to 15 hours to produce one video. Larry may not be able to continue producing videos of all speakers. Steve Uitti will investigate whether he can help in some way.

The meeting adjourned at 7:29pm.

Respectfully submitted,
Dale Partin
Warren Astronomical Society
Minutes of BOARD Meeting
January 19, 2006
Macomb

The meeting was called to order at 6:45pm.

Members in attendance:
Norman Dillard, Bob Berta, Steve Uitti, Phil Martin,
Dale Partin

The minutes of the Board meeting and of the club meeting at Cranbrook from January 2, 2006 were approved as amended.

The treasurer’s report was approved. It showed a current balance of $2,138.85.

The board approved a motion that it will only meet once a month before the Cranbrook meeting, unless there is a special need for an additional meeting.

Bob Watt had requested a letter authorizing him to continue picking up WAS mail at the U.S. Post Office. This was approved.

Phil will begin snail mailing membership applications to current members shortly before their membership needs to be renewed. People could either mail their completed applications with payment back to Phil or give them to him at the next WAS meeting.

It was approved that Phil would obtain a debit card for use with WAS expenses. Norman’s name will also be on the account.

Action was tabled on a proposal to extend one year’s free WAS membership to a non-member who buys a telescope of some minimal value at Ryder’s if the buyer fills out the application and brings it to a meeting.

The meeting was adjourned at 7:28pm.

Respectfully submitted,
Dale Partin

WAS Meetings scheduled for 2006

Cranbrook Meetings – Every 1st Monday
Jan 2    Feb 6    Mar 6    Apr 3
May 1    Jun 5    July 3   Aug 7
Sep 4    Oct 2    Nov 6    Dec 4

Macomb Meetings – Every 3rd Thursday

Jan 19   Feb 16   Mar 16   Apr 20
May 18   Jun 15   Jul 20   Aug 17
Sep 21   Oct 19   Nov 16   Dec 8

* Banquet date to be determined.

January 2006 Calendar

Monday, Feb 3 • Venus ends retrograde nearly 6° N of Pi Sagittari
Sunday, Feb 5 • 1:29 am: First Quarter Moon; Moon near Mars
Monday, Feb 7 • Neptune in conjunction with the Sun
Saturday, Feb 11 • 10:00 am: The Moon passes 4° north of Saturn
Sunday, Feb 12 • 11:44 pm: Full Moon; Mercury, Mars and Saturn spans 150°
Monday, Feb 13 • 7:47 pm: Moon is at apogee (252,500 miles from Earth)
Friday, Feb 17 • Venus is at greatest brilliancy, mag. -4.6; midnight: Moon passes 0.4° north of Spica
Monday, Feb 20 • 3:00 am: The Moon passes 5° south of Jupiter
Tuesday, Feb 21 • 2:17 am: Last Quarter Moon; 4:00 pm: The Moon passes 0.2° south of Antares
Thursday, Feb 23 • midnight: Mercury is at greatest eastern elongation (18°)
Friday, Feb 24 • 4:00 pm: The Moon passes 10° South of Venus
Sunday, Feb 26 • 8:00 am: The moon passes 4° South of Neptune
Monday, Feb 27 • 7:31 pm: New Moon; 3:25 pm: The moon is at perigee (221,757 miles from Earth), closest moon of the year
Tuesday, Feb 28 • 9:00 pm: The Moon passes 4° south of Mercury

2006 Stargate Observatory Open House Schedule

January 21 – Start at 6 P.M.: General observing.
February 25 – Start at 6 P.M.: General observing.
March 18 – Start at 3 P.M.: – General observing.
April 8 – Start at 3 P.M.: National Astronomy Day.
May 20 – Start at 6 P.M.: Spring clean-up and General observing.
June 24 – Start at 6 P.M.: General observing.
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. I will not be able to receive e-mail after 2 hours before open time. Please use my cell number in an urgent situation.

Best regards,

Bob Berta

Late Notices

According to the Astronomical League, May 6th is National Astronomy Day.

Correction to the WASP header:
The correct email address for Steve Uitti is: suitti@uitti.net

DETROIT OBSERVATORY TOUR ON THE CAMPUS OF THE UNIVERSITY OF MICHIGAN

in Ann Arbor will be held on Saturday, February 11th, at 1pm. A nominal fee will be charged.

All are welcome to tour this 1854 observatory, which played a key role in the University of Michigan’s push to become one of the nation’s first research universities. Completely restored and listed in the National Register of Historic Places, Detroit Observatory retains its original German and American telescopes featuring a 12” Refractor. The dome still rotates by means of a rope pulley. Exhibits highlight the history of this Victorian science facility and the University as a whole.

The Detroit Observatory is located at the corner of East Ann and Observatory streets in Ann Arbor. Parking is available at the nearby Palmer Drive Structure (see the observatory’s web site for maps and directions).

Please arrive at 1pm or sooner. Contact Alan for Details and carpooling.

http://www.detroitobservatory.umich.edu

Detroit Observatory (1858 photograph)

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Orion 150mm Mak OTA $ 649.99

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Snowstorm on Pluto

by Dr. Tony Phillips

There’s a nip in the air. Outside it’s beginning to snow, the first fall of winter. A few delicate flakes tumble from the sky, innocently enough, but this is no mere flurry.

Soon the air is choked with snow, falling so fast and hard it seems to pull the sky down with it. Indeed, that’s what happens. Weeks later when the storm finally ends the entire atmosphere is gone. Every molecule of air on your planet has frozen and fallen to the ground.

_That_ was a snowstorm—on Pluto.

Once every year on Pluto (1 Pluto-year = 248 Earth-years), around the beginning of winter, it gets so cold that the atmosphere freezes. Air on Pluto is made mainly of nitrogen with a smattering of methane and other compounds. When the temperature dips to about 32 K (−240 C), these molecules crystallize and the atmosphere comes down.

“The collapse can happen quite suddenly,” says Alan Stern of the Southwest Research Institute. “Snow begins to fall, the surface reflects more sunlight, forcing quicker cooling, accelerating the snowfall. It can all be over in a few weeks or months.”

Researchers believe this will happen sometime during the next 10 to 20 years. Pluto is receding from the warmth of the Sun, carried outward by its 25% elliptical orbit. Winter is coming.

So is New Horizons. Stern is lead scientist for the robotic probe, which left Earth in January bound for Pluto. In 2015 New Horizons will become the first spacecraft to visit that distant planet. The question is, will it arrive before the snowstorm?

“We hope so,” says Stern. The spacecraft is bristling with instruments designed to study Pluto’s atmosphere and surface. “But we can’t study the atmosphere if it’s not there.” Furthermore, a layer of snow on the ground (“probably a few centimeters deep,” estimates Stern) could hide the underlying surface from New Horizon’s remote sensors.

Stern isn’t too concerned: “Pluto’s atmosphere was discovered in 1988 when astronomers watched the planet pass in front of a distant star—a stellar occultation.” The star, instead of vanishing abruptly at Pluto’s solid edge, faded slowly. Pluto was “fuzzy;” it had air. “Similar occultations observed since then (most recently in 2002) reveal no sign of [impending] collapse,” says Stern. On the contrary, the atmosphere appears to be expanding, puffed up by lingering heat from Pluto’s waning summer.

Nevertheless, it’s a good thing New Horizons is fast, hurtling toward Pluto at 30,000 mph. Winter. New Horizons. Only one can be first. The race is on….

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

This artist’s rendering shows how Pluto and two of its possible three moons might look from the surface of the third moon.  *Credit: NASA/ESA and G. Bacon (STSc)*

**From Nancy Leon of NASA/JPL:**

We now have some wonderful kid-accessible information on hurricanes on our SciJinks web site -- and here’s a fun new game to go with it!

**Whirlwind Disaster**

Where do these monster storms we call hurricanes come from? Why do they always form near the equator and only during certain times of the year? How do they come to be so organized and so destructive? You can find answers to these questions and play an exciting hurricane word game called “Whirlwind Disaster” at the SciJinks Weather Laboratory Web site. SciJinks targets young people of middle school age. It is a joint effort of the National Aeronautics and Space Administration (NASA) and the National Oceanic and Atmospheric Administration (NOAA). The new “How does a hurricane form?” page and accompanying interactive game can be found in the How & Why menu on the SciJinks Weather Laboratory home page, [http://scijinks.gov](http://scijinks.gov).