The American Astronomer

THE QUARTERLY NEWSLETTER OF
THE AMERICAN ASSOCIATION OF AMATEUR ASTRONOMERS

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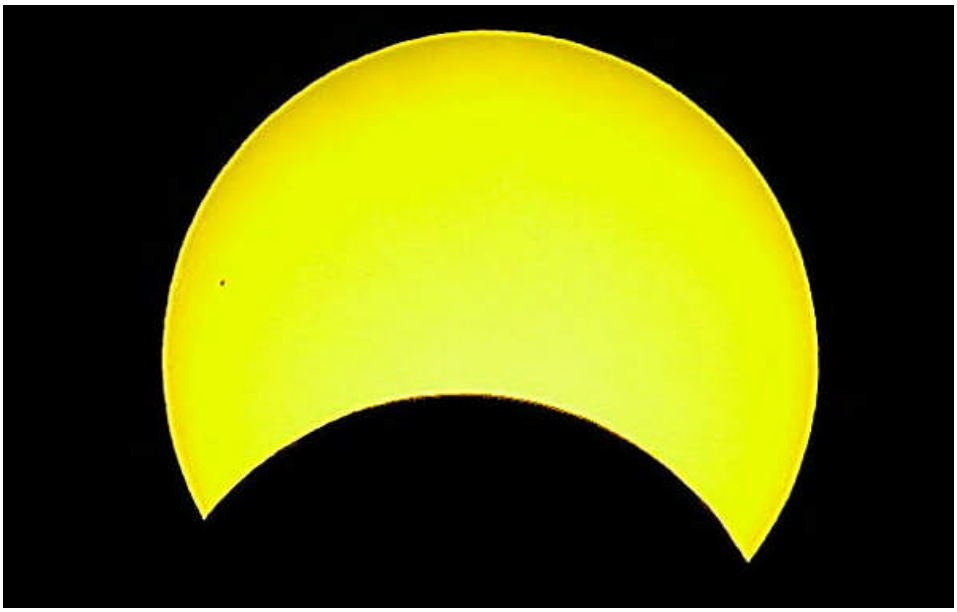

Dennis, Victor, Bruce and I set up some scopes just outside a very popular restaurant here in town. We set up there to let the general public have a peek. At 5:12 the first bite was seen, by 6 it was at maximum and finished by 7 or there abouts. Here's one of the shots I took of the event today! *Paul Greenhalgh (President), Abbotsford, BC, Canada. Fraser Valley Astronomers Society, British Columbia Canada. http://www.fvas.net*

Here is a sample of what we saw on the beach, SW of Puerto Vallarta, Mexico, on June 10. This was taken by Joel M. Moskowitz, M.D., one of the people in our group. It was close. Just pulled it out at the last moment. You can see other photos online on his home page at http://homepage.mac.com/joel-moskowitz/PhotoAlbum4.html

Sue Rose
Amateur Observers' Society of NY

Annular Eclipse - June 10, 2002

The New Moon of June 2002 produced an "annular" solar eclipse. An annular eclipse happens when the Moon is a bit too far away from Earth to cover the Sun completely, and at eclipse will leave a ring of surrounding sunlight. Annular comes from the Latin word meaning “ring”.

The path of annularity, where the eclipse was at its maximum, stretched almost exactly across the Pacific Ocean from Borneo to Mexico. While the main event was not seen in the Americas, the Moon did produce a fine partial eclipse that included all the US, Canada, and Mexico except for the extreme east coasts. Just inland from the east coast, the eclipse began at sunset the evening of Monday the 10th. Mid-eclipse was seen at sunset across the midwest, while the whole thing could be seen west of a line that stretched from Baja California through Ontario. The west coast saw the event shortly before sunset.

To view the eclipse, AAAA member Heather Sherbourne in San Antonio, TX, drove her husband and six kids to a park with a small mountain and observing tower at the top. She says, “We got out and marched everyone along the path for about a mile, watching the eclipse as we went (through our "eclipse shades"). There were two other astronomers up there with their telescopes, and we were treated to a nice view of the sunspots. After looking through the scopes, we moved to a quieter, more secluded spot on the mountain to watch the sunset. I think I enjoyed the whole event more than anyone up there last night.”

AAAA president Ed Flaspoehler viewed the eclipse in Dallas, TX. One interesting thing he noticed was the “Moon Illusion”, the phenomenon of the enlarged sun just at sunset. You know the old question: why does the sun or moon appear larger just as it sets. “Well,” Ed says, “the sun did appear larger, as expected, but the dark moon did not. As a result, it seemed almost as if the bright sun was gibbous, while the moon was normal sized. Very pretty, as well as interesting.”

“Maybe it is refraction after all,” Ed says. Plus, he speculates that the red rays of the setting sun were more easily refracted, while the dark shadow of the moon was not refracted at all. Unfortunately, he did not get a photograph. It would have been interesting to see how that came out on film.

Heather was also hoping to see something interesting in the way of the "Moon Illusion". “The eclipse was beautiful,” she says, “but it disappeared into the clouds on the horizon before it had time to start looking really big. The moment just before it disappeared—when the clouds were covering just enough to be able to look directly at the sun—it did look larger, but thick clouds covered most of it, which diminished the full effect.”

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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.

A Member Society of The Astronomical League

A Word from AAAA

There is always something to do in the world of amateur astronomy. Star Parties, conventions, celestial events of all types, and just plain observing. It is an abundance of riches for those who are willing to take the time to enjoy them.

This Spring, I have attended two major conventions, the Texas Star Party and the annual convention of the Mid-States Region of the Astronomical League. And I have observed several thrilling celestial events, most notably the alignment of the planets in April and May, Comet Ikeya-Zhang for most of the first part of this year, and then the annular eclipse on June 10th.

There seems to be so much going on, that I cannot even get my normal observing done. I had great plans during TSP to get moving on those Spring objects on the Hershel 400 list that I have been trying to finish for years. No such luck. With all the other activity going on, and somewhat hazy skies at TSP, I only managed to bag about 20 of those galaxies in Virgo in three nights at the telescope. That still leaves almost 150 objects to go!

No sooner did I get back from Fort Davis than it was time to head to Arkansas for the MSRAL convention. I have gotten to know quite a few people in that region, and a visit with them is always welcome. Astronomical League regional conventions are always fun, as you can see from the report on the next page. I encourage you to attend an AL regional or national convention whenever you can. They are a good place to meet new people and exchange ideas. As AAAA members, we are spread out all over the country. Find out which of the AL regions you live in, and go to their next convention. Be sure to tell them about AAAA, too!

Brenda Culbertson's Ad Astra Astronomy Convention in Topeka is also sure to be a fun event. We will have a report on the AAAA web page soon, and a report in the next issue of *The American Astronomer* newsletter.

DId you know AAAA is now in the publishing business? You may not know that the *Astronomer's Journal* went out of print earlier this year. This was a popular item, and I kept getting many requests for it. So I went ahead and put together a new and updated version. Get your own copy through AstroMax, the AAAA Onlline Store.

Clear Skies and Good Observing
Ed Flaspoehler, President, 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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www.corvus.com/a4-news/a02-june.pdf

OBSERVING IS THE HEART OF AMATEUR ASTRONOMY

The American Association of Amateur Astronomers provides the AL's FREE Observe Programs on our web site 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 Observing 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 web site, 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.

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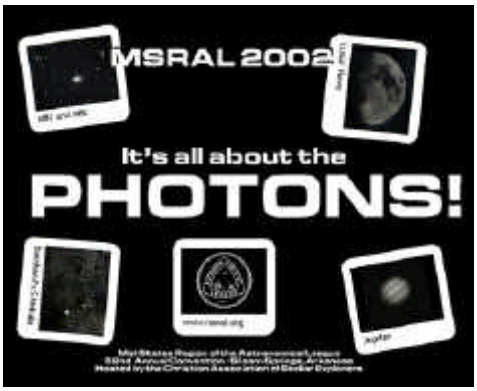

The Christian Association of Stellar Explorers (CASE) hosted the 52nd Annual Convention of the Mid-States Region of the Astronomical League, June 7, 8 and 9, 2002, on the campus of John Brown University in Siloam Springs, Arkansas.

This year's theme was "It's All About the Photons!" A fine turnout of more than 60 amateur astronomers from the Mid-States Region of the Astronomical League attended.

AAAA Attends MSRAL Convention 2002

Patrick Carr, President of JBU's Christian Association of Stellar Explorers, demonstrates the club's 16-inch reflector at the Heavenview Observatory. Dr. Paul Benoit of the University of Arkansas was Banquet Speaker.

The MSRAL convention officially began Saturday morning with the annual business meeting of the Mid-States Region of the Astronomical League. AL Executive Secretary Jackie Beucher from Kansas City gave a quick overview of the Astronomical League and the benefits it offers to clubs and their individual members.

During the rest of the day, there were numerous papers presented on such topics as Attracting Youth to Astronomy by Beth Longnecker and a special presentation by the International Dark-Sky Association. Other presentations included Public Education and Your Club by David Cater, NEO's and Other Space Rocks by Gary Hug, Design and Construction of an Equatorial Telescope Mount by Paul Spanski, and Confessions of a Binocular Fanatic by Ed Jones.

Attendees had fun at the BBQ Dinner which was held on Friday evening at the newly built Heavenview Observatory, run by the CASE astronomy club. This observatory is located only 5 miles from the convention site, on the property of New Life Ranch in Eastern Oklahoma. In addition to the good food, fun and fellowship, there was plenty of time for observing at the observatory and it's dark site. Since this year's convention coincided with the new moon, many people brought their own scopes!

There were plenty of door prizes supplied by astronomical vendors from the local region. AAAA donated some door prizes, including copies of the Astronomer's Journal which it has just reissued.

During the banquet on Saturday evening, June 8th, many awards and door prizes were presented. Patrick Carr, convention chairman, was designated the MSRAL Astronomer of the Year for his work not only with MSRAL but for his enthusiasm while working with CASE and their new observatory, as well as the programs he runs for both the general public and students at JBU.

The banquet speaker was Dr. Paul Benoit of the Arkansas-Oklahoma Center for Space and Planetary Sciences. He presented a talk entitled "Hera and Andromeda: New Insights into the Evolution and Formation of the Solar System." Dr. Benoit is a professor in the Cosmochemistry Group at the University of Arkansas in Fayetteville. He works on a variety of problems in space and planetary science, including the design of instruments for optical dating to be placed on spacecraft and on NASA's Hera mission to take samples from three near-Earth asteroids.

Convention accommodations were provided in the new student dorm at John Brown University. They were very nice and inexpensive.

Texas Star Party 2002

A Personal Report

by Ed Flaspoehler, AAAA

Rick Feinberg, Editor in Chief of S&T, was guest speaker on Saturday night. His topic was Challenges Facing Astronomy in the 21st Century

Bob and Lisa Summerfield of Astronomy-To-Go were awarded the Omega Centauri Award for their contribution to astronomy and education. Dave Tosteson from Minnesota was awarded the Lone Star Gazer award for his work with students and observing projects. Mike Planchon presented the Omega Centarui Award to Bob and Lisa Summerfield, and Barbara Wilson presented the Lone Stargazer Award to Dave Tosteson.

The Great Texas Giveaway is a popular TSP feature after the guest speaker programs on Friday and Saturday nights. Mike Planchon and Bob Summerfield always keep the crowd entertained as the door prizes are distributed. Richard Canino of Fort Davis, TX, became the newest AAAA member by winning the AstroMax Binocular Kit which AAAA donated to TSP as a door prize.

The 24th Annual Texas Star Party was again hosted on the magnificent Prude Ranch, a 3500 acre mile-high guest ranch located six miles northwest of Fort Davis, Texas, in the shadow of McDonald University. TSP week this year was May 5-12, 2002. Attendance was limited to a maximum of 650, to prevent overcrowding of Ranch facilities, and the final attendance was announced to be only 595.

I got to TSP on Wednesday night, about 8:00 pm. That was local sunset, so it was still quite light. My original plan was not to arrive until Thursday. But I had checked the weather reports in Dallas the night before, which indicated CLEAR for the area, so I set out from home Wednesday morning, after finally getting everything into the car by 11:00. It is 500 miles to Fort Davis from my house, and including one hour for lunch at Red Lobster in Abilene, I made it in 9 hours. Not bad.

That first night turned out to be a beautiful evening. I was able to view the planetary alignment, Comet Ikeya-Zhang, and got to work on my Herschels, looking for objects in Leo, Coma, Gemini. I ended up staying up until 3:00 a.m., and was pretty tired when I finally went to bed.

Thursday night, the skies were not near as good, with lots of haze and especially dust in the air, which was residue from the continuing drought they are having in that area of West Texas. Plus, there is encroaching down stream air pollution from autos and power plants in El Paso and Juarez, Mexico, 150 miles to the west.

On Friday, I took the van up to the Visitor Center at McDonald Observatory. They have just finished the new installation, and it is quite spacious and well done. They have an especially beautiful spectroscope projecting a spectrum on the wall that is quite spectacular. While i was there, I joined the Friends of McDonald Observatory for the AAAA.

On Saturday night, Rick Feinberg, Editor in Chief at S&T, gave a talk on The Challenges for Astronomy in the 21st Century. Among the issues he highlighted were the search for Dark Manner and Dark Energy, the need for Unification of Gravity with Other Forces, the Evolution and Large-Scale Structure of Galaxies and the Universe, and Inflation vs. "Branes" and the current research into higher dimensions by mathematicians and physicists.

Bob and Lisa Summerfield of Astronomy-To-Go were awarded the Omega Centauri Award for their contribution to astronomy and education. They were flabbergasted. Bob and Lisa are great friends, and friends of everyone it seems, and this is a well deserved award. Dave Tosteson from Minnesota was awarded the Lone Star Gazer award for his work with students and observing projects. I did not know him, but we had talked, and he is very nice. Apparently he is an expert observer. Mike Planchon presented the Omega Centarui Award to Bob and Lisa Summerfield, and Barbara Wilson presented the Lone Stargazer Award to Dave Tosteson.

TSP Observing Coordinator John Wagoner, reported that he awarded 296 observing pins during the week: 167 pins for the Seeing Double program, 30 pins for the Glorious Globulars program, 37 pins for the Observing Odyssey program, and 62 pins for the binocular program. That is a lot of observing going on. Reports are that the programs, especially the Seeing Double program, were lots of fun this year.

Saturday night ended up cloudy, so I ended up walking around the field in the dark, seeing who I could find. I had a lot of interesting conversations with lots of different people. I ran into Mike Planchon later on, and Anna brought down some of her cherry cobbler to share around. Delicious!

The Southwest Region of the Astronomical League holds its annual business meeting during TSP, and it is encouraging to hear that SWRAL will be increasing its interest in its member societies and their activities outside of TSP each year. To find out more about the Texas Star Party, visit their web page at http://www.metronet.com/~tsp/

AAAA News and Member Activities

May 4th Alignment - North and South Views

During early May, 2002, the five planets Venus, Mars, Saturn, Jupiter and Mercury were clearly visible in the Western sky just after sunset. This alignment of the planets had been a spectacular nightly dance since the second half of April and early into May. On May 14, another visitor joined the dance: the crescent new moon. So we had a spectacular conjunction of the moon and the planets, with the moon nestled right between Venus and Mars.

AAAA member Leo Andriao, Junior, photographed this beautiful event from his home in Araraquara, Brazil, against a setting of tropical splendor. "I want to share with you these photos that I took of yesterday's Moon-Venus conjunction," he says. "I took them at the Clube Nautica in Araraquara, the same place I use to do my other astronomical observations. Look closely and you will see Venus to the right and top of the moon, and Mars to the left and below the moon. I caught TWO planets as well as the moon!" Araraquara is an agricultural center 2-3 hours northwest of Sao Paulo."

Meanwhile, AAAA member Isaac Kikawada photographed this beautiful event from his backyard in San Jose, CA. "On May 14 many people were duly excited about the planet conjunction, but it was quite hard for me catch all the visible planets with the Moon in one photo. So I just concentrated on the brightest ones."

Planetary Motion

The series of three photos on the left, taken on three different days from June 1-3, 2002, shows the motion of Venus against relatively stationary jupiter. I just finished putting this together rather hastily but excitedly.

The weather was not very good the last day (6-3-2) and Jupiter's moons did not come through as on the previous two days. But with the help of the redwood tree in our back yard, this may show the "rapid" movement of the planets.

This 22-degree halo around the sun happened on June 23, 2002. Our Sun amazes us almost every day!

Isaac Kikawada
San Jose, CA
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22 Degree Halo

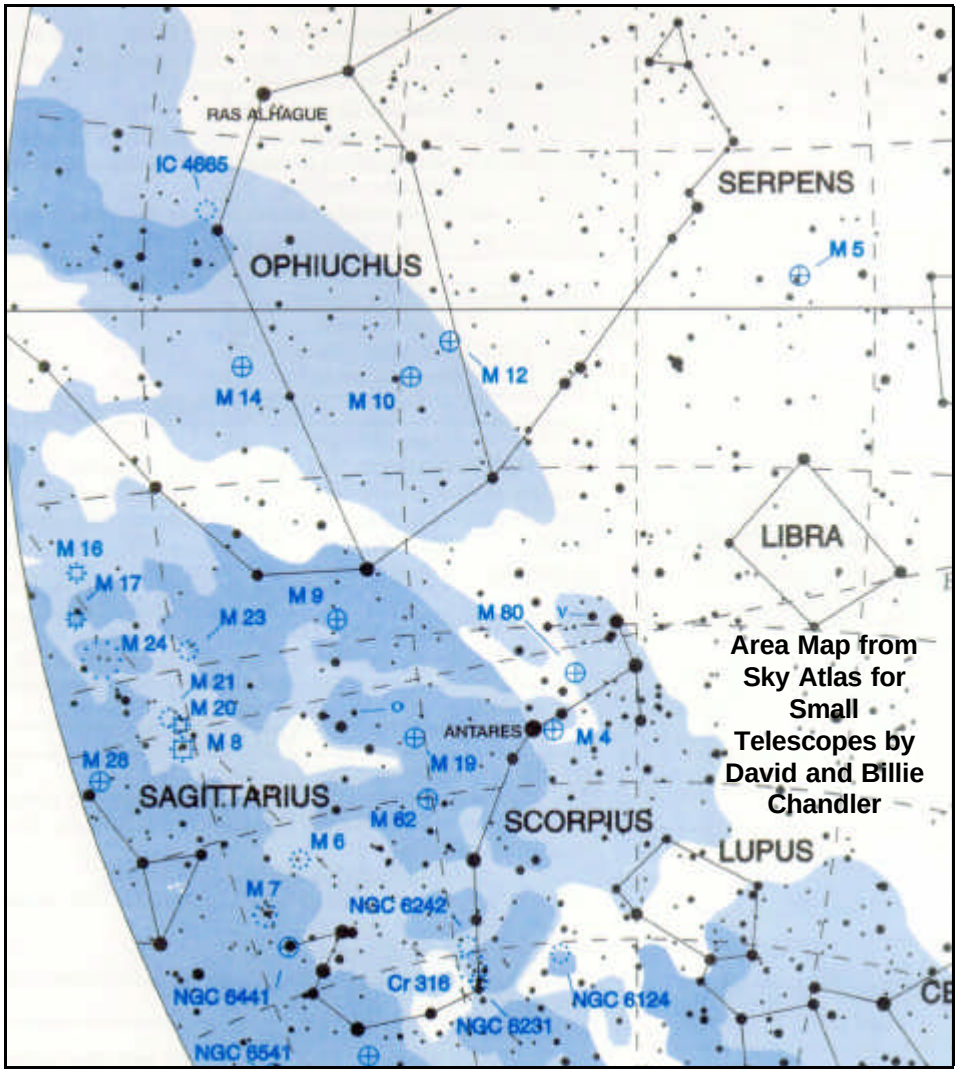
Summer Observing

by Brenda Culbertson
Mayetta, KS
stargazr@holtonks.net

Summer is so much more comfortable for most of us than winter. Nights are warmer and we have more of a desire to be outside. However ... insects are out, too, the opportunity for thunderstorms exists, and the nights are much shorter than in the winter. But we love to observe during the summer because we do not have to bundle up in layer upon layer of clothing just to keep warm enough to get a glimpse of a celestial treat.

It's true, Summer observing can be hit and miss here in the Midwest. But when a clear night occurs, you can bet the scopes will go up and the red lights come on. The smell of Deep Woods Off lingers in the air and the buzzing sounds of small blood suckers fill the ears as another rewarding evening of astronomical viewing gets under way.

Here are some objects you might want to try during your summer observing sessions.



Easy Objects

Easy objects are quite the find during this time. All you need is a pair of binoculars and a clear sky to observe some marvelous celestial treats. A low powered telescope will work fine as well. Begin by scanning the summer Milky Way from end to end. Sweep back and forth as you climb to the zenith, then keep going to the other end. You will come across clusters, nebulae, and groups of objects you may want to look at a little closer.

The southern Milky Way holds some great objects that are easy to find. You may want to begin in Sagittarius, which is found on the eastern edge, southern end of the Milky Way band. Here you will find such things as **M8** (NGC 6523), the **Lagoon Nebula**. It is a fifth magnitude, half degree area that can be seen with the unaided eye , but you should look at it through a telescope and see all its great intricacies.

Just above M8 is **M20** (6514), the **Trifid Nebula**. The Trifid can be seen easily in binoculars, but with increasing optical power, an observer can see great detail in the wispy areas of the nebula.

Also in Sagittarius is **M17** (6618), the **Swan (or Omega) Nebula**. In low power this nebula appears in a swan shape floating in the sky. It is an easy object and is quite a sight for the beginner.

There are many, many other easy objects to see in the summer sky. Just start scanning along the Milky Way with binoculars and before long you will have an abundant list of things to look at.

Moderately Difficult Objects

Just to the south and slightly to the west of **M17** is a small star cluster, **M18** (NGC 6613). This object contains a few loosely fitting stars. You may see only about a dozen of the brighter stars in this group, but there are many more members.

A nice round, but faint globular cluster can be found in Ophiuchus. The cluster, **M9** (NGC 6333) can be seen in an 8" telescope without too much difficulty. It is about 7th magnitude and appears to be round with a 5' diameter. Using averted vision may show a larger, nebulous area surrounding the cluster. Other globulars in Ophiucus to hunt are **M10** (NGC 6254) and **M12** (NGC 6218).

Also in Ophiuchus is **M14** (NGC 6402), another globular cluster. It is about 8th magnitude and has a 6' diameter. The larger the aperture, the better this one is resolved. It appears like a round, fuzzy patch in smaller than about 17-inch aperture telescopes.

Difficult Objects

In this case it is a group of objects. The Corona Borealis Galaxy Cluster is for those who have a good eye for distant, faint objects. According to Burnham's *Celestial Handbook*, "In the cluster are more than 400 galaxies, all concentrated in an area of the sky half a degree wide, about the apparent width of the Moon." The brightest members are around 17th magnitude. A most difficult group of objects to see.

Often unnoticed are the **dark nebulae**. Sagittarius holds one of particular interest. This is **B86**. B86 borders NGC 6520 and is 4.5' X 3'. You might take the opportunity to look at this one on a dark night.

If you are tired of the southern sky, go north to Draco and find **M102** (NGC 5866). It is a spiral galaxy of about 12th magnitude and 2' X 1' size. It is one of the "missing" Messier Objects. See if you can find it.

Meteor Showers

August 11 - 14 is the Perseid Meteor Shower. These dates are around First Quarter Moon, and the moon is up early. Not too great for meteor watching. But you may see the bolides.

M10
NGC 6254

Globular Cluster in Ophiuchus

Image copyright
Mark Cunningham
Craig, CO

M16
NGC 4594

The Eagle Nebula in Serpens

Image copyright
Anonymous

M17
NGC 4594

The Swan or Omega Nebula in Sagittarius

Image copyright
Mark Cunningham
Craig, CO

M102
NGC 5866

Spiral Galaxy in Draco

Image from
Real Sky CD
Astronomical Society
of the Pacific

Comet C1/2002 Ikeya-Zhang

Here is a quick shot I snapped of Ikeya-Zhang just off the head of Draco (May 9) during TSP. Izzy was past her glory, but the shot does show a visible tail, even if not what it was. I also enjoyed watching it's rather rapid nightly progress from Draco to Hercules, and was amazed how much it moved night to night.

Charlie Warren, Dallas, TX
Astrofx@aol.com

In early April, Ikeya-Zhang crossed just above M31, the great Andromeda galaxy. I captured this shot just as it passed by this famous galaxy, using my f/3.8 205mm lens with 200 ASA film for 10 min.

Mark Cunningham, Craig, CO
markc@quik.com

AAAA Member Larry Robinson has compiled a page of images and detailed information about Comet Ikeya-Zhang on his Sunflower Observatory web site. http://btboar.tripod.com/comets/id1.html

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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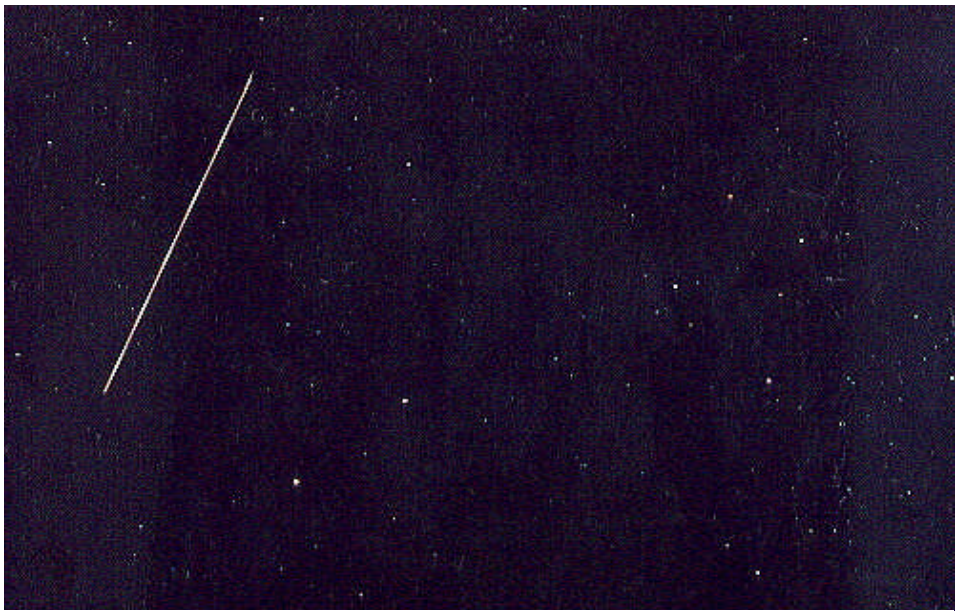

Beneath the Southern Cross

This photo of the International Space Station was taken by AAAA member Leo Andriao, Junior, from Araraquara, Sao Paolo, Brazil. The large stripe is the ISS moving across the sky. The Southern Cross can be see to the right.

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