

August 2005

GUIDESCOPE

Editor: Barb Hubal
Email:hubalbd@netzero.net

Coming UP!!

B.R.A.S. Officers

President: Mike Harkey
Vice President: Dave Lengyel
Treasurer: John Reising
Secretary: Dave Gulyas

IMPORTANT LOCATIONS:

**MAPS ARE AT THE BACK OF
THE NEWSLETTER**

Nielsen Observatory -
13630 Diagonal Road, LaGrange,
OH at the Lorain County Metro
Parks Carlisle Equestrian Center

**Birmingham Methodist
Church Hall** - 15018 South St.,
Birmingham, OH

Cortese Observatory - State
Route 534 about 8/10 of a mile
north of the Rt. 534/Rt. 82
intersection (*Trumbull County*)

Wooster Memorial Park -
off SR 250 at the intersection of
N. Jefferson and Silver Roads in
Wooster, OH 44691

Black River Meetings

- **July 29th** at **Nielson** (9:30-11:30pm) Delta Aquarid Meteors
- **July 31st** at **Nielson** (1-4pm) Solar Viewing
- **August 3rd** **Carlisle Visitor Center** - Monthly Meeting (Barb Hubal) - Make It and Take It-Solar Filters
- **August 11th** at **Blue Sky Restaurant** - Board Meeting
- **August 12th** at **Nielson** (9-11pm) Persiad Meteors
- **August 26th** at **Nielson** (9-11pm) Outer Solar System Specials
- **August 28th** at **Nielson** (1-4pm) Solar Viewing
- **September 2nd** at **Nielson** (9-11pm) Back to School Specials
- **September 7th** **Carlisle Visitor Center** - Monthly Meeting (Dave Lengyel) - Astronomical Misconceptions
- **October** - John Reising - Mars opposition
- **November** - Astronomical Show and Tell
- **December** - Holiday Dinner Meeting

OTAA MEETINGS

- **Sat. August 6th** - Mahoning Valley at Cortese Observatory
- **Sat. September 10th** - **Black River**, 4:30pm - Birmingham Methodist Church Hall

OTHER AREA STAR PARTIES

- **Sat. August 13th** – Wayne County Astronomical Society at Wooster Memorial Park
- **Fri/Sat Sep 30th & Oct 1st** -Hidden Hollow Star Party at the Warren Rupp Observatory. See their website: www.wro.org/hiddenhollow2005.htm for more details.
- **Sat. October 29th** - Brunswick Astronomy Club at Plum Creek (Medina County Parks)
- **Friday-Sunday, September 2-4, 2005** - **Black Forest Star Party** at Cherry Springs State Park, Potter County, PA. Check <http://www.bfsp.org/starparty/> for more details.

Club News

AUGUST MEETING

Barb & Ken Hubal will be hosting a make it-and-take it workshop on solar filters during our August meeting. **Bring either your scope/binoculars or its dust cap(s) to the August meeting.**

LOANER SCOPES

Did you know that the club owns scopes that it makes available for loan? Well, it does! The following telescopes are available for loan; just ask a board member about them!

- 90mm refractor with an alt-az mount
- 5" (f6.5) reflector on an equatorial mount (known as the Blue Lady). It is available with or without the hydrogen-alpha filter,
- 68mm refractor complete with a tripod block (note, camera tripod is not supplied)

OPERATING EQUIPMENT AT NIELSON...

If anyone would like to learn about operating the equipment (including the roll-off roof), please contact a board member to set up a date. Remember, as a club member, it's your equipment to use!

Hidden Hollow

The Richland Astronomical Society will be holding the **Hidden Hollow Star Party** on September 30 and October 1st at the Warren Rupp Observatory. As in past years, there will be primitive lodging available in the bunkhouses provided by Friendly House, as well as camping on the Observatory grounds. Fees for the weekend will be \$40 per person, but if more than 10 people would like to attend, they've offered to arrange a group rate for us. (This would allow families to attend without breaking the budget.) The Link to their website is www.wro.org/hiddenhollow2005.htm. Among their speakers will be our own Barb Hubal, giving her presentation on Safe Solar Viewing and the Venus Transit.

Article of the Month....

Archaeoastronomy in the



image taken from <http://www.sidecanyon.com/attraction/nmexico2.htm>

American Southwest

Chaco Canyon is located in the San Juan Basin of New Mexico. It was a major center of ancestral Puebloan culture between AD 850 and 1250. It was a hub of ceremony, trade, and administration for the prehistoric Anasaz.

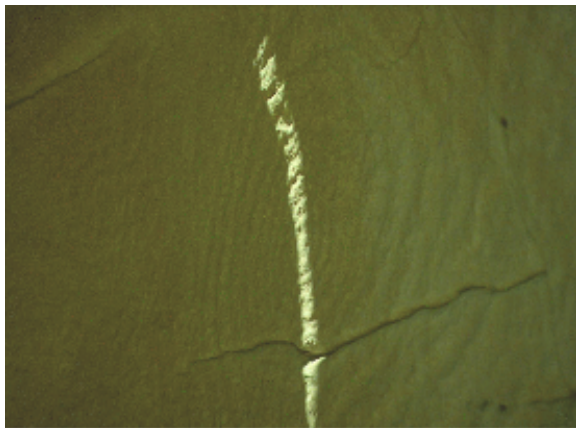
It's remarkable for its monumental public and ceremonial buildings, and its distinctive architecture. The Chacoan people combined pre-planned architectural designs, astronomical alignments, geometry, landscaping, and engineering to create an ancient urban center of spectacular public architecture.

In some areas of the site, petroglyphs show distinctive light/shadow interactions as the sun

migrates from south to north (winter solstice to summer solstice).

Perhaps the best known of these petroglyphs is the "light-dagger" atop of Fajada Butte.

As the sun migrates between the solstices, not only does the sunrise and sunset position change but so also the altitude of the sun in the sky. Set behind three slabs of rock the meridian sun sends a dagger of light across a rock face onto which the Chacoans carved an 18.6 inch grooved spiral petroglyph. A single dagger through the center marks summer solstice, whereas two light daggers bracketing the petroglyph mark winter solstice. The Equinox is mark by the appearance of a new dagger across a smaller spiral in the upper left corner. This petroglyphs marks the migration of the sun for each day of the year.



Fajada at summer solstice, June 21st

Photo by Bryan Bates

http://www.cpluhna.nau.edu/~jsw_archaeoastronomy.htm

But perhaps more amazing is what researchers didn't see, at least until a National Geographic photographer noted it in a darkroom. There are two very shallow grooves that cross the petroglyph, grooves associated with the movement (not phases) of the moon over an 18.6-year "Metonic" cycle. When a full moon rises at its maximum northern extent, it will cast a light shadow line directly down the upper groove. 9.3 years later, the moon rest at its southern maximum position and will cast a light shadow line through the center shallow groove. Culturally, there is strong evidence that the Chacoan and Puebloan peoples observed the interrelationship between the Sun and the Moon, and aspect of duality that permeates their religious perspectives. Similar alignments can be found at other sites in the southwest.

For more info, see the referenced websites. Info for this article was taken from these sites and is not original work.

"Chaco Culture" by the National Park Service at URL: <<http://www.nps.gov/chcu/>>.

"Ancient Observatories: Chaco Canyon" at URL: <<http://www.exploratorium.edu/chaco/flash.html>>.

"Chaco Culture" at URL: <<http://www.mnsu.edu/emuseum/archaeology/sites/northamerica/chaco.html>>

"Lunar Markings on Fajada Butte, Chaco Canyon, New Mexico" Appeared in *Archaeoastronomy in the New World*, ed. A.F. Aveni, pp. 169-86. Cambridge University Press, URL: <<http://www.solsticeproject.org/lunarmark.htm>>

Photos from July 9th (Ken Hubal)



Sagittarius



Milky Way

Board Meeting Minutes

THE BLACK RIVER ASTRONOMICAL SOCIETY BOARD OF DIRECTORS MEETING

JULY 14, 2005

Members present: G. Cox, J. Reising, T. Kreja, D. Lengyel, J. Cunningham, M. Harkey, M. Plas, K. Hubal, B. Hubal

The meeting was called to order by president Mike Harkey at 7:10 PM at the Blue Sky Restaurant in Amherst. The minutes of the June Board meeting were read and approved.

Committee Reports:

Treasurer: John reported \$51.00 were spent for the Nielsen Observatory hardware and \$170.00 were spent for solar filter supplies for the August "make it and take it" meeting. There was no income and the final balance was \$7305.65.

Guidescope: Barb reported that in the future, all printed versions of the Guidescope will be done in black and white in order to keep costs under control.

Instrumentation: Status quo.

Programming: August - Barb Hubal - Solar filter make it and take it; September - Dave Lengyel - Astronomical Misconceptions; October - John Resing - Mars Opposition; November - Astronomical Show and Tell; December - Holiday Dinner Meeting

Planning: Status quo.

OTAA: Status quo.

Old Business: John has contacted Dan Martin by letter requesting a key for the Nielsen Observatory. He is waiting for a final answer from Mr. Martin. The upgraded hardware has been installed at Nielsen. The board stated that at least two board members should commit

to attend each future observing session. Dave reported on some of the history of the club's meteorite collection. There was a discussion concerning the scanning of the club's archives. Ken reported that he has the material for the construction of the solar filters for the August meeting and that the list is complete.

New Business: John suggested selling the club's Schmidt camera. The board will give this further consideration at the next meeting. The club's loaner telescopes will be listed in the Guidescope.

Dates:

August 3 - regular meeting

August 6 - MVAS OTAA

August 11 - Board meeting at Blue Sky in Amherst

August 12 - Public viewing at Nielsen from 9:00-11:00 PM Perseids

August 26 - Public viewing at Nielsen from 9:00-11:00 PM

August 28 - Public viewing at Nielsen from 1:00-4:00 PM solar viewing

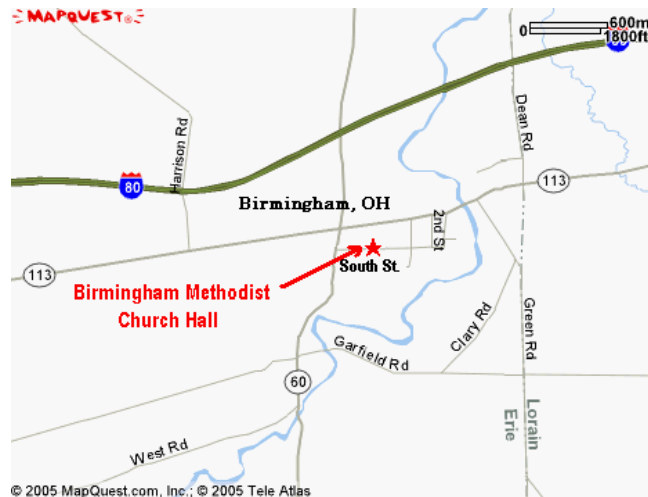
John moved to adjourn, seconded by Greg. The meeting adjourned at 8:53 PM

Respectfully submitted,

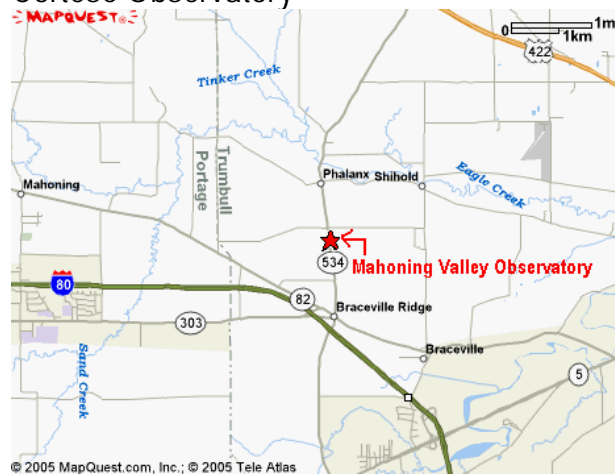
Dave Lengyel
Vice-President

LOCATIONS...

Black River OTAA Meeting - Birmingham Methodist Church Hall



Mahoning Valley Cortese Observatory



The MVO is located on St. Rt.534 about 8/10 of a mile north of the Rt. 534 / Rt. 82 intersection. Look for a sign along the road that marks the gravel drive way entrance to the MVO. As you travel down the slope you'll see the MV to your right. Remember- turn your headlights off before you turn onto the observatory grounds

Wooster Memorial Park



These Maps have been produced with MapQuest:

- Birmingham Methodist Church –address found in telephone book
- Mahoning Valley Observatory –coordinates listed on Mahoning Valley Web site. Directions are also listed at their website (www.mvobservatory.com).