



# The Night Sky

The Newsletter of  
The Astronomy Club of Akron

www.acaoh.org

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July 2002

## OBSERVATORY PARKING

As many of you know, during our solar-lunar program on July 20 we had a slight misunderstanding regarding parking around the observatory.

Thanks to Mark Kochheiser who contacted the Park Manager Brian Andrews on the following day, we have been assured that the parking arrangement we have been using for at least the past several years is still the accepted plan.

Subsequently, I prepared a diagram of the parking areas and faxed and phoned Brian to be sure we were all in agreement. That diagram is included in this newsletter (see page 6), so please take a moment to review

it. Brian expressed a preference for the gravel lot inside the chain link fence and the paved drive in front of it to remain members only so we will continue that scheme.

The angled parking along the boat ramp road, although rarely needed, is available if necessary as well as the utility road on the opposite side providing also that these are not too wet.

Please use common sense in not blocking any driveways, overhead doors, or park vehicles. Please also lend a hand by watching for anyone parking otherwise and directing them to a better location.

Ray Paul  
Observatory Director

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## ATTENTION MEMBERS!!

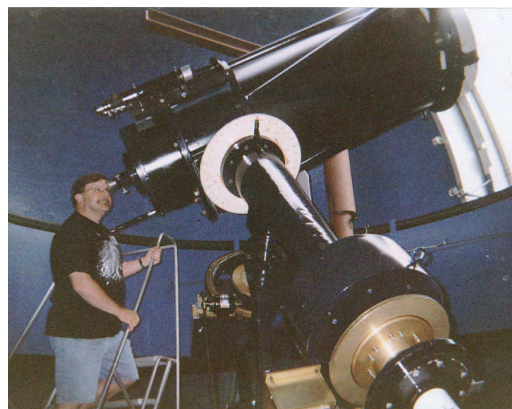
Check the membership list on pages 7 and 8. If any information is incorrect please contact Gregg Crenshaw so that the errors may be corrected.

## Pictures from Apollo Rendezvous 2002



The world famous Star Car, autographed by the top scientists of the world, as well as autographs of many astronauts.

ACA member Rich Ruggles attended the 32nd Apollo Rendezvous convention June 14 and 15 at the Boonshoft Museum of Discovery in Dayton. Last month's issue of



Night Sky included a description of the trip. This month we feature photos from the event.

Rich doing some sun gazing with the 20" Schmidt observatory in Dayton.

## Activities Calendar

### Club

August 2-4, AstroBlast  
August 3, Cuyahoga Astronomical OTAA  
August 3, Observatory Program  
August 9, Quail Hollow Star Party  
August 10, Mahoning Valley OTAA  
August 16, Aurora Star Party  
August 17, Observatory Program  
August 24, ACA Canoe Trip  
August 30, Wilderness Center Star Gaze  
September 14, Black River OTAA  
October 4 + 5, Hidden Hollow '02

### Celestial

August 1, Neptune at Opposition  
August 10, Mars at Opposition  
August 12, Perseid Meteors at peak  
August 22, Venus at max. elongation  
August 22, Full Moon

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### 2002 – 2003 COMMITTEES AND CHAIRS

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The deadline for article submission is **two weeks before the next 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.

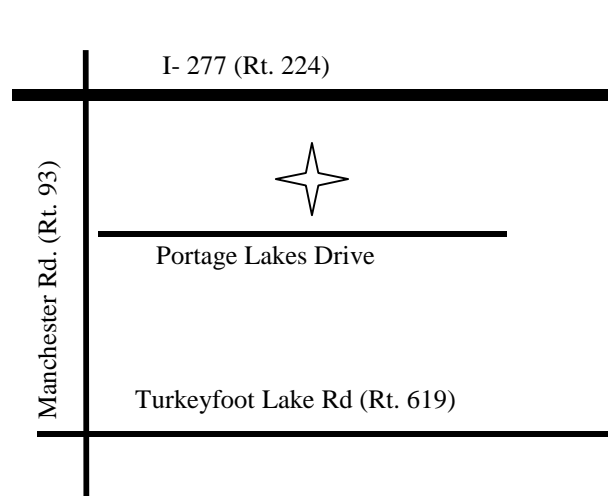
**PLEASE SEND IN YOUR ARTICLES!!!!**

Send your articles, items for sale, and comments to:

**Ray Hyer, 725 Brewer St. Akron, OH 44305** Email: [rhyer@neo.rr.com](mailto:rhyer@neo.rr.com)

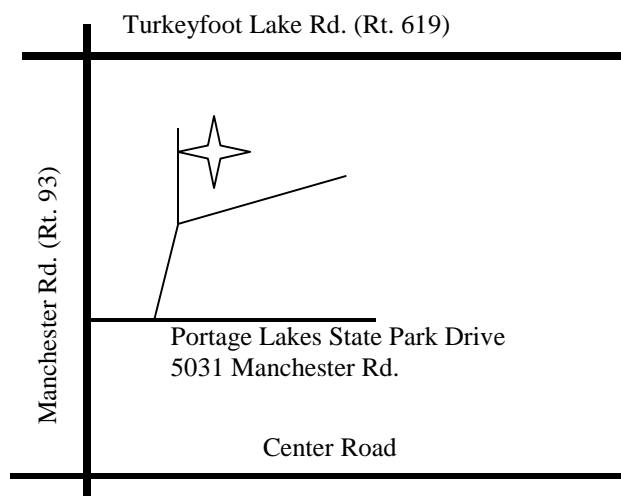
### MONTHLY MEETING LOCATION:

The Astronomy Club of Akron meets at 8:00 PM at the Kiwanis Hall, 725 Portage Lakes Drive.



### OBSERVATORY LOCATION:

The ACA Observatory is located within the Portage Lakes State Park on Manchester Rd. (Rt. 93). Turn left off Manchester Rd, then left at the first drive. Observatory is across the street from the Park Office.





## Ether Drag

By Jeff Hudson

### JOKE

An astronomer on an extended lecture tour became weary of delivering the same lecture night after night. He confided this state of mind to his chauffeur as they were driving to their next destination. The chauffeur expressed a similar boredom in his line of work.

"I've got it!" said the astronomer. "You are bored with driving and I'm weary of lecturing. Let's exchange places for one night. It will be a refreshing change for both of us. My lecture is all written out word for word and nobody in the next town knows me by sight anyway." The driver agreed and the exchange of roles and dress was made.

That night the lecture hall filled to capacity. At the appointed time those in attendance heard a flawlessly delivered lecture. At its conclusion the lecturer basked in the euphoric applause. Then came the question and answer period.

"Who discovered Uranus?" came from a boy in the front. "Uh... William Herschel." He remembered that from somewhere.

"And who discovered Pluto?" continued the boy.

"Aaaa... that would be Clyde Tombaugh." He had read a little.

Then from the back: "Would you please comment on the rela-

tive merits of the pulsation instability model and the accretion disk instability model for the explanation of outbursts of cataclysmic variable stars?"

The speaker paused for a moment and then said, "I am surprised that you would bother to ask me such a simple question. And to show you how simple it really is, I'll have my chauffeur answer it for you."

### ETHER DRAG

Notice the new look. I decided to use sub-headings, that way you can skip the boring parts.

### TITLE OF COLUMN

I have had a couple of questions about the title of my column. I will try to keep the explanation brief or we will be here all day. I encourage you to do your own reading on the subject of Ether. Ether also spelled Aether, also called luminiferous ether, was believed to act as the medium for transmission of electromagnetic waves. The ether was assumed to be weightless, transparent, frictionless, undetectable chemically or physically, and literally permeating all.

In 1887, Albert Michelson and Edward Morley attempted to detect the existence of the ether. The experiments were done at Case-Western University in Cleveland. Michelson and Morley built a Michelson interferometer, which consisted of a light source, a half-silvered glass plate, two mirrors, and a telescope. The mirrors were placed at right angles to each other and at a equal distance

from the glass plate. The glass plate was oriented at an angle of 45° relative to the two mirrors.

At that time, theories held that ether formed an absolute frame of reference that with respect to the rest of the universe was stationary. Therefore ether should appear to be moving from the perspective of an observer on the sun-orbiting Earth. As a result, light should sometimes travel in the same direction of the ether, and others times in the opposite direction. The idea was to measure the speed of light in the different directions in order to measure speed of the ether relative to Earth. When Michelson and Morley measured the speed of light in each direction, in any orientation of the Earth or at any position of the Earth in orbit, they found no difference

Basically, they were looking for the drag that the Earth created while moving through the Ether, like the wake that boats make when moving through water. That is where I got the title, Ether Drag, from. Which has nothing to do with anything.

### ASTRONOMY ON THE ROAD

I decided it would be interesting to visit some of the observatories and clubs located near me. I went down to the Wilderness Center astronomy Club's (WCAC) public star party at the Wilderness Center near Wilmot, OH. They had a nice planetarium show before the star party. The presenter knew how to use the equipment, always a plus, and was able to keep his talk at



## **ETHER DRAG, Cont.**

the level of the audience. I believe even my daughter was able to understand most of what he said. In the same building as the planetarium they have a roll-off roof for the observatory. They have public viewing nights on the first Friday of each month. It is only about 25 miles south of our observatory, it just seems to take a long time to get there.

The next night I was at our observatory for the Summer Constellation program. I was given the chance to open and close the observatory, this included setting up and taking down the telescope. So I thank everyone for that opportunity.

The following Friday, I went to the Aurora Astronomical Society's (AAC) public star party at the Moore Education Center in Aurora. They have a nice location with a great western sky. I got to operate their 12.5" scope and spent some time showing kids the Moon. My trick is to ask them, "How many craters can you count?". This gets them to stay at the scope for a little while and really look at the moon. I got answers from "20" to "2 billion". One of these days I will have to count the craters I see on a new crescent moon.

I believe we have ACA members that are also members of the WCAC or the AAC. Should we think about doing co-club star parties?

The next night was our outing to Quail Hollow State Park. I had never been to that park and was

looking forward to some nice dark sky's. I was not disappointed, it was dark, but cloudy. After a great slide show, by our own Rich Ruggles, we went outside and were able to look at Venus and the Moon. I was told there is a buffalo farm near by, so I am going to have to go down earlier in the day for the next event. Our next event at Quail Hollow is on Friday, August 9, 2002.

I don't believe there is an astronomy club in the Kent/Hartville area? Quail Hollow state park would be a good place to plant a club, after all they already have a place to meet and a telescope.

## **METEOR SHOWER**

On Sunday, July 28 is the Delta Aquarid Meteors. The peak of this shower is expected to come at about 8 p.m., but the shower radiant in the southern part of Aquarius does not rise until about 10:30 p.m. local time. Under good conditions, this shower typically serves up about 20 meteors per hour at peak. Usually, I never see much during this meteor shower but if you happen to be up that night, write an article for the newsletter on your experience.

## **NASA NEWS**

The space shuttle fleet is likely to remain grounded until at least early September. Cracks in the fuel line were first discovered on the space shuttle Atlantis in June, and later on Discovery, Columbia and Endeavour. Also, Cracks were found on test equipment used before the first shuttle was flown more than two

decades ago. The cause of the cracks remains unknown, but NASA officials believe all have a common root because the cracks appeared regardless of each vehicle's age or the number of times it has flown. NASA is saying they are confident the shuttle fleet can be returned to service by September or October -- in time for the next scheduled mission to bring home crew members now on the International Space Station.

I have had a request for two ACA jackets and that time of the year is coming up for ordering calendars and guides. So start thinking about what you want and I will put more information in next month's newsletter.



## **For Sale**

### **Orion VX 80 refractor \$900.00**

6 x 30 finderscope

1.25 correct image 45 degree prism diagonal

Great Polaris mount with polar alignment scope and reticule (lit)

Dual axis controller w/RA-DEC motors, battery pack and cables  
Optional alt-az hardwood mount with ring/plate attachment  
Microfine altitude and azimuth controls for alt-az mount  
Sirius Plossl 26 mm eyepiece  
Accessory tray

The Sky (SE) planetarium software

Contact Lynn at 440-331-4709  
or [gemmalady@msn.com](mailto:gemmalady@msn.com)



## Astronomy On the Road

By Rich Ruggles

This month activities start off with a bunch of stuff the first weekend.

### **August 2-3-4: ASTROBLAST-**

The Oil Region Astronomical Society of Oil City, PA holds their annual convention 2 ½ hours east of Akron in Oil City, PA. Speakers, vendors, swap tables, excellent location, large observatory, participants from all over with many different scopes to look through. Registration forms can be found on their web site [www.oras.org](http://www.oras.org). \$14.00 pre-registration; \$20.00 at the door.

### **August 3<sup>rd</sup> - CAA OTAA-**

The Cuyahoga Astronomical Association will hold their annual OTAA Star Party at their Latha House. For more details and map go to their web site at [www.geocities.com/cuyastro/index.html](http://www.geocities.com/cuyastro/index.html)

### **August 3<sup>rd</sup>: The Jewels of Summer**

Astronomy Program by the ACA at their observatory in Portage Lakes State Park off State Route 93. Vega, Hercules, and Andromeda and more starting at 8:00 pm.

### **August 9<sup>th</sup>: Aurora Parks Star Party**

Moore Outdoor Education Center on Bissel Rd. in Aurora hosted by the A.A.S.

### **August 9<sup>th</sup>: Quail Hollow State Park Star Party**

hosted by the ACA and held on the hill at Quail Hollow State Park in Hartville located on Con-

gress Road off St. Rt. 619 in Hartville. Follow the brown Quail Hollow signs to the park then look for the ACA signs to set up your scope.

### **August 16: The Aurora Astronomical Society monthly meeting 7:30 pm and Star Party**

after the meeting. To be held at the Moore Outdoor Education Center on Bissel Rd. off Aurora-Hudson Rd. in Aurora.

### **August 17<sup>th</sup>: Uranus and Neptune**

program at the ACA Observatory in Portage Lakes State Park 8:00pm. See your outer two giant planets. Bring your scope and enjoy the evening.

### **August 24<sup>th</sup>: Astronomy on the River-**

1:00pm. This proved to be a big hit last year, so let's do it again. Spend a quiet Saturday afternoon leisurely drifting down the Tuscarawas. Being ever watchful for that pesky Bazooka Ball splashin' down by your canoe.

This river trip is open to all so bring your family and friends. We will meet at Indian River Canoe Livery in Massillon, OH. We will the board vans that will take up 6 miles up river to our launch point. Halfway down we will stop and have a picnic at the Crystal Springs. There will be a privy and grill and tables for us to use.

The final 3 miles are when we play riverball. No one gets very wet unless you really want to. It's a fun day for all. No experience necessary. The river depth is 2-3 feet deep. Life jackets and paddles are provided. Cost per person is \$10.00 based on 2

per canoe. Children in the middle are discounted.

What to bring: Cooler with food/drink. The kind that latch are best to keep things dry. Use zip lock bags or tupperware. Bring snacks and drinks to have on the river. Wear tennis shoes at all times. A sharp rock could end your fun real quick. Wear your bathing suit is you want. There are a few spots you can stop and play in the water if you like. Canal Fulton is about 12 miles south of Akron.

Directions to this most excellent adventure are as follows: Find Rt. 93; Follow 93 in to and through Canal Fulton. (Do not stop at the canoe livery in Canal Fulton, that is not us). Follow Rt. 93 out of town to the top of the hill where you will find Rt. 21. Go south to Massillon on Rt. 21. When you come to the first traffic light, turn right and the canoe livery is right there. Hope you can make it.

### **August 30: The Wilderness Center Astronomy Club meeting and Star Gaze.**

Located in the Wilderness Center off S.R. 250 in Wilmot, OH.

If you need any more info on these events or directions, contact me at 330 644-5912 or email [astronomy1on1@cs.com](mailto:astronomy1on1@cs.com).



## Pictures from Apollo Rendezvous 2002



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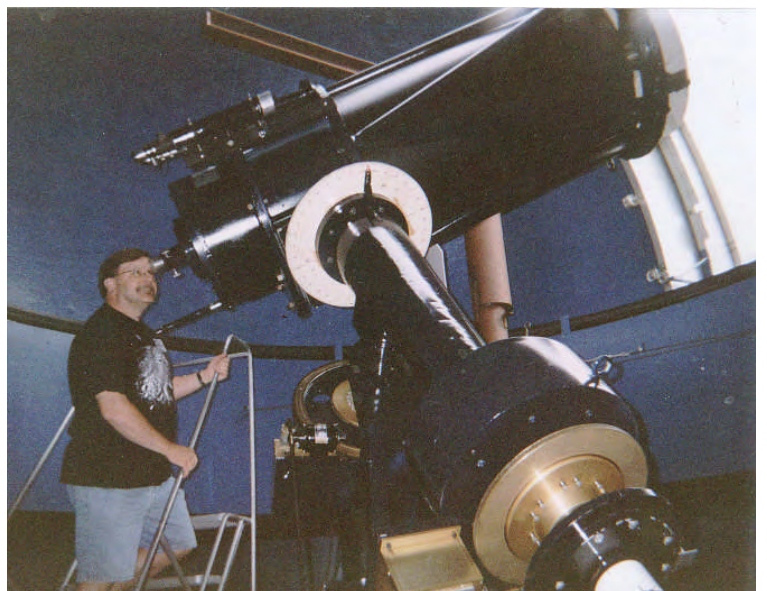


Three speakers at Apollo Rendezvous, left to right:  
Terry Mann, Putting scopes on the ISS  
Don Parker, Mars master  
Mark Trueblood, Telescope farmer



Rich talking about Mars with Dr. Don Parker

Rich doing some sun gazing with the 20" Schmidt observatory in Dayton.



## Pictures from the Laurel Highlands Star Cruise 2002

ACA members Rich Ruggles and Vic DeChristoforo attended the 3rd Laurel Highlands Star Cruise hosted by the Amateur Astronomers Association of Pittsburg near Hazelton WV. June 5 – 9. Rich provides some photos from the event.



17" f8 unobstructed dobsonian with no secondary mirror.



4" Orion with 90 mm Meade finder



12" Meade LX 200 used as a finder for the refractor???



A 10" f11 Refractor

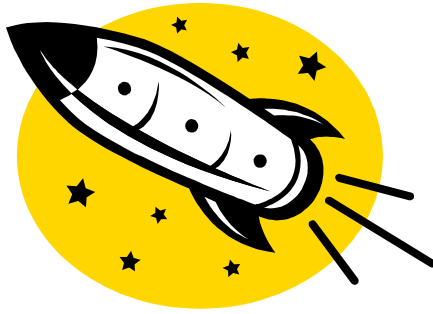


A 22" f5 Ultra Light Dobsonian

## ASTEROID VISIT

Late this year a rocket is to be launched from Japan that will attempt to collect samples of material from an asteroid and return the material to Earth for analysis. Left on the asteroid will be a piece of aluminum foil that will, hopefully, contain the names of a million earthlings.

The launch is being planned by the Institute of Space and Astronautical Science, ISAS. The mission, named Muses-C, is to arrive at Asteroid 1998SF36 during the middle of 2005. After a three month survey of the asteroid the craft will fly close to



the surface and collect samples using automated range finders and beam sensors.

Any samples collected will be stored in a capsule. Late in 2005 an engine will be fired to return the capsule to Earth, arriving during June of 2007.

While in orbit around the asteroid a target marker will be released to the surface. Inside the marker will be a sheet of aluminum foil upon which the names of a million people will be engraved. A web site has been established where names can be submitted for inclusion at [www.planetary.or.jp/muses-c/pc/en/](http://www.planetary.or.jp/muses-c/pc/en/).