The W.A.S.P. newsletter

July 2007

The Warren Astronomical Society Paper

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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

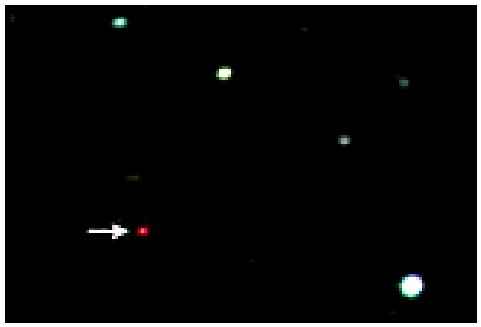
Articles for inclusion in the WASP are strongly encouraged and should be submitted to the editor on or before the first of each month. Any format of submission is accepted, however the easiest forms for this editor to use are plain text files. Most popular graphics formats are acceptable. Materials can 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.

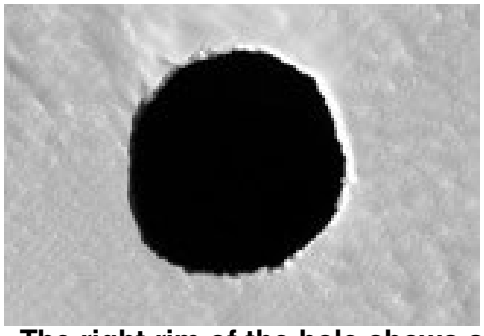
Astro Chatter

by Larry Kalinowski

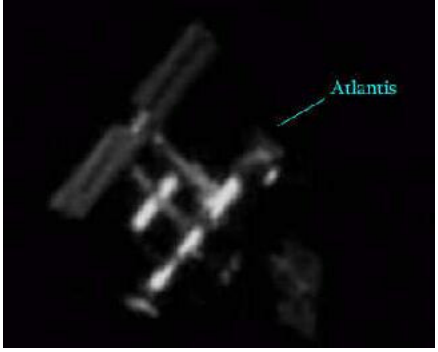
The most distant quasar ever photographed is shown in the picture as the red spot next to the arrow. It was photographed and spectrum analyzed by Chris Willott of the University Of Ottowa. The quasar is estimated to be about thirteen billion light years away and supposedly five hundred million times the mass of the Sun.



A large hole has been discovered on the surface of Mars. It was discovered by the Mars Reconnaissance Orbiter and appears to be about one hundred meters in diameter (330 feet). The picture was taken at a Sun angle of about thirty-eight degrees, but still doesn't reveal anything at the bottom of the hole, so it must be fairly deep. The right rim of the hole shows a thick layer of something at the surface.

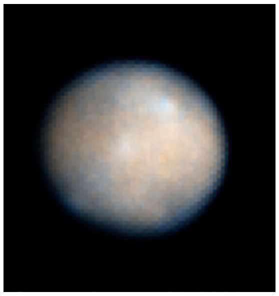


Both the ISS and the shuttle were photographed through a ten inch telescope on June 13. The name on the photo said R. Vandebergh, which is probably the photographer. The photo was passed along to us via Rik Hill and Ken



Wilson.

Ceres was photographed by the Hubble telescope and reveals some interesting markings. Could be craters or just darker areas on the surface. Ceres is the largest asteroid in the asteroid belt. It's quite spherical in shape and is the best looking planetary shape of the so called asteroids. In fact, looking closer at the photo reveals a slightly oblate shape with the oblate plane tilted about twenty-five degrees. I wonder what the period of rotation is?



Observing badge awards have been given to Bob Berta, Dr. Phil Martin, Stephen Uitti and Bob Watt. Bob Berta and Phil Martin got their awards in astrophotography. Stephen Uitti got the Messier one-hundred award and Bob Watt received a new category award for grinding, polishing and completing three telescope mirrors. If you have finished a mirror yourself, let me know. Your award badge is waiting for you.

I have to mention that Bob Watt has made a special effort in conjunction with the UAW and GM, to bring astronomy to their members. He helped complete over 80, six inch, Newtonian telescopes in a special workshop that provided all the parts needed for assembly. It took about two years to complete them all and I heard every difficult problem Bob had run into during those years. He not only became an instructor for assembly but he had to teach many the basics in astronomy and how to use the telescopes. It became a difficult but superb outreach program for him.

Looks like Gliese 581c has turned out to be a dud. The planet is in a habitable zone around its parent red dwarf star but evidence now shows that it may be a Venus type atmosphere where life would be impossible to survive, if it ever generated at all. The evidence was discovered by Werner Von Bloh , in Germany. However, Werner has shown that a fourth planet, Gliese 581d may be the one that might ring astronomers chimes. It's eight times more massive than the Earth and was discovered by the same guy who found 581c (Stephane Udry). It's outside the habitable zone, in a colder zone but measurements show it may have a greenhouse atmosphere, which could also provide a comfortable, habitable, environment.

The number of planets discovered around other stars has now been verified to be over two-hundred as this article is being written. Discoveries are becoming so numerous that some astronomers aren't even taking the time to report them. News about such planets are now confined to special characteristics like very short periods or extremely large masses. The hunt continues for Earth size planets with the possibility of life.

Don't forget the Venus-Saturn conjunction at the beginning of this month. The pair should look spectacular, sitting in the same field together on the 1st. You'll need an eyepiece that shows a real field of about one degree. If you have a two degree eyepiece, you'll get the chance to see them both at once on the 2nd and the 3rd. Venus will be one hundred times brighter than Saturn and appear about four times larger in area.

Open house at the club observatory will be on July 7. The WAS picnic is on Saturday, July 21, at Stargate. Come early in the afternoon to pick your favorite observing spot. Food will be paid for by the club, so you will not have to bring anything to enter the festivities. However, your telescope, binoculars and other astro things are required. Last July's picnic was a warm one, so bring stuff to keep from having a Sun or heat stroke. Don't forget the bug spray too.

Were you one of the lucky ones to see both the Space Shuttle and the ISS passing nearly overhead on Tuesday, July 19, around 10:38 PM. They were separated by about four or five degrees, but each of them rivaled Jupiter as they gracefully moved across the sky.

July's discussion group meeting will be on the fourth Thursday, the 26th, 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.

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. Or not for sale. That is the question. No items were submitted for sale this month. Remember, if you are looking for an item and wish to trade something for it or are just looking for a hard to find item that some one wishes to part with, please submit your request to Larry Kalinowski at the above email address.

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WAS SUB-GROUPS

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 2007

Cranbrook Meetings – Every 1st Monday

July 2 Aug. 6 Sep. 3 Oct. 1
Nov. 5 Dec. 3

Macomb Meetings – Every 3rd Thursday

July 19 Aug. 16 Sep. 20 Oct. 18
Nov. 15 Dec. 20 (Banquet Date)

Warren Astronomical Society

2007 presentations

Date	Day	Presenter	Subject
2-July	Mon	Bob Berta	TBD
19-July	Thurs	Norman Dillard	Astronomy in the Points
6-Aug	Mon	Philip Martin	Evolution, the Real Science
16-Aug	Thurs	Larry Phipps	Of Belts and Clouds
3-Sep	Mon	Ken Bertin	TBD
20-Sep	Thurs	Dave D'Onofrio	Backyard CCD imaging from the city.
1-Oct	Mon	Dale Partin	The Hubble Constant
18 Oct	Thurs	Guy Maxim	TBD
5-Nov	Mon	John Lines	7 Ponds Nature Center (TBD)
15-Nov	Thurs	Larry Kalinowski	"Let Me Demonstrate"
3-Dec	Mon	Alan Rothenberg	TBD
20-Dec	Thurs	Banquet	

Please contact the 1st V.P. (program chairperson) to:

1 : Schedule new presentation.
2 : Alter scheduled presentations.
3 : Add a subject title to your presentation.
4 : Change the subject title of your presentation.

Thank you for your support,

Riyad I. Matti
W.A.S. 1st V.P. (program chairperson) 2006/2007

July, 2007 Calendar

Sunday, July 1 • 9:00 p.m.: The Moon passes 0.8° south of Saturn
Thursday, July 5 • 5:00 p.m.: The Moon passes 1.9° north of Uranus
Friday, July 6 • 8:00 p.m.: The Earth is at aphelion (94.5 million miles from the Sun
Saturday, July 7 • 12:54 p.m.: Last Quarter Moon
Monday, July 9 • 11:00 a.m.: The Moon passes 6° north of Mars; 5:45 p.m.: The Moon is at perigee (251,127 miles from Earth)
Thursday, July 12 • 10:00 a.m.: Venus is at greatest brilliancy (magnitude -4.7); 11:00 p.m.: The Moon passes 9° north of Mercury
Saturday, July 14 • 804 a.m.: New Moon
Monday, July 16 • 11:00 a.m.: Venus passes 2° south of Regulus; 7:00 p.m.: The Moon passes 0.5° south of Saturn
Friday, July 20 • 11:00 a.m.: Mercury is at greatest western elongation (20°)
Sunday, July 22 • 2:29 a.m.: First Quarter Moon; 4:43 a.m.: The Moon is at at apogee (251,127 miles from Earth)
Wednesday, July 25 • noon: The Moon passes 0.6° south of Antares; 2:00 p.m.: The Moon passes 6° south of Jupiter
Saturday, July 28 • Southern Delta Aquarid meteor shower peaks (weak and near full Moon will limit visibility)
Sunday, July 29 • 8:48 p.m.: Full Moon

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2007 Stargate Observatory Open House Schedule

NOTE that there are two events this month: July 7th, Normal open house, July 21st Club Picnic starting at noon (closed to public) Aug 11 Perseids watch. Pending

open house dates are: Sept 15th, Oct 13th, Nov 10th and Dec 8th. Dependent on weather.

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.

Bob Berta
W.A.S. 2nd V.P. (2007)

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Meeting Minutes

Warren Astronomical Society
Minutes of BOARD/Club Meeting
June 4th, 2007
Cranbrook

The meeting was called to order at 6:37 pm.

Attendance:
Norman Dillard, Marty Kunz, Dale Partin, Bob Berta, Riyad Matti, Stephen Uitti, Phil Martin

The treasurer's report said that we had $5533.71. Approved.

A speaker for the December banquet was discussed.

The minutes from the May 7 and May 17 meetings were approved.

The next open house will be June 16. The following one will be on July 7.

The annual picnic will be on July 21.

Bill Beers' Star Party will be June 13-17.

There was a discussion about trying to make sure that the main speaker has enough time for his or her presentation.

The meeting was adjourned at 7:24 pm.

Respectfully submitted,
Dale Partin

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Warren Astronomical Society
Minutes of club meeting
June 4th, 2007
Cranbrook

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

The officer reports were given.

The next open house will be June 16. The following one will be on July 7.

The annual picnic will be on July 21.

Bill Beers' Star Party will be June 13-17.

Jim Shedlowsky gave a presentation entitled, "The Perfect Machine".

37 people attended the meeting.

The meeting adjourned at 10:00 pm.

Respectfully submitted,
Dale Partin

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Warren Astronomical Society
Minutes of club meeting
June 21st, 2007
Macomb

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

The officer and committee reports were given. The treasurer said that the club has $4921.71.

Upcoming astronomy star parties in 2007:

July 7 Stargate Open House

July 21 Annual club picnic, starts at noon, food provided.

Dick Gala gave a demonstration of a "personal amplifier system".

Jerry Kuchera gave a presentation entitled, “Got the astronomer’s bug?”

Bob Berta gave a presentation on the basics of doing astrophotography.

26 people attended the meeting.

The meeting adjourned at 10:06 pm.

Respectfully submitted,
Dale Partin

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IMPORTANTE NOTICE:

PLEASE NOTE: The people at Sky and Telescope have changed their policy. They no longer want the WAS treasurer to renew subscriptions. You just send in your renewal at the club rate ($32.95), being sure to indicate that you are a member of WAS. Once a year they send the treasurer a list of people who have subscribed to Sky & Telescope for verification. This takes effect Immediately.

Dr. Phil Martin – Treasurer

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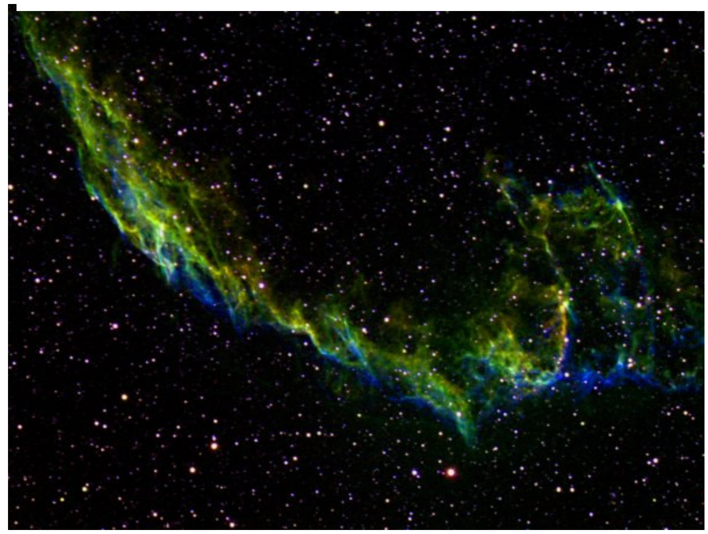
Member’s Astro Pics

VEIL NUBULA (EAST)

Dr. Phil Martin



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

NASA Space Place

Chew on This

The Mars robotic rovers, Spirit and Opportunity, are equipped with RATs, or Rock Abrasion Tools. Their purpose is to abrade the surface patina off the Mars rocks so that the alpha x-ray spectrometer can analyze the minerals inside the rocks, rather than just on the surface.

But future robotic missions to Mars will be asked to go even further below the surface. Scrapers and corers will gather rock samples of substantial size, that, in order to be analyzed by a spectrometer, will need to be crushed into a fine powder.

Crushing rocks on Mars? Now there's a problem that brings to mind a multitude of possible approaches: Whack them with a large hammer? Squeeze them until they explode? How about just chewing them up? It was with this latter metaphor that the planetary instrument engineers struck pay dirt—so to speak.

Thanks to NASA's Planetary Instrument Definition and Development Program, a small group of NASA engineers came up with the Mars Rock Crusher. Only six inches tall, it can chew the hardest rocks into a powder.

The Mars Rock Crusher has two metal plates that work sort of like our jaws. One plate stays still, while the other plate moves. Rocks are dropped into the jaw between the two plates. As one plate moves in and out (like a lower jaw), rocks are crushed between the two plates. The jaw opening is larger toward the top and smaller towards the bottom. So when larger rocks are crushed near the top, the pieces fall down into the narrower part of the jaw, where they are crushed again. This process repeats until the rock particles are small enough to fall through a slit where the two plates are closest.

Engineers have tested the Mars Rock Crusher with Earth rocks similar to those expected to be found on Mars. One kind of rock is hematite. The rusted iron in hematite and other rocks help give Mars its nickname "The Red Planet." Another kind of rock is magnetite, so-called because it is magnetic. Rocks made by volcanoes are called basalts. Some of the volcanoes on Mars may have produced basalts with a lot of a mineral called olivine. We call those olivine basalts, and the Rock Crusher chews them up nicely too.

Visit www.jpl.nasa.gov/technology to read the latest about other NASA technologies for exploring other planets and improving life on this one.

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

Looking down on the jaws of the Mars Rock Crusher, we see a magnetite rock get crushed into smaller and smaller particles.