



# The Night Sky

The Newsletter of  
The Astronomy Club of Akron

www.acaoh.org

Volume 29 Number 4

April 2007

## RAMBLINGS OF THE PRESIDENT

by Dave Jessie

**Item 1** - The ACA elections will be taking place at our next meeting on Friday, April 27. This election will determine who will guide this organization throughout the next year. It's not too late to add your name to the ballot! While write-ins are expressly prohibited by the Bylaws, if you are eligible and announce your intentions at the start of the meeting, you will be added to the ballot. The May meeting will be conducted by your newly-elected officers.

### **Item 2 - Important Upcoming Events:**

Friday April 20, 2007 at sundown - Boy Scouts at Camp Butler on SR-303 in Peninsula.

Saturday April 21, 2007 from 9:15am until 4:00pm - Astronomy Day at the Cleveland Museum of Natural History. Bring your scope to show the public.

Saturday April 21, 2007 at 8:00pm - Public event at the Observatory.

Sunday May 6, 2007 6:45pm - ACA Solstice Dinner: at the Golden Corral at 2819 South Arlington in Akron. Charge is \$10.00 per person.

Sunday July 22, 2007 2:00pm - ACA Member Picnic: at the Big Oak Shelter in the Portage Lakes State Park near our observatory. More information to follow.

**Item 3** - Trustee and friend Freddy Huffman and I went to lunch this past week and basically cried in our iced tea about the state of amateur astronomy. Have you noticed the *almost* total disinterest among youngsters and young adults in astronomy or anything else having to do with science? It seems that rushing home to watch the latest breathtaking episode of **American Idol** is what has captivated this segment of the population. **Gang, this Club exists to help save America!** Am I exaggerating? Perhaps, but we offer a genuine peek into reality unaltered

by commentators or slick editing. Freddy brought something else to my attention...on page 17 of the May edition of **Sky&Telescope** magazine is an ad by one of the Big Two telescope manufacturers. It shows an intelligent-looking gentleman seated behind a stack of books with the caption "For those unwilling to spend years learning astronomy, we present instant gratification." The books shown are all excellent - as a matter of fact, between Freddy and me, we had every one of the books in our collections. Instant gratification - I guess that's what the ad agency assumes will appeal to the folks reading the magazine. The ad is pushing a couple of computerized items that are supposed to make astronomy painless. As the owner of several computerized telescopes, I can assure you that nothing is as easy as the advertisements imply. A working knowledge of constellations and the stars they contain was critical in the good old days when computers hadn't even been invented yet and that knowledge is equally important today. When a computer-controlled scope is started and points roughly in the direction of a bright star with the hand-controller demanding "Center Alnilam and hit Enter", the operator's gotta know which star that is! Yes, a star chart is a useful aid, but knowledge of a few named stars is a critical advantage. If the operator centers on the wrong star and hits 'Enter', the scope won't be able to find anything - no 'instant gratification' at all, only instant annoyance. I've seen more frustrated new telescope owners with computerized scopes than I can count. Not because their scopes are bad, nor because they're not intelligent, but because they believed those "instant gratification" stories the ad men pitch. When they finally learn how to use their computerized marvel and actually see M31 in the eyepiece, what's their reaction? "Is that dull smudge there what I'm supposed to be seeing? Where's the color

*(Continued on page 3)*

**Topic for April's meeting at the Kiwanis Civic Center at 8:00pm on Friday, April 27, 2007:**

Dr. Geoffrey Landis will speak on the Mars Exploration Rovers, Spirit and Opportunity; as well as the future of Mars exploration. See page 5 for more information.

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### OTAA Representative

Lou Poda

## Activities Calendar

### Club

### Celestial

Apr. 14, Open House and Star Party and  
Messier Marathon 8:00 pm

April 17, New Moon

Apr. 21, Open House and Star Party 8:00 pm

April 21-22, Lyrid Meteor Shower

Apr. 27, ACA General Membership Meeting  
8:00 pm

May 2, Full Moon

May 5, Annual ACA Telescope Seminar (and  
open house/star party) 7:30 pm

May 16, New Moon

The deadline for article submission is **the second Tuesday after each meeting**. All word processing files should be saved in straight ASCII text files or any version of Word to minimize import problems. We will not turn away **any** submission, as long as the article's subject is astronomy or a related topic. If you don't have access to a computer, don't hesitate to write something out long hand. As long as it is legible, I will slave over the keyboard and get it published.

### PLEASE SEND IN YOUR ARTICLES!!!!

Send your articles, items for sale, and comments to: Justin Phillips 402 Crystal St. Akron Ohio  
email phillipsaca@gmail.com

(Continued from page 1)

and the detail?!" How many times have we all heard that? Instant gratification isn't what it used to be, I guess. My take is that one must have a realistic expectancy for this hobby to become the passion it is for us. No, we don't expect to see color nor the detail we see in those magnificent Hubble images. What we *do* see are the actual photons that have been traveling for millions upon millions of years destined for our retinas. We know that no earthling will ever step foot anywhere near there. We expect that life *might* exist there and those living beings *might* be looking back in our direction. We think many things stimulated by the view through the eyepiece. A lot of this comes from our imaginations, but most comes from the knowledge garnered from that stack of books the ad folks want us to forget about in the name of instant gratification. What's my suggestion? Encourage folks to go to the library and take out some astronomy books and read. Talk to as many folks as you can. Encourage them to discuss the fascinating things they've read about. Get somebody, especially youngsters, excited about science and astronomy in particular. You never know what wonderful effect you may have on a child whose imagination you've sparked. Instant gratification has its place, but I can't see it leading to anything but frustration when it comes to the appreciation of amateur astronomy. I'd write more, but *American Idol* is coming

on pretty soon! If you believe that, perhaps you'd be interested in some swamp land I'm selling.

<b>Treasurer's Report: 3/1/07 - 3/31/07</b>	
Steve Rohweder, Treasurer	
Total Beginning Assets	\$8,811.51
Income	
Interest on balances	\$2.00
50/50 Drawing	\$7.00
Transfer from Cash Box	\$10.00
Dues	\$170.00
Expenses	
Event Expense	(\$50.00)
Observatory Schedules	(\$55.90)
Insurance	(\$817.00)
Total Ending Assets	\$8,077.61

## OBSERVATORY REPORT

The weather has started to warm up and has given us the opportunity to start some of the observatory maintenance projects we discussed at our club meetings. The first project we wanted to complete was replacement of the man door threshold. Fred Huffman and I went out to the observatory two weeks ago to start work. While removing the threshold, we noticed the metal door had significant internal corrosion so we decided to replace it also. When we returned to the observatory with the new door, we realized we did not have a caulking gun, so I drove to Carter's Lumber to purchase one. Upon arrival at the observatory, I was surprised to find Fred had already removed the old door and had the new door in place ready to secure to the building. The club is lucky to have a member like Fred. We secured the door and sealed the outside frame to prevent water from entering.

The following week Dave Jessie wanted to upload some orbital data into the 14" telescope memory. The data contained the most recent parameters for calculating orbits of asteroids, comets, solar system objects, and satellites. After loading the new data into the telescope memory, we wanted to train the drives to maximize accuracy as the telescope slews from one object to another. Training the drives is a procedure that allows the telescope processor to measure the amount of backlash of each drive (altitude & azimuth) in both directions of movement. With this information, the processor can compensate for backlash and more accurately place an object in the center of the field of view. After training the drives, we tested the tele-

scope on several objects and it performed well.

On March 10th, ACA held a star party at Portage Lakes State Park. The skies were cloudy all day until around 3:00pm when the clouds started to disappear. By 6:00pm all clouds were gone and the skies remained cloudless until after sunrise Sunday morning. About 20 public attendees and 10 club members were present at the star party. The jewel of the night was Saturn. Jason Shinn set up his large Meade refractor and showed the public stunning views of Saturn with the Cassini Division clearly visible. The 14" telescope displayed open clusters for the public attendees. Dave Steele had his 13" reflector cranked up to view the Orion Nebula. Dave was using Marty Breyer's Omega NPB filter (narrow pass band). Dave's 13" telescope and the Omega NPB filter showed the public and club members filaments and dust lanes within the nebula in detail never seen before. It was a good night of observing!

Ron Kalinoski

### Next OTAA Event for 2007:

**May:** OTAA Scenic Vista Stargaze - Saturday May 19, 2007 (Scenic Vista Park, Lisbon, OH.)

For full list of events, see the Night Sky Newsletter for February or March of 2007.

# A Look at Even Earlier Astro-Imaging Gear

By John Crilly

## SBIG ST-6

In a recent article I discussed some early SBIG CCD imaging gear with an eye to examining its value as an economical alternative to their current offerings. This month I will go back a little farther, to the beginnings of commercially available CCD imaging gear designed for astrophotography. The intent is not to offer this camera as a viable choice for today's imagers, but more to inform folks of how this all began.

The first commercially available, dedicated CCD camera designed for astrophotography was the ST-6, introduced in 1992 by Santa Barbara Instrument Group. It was a logical progression from their extremely successful ST-4 autoguider. The ST-4 could be used to take images but was not intended for that use. The ST-6, on the other hand, was designed specifically as an imaging platform. It incorporated a regulated cooling system and was provided with software providing a unique "track and accumulate" frame gathering procedure.

The ST-6 received terrific reviews and quickly became a fixture at university and research observatories. The TI 241 imaging chip's large (23 X 27 micron) pixels provided high sensitivity and were ideal for use with larger observatory instruments. The imaging chip was actually larger than many of today's cameras (DSI, DSI II, ST-7XME, ST-402, etc.) at 8.63mm X 6.53mm, although the pixel count was fairly low at 375 X 242. The current SBIG ST-9 series cameras fill this market segment today, offering 20 X 20 micron pixels in a larger, 512 X 512 pixel array with a resulting chip size

of 10.2mm X 10.2mm. Of course, the current ST-9XME models also offer a more modern, higher sensitivity chip as well as a self-guiding function utilizing a second, internal imaging chip – but their derivation from the ST-6 is obvious.

The camera had a separate control box which interfaced between a computer's RS-232 port, the camera, a 12V power supply, a mount's autoguide port, and the color filter wheel. Plenty of cables for anyone!

## CFW-6

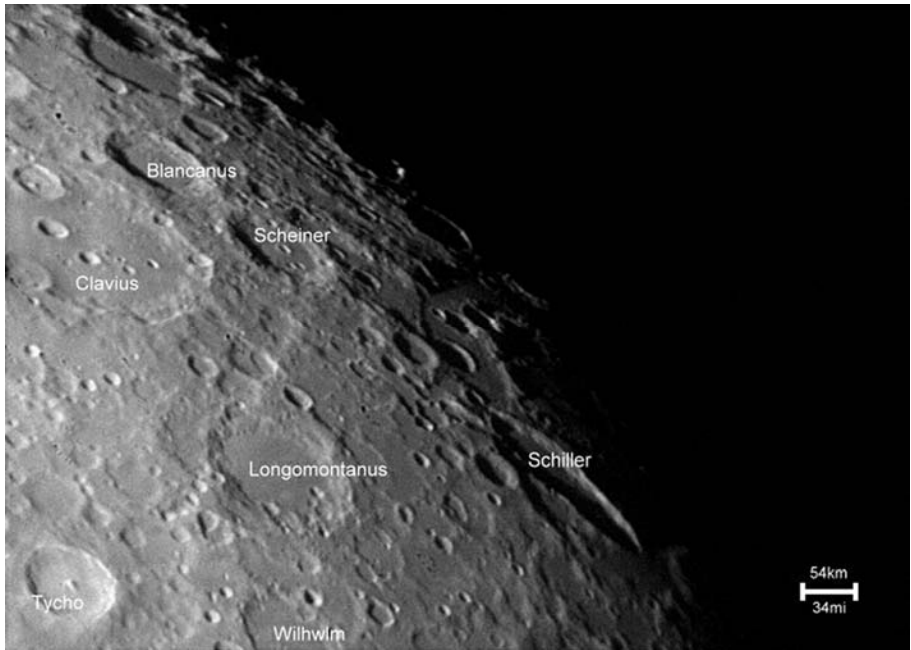
SBIG also produced a motorized, remotely-controllable color filter wheel for those wanting to use the camera for less scientific purposes. The CFW-6 provided slots for six standard 1.25" filters (one more filter than is available in the current CFW-8 filter wheels!). The ability to do color imaging helped make the ST-6 popular among amateur astronomers in addition to its original, largely research-oriented market.

## CONCLUSIONS

I don't think many readers are going to scurry out and pick up an ST-6. I can't even offer much encouragement to anyone who decides that he wants to do so; this fifteen year old model isn't often seen, even on Astromart. I'm the only one I know who was crazy enough to dig long enough to find one. It's a unique piece of history, though – and without its success it's very unlikely that SBIG would have found either the encouragement or the means to progress into the industry leader they are today.



Images, from top to bottom: SBIG ST-6; business end of ST-6; control box; CFW-6.



Saturn - By Jason Shinn  
 Single Frame Image  
 March 29, 2007 10pm  
 Canon Digital Rebel XT  
 ISO1600 1/10exp  
 6 inch Meade LXD-55 refractor

The Clavius / Schiller Region  
 March 29, 2007 10pm  
 Eighteen stacked images.  
 Eyepiece projection 160 x  
 6 inch 1200 mm Meade LXD-55 refractor /  
 7.5 mm Orion Ultrascopic eyepiece  
 Canon Digital Rebel XT  
 ISO 1600 / 1/100 sec

## For Sale:

Meade 125 ETX w/the works!  
 Go-To system, barlow, tripod,  
 hard case, metal aux. case,  
 lenses, filters, dew shield,  
 still w/original boxes.  
 \$1,000 O.B.O.  
 Contact:

Carol Zeh c/o McKinley Museum  
 800 McKinley Monument Dr.  
 Canton, Ohio 44708  
 330-455-7043  
[http://www.mckinleymuseum.org/contact\\_us](http://www.mckinleymuseum.org/contact_us)

## Some Notes:

Additional documents included with the online edition of the April 2007 Night Sky newsletter:

- Scenic Vista Star Gaze 2007 flier
- Hidden Hollow 2007 flier

Also, check out the flier for the CAA's Image Processing Workshop included with the (online) March newsletter.

The ACA would like to extend a warm welcome to the following new members...

- Lew & Marilyn Snodgrass
- Peter & Leslie Clausen
- Jerry Unroe

We are thrilled to have you as members and look forward to seeing you at ALL club functions!

## Details for April's club meeting:

The Mars Exploration Rovers "Spirit" and "Opportunity" have now been exploring the surface of Mars for over a thousand sols (solar days on Mars), well over ten times their nominal 90-sol design lifetime. This talk will discuss the Mars Exploration Rovers, present some of the results from the mission and how it's affected our current view of Mars, will discuss the continuing NASA program for robotic exploration of Mars into the next decade, and will look at the possibility of future human missions to Mars.



Credit: NASA/JPL-Caltech/Cornell

Dr. Geoffrey A. Landis is a researcher in the Photovoltaics and Space Environments branch at NASA John Glenn Research Center. He is a member of the science team of the Mars Pathfinder and the Mars Exploration Rover missions, and has recently finished two years as Rodney E. McNair-NASA Visiting Professor of Astronautics at MIT. In addition to his work as a scientist, he is also an award-winning science fiction writer. More information is available at his website;  
<http://www.sff.net/people/geoffrey.landis>

# The Night Sky

Newsletter of the Astronomy Club of Akron

c/o Justin Phillips, Editor  
402 Crystal St  
Akron, OH 44305-3116

To join the ACA, **or to renew your membership**, please fill out the form below, place in an envelope and mail to the address shown in the return address area of the form.

*Please be sure to enclose payment for the membership level desired.*

**The Astronomy Club of Akron**  
c/o Steve Rohweder, Treasurer  
3981 Meadow Wood Ln  
Uniontown, OH 44685-7785

Yes! I want to become a member of the Astronomy Club of Akron

[www.acaoh.org](http://www.acaoh.org)  
(PLEASE PRINT)

NAME: \_\_\_\_\_ PHONE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

EMAIL ADDRESS: \_\_\_\_\_

**Astronomy Club of Akron** annual memberships renew in the month of May.

ADULT (ages 18 and older)..... \$30.00

JUNIOR (ages 12 to 17).....\$15.00

ADDITIONAL ADULT member ..... \$15.00

FAMILY MEMBERSHIP .....\$40.00

I realize the full color version of *The Night Sky* newsletter is available for download by members from our web page at [www.acaoh.org](http://www.acaoh.org), but I would rather have the B&W version mailed to my address via USPS.

**The OTAA SCENIC VISTA STARGAZE**

**May 19, 2007**

Scenic Vista Park  
11000 Wayne Bridge Rd  
Lisbon, OH 44432

**Google Map: <http://tinyurl.com/2q49jo>**

The first organizational meeting of the Ohio Turnpike Amateur Astronomers was on January 25, 1956, in Akron OH. Representatives from the Akron, Mahoning, Black River, Elyria and Youngstown clubs were present. A series of annual OTAA summer meetings was established. Over the decades, clubs in the OTAA have continued with these annual "OTAA Meetings" with great success. There had been a very fine newsletter of the OTAA called the Asteroid Belt, but it is now long out of publication. In recent years the OTAA, as an organization, has seen activity limited to those great summer conventions. It is hoped these conventions will continue well into the future. Let's celebrate the OTAA's longevity and begin this next convention season with the 2nd OTAA Scenic Vista Stargaze. Rekindle the spirit of the OTAA with an old fashioned star party! We hope this Stargaze event will bring many OTAA members together. Visit with old friends, make new ones. Exchange ideas and observing notes. Sharing telescope views. Helping the novice navigate the night sky. With that, we hope for clear skies and your company at the OTAA Scenic Vista Stargaze.

Since the early 1990's, the Mahoning Valley Astronomical Society (MVAS) has conducted public star parties at Scenic Vista Park, near Lisbon, Ohio. Located in rural Columbiana County, Scenic Vista Park has proven to be an ideal, convenient location for deep sky observing and imaging. Many MVAS members have adopted it as a dark sky site. The Park offers a wide open vista to the night sky. Over ten acres of grass field provides ample space to set up telescopes. When it is time for a break, the Park's pavilion with picnic tables, and a nearby portable rest room provide essential comforts. With such a great site and being close to home, the MVAS wanted to introduce Scenic Vista to the OTAA. With last year's 50th anniversary year at hand, it seemed a perfect time to do so. It proved to be a great get-together. Our fellow OTAA members enjoyed the skies over the Park. Many hoped this event would happen again. The MVAS has complied with these wishes and will host the event again. We hereby invite all OTAA members to the 2nd Annual OTAA Scenic Vista Stargaze. If you planned to go to AstroBlast or Cherry Springs, please consider Scenic Vista. It is closer. Your scopes, binoculars and imaging equipment are welcome. Bring what ever you usually need for an "all nighter". If you arrive after dark please use parking lights only (if possible).

NOTE: If the weather is totally cloudy in the Lisbon area, no event will take place. With partial clouds or clearing skies, the public event will still be on. OTAA members are of course welcome to still give it a try under these conditions. Check the Internet or other weather forecasting resources covering Columbiana County, OH to help you to decide if you'll make the trip.

**Saturday, May 19...**

**12:00 PM** Rocket and model plane flying are planned for the afternoon. Solar observing as well. Arrive early if you like. Pick a spot to set-up. Camping overnight is permitted but no camp fires please. (There are no RV electric or sanitary connections available). A port-a- John and outhouse are on site. There will be no registration fees, no door prizes, no potluck dinners, and no lectures. No camping fees. Just observing.

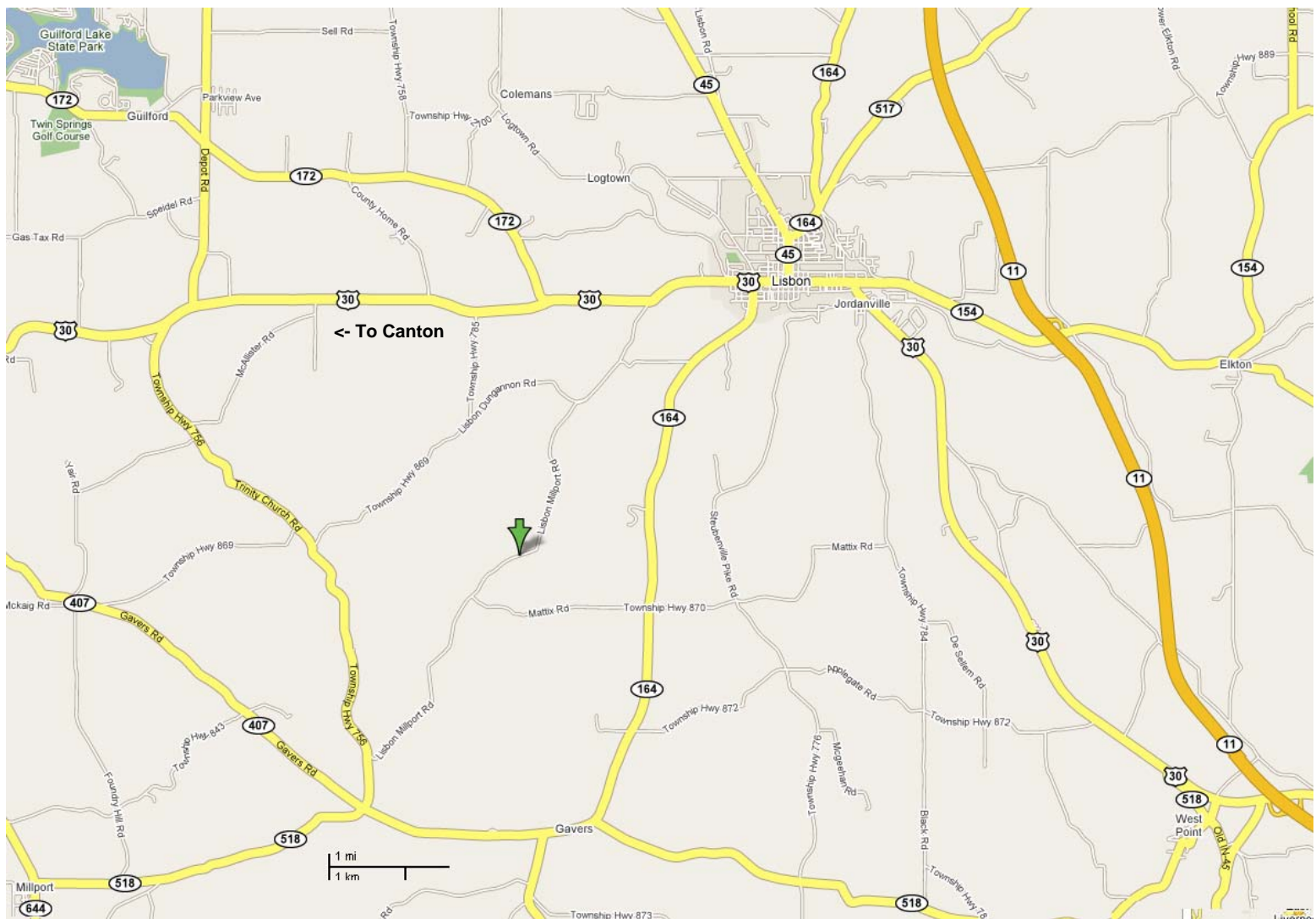
**6:00 PM** An informal welcome for this gathering of OTAA members will convene at the pavilion. This opportunity will allow club representatives to pass along information regarding observing projects that may be of interest to the OTAA, upcoming OTAA convention news or club literature. Discussions about these topics are welcome, or if you have a question about observing in the Park, please ask. MVAS will provide some soft drinks at the welcome.

**7:30 PM** We expect volunteers from the park to set up a "lunch stand" for the event. They setup in the pavilion, selling hot dogs, sloppy joes, and sodas. Proceeds from these sales go towards funding of park operations. With that, you are reminded to bring the snacks, drinks and warmer clothing that you normally need to get you through the night.

**9:00 PM** With sunset around 8:45 PM a public star party will begin. In past years, the MVAS has conducted these public events in the Park. The Public rarely number more than 25 people and they are usually gone by midnight. The pavilion is available for your observing breaks, all night long. The MVAS coffee pot will be hard at work too.

**Sunday, May 20...**

**12:00 PM** The OTAA Scenic Vista Stargaze is officially over at this time. We hope the skies will comply! Please be rested for a safe drive home-what ever time you leave. A few hours' nap in you vehicle is very appropriate. Someone from MVAS will be there all night and into the early morning.



## Directions to Scenic Vista Park...

**Getting there:** Most OTAA clubs are north or west of Scenic Vista Park. Several routes are available. From the north one could take SR 45 south into Salem, OH. Or pick-up SR 14 that also takes you into Salem. In Salem, pick-up SR 45 which goes south from Salem into Lisbon. A longer but mostly "freeway" trip is to take Interstate 76 eastbound to the SR 11 exit in Austintown, OH. Take Rt.11 south to the Rogers/Lisbon exit (Rt.154). Turn west (onto Rt.154). This takes you into Lisbon, where 154 changes into Rt.30. Many folks from points west of the park prefer to get on Rt. 30 and head east. Note that the entrance to Wayne-Bridge Rd. is near the crest of a hill. There is a house just before the entrance, to the right. If you use the Internet to get driving directions, note that Scenic Vista doesn't actually have a street address, but using this address: 11000 Wayne Bridge Rd, Lisbon, OH 44432 worked with [www.maps.google.com](http://www.maps.google.com) If you have access to the Internet, use this TinyURL for a map and directions: <http://tinyurl.com/2q49jo>

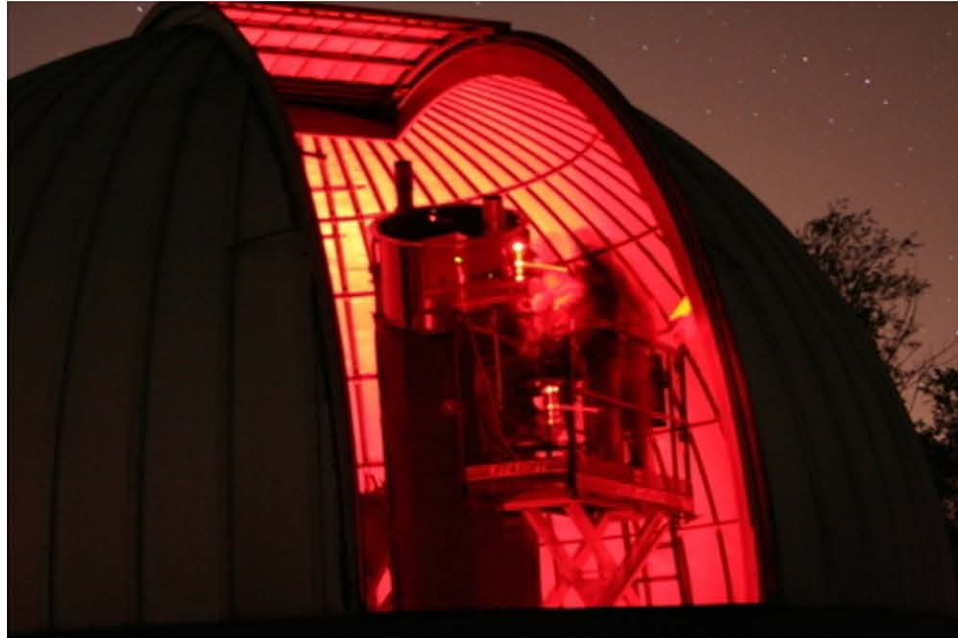
To get to the Park using Lisbon as a reference Point: Go through downtown Lisbon - westbound on Rt. 30. Leaving town, you'll go over a concrete Bridge, then up a rather steep hill. As you go over the crest of the hill look to your left for a big yellow sign with an arrow indicating that the road curves right. Wayne-Bridge Rd. is right behind this arrow sign. Turn left onto Wayne-Bridge. It is a narrow, paved road with many curves and some elevation changes. It is three miles to the park (but some times seems longer!) The Park entrance is on the right side, marked with a sign. The entrance is at the top of a hill. There is only one road into the Park and you can't miss the pavilion - it's to the left. The location of the park is approximately marked by a green arrow down and left of center on the map above this text.

Please note that Mattix Rd. is unpaved and sometimes closed so don't rely on taking this road.



# HIDDEN HOLLOW 2007

OCTOBER 13-14, 2007



OCTOBER 13-14, 2007

## Door prizes include a 10 inch Dob!

- Good company!
- The 31" Rupp Telescope!
- Door prizes!
- Great speakers!
- Great demonstrations!
- Awesome skies!
- Free Cabins!
- Showers!
- Food!
- Vendors!

Pre-register and be eligible for the free solar filter workshop!

### GUEST SPEAKERS

Phil Harrington - Author  
Brent Archinal - USGS  
Terry Mann - Astronomical League

Mike Best - Noted Amateur and Public Speaker  
Tom Whiting - "The man with the 30 inch Dob!"  
Jason Shinn - Canal Fulton Amateur Radio Observatory

FOR MORE INFORMATION VISIT

<http://www.wro.org/hiddenhollow07.html>



# Hidden Hollow '07 mail in registration form:

Adult registrations include one door prize ticket per registrant, which will be given at check-in. Additional door prize tickets may be purchased at the event.

1. For safety of all attendees, use of **GREEN LASER POINTERS ARE PROHIBITED.**
2. You must provide an email address (print clearly!) if you want a confirmation.
3. Registration through **October 1, 2007** or until we receive 350 registrations. Fire code regulations
4. No cars will be permitted to enter the Star Party area after dark and no cars are permitted to move on the field after dark except in an emergency.
5. Pre-registration is **MANDATORY**; there will be **NO REGISTRATIONS** at the gate.
6. Pets are not permitted Service animals for disabled are permitted.
7. Individuals using this form to register are not allowed to sell items, you must register as a vendor to sell. Contact RAS if you wish to register as a vendor.
8. Not responsible for theft or accidents; No refunds.
9. Very Rustic bunk house style cabins first come, first served; bring your own sleeping bags "consider these as wooden tents". No heat, 200 maximum.
10. Wrist bands are mandatory

Please indicate your selections by placing a number in the appropriate box. If multiple people are applying from different postal addresses, please use a separate form for each address.

Number of Adult registrations @ \$40 each \_\_\_\_\_

Number of Family registrants @ \$60 each \_\_\_\_\_ immediate family only no extended family members at this rate.

Number of Children under 12 (must be accompanied by an adult) **free** \_\_\_\_\_

Name(s):		
Name(s):		
Street Address:		
Street Address:		
City,	State	Zip Code:
Telephone Number:		
Email address (print clearly this is what we use to contact you!!)		
Bringing Telescope?	Type	
Club affiliation		
Using Bunk House Cabins	Yes	No
<b>SIGN AT X BELOW TO AGREE TO THE REGISTRATION PAPER</b>		
<b>X</b>		

Please print and send page along with your check (made payable to "R.A.S.") to:

**Richland Astronomical Society P.O. Box 1118 Mansfield Ohio 44901**

You will receive a confirmation email from [kmoore10@columbus.rr.com](mailto:kmoore10@columbus.rr.com) after your registration has been received.

Not responsible for misspelled, non-functioning, or blocked email accounts this is beyond our control.

Submit email questions about your already submitted registration form to [kmoore10@columbus.rr.com](mailto:kmoore10@columbus.rr.com), [hbreg@earthlink.net](mailto:hbreg@earthlink.net) all other questions should be directed to [theastronomer@webtv.net](mailto:theastronomer@webtv.net)