

Central Arkansas Astronomical Society

The Observer

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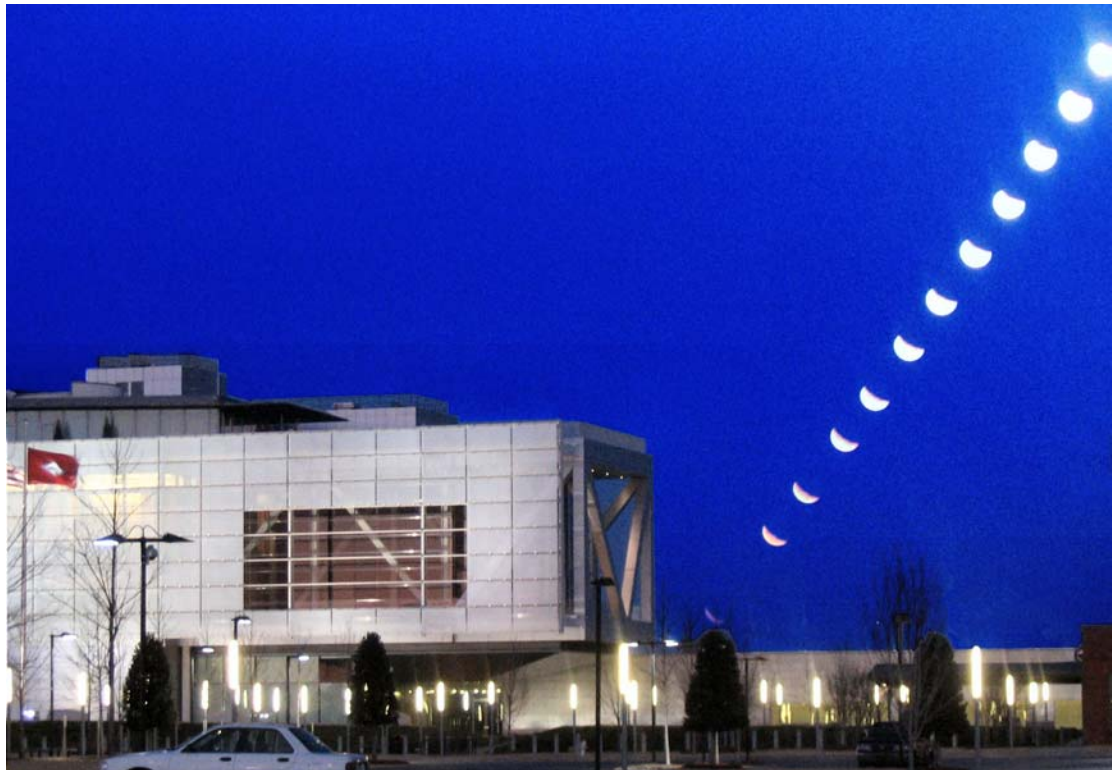
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Reflections of Youth, Spring, and Stars

By Rocky Togni

Several events started me into the hobby of Astronomy and they all seemed to happen in the Spring, causing me to wax nostalgic this time of year.

I still remember, on an April evening at the age of 8, seeing Comet Ar-
end-Roland from my Grandparents house out in the country. It turns out
very few are as good as the first. I still remember a classic comet low
in the west as I sat on some steps going down into the backyard. Only
Hale Bopp has rivaled it in my observations.

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One of the many wildflowers around the CAAS property. Wild violets should still be in bloom April 14. Photo by Stacy Edwards.

April Meetin' and Eatin' (Board Meetin', Too!)

All are invited to River Ridge Observatory on April 14th! The Board Meeting will begin at 5:00 and will be followed by a potluck supper. At 7:00 p.m. we will hold our regular monthly business meeting, and enjoy a presentation by Rocky Togni entitled: *The Evolution of the Calendar*. All are welcome to attend! The meeting will be followed by observing, weather permitting. Feel free to bring a 'scope or binoculars!

If you would like a map & directions to River Ridge Observatory, please just drop an email to: info@caasastro.org. Hope to see YOU there!



The author, Coy Scott, with his other scope, a Schmidt-Cassegrain.

Astronomy Season is Arriving By Coy Scott

Considering how cold natured I am, I've decided that astronomy is mainly a warm weather hobby for me. The temperatures yesterday were really nice. When it appeared that the sky was completely clearing shortly before sunset, I couldn't resist taking my telescope out to the club observatory for an impromptu casual observing session. It became partly cloudy before I arrived. But, I was able to observe as wide gaps between clouds passed over. Incidentally, some mosquitoes are out now. However, I enjoyed listening to crickets and "whooper-wills".

I looked at Venus low in the West. I could tell it was 60 or 70% illuminated.

Afterwards, I turned my attention to the moon. Since I could no longer look up with that eye and see the Orion constellation, I decided to dig out my moon filter (13% transmission). That made the moon observation much more comfortable.

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On the Cover— Lunar Eclipse of March 3, 2007

The first step was to identify the location to observe the eclipse from, a site with a good low horizon and a good foreground. After studying Google Earth, I decided on the Clinton Presidential Library. Using planetarium software, I had previously determined that the Moon would rise approximately 7 degrees north of east. Again with Google Earth, I was able to determine that the parking lot was lined up on an east-west line. Once I got to the library, I used a simple protractor against the parking lot curb to find a spot where the library ended about ten degrees north of east so that the Moonrise would be framed between the library and the Clinton School building.



Image by Jim Dixon

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Minutes from the March Meeting



CAAS Vice President Don Ferren opened the meeting at 7:10, and visitors were welcomed. We were very pleased to meet our newest student member, David Carmen from Russellville, and his father, Sam.

Twenty-one members and guests (give or take one or two!) were present.

Don announced that our 2007 Astronomy Day activity will be held at Pinnacle Mountain State Park on April 21 from 2-10 p. m. We briefly discussed programs to present inside as well as activities to do outside. We will distribute CAAS membership applications, CAAS business cards, and various flyers to the visitors.

Don noted Globe At Night: (<http://www.globe.gov/gan>) and urged members to visit the website and participate in this light pollution survey through March 21.

It was suggested that we have an informal Messier Marathon / Get-Together on March 17th and this idea was met with enthusiasm.

Stacy mentioned that the April newsletter will be taking shape soon and requested that all who are interested please submit articles. Preston suggested that we use the newsletter for a hand-out at Astronomy Day, and this idea was well received.

Sandy is working with the Episcopal Collegiate School to arrange a date for the students to come out and enjoy some observing. The current plan is for 3/26 at 6:30. Hopefully they will not be greeted with a thunderstorm this time out!

It was noted that the April meeting will be preceded by a Board Meeting at 5:00 followed by potluck supper.

Pat shared the Treasurer's Report, which looks much more positive now that 2007 dues are in.

Sandy said that she will be contacting a Perryville church group with an invitation to come out in either April or May. Their request to visit the property in March was unfortunately overlooked, and we will try to arrange a date soon and hopefully make up for the oversight.

At 7:30, Don began the presentation – a fascinating Night Sky Network teleconference & slideshow with Dr. Mark Showaleter, highlighting recent research on planetary rings and shepherd moons.

The meeting was adjourned at 8:25 p.m., and members dispersed to enjoy the evening with visiting and observing.

Submitted by Stacy Edwards, CAAS Secretary

CAAS Member Snapshot



Jacksonville Police Chief Robert Baker shares the wonders of the universe with a group of Girl Scouts at Camp Wyldewood, Searcy.

Reflections of Youth, Spring, and Stars

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Comet Arend-Roland photographed on April 25, 1957. The prominent anti-tail extending from the coma appears to precede the comet, though it actually trails from behind.

*Photo Credit: Lick Observatory,
University of California*

Last night I worked in the yard with my wife until dark. Looking up I could make out the stars in the bowl of the big dipper starting to pop out. It reminded me of spring evenings long ago when my sister and I worked in the garden with my mother until near dark (actually I was more of a hindrance than help, I am sure). I loved watching the stars of the Big Dipper pop out as the Bowl moved up the sky - just as it is doing this Spring.

One spring night I noticed the Pleiades and wondered what it was. We had an old encyclopedia and I went in and found a star chart. I was so proud of myself, I took my parents and sister out and showed them. So started my affair with the heavens. I still enjoy studying and pointing out constellations and stars and telling about them. In "A Beginners Guide to the Skies" by R. Newton and Margaret Mayall it talks about the brightest time of the year when the most 1st magnitude stars are in the sky. In April

as Orion is setting in the West and Lyra is rising in the East you can count 11 first magnitude stars. I had to go to many points in my yard to see all of them, but I did it.

As winter gives way to Spring I find myself out wandering under the stars again.

— Rocky Togni

Astronomy Season is Arriving

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I looked at Saturn next. That is always a pleasure. I was able to see Cassini's Division. I could tell there is a white cloud band at the equator. I'm pretty sure I saw four moons. There were two (suspected) moons fairly close to Saturn and fairly close to each other to the lower right of Saturn in my field of view. There were two more objects I thought were moons to the upper left of Saturn. They were farther from Saturn than the moons to the lower right and further from each other. All this was interesting to me. I believe I want to continue observing Saturn.

I looked at Sirius. It seemed to me that I could almost resolve it into two stars. I got this impression from the "airy disk?" of the star. Also, I had a clue from the diffraction spikes. With my telescope, you get 4 diffraction spikes that make a plus sign shape. Looking at Sirius, I saw two close parallel lines on one axis. In other words, the diffraction spikes still looked like a plus sign. However, the horizontal part of the plus sign was made with two marks close together. I hope that makes sense.

The Orion Nebula was impressive even under the near full moon light.

I looked at Polaris. I noticed another star close to it. I remember reading in Astronomy magazine during the past year that Polaris is a multiple star. I may try to find that issue and figure out if the other dimmer star is the other star considered part of Polaris.

I enjoyed the orange color of Aldebaran in Taurus over in the west. And, to top it off, I enjoyed looking at the orange color of bright Arcturus (in Bootes) about 15 degrees above the horizon in the east-north-east direction.

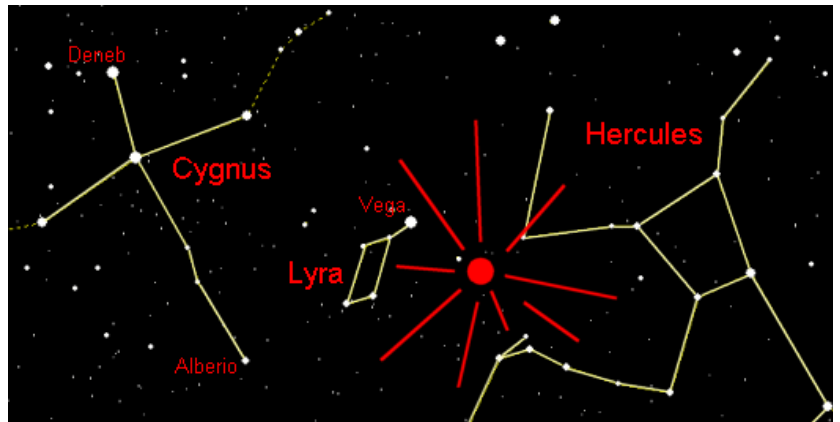
Clear Skies, —Coy Scott

The Lyrid Meteor Shower

Between April 16 & 25th, Earth will once again travel through the tail of Comet Thatcher. As teeny fragments impact Earth's atmosphere, we will witness a meteor shower! Though not historically the most impressive of showers, it has been noted that some Lyrids can be as bright as Venus. The average count is 5-20 meteors per hour, but in 1982 observers noted up to 90!

The very best time to view will be the wee, pre-dawn hours after moonset (1:10 a.m.) Sunday morning, April 22. Perhaps this year will be another active one? The only way to know is to wake up early and see!

—Stacy Edwards



*Lyrids will appear to emanate near the star Vega.
Graphic courtesy of NASA.*

April 2007

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1 Palm Sunday	2 Full Moon Passover @ Sundown	3	4	5 Maundy Thursday	6 Good Friday	7
8 Easter	9	10 Last Qtr Last Day of Passover	11	12 190th Anniv Death of Charles Messier	13	14
15	16 Tax Day	17 New Moon	18	19	20 35th Anniv Appollo 16 Landing near Descartes	21 Astronomy Day!
22 Earth Day Lyrid Meteor Shower Peak	23	24 1st Qtr Moon Discovery asteroid 1862 Appollo 1932	25	26 Anniv Ranger 4 Impact 1962	27	28 Hubble Telescope launched 1990
29	30					

Schedule of Events—April 2007

- Apr 2 —Full Moon
- Apr 10—Last Quarter Moon
- Apr 11-14—Mid-South Star Gaze
- Apr 14—CAAS Board Meeting 5:00; Potluck; Regular Meeting 7:00 p.m.
- Apr 16—Episcopal Collegiate School 7:30 p.m. River Ridge Observatory
- Apr 17 —New Moon
- Apr 21—Astronomy Day, Pinnacle Mountain State Park, 2-10 p.m.
- Apr 24— First Quarter Moon.

Other Upcoming Events

- May 10-13– Red River Astronomy Club Multi-Club Meet
- July 21– Woolly Hollow Star Party
- July 28—Pinnacle Moon Party
- Aug 18—Pinnacle Star Party
- Sept 15—Pinnacle Star Party

Lunar Eclipse of March 3, 2007 Details

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I set the camera, a simple 3.3 megapixel Canon A75 non-DSLR digital camera, on automatic and turned off the flash. I chose the greatest supported resolution 2048 x 1536 pixels and set the optical zoom at 3x. I originally planned on five minute intervals but decided to reduce that to four minutes. Even at four minutes the camera would shut down between shots. Although it thankfully retained the optical zoom setting between shots, the flash would turn back on and have to be disabled each time. The exposure was set on automatic and since the camera was digital, I was able to confirm that the exposures were adequate.

Back home, I imported the images into Paint Shop Pro 9 as multiple layers into a single image. As I added the images, I set each new layer to a blend mode of “difference” which shows the differences between it and the previous layer. When I got the darkest possible result, the new layer would be registered to the previous as closely as I could get it. Then I would set the new layer back to normal and repeat the process for the next image.

Once I had the large format multi-layered image, I cropped it to remove the edge errors. I then resampled or resized the image to reduce the size for exporting to an animated GIF. PSP does not create animation but the included Animation Shop 3 does. I used that to make a short movie. At its original size, the animation would be very large. Even so, the animation was large enough to cause a lengthy dial-up speed download. I always find animations fun to watch.

To make a single image with multiple Moons, I went back to the full sized multi-layered PSP image. I left the first layer as “normal” and changed the others to a blend mode of “screen”. This allowed each image to show through letting me see each moon. The downside was that the sky and the foreground both brightened a lot. I used the “curves” tool to darken the sky by pulling the straight line from a single point in the middle to the lower right making what looked like a population growth chart.

That took care of the sky but the building was still too bright. To fix that I used one of the original frames and the freehand selection tool to draw a line around the foreground and then cut it from that frame and pasted to the composite. I had to use the move tool to get the pasted foreground to line up just right. A little more cleanup with an airbrush and I was done.

— Jim Dixon

Bino-Scope Update!

John Reed posted an update this week on the construction progress of the bino-scope (featured in our February issue). John describes the photo (right):

Binocular Construction -- The entire binocular assembly together for the first time. The long stick below is to help find the balance point. Steve Block built the nifty finder which I will use pretty much as is.

It won't be long until first light! Congratulations, John!



April Member Bio — Meet Jim Dixon

1) *When did you first become interested in astronomy?*

I was ten or eleven. I talked my parents into getting me a typical department store refractor but fortunately that did not dissuade me from the hobby. However, it was several years before I got serious about it.

2) *Do you recall the first object that took your breath away?*

Nova Cygni1975. This nova was for a short time thought to perhaps be the first naked eye supernova in almost 400 years. I had just joined MARS and was spending a lot of time at the Edgewood Academy Observatory that summer.

3) *What is your astronomical specialty (imaging, sketching, etc.)?*

For me, imaging is where it is at. Although there can be a lot of frustration when the electronics don't cooperate, when they do I can see something that I would never see in a telescope I could afford. CCD cameras can be a great equalizer, when they work. I'm still trying to determine what subcategory of imaging is my favorite, asteroids in motion, deep sky objects, etc.

4) *What kind of telescope was your first? What equipment do you use now?*

My first telescope was a 600x refractor from J.C. Penney. When I was a teenager I got my first decent scope, an 80mm Jason refractor on a German equatorial mount. Later I assembled an 8" f/5 reflector that I kept for many years. Currently, I'm using an 8" Schmidt Cassegrain on a German equatorial mount.

5) *How long have you been involved with CAAS (previously MARS)?*

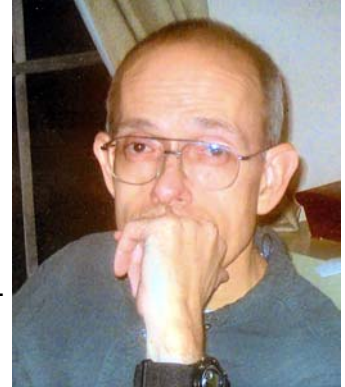
In the summer of 1975, I happened to read something in the paper about a public star party hosted by the Mid-South Astronomical Society at the Edgewood Academy in North Little Rock. I went and joined. That summer I spent every opportunity there with experienced members or at home learning the sky. During that period, there was a collaborative activity with, I think, the Apollo/Soyuz mission where they and several ground based teams would make simultaneous observations of variable stars. I was definitely the junior member of the MARS team but was able to record the measurements. I remained in MARS for about five years but later dropped out. I remained an armchair astronomer but did little actual observing. About five years ago, I got excited about astronomy again. I was able to determine when CAAS would have another public star party and contacted Carl whom I knew from MARS.

6) *What do you do for a living?*

I am a computer programmer for a local company that markets a patient management system for community mental health centers.

7) *And, what other hobbies do you enjoy?*

I tend to adopt a hobby until I am burned out. Astronomy was it in my youth, then birding, then computers, now astronomy again with a few armchair based hobbies such as history and anthropology.



(Thanks Jim!)

Astronomy Day — Sharing the Passion!

“Bringing Astronomy to the People” — this is the motto for Astronomy Day, begun in 1973 by Doug Berger, then president of the Astronomical Association of Northern California.

The idea took flight as people who were interested in the wonderful hobby of astronomy no longer had to travel great distances to visit an “observatory open house” in order to connect with others and learn more about the hobby.

Astronomy clubs began setting up telescopes, preparing educational activities and programs, and inviting the public to free Astronomy Day events all over the country. And folks came.



Bill Sanders shares his Dobsonian telescope — Astronomy Day 2005



Preston Edwards observes the sun through a scope especially equipped for safe solar viewing. Astronomy Day 2005

Each spring, the Central Arkansas Astronomical Society, in cooperation with Pinnacle Mountain State Park, hosts this event, free to all. It is held at the park’s Visitor Center. This year’s Astronomy Day event will be held on Saturday, April 21, from 2-10 p.m.

Afternoon activities will include indoor presentations, solar observing, and the opportunity to inspect many different types of telescopes and astronomy equipment.

As the sun sets, park interpreter James Mullins will turn off the parking lot lights so the universe can be enjoyed in all its glory. Visitors will enjoy views of double stars, planets, and nebulae through several different types and sizes of telescopes.

But... what happens if the weather is cloudy and damp??? Well, astronomers know how to have fun, rain or shine. That’s when the bubbles appear, delighting young and old alike!

So grab your telescope or binoculars, a lawn chair or blanket, and the kids, and come on out! We will share our passion, and hopefully soon you will be addicted to this wonderful hobby, too. We look forward to meeting you there!



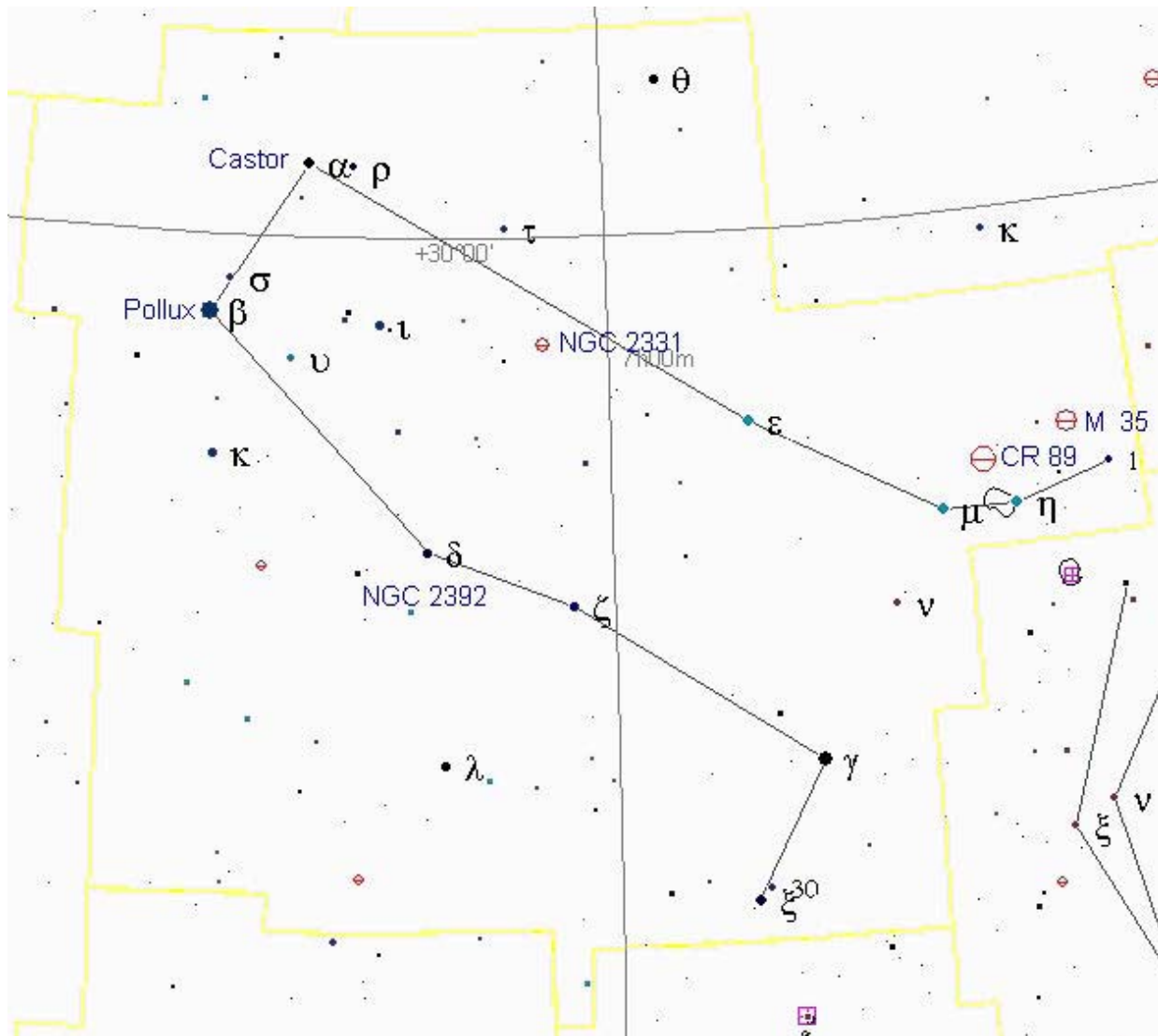
—Stacy Edwards



Carl Freyaldenhoven delights visitors young and old with GIANT bubbles on a very rainy Astronomy Day, 2006

April Constellation Close-Up — Gemini

By Jim Dixon



Gemini is one of the constellations of the Zodiac, the path that the Sun appears to travel through over the course of each year. It is northeast of Orion and west of Cancer. The Sun passes through it from late June to late July. Because of that, it is best viewed in late winter or early spring.

The two brightest stars are, not surprisingly, Alpha and Beta, also known as Castor and Pollux. What is surprising is that the beta star Pollux is half a magnitude brighter than the alpha star Castor. Pollux is a red giant star while Castor is actually a six component star system where three are visible through spectroscopic measurements only.

M35 is an open cluster of about 200 stars visible in binoculars or a telescope.

NGC 2392 is a planetary nebula about an arc minute across. In larger telescopes, you should be able to see why it is called the Eskimo Nebula.

The Geminid meteor shower emanates from the Castor area on December 13 and 14 each year.

Website: www.caasastro.org
 E-mail: info@caasastro.org

The Central Arkansas Astronomical Society strives to connect the people of Central Arkansas with their universe by promoting amateur activities for its members and by providing information and programs to the general public. Membership offers monthly programs, special outings, and the opportunity to share this hobby with others. No one is under qualified for membership. Experience levels range from novice sky watchers to skilled observers. C.A.A.S. is a proud member of the Astronomical League and the Night Sky Network.

