



The Night Sky

The Newsletter of
The Astronomy Club of Akron

July - August 2000
Volume 22 Number 7

ACA Ends Summer with Many Activities

PRESIDENT'S COLUMN

By Frank Koby

As the words of an old song go: "I'm sorry, so sorry, Please accept my apology. . . " for the lack of a Club picnic this year. In reviewing my club minutes I forgot (overlooked) asking someone to co-ordinate the picnic. Please think about how you might help in this area and volunteer when the time comes.

Let me take the time here to address an ongoing problem we have had. We are in the process of putting together a current list of the members of the Club. Recently, there were three or more lists of members surface. What we are accomplishing is the putting together a complete accurate list of the current members. Please hang in there because a membership list IS on the way! In a few short weeks we will start our meetings again. I hope everyone has had a good summer, did some observing (How's your Observer's List coming along?) and is ready for it to be dark at an earlier hour to be able to observe and get the sleep (In my case the beauty sleep) we need.

In an effort to gain more new members, I proposed to the executive board the club obtain a list of those people who bought telescopes from The World of Science. The club would send the buyer information about the club and six months of newsletters. The executive board agreed and anyone buying a telescope from The World of Science at Chapel Hill has the option of signing up for the offer at no obligation to them.

EDITOR'S NOTES

By Ray Hyer

I just came inside from a wonderful night out under a better-than-usual clear sky. The peace and quiet under that sky has been a refreshing change from the busy past several days of moving the Night Sky from the virtual world to one of ink on paper. And I had some time to think.

Frank writes here about new members, and maybe what we can offer the hectic, too busy world out there is a few moments under the stars where the cares of the day don't seem so important. A time to breathe in the cool night air and feel good for a few minutes (ok, swat a few mosquitoes too). Lets not forget that there should still be an "awe" aspect to this activity along with the technical stuff that tries to explain it all.

So this coming weekend we have a chance to gather at the **Mahoning Valley Astronomical Society OTAA Meeting** on Saturday August 26. More information is included in this edition of the Night Sky and it would be great to see the Astronomy Club of Akron have a good showing and win all those nice door prizes!

Other great opportunities are coming up this fall: more OTAA gatherings, public programs at the observatory as well as a campout. And don't forget the regular Club meetings where we get to see each other in white light instead of red light. See you there!

Email: rhyer@neo.rr.com

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Lou Poda.....330-773-8160

CLUB ACTIVITIES CALENDAR

- ◆ **MONTHLY MEETING** – No Monthly Meeting in June, July or August
- ◆ **OBSERVATORY PUBLIC PROGRAM**
 – September 2, 7:30 PM, Uranus and Neptune

The deadline for article submission is the 15th of each month. If you have info that needs to be in the next *Night Sky*, I must have it by the 15th of the previous month. 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!!!!

The newsletter (and the club) will be much richer with your contribution. Thanks to all who have used their valuable time to author or collect material for the Night Sky. (Editor)

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

Ray Hyer
725 Brewer St.
Akron, Ohio 44305

ACA MERCHANDISE MART

<u>Item</u>	<u>Member</u>	<u>Non Member</u>
T-shirts	\$10.00	\$15.00
The Star Book	\$8.00	\$10.00
Star Wheels	\$2.00	\$3.00
Sky & Telescope Sub.	\$29.95	\$36.00
Astronomy Mag. Sub.	\$29.00	\$33.20
Sky Publishing	10% off to members	
Kalmbach Publishing	25%-44% off to members	

Contact Rich Ruggles at 644-5912 for more information.

**FROM THE MERCHANDISE MAN
RICH RUGGLES**

ACA JACKETS

ACA Jacket orders are being taken now. I currently have orders for 6 but need 6 more to get the process started. We need 12 to start with. There must be at least 6 more members that would like a jacket. Would make a nice Christmas present! If you would like to order, call me **now!** Light lined jackets are \$28.00, Heavy Quilted Jackets are \$48.00. Call or send order to ACA Jacket, 704 S. Sheraton Circle, Akron, OH 44319, or call Rich at 644-5912.

NOW AVAILABLE

THE 2001 ASTRONOMY WALL CALENDAR

\$10.00. These calendars are perfect for home, office, den or your private observatory. Twelve outstanding astronomy photos and paintings that will turn everyone's head. Available wherever you find ME.

DEEP SKY ASTROPHOTOGRAPHY SET

From Jack Newton, \$10.00. Each set has 6 photos taken with 8", 16" and 20" telescopes by a master of astrophotography, Jack Newton. These 11 x 14 photos are suitable for framing. I will have these at the Mahoning Valley Star Party, The Black River Star Party, and our September meeting. Supplies are limited. Don't delay.

ASTROPHOTOGRAPHY SERIES, THE FINEST GALAXIES. \$10.00

This set of 6 galaxy photos is breathtaking. Shot by various amateur astronomers, each are noted for their excellent abilities. From Andromeda (M31) to the Spiral in Antila (NGC2997), these 11 x 14 photos are eye

popping when framed. As with the Jack Newton series, supplies are limited.

OTAA STAR PARTIES

For those ACA members who don't know, the O.T.A.A. is the Ohio Turnpike Astronomers Association. The OTAA was formed in 1956 by four astronomy clubs that were located near the Ohio Turnpike. The OTAA coordinates meeting dates for conventions and star parties held by member clubs. Today there are nine member clubs. Not all of them are near the Turnpike. If you have never attended any of the OTAA events come out and see what you have been missing.

We would like to encourage everyone, especially new members and those who have not been to an OTAA Star Party, to attend one or all of the upcoming gatherings at Mahoning Valley (August 26), Black River (Sept. 23) and Hidden Hollow (Sept. 30). It is truly an experience that will be remembered for years to come. If you need a ride or want more information, call Rich at 644-5912.

THE 2000 ACA BLACK SKY CAMP OUT ALL NIGHT OBSERVING SESSION OR YOU DON'T HAVE TO DRIVE SIX HOURS TO WEST VIRGINIA TO HAVE PRIMO EXCELLENT BLACK SKY OBSERVING!!!!

A tentative date of October 28th has been set for this adventure in stargazing. The moon will be new and the sky will be filled with the fall constellations. Truly a feast for the Northeast Ohio observer plagued with the light pollution of Akron, Cleveland and all the malls in our area.

The Roehrich Family, Leila and Mark, are not only interested in looking up, but have invited us to have an all night star party on their fifty acre field atop a hill on the northeast corner of Guernsey County, about one mile west of Smyrna, on Rt. 22. To get an idea of the location, open an Ohio map. From Akron take 77 South to 250 South (New Philly) to 800 South to 22 West to Smyrna. Then look up: WOW, what a view! This will be primitive camping, so bring a tent or camper or RV (Hilton) and food/drink for the evening. We've done a few of these campouts in the past and always had a good turn out and a lot of fun. Beginners in

astronomy – this is your chance to see and learn more from the sky than ever before.

More details, with a map, will follow but if you can't wait call Rich Ruggles for more info at 644-5912.

RED LIGHT DISTRICT

By Glenn Cameron

Hello everybody. My name is Glenn Cameron. I'm a recent new member of the ACA. I have met a few of you but many of you I have yet to meet. I've had a Celestron C8 telescope for about 22 years, bought out in Colorado when I lived there. Even so, my knowledge of astronomy is severely limited. I always had the interest but it never seemed that I had the time to pursue the stars. Last November I finally finished a bachelor's degree. Almost immediately I began to get reacquainted with the sky. Not an easy task in Ohio, I've come to realize. I joined the ACA in April. I talked to Gregg Crenshaw recently and volunteered to help out with The Night Sky. Part of my assistance will be in the form of beginner level articles about getting into this astronomical hobby.

Part of getting reacquainted with astronomy involves talking with other astronomers and learning tips and tricks. I've enjoyed speaking with my new contacts in the ACA very much. I'm blown away by the amount of information available on the internet. I was poking around on the internet, looking for a red flashlight. I wondered about styles and costs. While poking around, I discovered a few web pages that described how to build your own. Well, this definitely interested me.

The two most interesting web pages that I found were <http://www.skypub.com/tips/projects/redlight.html>, and <http://intelligentchild.com/flashlight>. The first one explained how to size resistors and red LEDs together in a flashlight configuration. The second one was less technical but had a few nicer illustrations. It also offered a shopping list if you emailed them and asked. So I did. They sent me this list of Radio Shack parts: 276-086a, \$2.50, 5000 med Jumbo super bright LED
276-309, \$1.40, 800 med wide angle LED
276-092, \$1.00, 10mm snap in LED holder
276-079, \$0.60, 5mm snap in LED holder for other LED, needs 1/4" hole

271-1103, \$0.50, 22 ohm resistor for Jumbo LED
271-1105, \$0.50, 47 ohm resistor for regular sized
275-1565b, \$2.19, need 2 push on, push off
270-398b, \$0.89, holder for 2 AAA batteries
270-220, \$2.00, deluxe project case.

My 11 year-old daughter Ilene and I went off to Radio Shack for the parts. Apparently the project case is no longer sold. We ended up buying another part number 270-283, and discarded the enclosed PC board. Also, I had to substitute the switches, I guess not all stores stock all catalog items. All the above parts (except for the project case) are listed in this year's catalog. The part numbers for the jumbo LED, the switches, and the battery holder did not have the "a" or "b" at the end of them as listed.

Assembly is pretty easy. I don't know why the web sight didn't just list the parts and the assembly instructions on the same web page. I don't include the instructions in this article because they themselves would take up more page space than this article. If you're interested you can check out the web sight and email them for the instructions, or you can email me for the instructions. Or if you're handy, you can just take a swing at putting the flashlight together (Hint: The 22 ohm resistor goes with the jumbo LED and the 47 ohm resistor goes with the wide-angle LED).

My daughter and I assembled the flashlight that afternoon and I've been using it every time I take out a star chart. The jumbo LED is great for walking around in the dark with out tripping over everything, while the wide-angle LED is best for reading your star charts. The design is such that it will eat up batteries much less often than a conventional flashlight (I'm guessing about five times less often), although never go out in the field without spare batteries anyway. A fun and valuable project all around. If you need more information you can email me: grcameron@rocketmail.com.

SOME THINGS TO THINK ABOUT

By Sheila Schmidt

We have all been witness to some once in a lifetime events during our life. From Halley and Hale-Bopp to Shoemaker-Levy. By the way did you see Linear? We have also seen some wonderful Lunar eclipses and meteor showers. Most of what we are able to see depends on the weather (which

always goes bad as soon as you get everything set up) and being at the right place at the right time.

Even the Sun has given us some exciting things to see. Did anyone see the solar eclipse last August? And how far did you travel to see it? The next total solar eclipse visible from the U.S. will be August 21, 2017. Yes, it's a little bit of a wait. If only the weather is good!

Sunspots are also a fascination for some astronomers with the proper equipment. In 1610 Galileo realized that sunspots were on an 11 year cycle. Every 11 years the north and south magnetic poles reverse polarity, which makes the north the south and the south the north. This change happens a year or two after sunspots reach their maximum. When solar activity is high at this time it causes solar flares. They emit radiation and eject particles into space. That is when we have satellite interference (cable problems) and also an increase in Aurora activity. Our weather is even affected by solar flares.

Sunspots appear as dark spots because of their low temperature, 2,240 degrees. That's lower than the rest of the surface, which is about 10,500 degrees. Still that's not too hot because the core is 27 million degrees! Now that's hot.

Watching sunspots and noting their changes can be interesting. But don't mistake a planet for one. Kepler predicted before he died that Mercury would transit the Sun on November 7, 1631, and Venus on December 6 of the same year. The November 7 Mercury transit was the first ever witnessed. It was only seen by three people. There was one November 15, 1999, the next one will be May 7, 2003. Venus' transit on November 7, 1631 was seen by no one because it happened at night in Europe. Eight years later, on December 4, 1639, a transit of Venus was seen for the first time. This occurs in a pattern of 2 then 8 years apart, every 115 or 122 years. The last was on December 6, 1882. The next one will be on June 8, 2004 then again on June 6, 2012. Astronomers used these transits to aid them in figuring the distance to the Sun (A.U. = 93 million miles). Mercury transits happen more often. Venus in transit will give us another historical event to look forward to while we are waiting for the next solar eclipse.

July Observatory Event Hot Dogs and Solar Flares



The weather cooperated on July 22 for the Weiner Roast and Solar program.



**The Astronomy Club of Akron
704 S. Sheraton Circle
Akron, OH 44319**

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

(PLEASE PRINT)

NAME _____ **PHONE** _____

ADDRESS _____

CITY _____ **STATE** _____ **ZIPCODE** _____

EMAIL ADDRESS _____

(For optional Email delivery of The Night Sky)

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

Adult (ages 18 and older).....\$20.00

Added Adult member.....\$ 5.00

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

Family Membership.....\$30.00



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