



The Night Sky

The Newsletter of
The Astronomy Club of Akron

www.acaoh.org

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August 2006



Strangely enough, chairs (and people) seemed to accumulate in one area at the picnic. Photo by Justin Phillips

Ramblings of the President

by Dave Jessie

Annual ACA Member Picnic was a success, as usual!

Our picnic, held for the third year in a row at the beautiful home of members Carl & Betti Hervol in Uniontown, was a delicious success! We had more food than we could possibly eat. Lots of members were there and had a wonderful time. The only little problem was an actual temperature of 97° F and fairly high humidity to boot. We were all hoping we could just go ahead and break into three digit temps for the first time in years since we didn't think another three degrees would make any difference, but it didn't happen. Probably a good thing, too. Some of us looked a little fried by the end of the event. Carl! When are you going to put in a pool for us!? Just kidding, of course. Carl and Betti made us all feel comfortable and welcome and we are all grateful to them for their hospitality. We did have a hydrogen-alpha scope set up, but believe it or not,

the Sun was fairly quiet that day. So where was all that heat coming from?! Some questions are difficult to answer. All I can say is a giant 'Thank You!' to the Hervols from the entire membership for again hosting our annual picnic and making it the successful event that it was.

Weather forecast... hot and humid and no let up in sight.

We've all joined the '4H' club. Not the 'Heart, Health, Head and Hands' club of old, but the 'Hot, Humid, Hazy and Horrifically-non-astronomical' weather of NE Ohio of late. It's truly disheartening. I personally can't remember such a disappointing string of Friday and Saturday nights – and I've been observing for a very large number of years. What's amazing to me is the support by Club members and public alike in attending our observatory events! I want to let you know that your presence at our events is genuinely appreciated by me, your Board and your fellow Club members. The public attendance has been fantastic and while they love seeing the observatory and viewing through the 14", the large number of enthusiastic members that have continued to set up their own equipment, despite the minimal chance of successful viewing, is a feather in the cap of the ACA. I am, and continue to be, very proud of this organization and the enthusiasm continually demonstrated by our members.

August 27 - Mars will be as big as a Full Moon! I just absolutely can *not* believe this bogus information is making the email rounds *again*.

(Continued on page 3)

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Activities Calendar

Club

Celestial

Aug. 19, Open House and Star Party 8:30 pm

August 13, Perseid Meteor Shower Peaks

Sept. 22, ACA General Membership Meeting

August 22, Perseid Meteor Shower Ends

August 23, New Moon

Sept. 23, Open House and Star Party 8:00 pm

August 27, Mars will **NOT** be the size of the Full Moon

September 7, Full Moon

September 22, 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 44305
email phillipsaca@gmail.com

(Continued from page 1)

It was a huge stretch of the truth 3 years ago on August 27, 2003 – when Mars was, in fact, the closest it had been to Earth in sixty thousand years. Perhaps you’ve seen this email or PowerPoint presentation either stating or at least implying that ‘*Mars will be as big as a Full Moon*’. The message places a Hubble image of Mars directly next to a same-sized image of a full Moon. The problem is, that image is placed directly between the “*Mars will be as big as a Full Moon*” and the qualifying statement coming before ‘*In a backyard telescope at 75 power*’ so that folks read right over the ‘*at 75 power*’ statement. I can’t tell you how many well-meaning folks have emailed me saying they can’t wait to see this phenomenon. I tell them they’ve been misled...that this isn’t going to happen and that it was sorta kinda true three years ago, but to notice that no year was stated in the email. Well, guess what? I got yet another of these ‘notices’ this past weekend and somebody had carefully inserted a ‘2006’ after the August 27 portion of the notice. Unbelievable. Who’s doing this? People are so anxious to impress their email buddies with this alleged fantastic news that they start inserting stuff to make it even more fantastic or more believable. It’s a further example of the dumbing-down of America at its finest. All we can do is continue to attempt to educate the public and keep this sort of non-information, no, ANTI-information, from attracting too much attention. Sometimes I almost think this sort of ‘news’ is put out there to discredit science and astronomy in particular. The message appears to be quite official – most even mention NASA by name. Folks will get all excited about seeing Mars the size of a full Moon without thinking this absolutely can not occur. Let’s not even mention the fact that most non-astronomically inclined folks *grossly* overestimate the apparent size of a full Moon. They’ll go outside with their family and see absolutely nothing unusual. Where will the blame for this disappointment fall? On ‘those stupid astronomers who predicted this!’ when, in fact, that is NOT where the blame belongs at all. Where does the blame fall? I am at a loss to explain. The email is forwarded time and time again usually by well-meaning but astronomically-challenged folks with no ax to grind. I find it extremely frustrating. Have you gotten this email? How did you respond? I had an observing event in Stow this past Friday. Prior to the event, I had received a phone call from a woman who had attended an astronomy lecture at a local library. She was extremely enthusiastic about attending this observing event. When she got here, she immediately asked where Mars was. I explained it was too low in the west to see – that it was lost in the glow of the Sun and was soon to be a morning object. She looked puzzled and asked how was it that on August 27, Mars would be the size of the Full Moon? I explained the situation and she left without even looking in any of the telescopes that were set up on amazing things. What is it about Mars, anyway? Do people think they’ll see aliens? I almost cried. I swatted a mosquito on my sweaty forehead and took a look at a shadow transit on Jupiter just before clouds moved in and wiped us out. <sigh> But next week, everything will be great!

Treasurer's Report: 7/1/06 - 7/31/06

Steve Rohweder, Treasurer

Total Beginning Assets **\$9,433.91**

Income

Interest on balances	\$5.90
Miscellaneous Income	\$103.00
Magazine Subscriptions	\$32.95
Dues	\$320.00

Expenses

Newsletter Expense	(\$9.00)
Food (picnic)	(\$162.16)
Magazine Subscriptions	(\$32.95)

Total Ending Assets **\$9,691.65**

REFRACTOR TRENDS

The standard advice to potential purchasers of first telescopes has long been to acquire a Newtonian reflector, preferably on a dobsonian mount. There are two primary reasons for the first part of this, and one for the second.

The first reason for a newbie to start with a Newtonian is that there's not much doubt that for a given quality level and at medium apertures, a Newtonian is the least expensive telescope design. Most entry-level Newts actually do a very nice job, especially when compared to typical refractors or compound telescopes at the same price. Inexpensive refractors, in particular, have been a category that most of us have learned to advise against.

The second reason is that because of the lower cost, it's very easy to afford a Newtonian of substantial aperture. In many ways, the old adage that "aperture rules" is still good advice. The downside of this is that larger aperture telescopes are also longer and heavier than smaller instruments. Because the cost, weight, and complexity of conventional mounts capable of handling these larger loads, the dobsonian mount makes a lot of sense for many users.

Nothing has changed regarding these choices in larger (8" and up) telescopes, but there has been a true revolution in smaller refractors. For some first-time scope buyers they can be worth examining - and in the higher-end gear some major changes are coming soon as well. These changes are due to the recent availability of glass compounds that approach Fluorite crystal elements for low chromatic dispersion. The most common of these are O'Hara FPL-53 and OK-4 (I forget the vendor).

Orion began the modern "apochromatic" refractor revolution with their Synta-produced ED80 using an FPL-53 element. Although limited in aperture (and using a doublet objective that fails to meet some definitions of apochromatic) this model offered true APO performance, both visually and for imaging, for the amazing price of \$400. It was so successful that the price was soon bumped to the current \$500 price level. That imported model was soon followed by various small-aperture, FPL-53 doublet "APO" scopes produced by Long Pern in Taiwan for such resellers as William Optics, Celestron, Orion, and StellarVue at prices of \$800 or less in the 80mm aperture and under \$400 at 66mm. All of these include focusers and hardware unheard of even in achromatic refractors at these prices until now. Later Long Pern 80mm refractors with less expensive FPL-51 glass (and farther from APO performance) have been offered at \$600. Meade has announced their own 80mm import scope with a triplet objective for \$600!

In larger apertures the revolution continues. Orion has announced a Synta-produced 120mm FPL-53 doublet for under \$2000 and Meade is promising a 127mm FPL-51 triplet APO for a similar figure. William Optics has a 110mm FPL-53 triplet APO for just over \$2000 and is promising a 130mm soon. Even TMB, a leader in the production of high-end APO optics, has announced a 135mm triplet APO for under \$4000, which will compete with their current Russian LZOS-produced OK-4 doublets selling for \$6000 or so.

John Crilly
aka
The Veep



Image of the Orion 120mm ED Apochromatic Refractor OTA
Credit - Orion Website

Meteors by Internet

by Jason Shinn

Recently I have discovered the pleasures of listening for meteors. Knowing that this is the season for Perseids I decided to look into the possibility of constructing my own setup for listening to radio meteor scatter. If you are unfamiliar with radio meteor scatter it goes something like this. Most anyone who has knowledge of astronomy knows that meteors glow because friction with the atmosphere heats the meteor and the air surrounding it. An interesting effect of this action allows the trail left by the meteor to reflect radio waves. In short, if one has a radio transmitter a certain distance away from a receiving station, one may be able to hear the transmission reflected from the meteors trail for a brief period of time. It is this principle that allows amateur astronomers to listen for the tell-tale radio signature of a meteor.

I had a brief talk over lunch one afternoon with Tammy Plotner, director of the Warren Rupp Observatory. Tammy is very familiar with meteor scatter and has successfully detected them by simply using an FM radio and antenna. After talking to her I was inspired to investigate the net to further my knowledge on this unique project. What I found was that I didn't really have to build my own radio receiver at all! In my searches I found a few sites with links to live streaming audio from receivers set up specifically to monitor the radio background for meteor scatter. The past few days have given me the pleasure of "observing" meteors any time I wished, night or day, by streaming audio from the net. Simply clicking on the streaming audio link launches Realplayer which puts out a steady stream of audio through my PC's speakers. At this point I do not know if these streams will work with any other default audio program on your computer such as Winamp*. Give it a try. I might also add that its probably important that your Internet connection be broadband in order to get a quality stream.

Here are two sites that have links to streaming audio.

The following site is devoted to radio meteor scatter and

is based in Appingedam, Netherlands. About half-way down the page there are three links to streaming audio. I find that the link to the Naval Space Surveillance Radar (NAVSPASUR) has been the stream I use most. The audio gives the best sounding "pings".

<http://members.home.nl/peter-knol/meteors/>

The following site is also devoted to radio meteor scatter and is a [Spaceweather.com](http://www.spaceweather.com) web site. The site explains in detail how the NASA "meteor radar" is able to detect incoming meteors. I have not used the audio feed from this site much. The "pings" sound somewhat different than that detected by the NAVSPASUR, probably because this meteor radar is using reflected signals from TV stations.

<http://www.spaceweather.com/glossary/nasameteorradar.html>

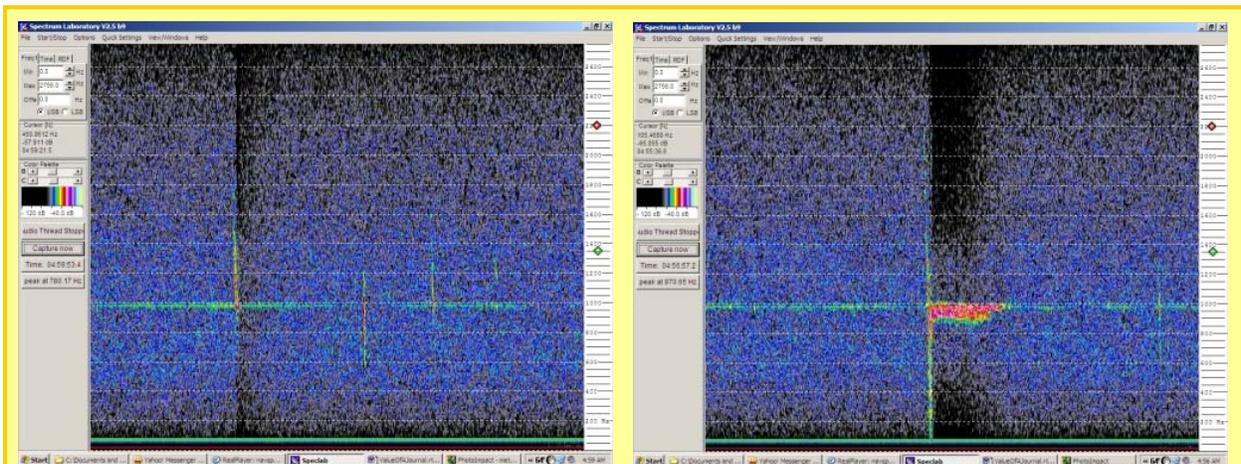
If you want to take Internet meteor observing a step further, you can download free frequency analysis software for a visual display of the frequency changes you hear in the tone of the meteor scatter. The following link will take you to a site to download this free software.

<http://people.freenet.de/dl4yhf/spectra1.html>

Cloudy sky? Observing meteors has never been so easy and FUN! Keep in mind that although you may hear meteors at any time, the best chances of hearing a meteor this way is still during predicted showers, and in the morning, when Earth is heading into the swarm. Sit back and relax with a snack and listen to those meteors "pinging" away. Its as simple as the click of your mouse.

truemartian@aol.com
<http://members.aol.com/cfaro/index.html>

*Editor's note: I have tested the m3u format streams in Windows Media Player 10 and iTunes, they work in both programs.



These images are screen captures of meteors displayed on frequency analysis software. The meteors are represented by the reddish near vertical stripes. Time on the chart moves from right to left and frequency sweeps from high at top to low at the bottom.

The Value of an Astronomical Journal

By Jason Shinn

It has been twenty years since I began my hobby of astronomy. Recently I was digging through an old box of memorabilia and what-nots. Among the cluttered mess I discovered my very first astronomical journal. It was a simple pocket note pad, spiral bound at the top, with planetary artwork on the front cover. I opened it up and began reading some of the entries. The entries were not long; most rarely exceeded more than one page. However, as I continued to read, it became clear that even though these simple records of observations may never become of any importance to science, they had become important in documenting my own history. I was reading vivid descriptions of meteors I had long forgotten, of firsts. How many of us truly remember with clarity our first times in astronomy? I can say that after twenty years my memory has become somewhat clouded on the details of even my best remembered "firsts". The astronomical journal can save those memories.

In writing this article I have included some of my journal entries. These may be followed by a brief commentary. I have chosen a few of the most interesting and precious moments to share with you. They are included as they were originally scribbled in my journal, thus grammar is somewhat lacking. We begin with the very earliest of entries. These are mostly from the early nineties while living in a small town called West Milford in the state of West Virginia. The time zone for all entries is Eastern.

Entry: 9:58PM West Milford, WV 6 June 1991

Noted reentry of artificial satellite or very large meteor. Entered through constellation of Leo Major between M65 and Regulus. Ended near Iota Ursa Major. It was orange with a long tail. Very bright, lighting up nearby clouds. The head ended in a shower of sparks. Perhaps an explosion.

I have no idea whether or not this meteor was an artificial satellite. More than likely it wasn't. The fact that I recorded my immediate impressions and observations in such detail has allowed me to experience a moment I completely forgot all over again.

Entry: 10:06PM West Milford, WV 6 June 1991

Have seen four satellites so far. Cygnus is just below horizon.

10:15PM Sixth artificial satellite is spotted.

10:17PM Seventh satellite

Satellite counts are just plain fun!

Entry: Special Note: Tuesday, 11 June 1991

Aurora Borealis (northern lights) were sighted as far down as Virginia. Noted them in the northern sky. Occasionally bright sheet of light. Purple in color.

I am still observing from West Milford, West Virginia. This was the very first time I had ever seen the aurora. I remember standing there in the yard looking toward the north and trying to figure out why the light pollution from Clarksburg looked so odd. It wasn't until a day or two after that the newspaper proclaimed that the aurora had been spotted so far down. After reading the article I instantly knew that what I had seen was indeed the northern lights. The aurora was also almost responsible for my getting a first speeding ticket. Coming home from work late one night I saw the aurora again. I was so excited that I rushed home not mindful of the speed limit. I was pulled over and thankfully warned to slow down.

Entry: 3:31PM West Milford, WV 11 July 1991

Observed partial solar eclipse of 20%. Took 24 photographs. Hope photos turn out. Taken at 3:30pm at maximum eclipse. Solar eclipse began at 3:00pm. Ends at 4:10pm. Noted several sunspots (5 to 6) on surface of sun. Notes: Remarkable, sensational! I love it!

This is another first. It seemed as though I would never get to see my first solar eclipse but when it came I was ready. I still have the 4" Tasco Newtonian I used to observe this event. In those days a solar filter was much too expensive for my wallet and so I used the projection method to observe the sun on a white screen. I remember the first time I ever saw a sunspot. I used a refractor to project the sun for the first time. At first I thought there was dirt on the lens. Then I noticed the dirt moved with the disk of the sun. It had to be

sunspots! Alas this "first" moment was not recorded in my astronomical journal.

Entry: Time Unknown West Milford, WV 12 Sept 1991
With friend Jason. Saw huge white meteor. Was Jason's first. Spectacular. Noted Andromeda Galaxy.

In this instance the first was for a friend of mine also named Jason. Jason had never seen a meteor prior to this date.

Entry: 3:08PM Canal Fulton, OH 18 April 1996
Equipment: 4" Newtonian, 8X40 Binos
Last night at 4 in the morning I woke up. Wide awake I couldn't go back to bed. So I gathered my star charts and telescope to take a peak at Jupiter. Saw Jupiter on high power about 4:30am. Decided to look for M57 (the Ring Nebula); failed first attempt but succeeded in locating it between Gamma and Beta Lyra on second attempt. Note this is the first time I have ever seen this particular nebula or a planetary nebula at all. Attempted to find M51 (Whirlpool Galaxy) for the sixth or seventh time. Unable to find it. Difficulty in jumping from star to star. Not many bright stars in area to use as guide. The atmosphere seemed calm until about 5 o'clock. Sunrise began and wind began to move. Wind chill factor started freezing my fingers. Attempted to locate comet Hale-Bopp. Same problems w/ finding it as with M51. Unsuccessful. Jupiter and Hale-Bopp in Sagittarius. Lyra at zenith. Will attempt to find Hale-Bopp later on when it is some magnitudes brighter. Another note on the ring nebula: Was barely able to make out hole in center on low power. High power made nebula appear as a round solid fuzz-ball. Its star of origin was not detectable. Better luck w/ 10in hopefully. About 3 or 4 more weeks till I get it. Noted one circumpolar satellite very bright. Heading south through Virgo and Corona Borealis.

This rather lengthy entry recorded the first time I saw the Ring Nebula. Ten years later the only thing I can remember is the fact it was about 4am the first time I saw the Ring Nebula. The memories of the sky conditions, weather, searching for the Whirlpool galaxy, and comet Hale-Bopp have long faded in my mind. Again I am fortunate to be able to relive this moment through my journal entry. I believe the location of this entry was North Lawrence, Ohio rather than Canal Fulton. I am unsure why the location is different than what I remember.

These are just a few of the exciting entries I found tucked away in my very own time capsule. Several go on to recount events like the accidental discovery of two geosynchronous satellites through my 4" Newtonian, satellite counts of 111 in one evening, binocular observations of several star clusters, observing spiral structure in M51 for the first time, and comets, like comet Kopff, I completely forgot about! If you never thought keeping an astronomical journal was exciting enough to hassle with, I encourage you to take a second look. The true value of what you write down tonight probably won't really be appreciated until you open the pages again years later. Then, on rainy nights, you can sit back with a cup of your favorite beverage and relive incredible past events you completely forgot you ever experienced! It is only then that you realize the value of an astronomical journal is truly incalculable.

Jason Shinn: truemartian@aol.com
Home Page: <http://members.aol.com/cfaro/index.html>

CLASSIFIEDS

TELESCOPE FOR SALE

Celestron C-8 8" telescope from the 1980's. Includes wedge and tripod. Has only been used about 12-15 times. Contact Dr. Edward Cordasco, 1-216-371-3935.

YOUR AD HERE!

Selling equipment or services? Looking to buy new gear? Send your ad to phillipsaca@gmail.com and see it in next month's newsletter!

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
(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, but I would rather have the B&W version mailed to my address via USPS.