



The Warren Astronomical Society Paper

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2006 WAS OFFICERS

\\ September, 2006

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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.

Astro Chatter by Larry Kalinowski



Looks like Pluto has been downgraded to a dwarf planet. The IAU has voted against calling Pluto a "regular" planet and has pushed it back into the asteroid designation. The main reason was its tilted orbit.

All the other large spherical bodies like Ceres, and Sedna are now considered dwarfs. I, for one, can't accept the change. If its spherical, it should be a planet. A dwarf planet. That's not even politically correct. Pluto should be a mass challenged planet.

Let's face it, planets are the accumulated trash of stellar evolution. No matter when the planets are formed, before, during or after the life of a star, they are the results of a massive buildup

of material that a star doesn't use or has used, to shape its life. If the accumulated trash heap is massive enough, it forms a spherical shape. If it's the right kind of material, in the right place, it supports life. Yes, you and I live on a stellar trash heap. Isn't that amazing?

Dark matter appears to be confirmed, according to the latest observations of astronomer Douglas Clowe of the University of Arizona. Using observations with some of the world's largest telescopes, a study of the Bullet Nebula, a region of space that is the result of colliding galaxies, has revealed unexplained matter that isn't affected by gravity. In fact, dark matter may have the ability to pass right through ordinary matter, like you and I.

The space ship that's going to be used to go back to the Moon is called Orion. The name leaked out of astronaut Jeff Williams, who is presently orbiting the Earth in the ISS.

Someone forgot to tell him that the name was a secret until August 31, when NASA planned to announce the contract winner for the vehicle.

This time I'm getting the news out as soon as possible. The September Cranbrook meeting will be on the 11th, the second Monday of the month, because of the Labor Day holiday. If the first Monday ever falls between a Sunday and a holiday again, (like last July 4) the club has decided to meet on the second Monday.

About twenty-five people attended our picnic at the Stargate Observatory on July 29. It was hot and muggy but the afternoon haze helped keep the Sun from melting all of us. As evening approached, the sky transparency got better and the Milky Way finally appeared after twilight disappeared. This time there were hamburgers and hotdogs for everyone, as well as cold drinks galore. All paid for by the club. If space allows, there will be some photos of the event somewhere in this issue. Special events included a soda pop eruption demonstration by Brian Klaus, a grease fire that unexpectedly broke out while I was cooking hamburgers, some satellite passages and a selloff of optics by Bob Watt that included small achromatic objectives and large and small prisms.

Celestron's Skyscout, a \$399, hand held, talking planetarium, has perked up the interest of quite a few members in our club. If you know of anyone that has purchased one of these items, let us know so we can arrange a demonstration, either at a club meeting or at one of our star parties.

So far, the U.S. is keeping track of about eleven thousand pieces of space junk in orbit around the Earth. The problem is the number of pieces is self generating. If we stopped sending objects into orbit today, the remaining pieces would increase in number because of collisions between the pieces and the fact that some remaining rocket motors still have the possibility of exploding in orbit, because of mixing of remaining fuel. Another problem is we are limited in tracking anything under two inches in size. How many pieces there are smaller than that is anybody's guess. The U.S. and Russia account for about four to five thousand of the known pieces.

Vince Chrisman reports that he has upgraded the software on the club's ten inch LX200GPS

and that he will give training lessons on how to use that telescope. Version 2.0 has been upgraded to 4.11.

The Speakers for September are Phil Martin and ? Phil will undoubtedly be talking about something related to astrophotography at the Cranbrook meeting on the 11th. I was scheduled to give a talk at the MCCC meeting on the 21st but my plans have changed, as I'll be in Manhattan visiting my son and his wife on that date. Right now I have no idea who will take my place. Both meetings start at 7:30PM.

Art Bell, the late night talk show host, voted number three in popularity, behind Rush Limbaugh and Larry King, interviewed Robert Bigelow, the owner of the inflatable space module called Genesis I. Bigelow claims nearly a 100% success with his space module. There are live insect specimens aboard and they seem to be surviving. Bigelow reported that a Madagascar Hissing beetle, that was being prepared for the flight, passed a two hour vacuum test and survived with no known ill effects. An amazing feat for any kind of living creature. All are being surveyed with a dozen cameras, six inboard and six outside the craft. Genesis II, a larger inflatable, is now being prepared for flight and is expected to be launched this coming January. If all goes well with future space modules, he expects manned vehicles will be aloft within five years. You can catch Art Bell's programs during the early morning on Sundays and Mondays at 1:06 AM on CKLW. That's 800 on the AM dial.

If you are one of the original eighteen members that ordered a BinoViewer through the club's group order, about two years ago, you are asked to contact Bob Watt at 586-757-4741 to arrange getting your free Barlow lens for the viewer. The lens changes the magnification by 1.9 times. This offer does not apply to those members that purchased their BinoViewer on their own.

Thanks to the quick thinking of Richard Gala, the July meeting of the Discussion/Computer group turned out to be another winner. Not only was the attendance record broken, with fourteen present, a first was established when the group did a teleconference with Dr. Geoff Marcy, the well recognized exoplanet hunter. Our past president, Ken Bertin had the honor of talking to Dr. Marcy and did very well

The minutes of the meetings on July 20 were read and approved.

The treasurers report was given and approved. Phil reported that the petty cash account has \$27.04 and the checking account has \$3664.97.

Phil said that WAS is now insured with Birmingham Insurance Agency.

A safe was purchased and installed inside the Stargate Observatory. Major repairs are needed on the roof. Significant repairs are needed on the 12.5 inch telescope.

Bob said that there will be open houses on August 12 and 19.

The meeting was adjourned at 7:29pm.

Respectfully submitted,
Dale Partin

Warren Astronomical Society
Minutes of **CLUB** meeting
August 7, 2006
Cranbrook

The meeting was called to order at 7:35 pm.

Visiting for the first time were Heidi Martin, Dan Corvin, Bob Bryer, Richard Melcher and Bob Sejfulla. Sandy Lowe is a new member and came for the first time.

Bob Berta announced that we are having an open house this Saturday, August 12, for the Perseid Meteor Shower, and also on August 19.

Riyad said that major repairs are needed on the Observatory roof and to the 12.5 inch telescope.

It was announced that our next Cranbrook meeting will be on September 11 to avoid Labor Day.

Jon Blum gave a short talk entitled, Land of the midnight twilight why there is no astronomy in Scandinavia in the summer.

Larry Phipps showed pictures of the Stargate 2006 picnic.

Norman Dillard gave a talk entitled, The universe within 500,000 light years the satellite galaxies.

We then saw a presentation in the planetarium, which is newly upgraded.

39 people attended the meeting.

The meeting adjourned at 10:08 pm.

Respectfully submitted,
Dale Partin Warren Astronomical Society
Minutes of **CLUB** meeting
August 17, 2006
Macomb

The meeting was called to order at 7:38 pm.

The officer and committee reports were given. Dale Partin presented the minutes of the last WAS meeting at Cranbrook .

Riyad Matti and Bob Berta purchased a gun safe that will be kept at Stargate with various valuables in it, such as eyepieces and CCD cameras.

Bob Berta reported that the Stargate roof is warped and in need of repair. The 12.5 inch Cassegrain telescope also needs repairs.

There was a discussion about how public WAS member information should be.

The next club star party will be on August 19th.

Bill Beers will have a star party near Cadillac , MI August 23-27.

The Great Lakes Star Party will be September 22-24.

The Kensington at the Beach Star Party will be September 29-30.

Dale Partin gave a short presentation on electrical contact problems for telescopes.

Larry Phipps gave a short video presentation on the WAS 2006 picnic.

Bob Berta gave a presentation on Techniques of Observing.

21 people attended the meeting.

The meeting adjourned at 10:08 pm.

Respectfully submitted,
Dale Partin

Special Notices:

On our Yahoo groups message board there was

this interesting unscientific survey regarding the IAU demotion of Pluto:

Was the International Astronomy Union right in demoting Pluto as a planet?

- Yes, we need new textbooks and it puts folks to work.
- No, Pluto is beloved by children and is Mickey's best friend.



As of this printing the result was 25% yes and 75% no.

There is an insightful article in last week's Newsweek Magazine highlighting the history of Pluto,

how it was discovered and what the reclassification means.

More on Pluto:

The Fight for Pluto Rages On

September 1, 2006 by the Editors of Sky & Telescope

In the past week a small but growing group of scientists made their first formal attack against the (IAU) International Astronomical Union's August 24th resolution (<http://www.iau2006.org/mirror/www.iau.org/iau0603/index.html>) that left the solar system with eight planets and downgraded Pluto (<http://skytonight.com/news/3728231.html>) to a new class of objects known as "dwarf planets."

On Thursday two heavy hitters in the planetary-science community – Mark Sykes, director of the Planetary Science Institute, and S. Alan Stern, an executive director of the Southwest Research Institute and leader of the Pluto-bound New Horizons mission - unveiled a petition formally disputing the new definition. The petition, signed by more than 300 of the world's leading space scientists, states, "We, as planetary scientists and astronomers, do not agree with the IAU's definition of a planet, nor will we use it."

The signatories call for a "better definition" of a planet and ask that the method to determine that definition includes more input from the global astronomical community. According to the petitioners, only about 4% of the IAU's nearly 10,000 members were

present in Prague to vote on the resolution. In a prepared statement Sykes wrote, "A more open process, involving a broader cross section of the community engaged in planetary studies of our own solar system and others, should be undertaken."

Says Stern, "From the number of signatories that the petition received in a few days, it's clear that there is significant unhappiness among scientists with the IAU's planet definition and that it will not be universally adopted by scientists and textbook writers."

Other battle lines are being drawn as some scientists are questioning the IAU's authority in this matter altogether. The director of the Center for Space Exploration Policy Research, Mark Bullock, released the following statement: "A key public-policy question is who has the social mandate to alter the definition of something as fundamental as a planet."

Scientists have in the past vested the IAU with authority to name asteroids and other planetary objects. However, the word 'planet' has cultural, historical, and social meaning and as such requires much broader discussion and consensus than those required for the naming of astronomical bodies."

Meanwhile the chair of the American Astronomical Society's Division for Planetary Sciences, Richard G. French (Wellesley College), urged the group's more than 1,200 members to recognize the authority of the IAU to render their decision and reiterated that refinements to the definition are desired.

In a letter to the DPS community, he writes, "There is still work to be done, too, in constructing a definition that is generally applicable to extra-solar planetary systems.

These and other changes, radical or moderate, presumably will be addressed at the next IAU General Assembly in Rio de Janeiro in 2009, and the DPS community will continue to be involved in all stages of this process."

Read the Sykes-Stern petition, including the list of signatories, at: <http://www.ipetitions.com/petition/planetprotest>.

Even more on Pluto:

BURBANK, CALIF - In reaction to news today that Pluto was demoted to the status of "dwarf planet," the Seven Dwarfs issued their own short statement:

"Although we think it's DOPEY that Pluto has been downgraded to a dwarf planet, which has made some people GRUMPY and others just SLEEPY, we are not BASHFUL in saying we would be HAPPY if Disney's Pluto would join us as an 8th dwarf. We think this is just what the DOC ordered and is nothing to SNEEZE at."

As Mickey Mouse's faithful companion, Pluto made his debut in 1930-the same year that scientists discovered what they believed was a ninth planet.

Said a white-gloved, yellow-shoed source close to Disney's top dog, "I think the whole thing is goofy. Pluto has never been interested in astronomy before, other than maybe an occasional howl at the moon."

Check out our clubs discussion group on this subject at:

<http://groups.yahoo.com/group/PlutoXenaCeresCharon/>

Member's Astrophotos

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



Both photos were taken on the evening of July 6, 2006 of the 10th day waxing moon at about 11pm using a

Meade ETX 125 and the Meade's LPI (Lunar, Planetary Imager). A total of 30 to 40 images were stacked using the auto adjust exposure setting with a minimum quality of 50% for each stacked image. Both photos were further processed using MGI Photosuite 4. They were lightened, cropped and horizontally flipped so that the view of the moon would be the same as we would see when looking at it with binoculars. The top photo includes the crater Plato (61 miles in diameter, 1.5 miles deep) on the left which is at 9.3 degrees West and 51.6 degrees North, and the Alpine Valley (79 miles long, 7 miles wide and 1+ mile deep) on the right which is at 3.0 degrees East and 49.0 degrees North. The bottom photo is of Clavius (136 miles in diameter and 3 miles deep) which is at 14.4 degrees West and 58.4 degrees South. There are 5 craters of decreasing size within Clavius.

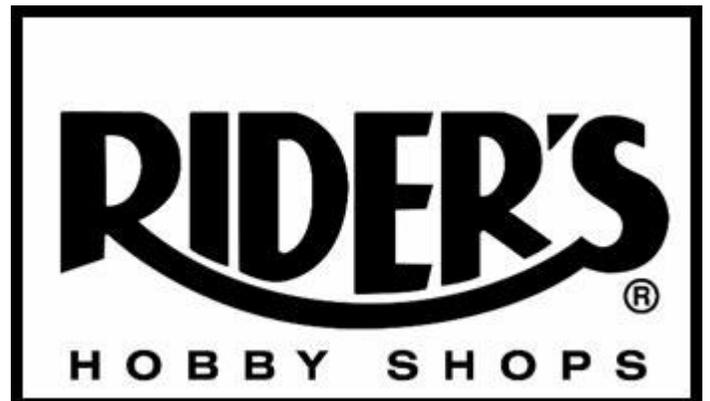
Dick Gala

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

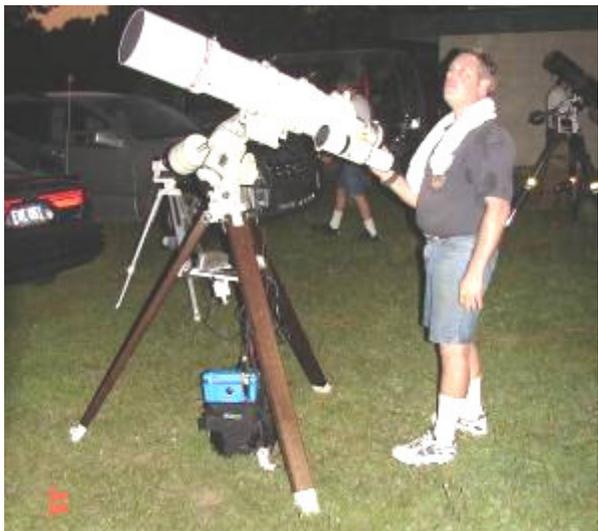
Great Lakes Star Gaze. The Gladwin location provides excellent observing without having to travel hours into northern Michigan. Limiting magnitudes are estimated to be around 6.5 at the zenith with some minor light domes from the cities of Mt. Pleasant and Midland (approximately 30 miles away).

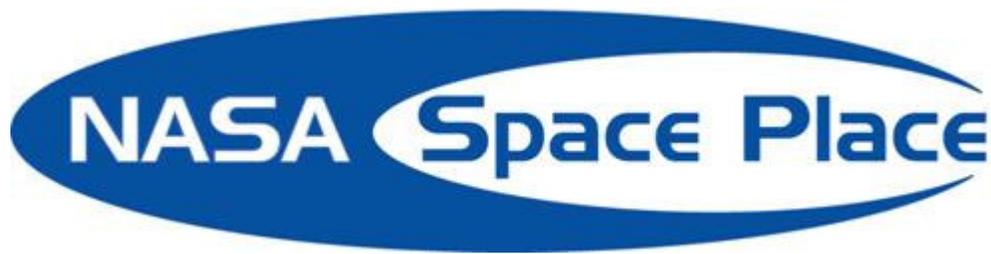
We mix interesting talks and events during the day with great observing at night. Some great door prizes have been given out in past years, and this year will be no exception. This event is well attended and provides a great opportunity to network with other amateurs. The range of equipment that people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

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



THE W.A.S. ANNUAL PICNIC, JULY 29, 2006





Deadly Planets

By Patrick L. Barry and Dr. Tony Phillips

About 900 light years from here, there's a rocky planet not much bigger than Earth. It goes around its star once every hundred days, a trifle fast, but not too different from a standard Earth-year. At least two and possibly three other planets circle the same star, forming a complete solar system.

Interested? Don't be. Going there would be the last thing you ever do.

The star is a pulsar, PSR 1257+12, the seething-hot core of a supernova that exploded millions of years ago. Its planets are bathed not in gentle, life-giving sunshine but instead a blistering torrent of X-rays and high-energy particles.

"It would be like trying to live next to Chernobyl," says Charles Beichman, a scientist at JPL and director of the Michelson Science Center at Caltech.

Our own sun emits small amounts of pulsar-like X-rays and high energy particles, but the amount of such radiation coming from a pulsar is "orders of magnitude more," he says. Even for a planet orbiting as far out as the Earth, this radiation could blow away the planet's atmosphere, and even vaporize sand right off the planet's surface.

Astronomer Alex Wolszczan discovered planets around PSR 1257+12 in the 1990s using Puerto Rico's giant Arecibo radio telescope. At first, no one believed worlds could form around pulsars—it was too bizarre. Supernovas were supposed to destroy planets, not create them. Where did these worlds come from?

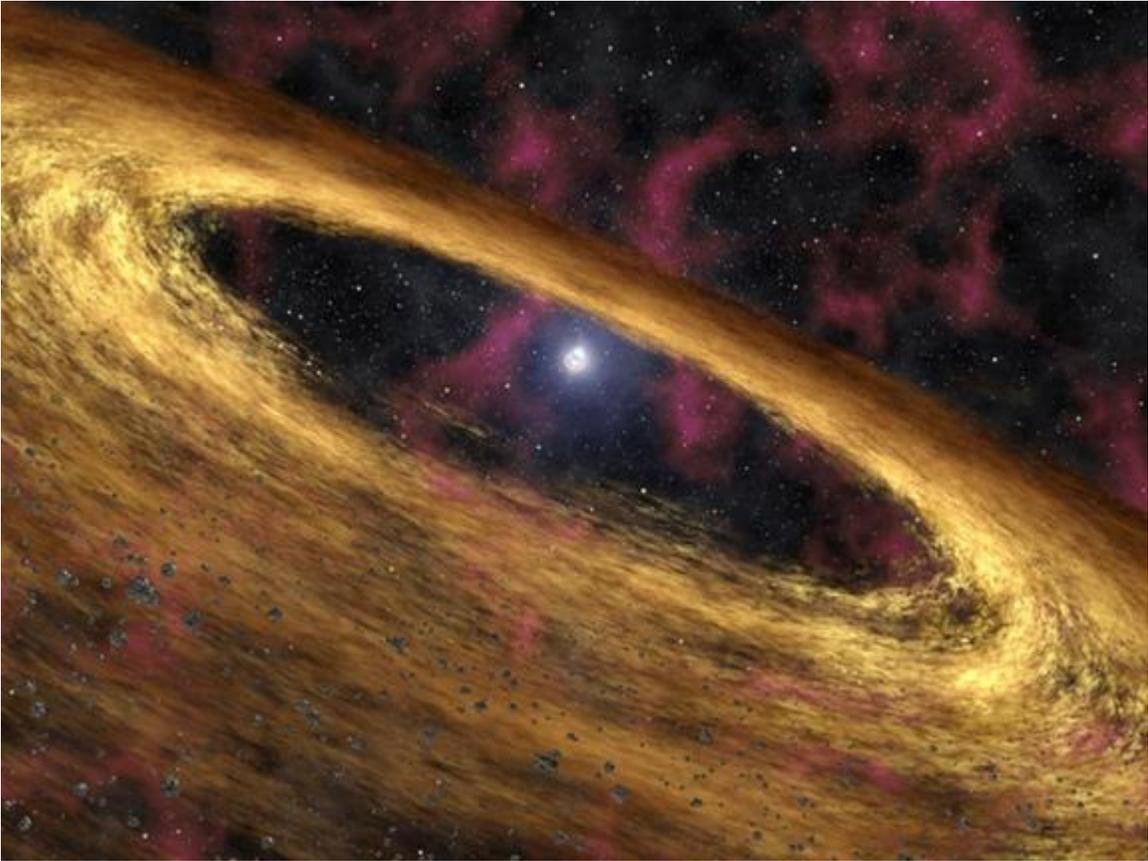
NASA's Spitzer Space Telescope may have found the solution. Last year, a group of astronomers led by Deepto Chakrabarty of MIT pointed the infrared telescope toward pulsar 4U 0142+61. Data revealed a disk of gas and dust surrounding the central star, probably wreckage from the supernova. It was just the sort of disk that could coalesce to form planets!

As deadly as pulsar planets are, they might also be hauntingly beautiful. The vaporized matter rising from the planets' surfaces could be ionized by the incoming radiation, creating colorful auroras across the sky. And though the pulsar would only appear as a tiny dot in the sky (the pulsar itself is only 20-40 km across), it would be enshrouded in a hazy glow of light emitted by radiation particles as they curve in the pulsar's strong magnetic field.

Wasted beauty? Maybe. Beichman points out the positive: "It's an awful place to try and form planets, but if you can do it there, you can do it anywhere."

More news and images from Spitzer can be found at <http://www.spitzer.caltech.edu/>. In addition, The Space Place Web site features a cartoon talk show episode starring Michelle Thaller, a scientist on Spitzer. Go to <http://spaceplace.nasa.gov/en/kids/live/> for a great place to introduce kids to infrared and the joys of astronomy.

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



Artist's concept of a pulsar and surrounding disk of rubble called a "fallback" disk, out of which new planets could form.

From Trent Wells JPL/NASA:

Earthy Word Games

The interdependent web of life on Earth is a fine principle to teach kids and adults. But understanding how it works in detail is a lifelong process, even for Earth scientists. A good way to introduce some basic concepts to kids is through a small, simple model wherein life forms survive by depending on each other. Such is the EcoSphere®, a small, closed-system aquarium that needs only light to stay healthy and in balance. A new game activity on The Space Place explains the EcoSphere® as a microcosm of Earth. Visitors to the page can then choose one or more interactive word-find puzzles to solve, using words related to air, water, land, and life