



# The American Astronomer

THE QUARTERLY NEWSLETTER OF  
THE AMERICAN ASSOCIATION OF AMATEUR ASTRONOMERS

Volume V, No. 4

September 2001



**THE SUN'S CORONA** during the June 21, 2001 total solar eclipse as viewed near Lusaka, Zambia, Central Africa, (Lat: 15d, 08, 01 S; Long: 28d, 26, 11 E). The 3-way telescope was used with the U2 coronal streamer filter, Kodak Royal Gold-400 film, 1-second exposure. Photo by Ernie Piini, 1356 Longfellow Way, San Jose, CA, 95129 (ewpiini@aol.com). See More Eclipse Reports on the AAAA Web Site.

## Bill Bree Earns

### Binocular Messier Certificate

Bill Bree of St. Louis, MO, earned the AL's Binocular Messier Club Certificate for observing and logging over 53 Messier objects using 10x50 binoculars. We are proud of you, Bill

## John Sayers Earns

### Messier Certificate

John Sayers of Lecanto, FL, has observed 70 Messier objects, earning himself the Regular Messier 70 Certificate. John is well on his way to observing all 110 Messier objects. Good luck and congratulations, John.

**AAAA Members:** When you have completed your AL observing projects, don't forget to submit your observation logs to the AAAA for official certification. Be sure to send COPIES of your records ONLY. Do NOT send originals of your observing logs.

## The Disappearing Planet Saturn Occultation - Sept. 10, 2001

Early on the morning of September 10, 2001, astronomers had a great opportunity to see an occultation of Saturn by the Moon. The actual occultation started just before dawn at 4:54:41 a.m. PDT. It took the planet over a minute to be completely covered by the moon.

After having been edge-on to Earth in 1996, Saturn's rings are now very close to their maximum possible extent with their south side facing Earth. In September, the tilt was 26 degrees. This tilt remains near this value for the remainder of the year, offering an excellent opportunity for examining the divisions and structural subtleties of the rings.

AAAA Member Isaac Kikawada in San Jose, CA, had the chance to photograph this beautiful and spectacular astronomical event.

## Young AAAA Astronomers Honored by Astronomical League.

See Story Page 3



# AAAA

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THE AMERICAN  
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ASTRONOMERS

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All members are encouraged to submit articles and photographs for publication. Send all materials for publication to the Editor at the address below.

The opinions expressed by contributors to the AMERICAN ASTRONOMER do not necessarily reflect the opinions of the AAAA or the Editor. Articles representing supporting or opposing views will be published promptly after receipt.

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A Member  
Society of  
The  
Astronomical  
League

# A Word from the AAAA

This has been a busy summer, astronomically speaking, and AAAA members are keeping up. Back in June, there was the big eclipse in Southern Africa. Most of us did not have either the time or the money to go that far, but some AAAA members did, and we are pleased to show off the results of their trips. If you have not already seen Isaac Kikawada's eclipse report on the AAAA web site, you need to take a look. Not only did he and Heidi have a lot of fun, but they got some good pictures, too. And Ernie Piini, an inveterate eclipse chaser, was also able to take some excellent photos and send us a thrilling write up of his exploits. While there is not room for all these articles and photos in the newsletter, we do have lots of space on the AAAA web site, and are proud to display as much of your astronomical work there as you are willing to send us. Thanks, Isaac and Ernie!

For some time now, we have been featuring a member's web site in each issue of the *American Astronomer* newsletter, and this issue is no exception. Our Oregon friend Kathy Zendner is a regular contributor to the AAAA newsgroup, and we are proud to feature Kathy and her web page as our Member's Page this issue. Stargirl Kathy is one committed amateur astronomer, and a whole lot of fun to chat with, too.

Brenda Culbertson in Topeka, KS, is working hard to make sure that next summer's StarCon 2002 will be a success. Not only has she invited well known astronomer Paul Bond, who is a member of the American Astronomical Society, to be the guest speaker, but she is reserving some slots for AAAA members who may want to give a presentation. Contact Brenda if you want to reserve a time.

We also want to congratulate all those members who have been earning observing awards, including in this issue Bill Bree and John Sayers, who have submitted their observations for Messier certificates, and have been presented their awards. We have some other members waiting in the wings to get certificates, too. Congratulations to everyone for their observing accomplishments.

*Ed Flaspoebler, AAAA*

## Magazine Subscriptions

*A regular subscription to Sky & Telescope magazine is \$39 per year, but you can get it at the club discount through the AAAA for only \$30 per year. Astronomy magazine is also \$39 per year, but the club discount rate is only \$29. Subscribe to these magazines or extend your current subscription on the AAAA web page. Or send a check for the correct amount, made out to AAAA, to:*

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This edition of the *American Astronomer* newsletter can be downloaded in PDF format from the AAAA website. Print it off on your own color printer or read your club's newsletter online in full color!

[www.corvus.com/a4-news/a01-sep.pdf](http://www.corvus.com/a4-news/a01-sep.pdf)

## OBSERVING IS THE HEART OF AMATEUR ASTRONOMY

The American Association of Amateur Astronomers provides the AL's FREE Observe Programs on our website in Adobe Acrobat Portable Document File format at no charge as a service to members of the AAAA, the Astronomical League, and the astronomical community at large. The Observe Programs which require a published manual must still be obtained from Astronomical League Sales, PO Box 572, West Burlington, IA 52655. (You can now purchase AL manuals online at the AL Sales website, <http://www.astronomicalleague.com>.)

AAAA encourages you to download these PDF files for your own use, and to distribute them, in either electronic or printed form, to your friends and other interested observers, as an encouragement to further participation in amateur astronomy.

AAAA members are eligible to earn any of the AL's observing awards. We encourage you to participate in all of the programs which interest you.

AAAA Members who have completed AL observing projects should submit their observations directly to the AAAA for certification. Be sure to send COPIES of records ONLY. Do NOT send original photographs or observing logs.

[www.corvus.com/aa01006.htm](http://www.corvus.com/aa01006.htm)

# Courtenay Hale

## Exceptional Young Astronomer

AAAA Members Honored by  
Astronomical League

Horkheimer 2001  
Young Astronomer Award



On 28 June 2001, AL Vice President Bob Gent announced the winners of this years Horkheimer Award for Exceptional Young Astronomers, presented each year by the Astronomical League.

The American Association of Amateur Astronomers is pleased to report that two of its young members, Courtenay Hale from Topeka, KS and Ryan Hannahoe, from Leesport, PA, were nominated for this award, and both were honored by the Astronomical League.

### Courtenay Hale

Sixth Place winner Courtenay Hale is a member of Astronomical League through the American Association of Amateur Astronomers. She is a 13-year-old and attends Robinson Middle School in Topeka, Kansas. Courtenay was nominated by her mentor, AAAA member Brenda Culbertson, who is a faculty member at Washburn University in Topeka, KS.

Courtenay regularly volunteers her time during the open houses in Crane Observatory at Washburn University, and according to Brenda Culbertson, the Observatory Director, "She is a devoted young assistant who is more dependable than some of my paid assistants. She shows up in all temperatures to help with viewing sessions and special events we conduct." Courtenay presents astronomical information to the general public, whose numbers range from 20 to 300 during the sessions. She has also learned to run the 110-year-old telescope we use in the observatory as our main instrument. During the year of 2000, we had 1225 people attend open houses and special viewing events. Courtenay assisted in most of the 26 sessions held last year.

Other young people see her do these things, and they catch her excitement for viewing. Courtenay has shown people that our youth still have what it takes to make it in the sciences.

### Ryan Hannahoe

First Place winner Ryan Hannahoe, from Leesport, Pennsylvania, is a member of the Berks County Amateur Astronomical Society. He was also an AAAA member last year, and we are proud to acknowledge the

achievements he made for his home club. Ryan will be a sophomore in high school this fall.

Ryan received his \$1,000 cash award at the ALCON awards banquet on July 28 in Frederick, Maryland.

Ryan is well known at BCAAS meetings since he serves as that club's program committee chair. Ryan can be counted on always to be there to promote astronomical activities. He has a passion for astronomy, and his enthusiasm is always glowing. Over the past year, he volunteered to help organize and run dozens of public star parties and events. After hearing of our need for help with a League website, Ryan took action. He designed the site for the 2001 joint astronomical convention (ALCON 2001) which will include meetings of the Astronomical League, IOTA, ALPO, and IDA. This is a very impressive achievement for a high school freshman. Ryan has also given the AL's Youth Activities Committee a breath of fresh air with renewed enthusiasm. He also developed and runs a new web page to promote "Youth in Astronomy."

### Exceptional Young Astronomer Award

Any Astronomical League member under the age of 19 on the date of the application deadline is eligible to apply. The deadline for the next Horkheimer Service Award is March 31, 2002.

This award is based upon service to the League or to any League society. This service could be educational outreach, observing skills at public star parties, or other astronomical achievements. Young League astronomers are eligible to apply for the National Young Astronomer Award, the Horkheimer Service Award, and the Horkheimer Planetary Imaging Award.

AAAA encourages all our members to kept alert for the work the youth in their community are doing, and to nominate anyone they think may be worthy. We look forward to seeing many nominations and applications from AAAA members for future awards.

For additional information or applications, please contact Bob Gent, AL Vice President, via e-mail: BobGent@aol.com.

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*We are excited that the American Association of Amateur Astronomers is able to make our products available to you through their AstroMax Online Store. We hope they will point you on your way as you begin to explore the universe.*

*David and Billie Chandler*

*PS: Be sure to take a look at the AstroMax Introductory Astronomy Kit, which includes our First Light Astronomy Kit, a pair of Bushnell Powerview 10x50 Binoculars, and full membership in the American Association of Amateur Astronomers. It's a great way to get started in astronomy for less than \$100! It makes a great gift, too.*

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# Beneath a Southern Sky



**Eta Carina**



**Comet**

Leo Andriao is a dentist in Araraquara, SP, Brazil. He is also an amateur astronomer, a budding astrophotographer, and an AAAA member. You can see his photo of the partial phase of the June solar eclipse as seen from Brazil in the June issue of the *American Astronomer*.

Recently, Leo has been working with B/W photography from a dark sky site near his home in Araraquara. Unfortunately, light pollution is also a problem, even in Brazil, but Leo has found a site at the Clube Nautico, a swimming club near his home, that seems to be dark enough for serious astronomy.

For the photos here, Leo used hypered B/W film which he sent off to be processed, and he sent us some of the best pictures. Leo says he thinks there were some problems during processing of the film, and the photos got too bright, but as you can see, the results are pretty good.

*Leo Andriao  
Araraquara, SP, Brazil  
leo.iris@uol.com.br*



**Astrophotos by Roseann:** My pics just got here in the mail ... and ... I GOT STARTRAILS ... AND A METEOR, ALSO!

I had the camera facing south. I had the camera laying flat on the porch rail ... all the while hoping the kitties wouldn't leap on the rail. These were taken on July 13, 2001, around 9 p.m. Brenda Culbertson in Topeka scanned my photos for me. (Thanks Brenda.) I used a Canon FTb w/50mm lens. Oh, settings were that side ways 8 infinity, and aperture was f/1.8. And I used Polaroid 35 mm 400 speed film. Not bad, especially since I didn't have a tripod and cable release at the time!

## A Beginner's Perspective on Astrophotography

*by Roseann Johnston  
Vincent, Alabama  
roseannj@bellsouth.net*

My interest in astrophotography began this past Christmas during the Christmas Eclipse 2000. While viewing the eclipse with my solar shades, I wondered if I could get a picture of it. I experimented by using my solar shades in front of my 110 camera. For safety reasons, I made sure the shades completely and securely covered the viewer. It worked and I was hooked.

Since then, a good friend gave me a camera to try my hand at some night photos. My first set of photos were...uhh...well, a lot of squiggly stars. Lesson learned? No matter how still you think you are holding the camera with your hands, it is not going to work!

Subsequently, with great advice from many friends and my own perseverance and determination, I finally succeeded. This involved using inexpensive 35mm film, and just getting outside and experimenting. Sometimes I'd hold the camera at the focuser on my scope. Sometimes setting the camera on the porch rail, propping it up on the ice cooler, or using



## Roseann's Famous Xmas Eclipse 2000 Photo

a table top tripod and manual cable release.

I did that hat trick and it worked! (**Hat Trick** ... (I got good teachers here.) Get camera ready, and cover it with a big hat, press and lock shutter button. Slowly remove hat, wait, wait, wait ... for however many secs/minutes. Then cover camera with hat, unlock button. *Voila!*)

Now, believe you me, I've had plenty of shots that just plain and simply did not work. And will again, I'm sure. Does that bother me? Not at all! That's okay, it's a learn by doing experience and doesn't require lots of expensive equipment.

Most of all, I'm having fun.

September 2001

# AAAA News and Member Activities

## Kathy Zendner's Web Site

[www.zendner.com/kathy/index.htm](http://www.zendner.com/kathy/index.htm)

Come on in, grab a cup of coffee, and make yourself comfortable. Meet my Family, and let me show you some of my Hobbies.



**KOWABUNGA!**  
Look at all those stars!!

During my adventures in Astronomy I have met some really nice folks along the way! Especially on the AAAA and the Astronomy Clubs



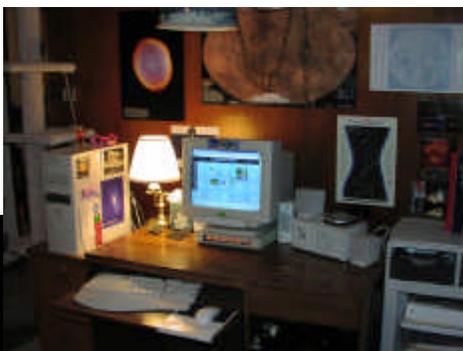
Meet Star Girl Kathy Zendner

Around the World News Groups. Feel free to e-mail me any comments or tips you may have.

- [My Home Page]
- [Meet StarGlr]
- [My Star Pages]
- [My Family Pictures]
- [My Pets]
- [My poor ol' Truck]
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Moon Shot through my MEAD taken with an Olympus 2040 Digital Camera held to the 26 MA Eye-Piece



Star Girl's Bridge



Star Girl s MEAD DS-127EC Scope and her 8-inch Dob

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# Autumn Observing

by Brenda Culbertson  
stargazr@holtonks.net

Cooler temperatures are in the air, and the nights are becoming cooler and longer, along with an opportunity to do more viewing of the night sky. As the season changes from summer to fall, the sky show slowly changes, too, presenting new and different objects in the heavens to view.

## DEEP SKY OBJECTS

### Easy Objects

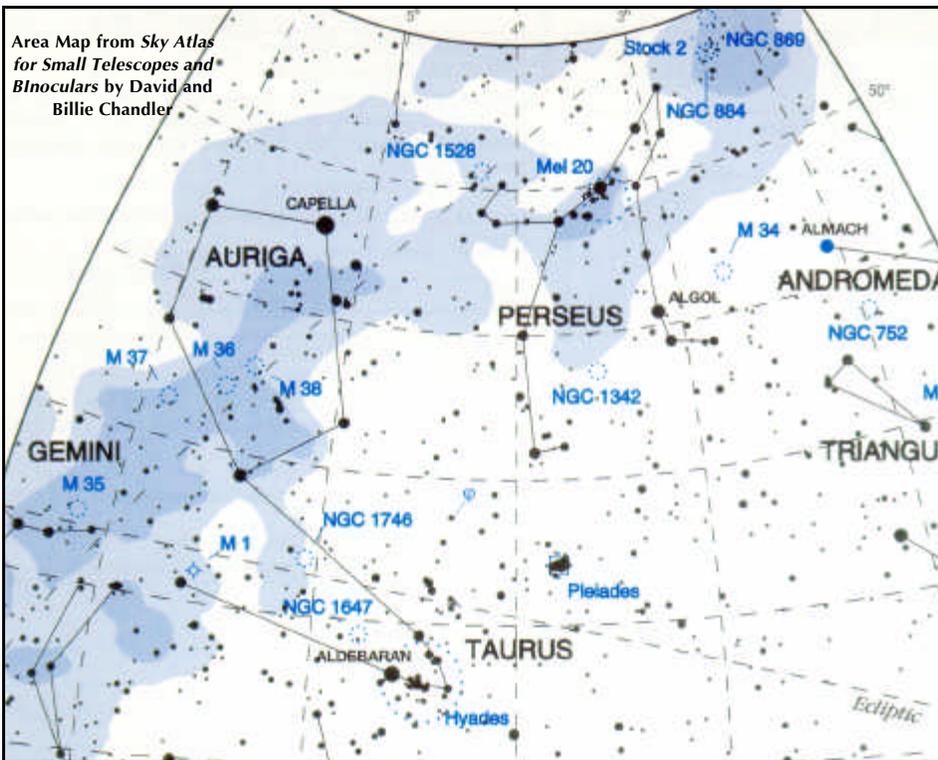
The most famous and perhaps the easiest object to see in late autumn is **M45, The Pleiades Star Cluster (NGC 1489)**. The Pleiades lead the way into the winter sky. As Taurus climbs to its dominance of the Autumn night sky, this cluster of bright, blue stars is unmistakable. Without using optical aid, try counting the number of members. Then, use binoculars to count again. Finally, use a telescope of any size aperture to see how many members of this cluster there are.

The **Great Galaxy in Andromeda, M31**, is the most visible galaxy in the sky, thus making it one of the most popular of the galaxies to observe. The lure of the brighter galaxies like M31, is irresistible. Find it first with your binoculars nestled in the arms of Andromeda. Then, take a closer look with your telescope and try to observe the dust lanes in this beautiful object.

The constellation Pegasus has such a wide range of objects, we could view objects in this area several nights in a row. One of the easy to see objects is **M 15 (NGC 7078)**, a globular star cluster. It is about 4 degrees NW of Epsilon Pegasi and is about 6.5 magnitude. You should be able to see this object in binoculars, but it may appear as a bright, fuzzy star.

Move on up to the constellation Perseus and find some objects which do not require any visual aid to see on a dark night. Look between Cassiopeia and Perseus and you will see two star clusters in close visual proximity of each other. Without optical aid they appear as one large, fuzzy patch in the sky, but with any optical aid observers will see individual star fields. Low power will individualize each cluster, but both will be in the same field of view. The designation for these clusters are NGC 869 and NGC 884, **The Great Perseus Double Cluster**.

Try **M 34 (NGC 1039)** if you want another easy object. This is a bright, open star cluster in Perseus, about 5 degrees WNW from Algol. The stars do not appear many in number, but present a nice object



to observe. Give it a try.

### Moderately Difficult Objects

Pegasus has a few more moderately difficult and difficult objects than it does easy objects. One of these moderately difficult objects is **NGC 7331**. It is located about 4.3 degrees north and slightly west from Eta Pegasi. It is a spiral galaxy about 10th magnitude and is the model of what astronomers think the Milky Way looks like.

Another object in Pegasus which is moderately difficult to view, although some find it very difficult to find, is **Stephan's Quintet**. This is a galaxy grouping of five members, the brightest of which is NGC 7320. The other members, NGC 7317, 7318A & B, and 7319 make up the fainter members. The group is about half a degree SSW from NGC 7331. The average magnitude of the group is about 14. This group can be seen on a good night by an experienced eye with a 6" aperture.

Go fishing for **M 74 (NGC 628)** in the constellation Pisces. This is a nice, face-on, spiral galaxy about 1.5 degrees ENE of Eta Piscium. It has a low surface brightness and may be found easier when averted vision and a wide field of view are used. This is one of the faintest Messier objects of about 10th magnitude.

### Difficult Objects

**M 76 (NGC 650-1)**, the Little Dumbbell Nebula, is a challenge for most people. Once it is found, however, it is quite the treat. M 76 is located just less than a degree NNW from Phi Persei and about 8 degrees SW of the Perseus Double Cluster. This cluster is in the extreme western portion of the constellation.

Try to view **NGC 1275** in Perseus. It is a galaxy, but is quite puzzling in appearance and emissions. NGC 1275 lies about 2 degrees east of Algol and just north. It is about 13th magnitude and may have been part of a collision with another galaxy.

## Dates to Remember

### October

- 2: Full Moon
- 7: Moon-Saturn conjunction
- 14: Mercury at inferior conjunction
- 16: New Moon
- 21: Watch for Orionid meteors after midnight
- 28: Mercury at greatest elongation near Venus in pre-dawn sky

### November

- 1: Full Moon
- 3: Moon-Saturn Conjunction
- 15: New Moon
- 17: Peak of Leonid Meteor Shower
- 21: Moon-Mars Conjunction
- 30: New Moon (Blue Moon)  
Moon-Saturn Conjunction

### December

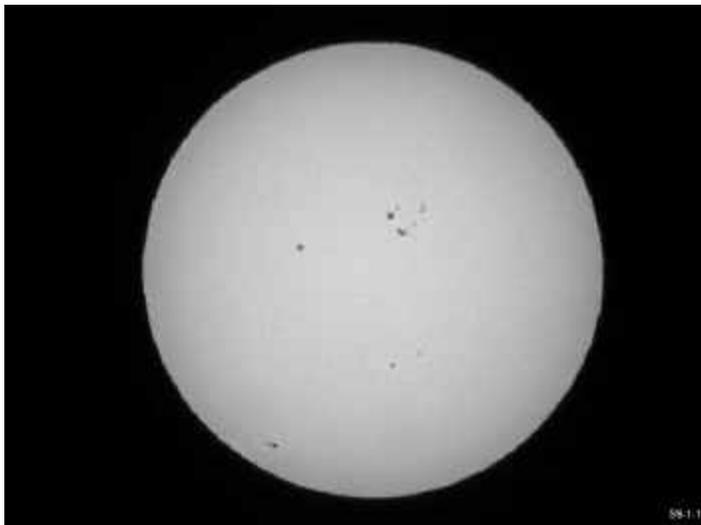
- 14: New Moon  
Peak of Geminid Meteor Shower  
Annular Eclipse of Sun in South America
- 20: Moon-Mars Conjunction
- 21: Winter Solstice in Northern Hemisphere
- 30: Moon-Jupiter Conjunction  
Full Moon  
Umbral Lunar Eclipse

Brenda Culbertson  
stargazr@holtonks.net

**Home Plate  
Sunspot Group  
(9601)**

**Sept 2, 2001**

Image copyright  
Isaac Kikawada  
San Jose, CA



**Autumn Planetary  
Observing**

With binoculars, search the predawn east-southeast horizon during the last week of October and into November to see the planet **Mercury**. It will be very close to the left of the much brighter planet Venus. Mercury will be lost again in the solar glare by December

Brilliant **Venus** rises in the predawn eastern sky during the early part of October, and continues to decline into the morning twilight as the month progresses. It will sink into the solar glow during November, rising deep in morning twilight during December. This planet, which comes closer to us than any of the other planets, has a crushing atmospheric pressure 90 times that of our Earth.

**Mars** continues to grow dimmer throughout the Autumn months. Its size in a telescopic view is getting smaller. Look for the reddish-orange glow of this planet early in the south-southwestern evening sky.

Early in October, gigantic **Jupiter** rises just before midnight in the east-northeast, and by December it will be well up by midnight. It will be high in the southern sky during the predawn twilight.

Beautiful **Saturn** rises in the east-northeast sky in the early evening hours by the end of October, and will be riding high by midnight during December, when it reaches opposition. The best telescopic views of the fantastic ring system of this huge planet will be toward midnight when Saturn has climbed higher in the sky.

The **Orionid Meteor Shower** will peak during the predawn hours of October 20-23. It may be possible to see 5 or 6 meteors every 10 minutes or so from a dark observing site during the very early morning hours on those dates. Halley's Comet is responsible for the particles that make up this meteor shower.

**NGC 869/884**

**Double Cluster  
in Perseus**

Image copyright  
Mark Cunningham  
Craig, CO



**M15  
NGC 7078**

**Globular Cluster  
in Pegasus**

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**M45**

**The Pleiades  
Star Cluster  
in Taurus**

Image copyright  
Ed Flaspoepler  
Dallas, TX





### AAAA Establishes Online Discussion Group

The American Association of Amateur Astronomers has started a new online discussion group, hosted by Yahoo Groups.

The purpose of the group is to create a forum in which AAAA members can share ideas, experiences and challenges, and just get to know each other. If you are an AAAA member, or have friends interested in amateur astronomy and the AAAA, we invite you and them to become a part of this Discussion Group. The Quad-A eGroup now has 120 members.

If you would like to join the AAAA discussion group, please send an e-mail request to: Quad-A-subscribe@yahoogroups.com or visit the web site at: <http://www.yahoogroups.com/list/Quad-A/info.html>

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# StarCon 2002

## An International Astronomy Convention

### June 6-9, 2002

### On the Campus of Washburn University, Topeka, KS

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