



The Warren Astronomical Society Paper

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2004 WAS OFFICERS

\\ July 2004

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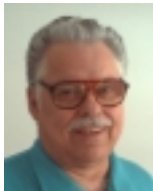
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The WASP (*Warren Astronomical Society Paper*) is the official monthly publication of the Society. Each new issue of the WASP is mailed to each member and/or available online www.boonhill.net/was. Requests by other Astronomy clubs to receive the WASP, 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

Ken Bertin delivered on his trip to Greece. He showed his results of the transit of Venus across the Sun, at the June Macomb meeting. He agreed that it was a compelling sight as the planet slowly moved across the Sun's face. The few that saw the final events, here in Michigan, seemed to agree that the planet was larger than expected against the solar background. Amazingly, the "black drop effect" wasn't visible to everyone seeing the contacts with the Sun's edge. It was clearly visible in many of the pictures available on the Internet and in Ken's recorded shots. The effect's cause is still unexplained.

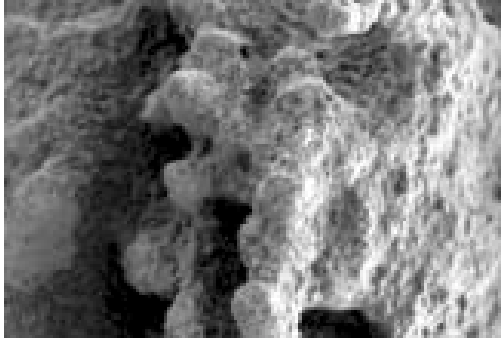
As of this writing, in mid June, the world's first private space flight was made from the Mojave desert. The experimental craft called Space Flight One was supposedly piloted into space on June 20, Father's Day. In order to qualify as a space flight, it had to reach an altitude of sixty-two miles. The

altitude reached has yet to be confirmed, but the pilot (63 year old, Mike Melvill) seemed convinced of success.



The spacecraft rolled 90 degrees after the rocket was ignited and Mike had to recover attitude. In fact, it happened more than once. Mike was temporarily disturbed by a loud bang that pierced the cockpit as the craft ascended to maximum altitude. It was later determined that a brace that held the rocket nozzle had been damaged. The craft glided back to Earth, in a fashion similar to the space shuttle. In order to win a \$10,000,000 prize, a private company must transport three people to space and back, twice, all within a two week period, using the same craft each time.

The first Mars rover Called "Spirit" has found a form of Hematite rock that has never been seen on Earth. It kind of resembles an octopus, with short stubby arms that project from its surface, giving the abrasive analysis drill in its toolbox a hard time to function. Mars scientists assumed that all rocks would have a smooth surface somewhere to make access to their surfaces. A closeup of the rock is included with this article. The rock has been nicknamed "pot o' gold" by NASA researchers.



For some reason, the Sun has become active again after settling down toward a solar minimum. Large spots could be seen on the Sun's surface, even with the naked eye, if properly filtered. The spots seem to be a part of the old sunspot cycle, as they hugged the solar equator, not the upper or lower latitudes. You can see them if you go to the Web's Soho site. The latest pictures are usually shown along with other light spectrum photos and a magnetogram.

Vince Chrisman announced that one of his Venus transit shots that appeared on the NASA Internet has been duly recognized by one UK publication and has given them permission to use it in a book. Needless to say, Vince was mighty proud to make that announcement.

A big donation for the club's observatory came from Mr. Richard (Dick) Lipke. The items donated were a Pentium II computer, a Sony 16 inch monitor with speakers, an HP Deskjet 722c color printer, the software Redshift 2 and the Scientific American Library Planetarium. Needless to say, Dick deserves a great big hand for donating all that hardware and software. According to Vince Chrisman, the computer will be updated to Windows 2000 and Office 2000, along with the two pieces of software provided by Dick and should be running in our observatory by the time you read this. Many thanks, Dick and Vince.

Richard Gala came up with a method of reducing the light glare coming from the new rest room that has been erected north of our observatory. He's

taken some sheet metal and formed them to slip over the outside lights. His method works well and cuts all light that shines toward the observatory. The light that's left is directed down to the ground, still providing access for other people on the site. He used his baffles on the night of June 19 and they seemed to work well. Only one problem remains. It's the Coke machine standing next to the building. We are seriously considering pulling the plug on that machine, in the future. Perhaps we could get the park commission to move it to the other side of the building.

The speakers for July are Alan Rothenberg, Jim Ehlers and Alan Kaplan. Rothenberg and Ehlers will co-host the Cranbrook talk and clue us in on the Albion Observatory. Alan is an "older" member of the club with extensive observing experience with refractors, his favorite type of instrument. Their talk will be at the Cranbrook science museum on July 5, the first Monday of the month. Alan Kaplan will be talking about globular clusters, on July 15, at the Macomb meeting.

Don't forget the club picnic on July 17. It's always a great time to get to know your club members and a chance to see their telescopes. Even if the skies are cloudy, it's a great social event. If you can, bring something to share with the rest of the crowd. A bag of chips or crunchies, a few bottles of some kind of soft drink or if you're able, a salad or cake to go with the drinks. The club will provide hot dogs, hamburgers and condiments. If the weather co-operates, there will be observing all night long. Bring a tent or your camper. There's room for all.

The July computer group meeting is scheduled for July 22, (the fourth Thursday of the month) at Gary Gathen's home in Pleasant Ridge. He lives at 21 Elm Park Rd., three blocks south of I-696 and about a half block west of Woodward Ave. Meetings will start at 8:00 pm. You can reach him at 248-543-3366, or me, at 586-776-9720 for any further information.



Dick Gala with his Meade ETX 125 at Meade Nite

MINUTES OF MEETINGS

MACOMB JUNE 17

By Bob Watt

Meeting started at 7:45PM

Visitors, Ron Hampson

Members, 28

President Ken Bertin, opened the meeting with comments on his trip to Greece for the Venus Transit. Officer reports,

1st Vice President Norman Dillard went over the list of coming speakers.

2nd Vice President Riyad Matti, Stargate needs roof repairs & paint Riyad will be a Stargate this Friday & Saturday. "Meade Night" had 20 people The skies were hazy.

Treasurer Jim Shedlowsky, our treasury balance is \$1604.66. There was income from sales of \$150.00.

Secretary note: at Cranbrook June 1, Steve Harvath did a demo of his new

"Sunspotter", the speaker was Jim Shedlowsky, his subject "Iridum" flares.

The Detroit News did a very nice article on Ken Bertin & the Venus transit.

It was done on Monday June 7.

Tonight there was two speakers, Larry Kalinowski speaking on "Nebulas" & Ken Bertin with details on his trip to Greece for the Venus Transit. Both talks were well done. Meeting ended at 10:15PM

THE SWAPSHOP



NOTE: The past ads for Mike Best's telescopes used the wrong e-mail address. If you tried to contact him in the past, try again with the new address shown.

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. ETX90, with goto feature, in excellent condition, hardly used. I want a bigger telescope. Norman Dillard. Work phone: 248-546-1480 Cell phone: 248-765-4815. (10-04).

WANTED. NIMH battery for An IBM Thinkpad, model 702C. New or used. Needed for WAS portable computer. Contact Jim Shedlowski, jjmskeebros@cs.com. (10-04).

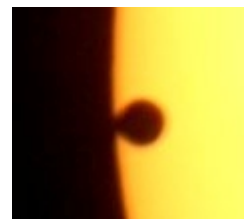
FOR SALE. Celestron, 8 in. Schmidt Cassagrain, 9 volt electric drive, PEC (periodic error correction), four speed quartz drive, heavy duty aluminum adjustable tripod, enhanced coatings and carrying trunk. Best offer over \$699.95. starmikebest@comcast.net. (8-04).

FOR SALE. Classic 6 in. Criterion RV-6 Dynascope., Newtonian reflector, 110v AC electric drive, aluminum pier with three feet, 6x30 two ring finder and rotating tube. Best offer over \$400. starmikebest@comcast.net. (8-04).

FOR SALE. Refractor, 3 in., metal tube, 1 1/2 in. two ring finder scope, 2 in. tracking erecting eyepiece telescope, Eastman Kodak Aero-Ektar 7.12 in. (178mm) f.l., 5x5, F2.5 camera #EM6294 (\$150 estimated value), AC heated dew shield for the 2 in. tracking scope, wood, heavy duty, surveyors tripod, two fitted wooden cases, two boxes of machine equipment tools for telescope construction. No mount. Best offer over \$475. Starmikebest@comcast.net. (8-04).

FOR SALE. Mirror cell for ten inch mirror. Plywood, very light weight. Fits 12in. ID tubes or larger with longer bolts. \$10.00. 586-776-9720. (12-04).

FOR SALE. Four vane spider, for diagonal bolts 3/8 in dia. or smaller. Fits 12 1/2 in. ID tubes or larger with longer bolts. \$10.00. 586-776-9720. (12-04).



Tear-drop effect. Taken with a Meade LX200 GPS 10' UHTC a Casio Exilim digital camera held to the eyepiece. – Vince Chrisman

Welcome Rider's of Livonia! Last month's ad was missing Rider's phone number. If you failed to contact them, please try again using their correct phone number (734) 425-9720. Remember to ask for John or Dan their Astronomy experts.



Now stocking Vixen telescopes and accessories.

See the new "**Sphinx**" Go To Mount with the world's first LCD screen star chart controller.

Now taking orders for the new Meade LXD75 telescopes.

Star Party every clear Thursday from our front parking lot starting at dusk.

*For more information call: (734) 425-9720
Ask for John or Dan*

July Calendar

Thursday, July 1 • 6:57 pm: Moon, at perigee (222,108 miles from earth.)

Friday, July 2 • 7:09 am: Full Moon

Sunday, July 4 • 5:00 am: Venus passes 1.1° north of Aldebaran

Monday, July 5 • 7:00 am: Earth is at aphelion (94.5 million miles from the Sun.

Thursday, July 8 • 1:00 pm: Saturn is in conjunction with the sun,

Midnight: Asteroid Juno is at opposition

Friday, July 9 • 3:34 am: Last Quarter Moon

10:00 am: Asteroid Parthenope is at opposition

Saturday, July 10 • 7:00 pm: Mercury passes 0.2° north of Mars.

Tuesday, July 13 • 8:00 pm: The moon passes 8° north of Venus

Wednesday, July 14 • 5:08 pm: The Moon is at apogee (252,396 miles from Earth)

9:00 pm: Venus is at greatest brilliancy, magnitude -4.5)

Saturday July 17 • 7:24 am: New Moon

Sunday, July 18 • 10:00 pm: The moon passes 4° north of Mars

Wednesday, July 21 • 9:00 am: Moon passes 3° north of Jupiter

Saturday, July 24 • 11:37 pm: First Quarter Moon

Monday, July 26 • 11:00 pm: Mercury is at greatest eastern elongation (27°)

Wednesday, July 28 • Southern Delta Aquarid meteor shower peaks

Friday, July 30 • 2:21 am: The Moon is at perigee (223,895 miles from Earth)

Saturday, July 31 • 2:05 pm: Full Moon

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**UPCOMING WAS EVENTS**

|     |          |         |                                   |
|-----|----------|---------|-----------------------------------|
| Jul | Mon 5    | 7:30 pm | <a href="#">Cranbrook Meeting</a> |
|     | Thurs 15 | 7:30 pm | <a href="#">Macomb Meeting</a>    |
| Aug | Mon 2    | 7:30 pm | <a href="#">Cranbrook Meeting</a> |
|     | Thurs 19 | 7:30 pm | <a href="#">Macomb Meeting</a>    |
| Sep | Mon 6    | 7:30 pm | <a href="#">Cranbrook Meeting</a> |
|     | Thurs 16 | 7:30 pm | <a href="#">Macomb Meeting</a>    |
| Oct | Mon 4    | 7:30 pm | <a href="#">Cranbrook Meeting</a> |
|     | Thurs 21 | 7:30 pm | <a href="#">Macomb Meeting</a>    |
| Nov | Mon 1    | 7:30 pm | <a href="#">Cranbrook Meeting</a> |
|     | Thurs 18 | 7:30 pm | <a href="#">Macomb Meeting</a>    |
| Dec | Mon 6    | 7:30 pm | <a href="#">Cranbrook Meeting</a> |
|     | Thurs 16 | 7:30 pm | Holiday Awards Banquet            |

## SCHEDULED SPEAKERS

| DATE       | DAY | PRESENTER                     | SUBJECT                           |
|------------|-----|-------------------------------|-----------------------------------|
| 7/5/2004   | MON | Alan Rothenberg<br>Jim Ehlers | Albion Observatory<br>Restoration |
| 7/15/2004  | THU | Alan Kaplan                   | Globular Clusters                 |
| 8/2/2004   | MON | Riyad Matti                   | TBA                               |
| 8/19/2004  | THU | Gary Ross                     | Will Thompson<br>Hay              |
| 9/13/2004  | MON | Phil Martin                   | Quantum Mechanics                 |
| 9/16/2004  | THU | Ed Starback                   | Pluto                             |
| 10/4/2004  | MON | Tom Hagen                     | McMath-Hulbert<br>Observatory     |
| 10/21/2004 | THU | Steve Uitti                   | CUSKY                             |
| 11/1/2004  | MON | Planetarium                   | Cranbrook Sky<br>Show             |
| 11/18/2004 | THU | Dave D'Onofrio                | Processing CD<br>Images           |
| 12/6/2004  | MON | Richard Szumanski             | Meteors/Comets/<br>Deep Sky       |
| 12/16/2004 | THU | Fred Espenak-<br>NASA         | Eclipses                          |

## Curved Collectors

By Vince Chrisman

In June, we held a Meade Nite at Stargate. We had approximately 20 folks show up with Meade, Celestron and a few other scopes. Everyone shared their scopes and the accessories they had along with some tricks too. Here are a few that are inexpensive and will enhance your viewing pleasure.

Dick Gale demonstrated the Orion Red Dot Finder Scope he added to his Meade ETX 125. It greatly simplifies sighting in the scope by showing exactly where your scope is pointed. The Orion EZ Finder II Reflex Sight is available for \$34.95.

The mosquitoes made themselves present in the early evening. Everyone was putting on Off and other repellants except for Bob Watt. He had some nifty electronic mosquito repellents and was bug and bite free. He said he got them from QVC for around \$9. They didn't have a name on them and I search the Internet to see if I could find them. The closest I could come was the Sunbeam Mosquito repellents. So I bought one. Guess what? It doesn't work. I'll keep searching for the ones Bob uses.

Do you have a large scope and have had a heck of a time mounting it on a wedge by yourself? Well Bob Berta showed his simple solution. He has a 2x4 and tips the tripod on two legs and uses the 2x4 to become the third leg under the wedge. The wedge is now horizontal to the ground. He mounts the scope and then lifts it up to the normal position. Works great and it's a cheap solution for a very large and heavy problem.

Alan Rothenburg our Lunar Planetary and Double Star group chairman showed a number of double stars and how those can be used to determine how well your optics are performing by resolving those stars. Test your scopes optics out by looking at:

- Epsilon Lyra - The double double.
- NU (V) Scorpi. - A very close double double that test the optics of small scopes.
- Alberio in Cygnis - Colorful contrasting bright double.
- Mizar in the handle of the big dipper. First Double ever discovered with a telescope.

It's amazing the tips, tricks and neat toys you can find when you go to a star party at Stargate. Are you going to the next one?



Article Compliments of Nancy Leon of JPL/NASA

## Space Weather

By Patrick Barry and Tony Phillips

Radiation storms, 250 mile-per-second winds, charged particles raining down from magnetic tempests overhead ... it sounds like the extreme weather of some alien world. But this bizarre weather happens right here at Earth.

Scientists call it "space weather." It occurs mostly within the gradual boundary between our atmosphere and interplanetary space, where the blast of particles and radiation streaming from the Sun plows into the protective bubble of Earth's magnetic field. But space weather can also descend to Earth's surface. Because the Earth's magnetic field envelops all of us, vibrations in this springy field caused by space weather reverberate in the room around you and within your body as much as at the edge of space far overhead.

In fact, one way to see these "geomagnetic storms" is to suspend a magnetized needle from a thin thread inside of a bottle. When solar storms buffet Earth's magnetic field, you'll see the needle move and swing. If you live at higher latitudes, you can see a more spectacular effect: the *aurora borealis* and the *aurora australis*. These colorful light shows happen when charged particles trapped in the outer bands of Earth's magnetic field get "shaken loose" and rain down on Earth's atmosphere.

And because a vibrating magnetic field will induce an electric current in a conductor, geomagnetic storms can have a less enjoyable effect: widespread power blackouts. Such a blackout happened in 1989 in Quebec, Canada, during a particularly strong geomagnetic storm. These storms can also induce currents in the metallic bodies of orbiting satellites, knocking the satellite out temporarily, and sometimes permanently.

Partly because of these adverse effects, scientists keep close tabs on the space weather forecast. The best way to do this is to watch the Sun. The NASA/ESA SOHO satellite and NOAA's fleet of GOES satellites keep a constant watch on the Sun's activity. If a "coronal hole"--where high-speed solar wind streams out from the Sun's surface--comes into view, it could mean that a strong gust of solar wind is on its way, along with the geomagnetic storms it will trigger. And an explosive

ejection of hot plasma toward the Earth--called a "coronal mass ejection"--could mean danger for astronauts in orbit. The advancing front of ejected matter, moving much faster than the solar wind, will accelerate particles in its path to near the speed of light, spawning a radiation storm that can threaten astronauts' health.

Look for coming articles for more about space weather and about NOAA's efforts to forecast these celestial storms. Meanwhile, read today's space weather forecast at <http://www.sec.noaa.gov/>. Kids can learn about the geostationary and orbits of the GOES satellites at [http://spaceplace.nasa.gov/en/kids/goes/goes\\_poes\\_orbits.shtml](http://spaceplace.nasa.gov/en/kids/goes/goes_poes_orbits.shtml).

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

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The following was submitted by Al McDonald:

The Lone Ranger and Tonto went camping in the desert. After they got their tent all set up, they fell sound asleep. Some hours later, the Lone Ranger wakes his faithful friend and says, "Tonto, look up toward the sky and tell me what you see."

Tonto replies, "Me see millions of stars."

"What does that tell you?" asked the Lone Ranger.

Tonto ponders for a minute, and then says, "Astronomically speaking, it tells me that there are millions of galaxies and potentially billions of planets. Astrologically, it tells me that Saturn is in Leo. Time wise, it appears to be approximately a quarter past three in the morning. Theologically it's evident the Lord is all-powerful and we are small and insignificant. Meteorologically, it seems we will have a beautiful day tomorrow. What it tell you, Kemo SABI?"

The Lone Ranger is silent for a moment, then says, "Tonto, you dummy, someone has stolen our tent!"