



The Night Sky

The Newsletter of
The Astronomy Club of Akron

www.acorn.net/aca

Volume 24 Number 4

April 2002

May is Membership Renewal Month



FROM THE PRESIDENT

Here it is April; noted for subjects of TIME. Income tax TIME, Daylight savings TIME, TIME for astronomy day at Chapel Hill Mall, and ACA election TIME. That's right this is election month for officers for the club. Please be there for the elections.

At the last executive board meeting the following were discussed:

1) Due to increasing costs for the club, i. e. insurance cost increases, postage increases and the possibility of the ACA joining the Astronomical League, I am proposing the following membership dues be increased. Adult and family memberships by five (5) dollars to twenty-five

(25) dollars each. The junior memberships by two (2) dollars to seventeen (17) dollars. The additional adult membership dues will remain the same at five (5) dollars.

2) The ACA join the Astronomical League which would offer its benefits to the club. The cost is a fee per member of three dollars fifty cents (\$3.50).

3) The ACA would create a steering committee to determine where the ACA should do in the future. For example, upgrade the 'scope and what to do. Additional programs, services offerings etc. Establish some short and long term goals and work toward them.

See you at the April Meeting on Friday April 26.

Officers for the 2002-2003 Fiscal Year

President: Frank Koby
Vice President: Jeff Hudson
Treasurer: Gregg Crenshaw
Secretary: Jay Svitko
Publications: Ray Hyer

Don't miss the line up of five planets now visible in the western sky right after sunset.

MAY IS DUES RENEWEL MONTH

To remain a member in good standing Renew your dues now for the 2002/2003 membership year. Send them to:

THE ASTRONOMY CLUB of
AKRON

704 S. SHERATON CIR.
AKRON OH 44319-1955

Please make all checks payable to: The Astronomy Club of Akron

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Activities Calendar

Club

April 26, Monthly Meeting
May 4, Observatory Program, Jupiter & Saturn
May 11, Dark Sky Star Party
May 24, Monthly Meeting
June 1, Telescope Seminar
June 15, Observatory Program

Celestial

April 26, Full Moon
May 5, Eta Aquarid Meteor Shower peak
May 12, New Moon
May 26, Full Moon

OFFICERS 2001 – 2002 AND TRUSTEES

PRESIDENT

Frank Koby 330-794-9087 fkoby@speedy.net.net

VICE PRESIDENT

Jeff Hudson 330-668-6881 jeff@hudsonstuff.com

TREASURER, MEMBERSHIP AND STATUTORY AGENT

Rich Ruggles 330-644-5912 Astronomy1on1@cs.com

SECRETARY Dale Knotts 330-644-1661

ASSISTANT SECRETARY/TREASURER

Jay Svitko

NIGHT SKY EDITOR

Ray Hyer 330-784-3970 rhyer@neo.rr.com

OBSERVATORY DIRECTOR

Ray Paul 330-658-3125

TRUSTEES: Joe Conte.....330-825-0671

Ethel Lillie

Gregg Crenshaw

2000 – 2001 COMMITTEES AND CHAIRS

OTAA REPRESENTATIVE Lou Poda...330-773-8160

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!!!!

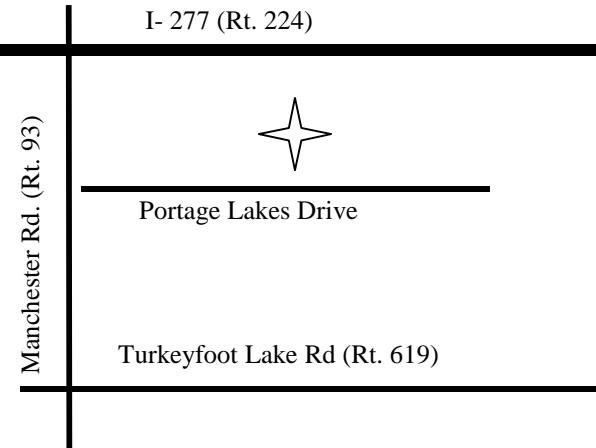
The newsletter (and the club) will be much richer with your contribution. Thanks to all who have used their valuable time to author or collect material for the Night Sky. (*Editor*)

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

Ray Hyer, 725 Brewer St. Akron, OH 44305 Email: rhyer@neo.rr.com

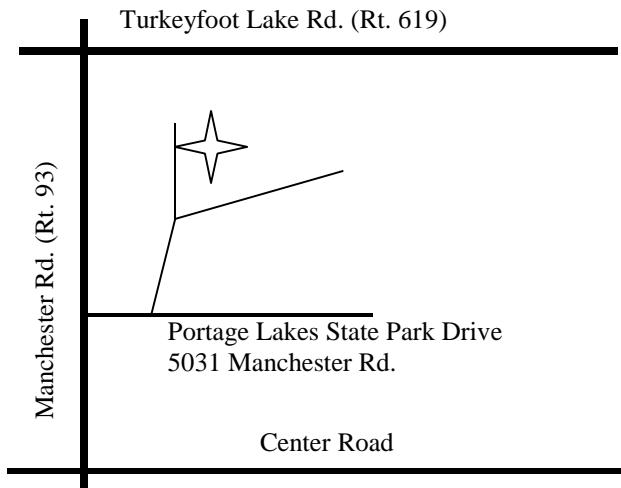
MONTHLY MEETING LOCATION:

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.





Astronomy on the Road

By Rich Ruggles

Spring is here and summer is just around the corner and that means the Star parties are about to begin.

MAY 4th 8:00 The ACA's first program of the year JUPITER & SATURN.

On this night also we will be able to see all 5 naked eye planets in a tight grouping. This will be a great photo opportunity to get them all in a single frame. The next time this will happen is in 2088. This will be held at the ACA's observatory in the Portage Lakes State Park off State Route 93.

MAY 11th THE ACA DARK SKY STAR PARTY

This spring the dark sky will be at Scenic Vista Park just outside Lisbon Oh.

Observing from this hill top location is quite nice and is the dark sky site of the Mahoning Valley Club. There is a 110v ac outlet in the pavilion if you need power.

Directions: Take Rt 77 South to Rt 30 go East on Rt 30 to East Canton. Take Rt 172 off Rt 30 and follow Rt 172 about 25 miles. Here it runs into Rt 30 once more. Turn Left (look for ACA sign here) Go to the first road and turn Right (look for ACA sign here) this is Rd. Scenic Vista Park will be 3 miles and on the right.(look for ACA sign here). Try to get there before dark, and if you have day time running lights please back in to a parking spot so when you leave your lights won't shine on the observing field. HINT: If you set your emergency brake to the first click this will shut off the headlights but will not set your breaks. I know this works with GM cars & trucks.

MAY 17th - 19th SKY TOUR
2002 Co hosted by HURON VALLEY ASTRONOMERS GROUP &

TECH 2000

This years event will be held in Bellevue Ohio about 2hr north west of Akron. I attended Sky Tour 2000 when it was held in Tiffen Oh at the Ballrich Observatory. If the skies are equally as dark at the new site this will be a terrific gathering to plan for. For full details go to www.accnorwalk.com/~tddi/tech2000/skylour

June 1st 14th ANNUAL TELESCOPE SEMINAR

This very popular program will provide you with a wealth of knowledge on all types of telescopes and all the accessories that go along with them. 7:30 at the ACA observatory in the Portage Lakes State Park off Rt 93

June 8th CHAGRIN VALLEY OTAA STAR PARTY

For details on this one check there web site <http://www.chagrinvalleyastronomy.org/>

JUNE 5TH - 9th LAUREL HIGH-LAND STAR CRUSE

This is the AAAP (Pittsburgh club) blow out convention held in Hazleton West Virginia.

This 5 day event is fun and informative for the whole family. The main speakers and door prize drawing will be on Saturday. This event draws the top speakers in astronomy, an enormous swap table, lots of national venders eager to make you a super deal on most all of there wears, an outstanding food concession with down to earth prices and cabin or tent camping with hot showers. The AAAP will host another game of WHO WANTS TO BE AN ASTRONOMER. This works the same as the MILLIONAIRE game on TV. For full details go to www.lhstarcruse.org

June 15th SPRING CONSTELLATIONS 8:30 at the ACA observatory in the Portage Lakes State Park off RT 93

JUNE 14TH - 15TH 32nd

APOLLO RENDEZVOUS

This convention will be held at the Boonshoft Museum of Discovery in Dayton Ohio Hosted by the MIAMI VALLEY ASTRONOMICAL SOCIETY. This gathering will also have it all, speakers, venders, photo & telescope contest, planetarium show and more.

To get all the details Email Manning Butterworth at rendezvous@mvas.org or go to their web site at <http://www.mvas.org/rendezvous.html>

All of these will take place before our June meeting. As always if you have any questions or need more information

Call or Email Rich at 330-644-5912 astronomy1on1@cs.com

Hope you can make one of these or all of them.

Rich Ruggles



Norton Library Event

by Jeff Hudson

I want to thank Gregg Crenshaw for the excellent slide show presentation that he gave at the Norton Library on March 13.

Gregg took 23 people, of various ages, on a trip through the solar system and beyond.

One very lucky young boy, won the door prize provided by the library. He went home with a 1st edition of "Hyperspace: The Universe and Its Mysteries" by John R. Gribbin. This is a companion book to the 2001 BBC/TLC television series "Space".

Also, I wish to thank Jen Baugher for signing up for the event. Bless her heart, she ended up getting sick and couldn't make the event but I still welcome her participation.



WHAT'S UP (In the Sky)

By Gregg Crenshaw

As we roll through Spring and warmer evenings beckon us outside to view the night sky we see Ursa Major nearly over head. The Big Dipper, one of the most famous shapes in the sky, is a part of Ursa Major or the great bear.

The brightest or alpha star in Ursa Major is Dubhe. The word Dubhe is from Arabic "The Back of the Great Bear" and has a visual-magnitude of 1.8 so it is very bright indeed. Dubhe is about 123.6 light years from us. Dubhe has a close companion 6.2 arc minutes away with a visual magnitude of 7.1. Can you see it?

The second brightest or beta star in Ursa Major is Merak. Merak is from Arabic "The Loin of the Bear" and has a visual magnitude of 2.3, but is closer to us, "only" about 79.4 light years. Dubhe and Merak are what is known as the pointer stars. By drawing a line in the sky through these two stars and continuing that line up, away from what would be the open side of the cup of the dipper, the next bright star you come to will be the North Star, Polaris.

Probably the most interesting stars of Ursa Major are Mizar and Alcor. "The Horse and Rider" or "The Test" are the names these two stars are best known as. "The Test" was the name derived from the 13 Century as people would attempt to see both stars as a way to test their eye sight. These two stars form the "crook" in the handle of the big dipper. Mizar or Zeta Ursae Majoris is from Arabic "The Girdle or Waistband." In medieval manuscripts this star was known as "Anak al Banat" or "Neck of the Maidens." Mizar has a visual magnitude of 2.1 and lies about 78.1

light years away. Mizar was the first known double star. Mizar's companion was discovered in 1650 and has a visual magnitude of 4.0. The two stars are separated by 14.4 arc seconds. Can you see Mizar's companion?

You have probably figured by now that most star names come from the Arabic language. I guess the ancient Arabians had such a jet black sky that the stars stood out so well they begged to be named.

Alcor (80 Ursae Majoris) is (no surprise) from Arabic, "courser", "rider", or, most appropriate, "The Forgotten One." Alcor has a visual magnitude of 4.0 and lies about 81.1 light years distant. Alcor and Mizar are at least one quarter of a light year apart.

What deep sky objects or what most experienced observers call faint fuzzies, might we find in Ursa Major? Prominent objects located within our Milky Way Galaxy include one real and one "imaginary" Messier object.

The real object is M97, The Owl Nebula at right ascension: 11 hours, 14 minutes, 48 seconds, declination: +55 degrees, 1 minute. Although the Owl is a bit hard to see at a visual magnitude of 11.2, it is fairly large at 3.2 arc minutes. M97 is about 2,600 light years distant. M97 is one of the more complex planetary nebulae in the heavens and is situated between Beta (Merak) and Gamma (Phecda) Ursae Majoris. These two stars form the bottom of the cup of the Big Dipper. To find M97 go to Merak and draw a imaginary line between it and Phecda. From Merak go down that line about 1/4 of the way to Phecda. Scan around a bit and you will find M97 as a faint fuzz ball a short way off that point outside of the cup of the Big Dipper.

The imaginary one, as noted in

BURNHAM'S CELESTIAL HANDBOOK is M40. M40 is one of the few real mistakes in the Messier Catalog and is actually just a close pair of dim stars, SAO 28353 and 28355.

Within the confines of Ursa Major, beyond our Galaxy lies two of the show pieces of the northern sky, the galaxies M81 and M82. These two galaxies are apparently so close together that they may be viewed at the same time through a low power, wide field eyepiece. To find M81 (right ascension: 09 hours, 55 minutes, 45 seconds, declination: +69 degrees, 04 minutes) and M82 (right ascension: 09 hours, 55 minutes, 54 seconds, declination: +69 degrees, 40 minutes, 57 seconds) look once again at Phecda (Gamma Ursae Majoris) (one of the pointer stars.) Draw a imaginary line between Phecda and Dubhe (Alpha Ursae Majoris.) Continue this line away from Dubhe about the same length again as between Phecda and Dubhe. If you scan around that area with a low power eyepiece you will come upon these distant galaxies. M81 is a "grand design" spiral galaxy approximately as large as the Milky Way, about 12 million light years distant. This galaxy, having a visual magnitude of 6.8, is one the easiest to see with an amateur telescope.

M82 is a totally different story. Both galaxies are about the same distance from us. About 100 million years ago M81 and M82 came close to each other. M81 being about 10 times more massive caused much disruption of M82. Many star's orbits in M82 were changed and huge clouds of gas collapsed to form millions of new stars. What we see today is a galaxy of visual magnitude 9.2 that is an unusual spindle shape. There is a dark dust lane running through the middle of M82. Can you see it? The only other deep sky object in Ursa Major that might be

glimpsed is M101 (right ascension: 14 hours, 03 minutes, 12 seconds, declination: +54 degrees, 21 minutes, 03 seconds. Although 22 arc minutes wide on photos, only the central region of this "grand design" spiral galaxy, visual magnitude 7.9 is visible in smaller telescopes, best at low powers. The distance to M101 is about 27 million lightyears. So this is the most distant object discussed here.

Happy Hunting!



ETHER DRAG

By Jeff Hudson

An ongoing series of sky events, launches and anything else I see fit to write about.

During the month of April, in the western sky, you can watch the planets assemble for a tight grouping in May and early June.

Jupiter, Saturn, Mars and Venus will be visible from upper left (south) to lower right (west) and, by the time you read, this Mercury will join at the bottom of the line near the west northwest horizon.

Venus will be the brightest, while Mars will be the faintest.

From the predictions I read, Comet Ikeya-Zhang (pronounced ee-KAY-uh JONG) is visible in the morning sky near Cassiopeia, and has become "circumpolar". The comet is fading quickly as it moves farther from the Sun. Ikeya-Zhang will pass closest to Earth on April 28, at a distance of about 38 million miles (61 million km).

For more information see <http://cometography.com/lcomets/2002c1.html> or this chart at <http://encke.jpl.nasa.gov/images/02C1/c2002c1chart.jpg>

The Lyrid meteor shower will peak around April 22-23, with a display of 15 to 20 meteors per hour. This will be near the first-quarter moon so some of the fainter meteors may get washed out. The star Vega will be almost at the radiant, and the meteor count should be highest when Vega is well above the eastern horizon, beginning around 11 p.m. and lasting until the start of morning twilight.

While you are looking at the meteors, remember that Vega is part of the Summer Triangle. The triangle is Vega in Lyra the Harp, Altair in Aquila the Eagle and Deneb in Cygnus the Swan.

The Eta Aquarid meteor shower will peak around May 5-6. The radiant is located in the north central portion of Aquarius, just a few degrees from the intersection of Aquarius, Pisces, and Pegasus. I am told that viewers in the Northern Hemisphere only see about 10 per hour and the best times are in the morning just before twilight.

Besides a few communication satellites, there are a couple of launches that may be of interest.

April 25 is the planned date for the next Soyuz taxi flight to the International Space Station. This is the launch that Mark Shuttleworth is to be on. This was made possible by Space Adven-

tures Ltd., who put Dennis Tito into space last year. Mark Shuttleworth is an entrepreneur from South Africa and plans to aims to carry out a series of scientific experiments relevant to South Africa, including biomedical research on HIV/AIDS.

On April 26 NASA plans to launch the second satellite in the Earth Observing System (EOS). Called AQUA, it is designed to measure clouds, precipitation, atmospheric temperature/moisture content, terrestrial snow, sea ice, and sea surface temperature over a six-year mission. It will fly in a low-earth orbit and pass over the equator at the same time each afternoon.

The EOS missions are designed to study the Earth's ozone, air quality and climate. For a look at all the missions, See http://eospso.gsfc.nasa.gov/eos_homepage/missions.html

The Progress freighter are still a major work horse for getting supplies to the International Space Station. The next one is set to launch on May 14 from the Baikonur Cosmodrome.



Newsletter Articles

Call for next issue!

Have your articles, event, pictures, for sale/trade items to Ray Hyer by Friday, May 10th to be included in the May issue of the Night Sky newsletter.



Double Comet Sighting

By Glenn R. Cameron
Glenn@cameronclan.org

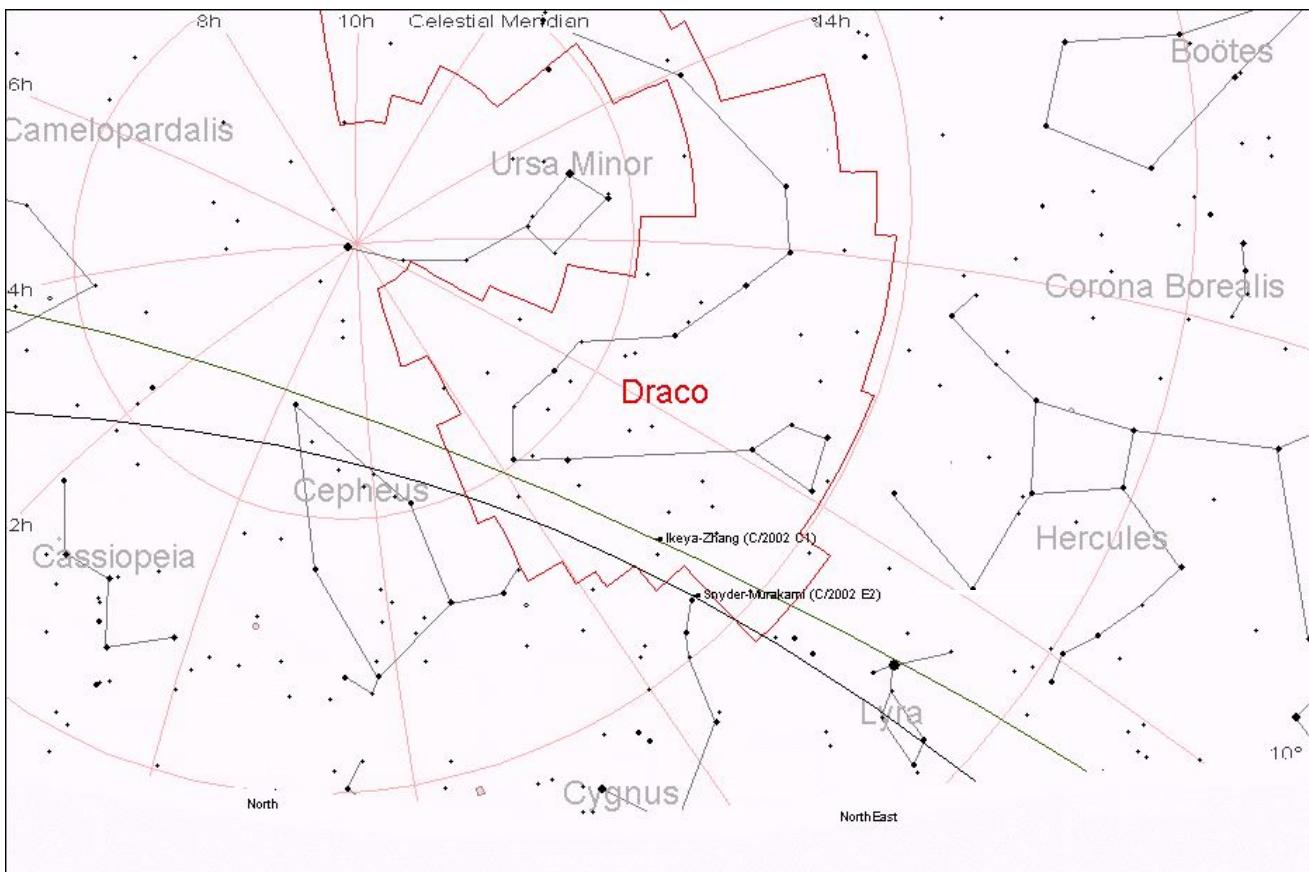
What can be better than a comet sighting? Maybe a double comet sighting? What about two comets in the same line of sight?

I read on the Internet that on 4/30/2002, comets Ikeya-Zhang (C/2002 C1) and Snyder-Murakami (C/2002 E2) were going to pass pretty close to each other. It was stated that these two cosmic snowballs would pass

within about two and a half degrees of each other.

So to confirm this, and to get more details, I fired up my Starry Night Pro software and moved a little bit forward in time to the evening of 4/30/2002. I had previously updated the software to include the ephemerides of these comets. Next I looked at a time in the evening when the software indicated that the farther, dimmer comet, Snyder-Murakami, would have a visible tail. I mean visible in a telescope or binoculars, not naked eye.

On 4/30/2002 at 2200 EDT (5/1/2002 at 0200 UTC) these two giant snow cones will be 2d 34m apart. This is just visual separation. Physically, they are actually 1.093 astronomical units apart! Ikeya-Zhang will be at magnitude 5.33 with position RA 19h 8m 49s, Dec 58d 48m 26s, or about 21d in altitude and 29d in azimuth. Snyder-Murakami will be at magnitude 9.89 with position RA 19h 24m 55s, Dec 57d 21m 56s, or about 19d in altitude and 28d in azimuth. You will be looking toward the North-Northeast. Unfortunately,



from the ACA observatory location, that direction is pretty well washed out by light pollution at that low altitude and that time of night.

Throughout the night these two icy spheroids will climb higher

in altitude and the light pollution will lessen as businesses close and the masses hit the sack. On 5/1/2002 at 0445 EDT (0745 UTC) their visual separation will widen to 2d 52m. Physically they will now be 1.096 astronomical units apart. That's an

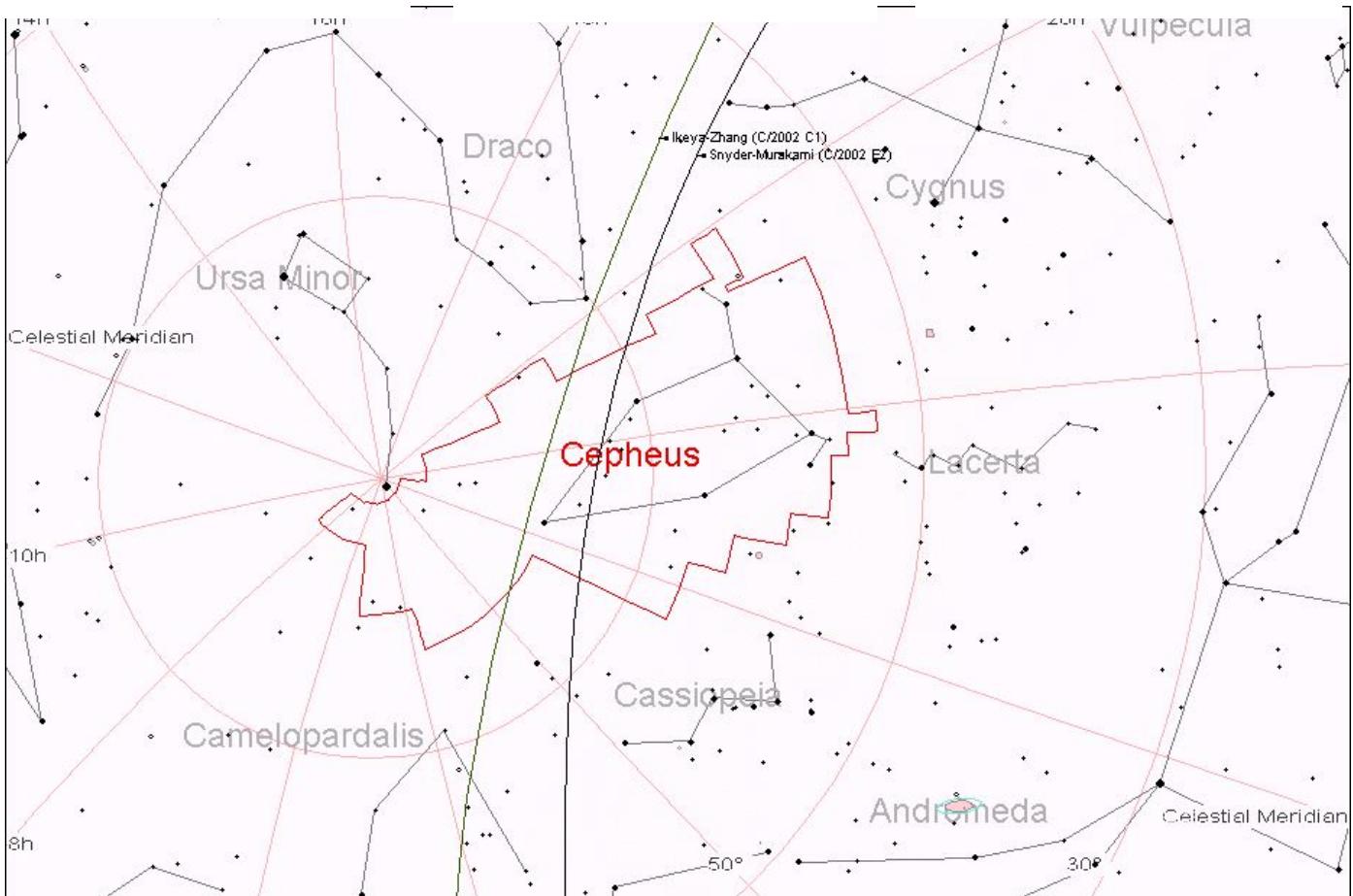
increase in separation of about 279 thousand miles in less than five hours! That's further than the distance from the Earth to the moon, and it took Apollo astronauts three days to go that far! Ikeya-Zhang will be at magnitude 5.35 with position RA 19h

04m 15s, Dec 58d 33m 28s, or about 69d in altitude and 26d in azimuth. Snyder-Murakami will be at magnitude 10.20 with position RA 19h 24m 47s, Dec 57d 38m 48s, or about 68d in altitude and 33d in azimuth.

So clearly, later in the evening the viewing will be much better and the angular separation will still be less than three degrees. If the weather cooperates, this is your chance to view two comets at the same time in a rich field instrument. If astrophotography

is your bag, this event will be hard to resist. In either case, this may be a once in a lifetime experience!

Happy (Star) Trails!



Astronomy Day 2002 a Huge Success!

The Astronomy Club of Akron observed Astronomy Day on April 20 with a display at Chapel Hill Mall. Many club members spent hours at the tables handing out literature and promoting astronomy to interested shoppers.

In addition to the observatory schedules and star charts passed out, the club sold shirts, calendars and books to those interested in learning more.

Thanks to the many who participated to give the club a great showing in the Akron area!





Upcoming Meetings

Upcoming Meetings

Next meeting Friday April 26
8pm

Speaker: Joe Nieberding

Joe is retired after working for NASA Lewis Research Center for 35 years. He will talk about unmanned launch vehicles past and present, the International Space Station, the replacement for the Space Shuttle and other topics. Be ready to ask lots of questions.

Friday May 24 8pm

Speaker: Jay Svitko

Jay is a relative new member of the ACA, but has enjoyed astronomy since he was 8 years old. He will talk about the Messier Marathon over the next couple of meetings. This meeting will focus on the first half of the night. He will finish the marathon during the fall meetings.

There will be no meetings in June, July or August.



Firestone Summer Concert Series

During the summer, the Summit County Metro Parks system will be holding a concert series at the Firestone Metro Park. The ACA will have a booth, at each concert, to promote the club. The time will be from 6:30 pm through 8:30 pm. The dates are June 27, July 18 and August 15.

This will be a good opportunity

to promote the club and listen to some goodmusic.

More information will follow.



Camp Manatoc

by Jeff Hudson

Jim Anderson, Ray Hyer, Ray Paul, Becky Kelly and myself had a great time showing the planets to the Stow cub scouts Pack 3169 at Camp Manatoc.

Friday, April 19 start out as a partially cloudy day and remained that way all day. I felt we should still give it a try. I had never been to Camp Manatoc before, but the location turned out to be up on a hill with a great view of the western sky. As I pulled up around 8 pm, the moon and Jupiter were just becoming visible. Shortly after that, everyone else was there, and we spent some time watching the Moon and Jupiter popping in and out of clouds.

Our waiting paid off and the western sky opened up nicely as the cub scouts passed us on their way to a night hike. I got great views of the Moon, Jupiter, Saturn, Venus and Mars. Just as the cub scouts were returning, it start to cloud backup. We started out showing views of Jupiter and the moon and after a little bit we even had Saturn back.

We had about 25 cub scouts and some fathers and spent about an hour viewing the planets. Unfortunately, the clouds never really broke enough to give them good views of Venus and Mars.

As the scouts trudge off to lights out, we were offered a split banana snack. This snack is where you take a banana and split it down the center without removing the skin. Then it is filled with chocolate and marshmallows. I couldn't resist!

After stuffing a Hershey bar into the banana and having it grilled on the camp fire, I scooped the whole mess out with a spoon. During my second (!) split banana, I was talking to dad who had missed the telescope viewing. As an answer to his lament, the clouds opened up to reveal Jupiter and the Moon. I quickly unpacked my telescope and we spent a little while viewing these two objects.

There will be another campout in the fall and I look forward to being there.

Jim Anderson gives a parent a look at one of the planets at the Camp Manatoc program on April 19th.

