



LORAIN, OHIO

GUIDESCOPE

<http://junior.apk.net/~arstar50/BlackRiver.index.html>

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B.R.A.S. Officers: President: Mike Harkey
Vice President: Dave Lengyel
Treasurer: John Reising
Secretary: Dave Gulyas

August 2004

Meeting Dates

- Regular Monthly Meeting at the Carlisle Visitor's Center Aug 4, 2004 7:00 PM
 - Monthly Board Meeting at the Nielsen Observatory . Board Aug 12, 2004 7:00 PM
- members please bring something to pass around.

Observing Dates

- Nielsen Observatory “ The fabulous Perseid Meteor Shower. ” Aug 12, 2004 9:30 - 11:30 PM Soap and towels are optional, but a comfortable chair or blanket will come in handy.
- Nielsen Observatory “ Summer Milky Way ” Aug 20, 2004 9:30 - 11:30 PM
- Nielsen Observatory Solar Viewing Aug 29, 2004 1:00 - 4:00 PM

Locations

Nielsen Observatory is located at the Lorain Metro Parks Equestrian Center on Nickel - Plate Diagonal Road in Carlisle Township.

Carlisle Visitor's Center is located at 12882 Nickel - Plate Diagonal Rd In Carlisle Township.

Birmingham Methodist Church Hall is located in Birmingham, Ohio. Heading west on RT 113, turn left on South St. This is the first street over the bridge as you enter Birmingham. Continue on South St as it curves to the right. The hall will be on the left.

OTAA

Next month, September 18, 2004 will be the club's annual OTAA get-together at the Birmingham Methodist Church Hall, in Birmingham, Ohio. Doors will open at 4:30 PM, dinner at 5:30 PM, and doorprizes will be awarded at 6:30 PM. See the club's website for more details and pictures of last year's event. This year's doorprizes have already surpassed those given away last year !

Mahoning Valley OTAA is this month, on August 14 , 2004 at the Mahoning Valley Cortese Observatory on Rt 534 in Braceville, OH. Take the Ohio Turnpike east to the Rt 5 exit. Go east on Rt 5 to Rt 534. Go north on Rt 534 , over the turnpike and past Rt 82. The MVAS observatory is on the right. Registration is at 5:00 PM, picnic (bring a dish) is 6:15 PM, program / doorprizes at 7:30 PM, observing at 9:30 PM

Sale and Trade

Meade LX200 12" in excellent condition, heavy duty tripod with 416 / 20 XT Astroguider / Imager. Price: \$2000.00 You may examine it in Avon, Ohio Tel: 440-667-8799

Apogee 15mm 70 deg wide field eyepiece in near new condition. Price: \$40.00 John Reising Tel: 440-327-3301 email: jcrstarguy57@yahoo.com

Note: The Meade 4.5" reflector listed in last month's Guidescope has been sold.

What's Happenin'

A fair weather observation note: Actually, it was Tim Fairweather and his wife on Saturday, June 26, 2004 who made the observation. According to Tim, " We were out about 11:00 -ish on Saturday night, casually observing between ptly cloudy skies. My wife said 'Ooh, a meteor ' which usually means I won't get to see it. This thing was so slow and bright, I couldn't miss it. There were three pieces moving together with a nice smoke trail behind each of them..." As he discovered later, Tim and his wife observed the re-entry of a Russian rocket motor. As he put it, "Pretty neat ! " I have to agree.

What is NAMN ?

“ NAMN is an internet-based organization founded in 1995 ...to encourage amateur visual meteor observing in Canada, the USA, and elsewhere. ” There website is at:
<http://www.namnmeteors.org>

From the NAMN NOTES : “ The Perseids were one of the most exciting and dynamic meteor showers during the 1990s, with outbursts at a new primary maximum producing EZHRs of 400+ in 1991 and 1992. Rates from this peak decreased to 100 - 120 by the late 1990s, and since 2000, it has failed to appear. This was unexpected, as the outbursts and the primary maximum (which was not noticed before 1988), were associated with particles accompanying the parent comet 109P / Swift - Tuttle passing perihelion in 1992. The comet's orbital period is about 130 years, so it is now receding back into the outer Solar System, and theory predicts that such outburst rates should dwindle as the comet to Earth distance increases.

In the IMO Calendar , the International Meteor Organization suggests that we could get ' a possible primary peak time around 11h UT on August 12 ' .

The Perseids (PER) can be seen from about July 17th to August 24th. The radiant , the area in the sky where the meteors seem to come from, moves quite a bit over this period of time though, so it is best to check a map to see where the radiant is on a given night, before you go out observing. A map showing the radiant movement can be found on the IMO website at <http://www.imo.net/calendar/cal04.html#Perseids> Many beginning observers think that the radiant is always just below the constellation Cassiopeia, near the double star cluster h & chi - but such is not the case !

These are fast meteors, with a velocity of about 59 km per second, and can be quite spectacular ! Quoted ZHR rates for the Perseids are about 100 meteors per hour. ZHR refers to Zenithal Hourly Rate, and is the number of meteors, on the average, that an observer would expect to see if they were out under a dark country sky, and if the radiant of the shower is directly overhead. “

[Taken from the NAMN NOTES: August 2004 - “Perseids, Aquarids and more ”.

Thanks to Dave Lengyel for forwarding this newsletter to me.]

Space Weather

“ Radiation storms, 250 miles-per-second winds, charged particles raining down from magnetic tempest 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 the 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....

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 sometime 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 mass 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. “

[Taken from the NASA Space Place Columns. Special thanks to NASA Outreach Manager, Nancy Leon]

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