

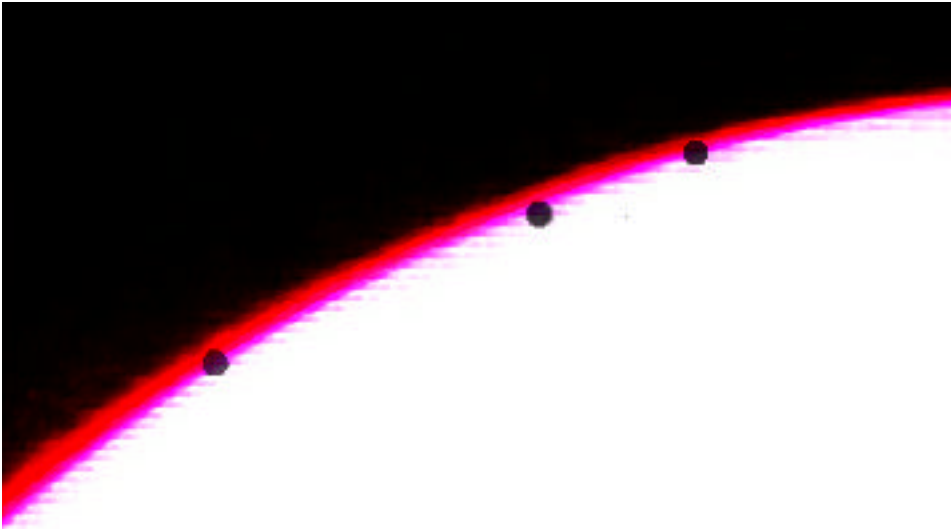


# The American Astronomer

THE QUARTERLY NEWSLETTER OF  
THE AMERICAN ASSOCIATION OF AMATEUR ASTRONOMERS

Volume IV, No. 1

December 1999



The Nov. 15 transit of Mercury was great from Lakewood, CA, with good transparency and moderate seeing. Videoed the whole hour long transit through a 1 Angstrom band pass filter and showed the whole school. The tape shows 1st contact at 21:12:00 UT and 4th contact at 22:09:57 UT. Dave Phelps was a big help controlling the crowds and operating the equipment. Marty Poissant (Mr. Hollywood) made the attached outtakes from the tape and I did the Adobe PhotoShop enhancements of the 3 outtakes. Enjoy this small JPEG.

Msgr. Ron Royer  
RONROYRONROY@email.msn.com

## The Transit of Mercury

For many parts of North and South America, on Monday, November 15th, and in the West Pacific on the 16th, the planet Mercury was seen gliding across the northern edge of the Sun like a tiny moving sunspot. All told, 13 transits of Mercury have occurred this century, but this is the first time since the telescope's invention that both complete and partial transits were observable during the same event. For example, viewers in southern Australia and New Zealand saw the planet skirt only part way onto the Sun's disk. For U.S. observers (except Hawaii), the event lasted about an hour and began on Monday afternoon at 21:11 UT -- 4:11 p.m. on the East Coast (near or after sunset) and 1:11 p.m. on the West Coast.

The transit presented an interesting opportunity to do daytime astronomy and not just look at sunspots. It was clear across most of the country that day, and many AAAA members sent in reports and pictures of their activities.

### From a Backyard in California

I observed the Mercury Transit from our back yard for the first time in my life today (11-15-99). Our neighbor Frank and I saw the whole event in a beautiful cloud-free sky!

I sketched the sun spots in my observation circle beforehand so that I could locate Mercury when and where it

*continued on page 4*

*The American Astronomer*

### Doug Kniffen Earns Herschel II Certificate

Master observer Doug Kniffen from Warrenton, Mo. recently received his Herschel II certificate. This is a more advanced list of 400 deep sky objects after you observe the advanced list of 400 objects in the Herschel I program. Doug is only the seventh person in the country to receive this certificate, so this is quite an honor. We are proud to have Doug as an AAAA member.

### Dick Adduci Earns Sunspotters Certificate

Dick Adduci of Eagle, Wi. just received his Sunspotters certificate. Dick had 25 of the most beautiful drawings of sunspot groupings that you have ever seen. The detail was exquisite, and this during solar maximum when activity is at its greatest. At times, I thought I was looking at a photograph. Dick is quite a talented artist.

### John Wilder Completes Lunar Program

John Wilder of Mendocino, Ca. just completed his Lunar Certificate. John observed 100 features on the moon using his naked eye, 7x50 binoculars, and an eight-inch S/C telescope. John had to fight many nights of cloudy weather to get the certificate but his persistence paid off. Way to go, John.



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AMATEUR  
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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  
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League

## President's Letter

AAAA members have been observing everything from the sun to the moon and anything in-between. Master observer Doug Kniffen from Warrenton, MO, recently received his Herschel II certificate. Dick Adduci of Eagle, WI, just received his Sunspotters certificate. And John Wilder of Mendocino, CA, just completed his Lunar Certificate. Observing is what the AAAA is all about. Way to go, guys!

Other exciting news in the AAAA is that David Chandler and Company, makers of the famous Night Sky planisphere, books, atlases, and software, has asked the AAAA to become the on-line distributor for its products. We are proud to have this new association with an old and reliable astronomy vendor. You can see more about these products at our website [www.astromax.com](http://www.astromax.com).

Our new Introductory Astronomy Kit, featuring the Chandler First Light Kit, Bushnell 10x50 binoculars, a red LED flashlight, and a one year AAAA membership, has really taken off. Many observers are buying these as Christmas gifts for their children. This is probably the most complete astronomy start up package for under \$100.00 available, and it looks like its time has come. As we continue to grow, we hope to expand our services and offer the astronomical community and you, our members, more items to enhance the observing experience.

As we enter the new millennium, I think we will find that the hobby of astronomy will only become more exciting and interesting as new ways to observe and appreciate our universe are introduced. The AAAA plans to be a part of these exciting times. We hope you will enjoy this journey with us. Please let us know of any ideas you may have to enhance this experience.

Best regards,

*John Wagoner—President  
American Association of Amateur Astronomers*

### OBSERVING IS THE HEART OF AMATEUR ASTRONOMY

The American Association of Amateur Astronomers, as a member society of the Astronomical League, is pleased to announce a new service from its Internet Web Page, <http://www.corvus.com>. We are providing the AL's FREE Observe Programs 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 will need Adobe Acrobat Reader Version 3.0 or higher to read these files in your web browser or after download for later use. This Reader software can be obtained FREE from the Adobe web page. <http://www.adobe.com>.

AAAA encourages you to download these 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. Observing is the heart of amateur astronomy. We encourage you to participate in all of the programs which interest you.



AAA Member  
Dick Adduci's

# Eagle Observatory

The Eagle Observatory is the culmination of my 48 years in amateur astronomy. Until recently, observing the sky visually has been my major pursuit in astronomy, but the advent of low cost CCD imaging equipment has made it possible to capture those faint, fuzzy objects as images on computer disks. Although a relative beginner to CCD imaging, with luck, I will continue to become more proficient with my equipment as time progresses.

The Eagle Observatory is a non-profit private institution owned and operated for the informal pursuit of astronomical research and imaging. The observatory building is a 20'X40' structure that is half observatory and half storage facility. The storage facility houses a farm tractor and miscellaneous maintenance equipment for the 36 acre parcel on which the observatory is built. The half of the structure that is devoted to astronomy is called The Eagle Observatory and it is a domed structure. The dome is 12' in diameter and is located above the roof of the observatory portion of the building. The top of the dome is approximately 22 feet above ground level and there are stairs and a trap door access to the dome. The telescope is mounted on a 16" diameter concrete pier. There is a 10'X10' computer/library/warm room from which all equipment is controlled. The warm room is isolated and offset from the dome to prevent air currents from developing that might interfere with astronomical imaging.

## Equipment

Eagle Observatory is equipped with a Meade 12" f/10 LX-200 Schmidt-Cassegrain, a 94mm f/7 Brandon Apochromatic Refractor. CCD cameras include a Cookbook 245 Camera, an SBIG ST-7E Camera, an SBIG CFW-8 Color Filter Wheel, an AO-7 Adaptive Optics Unit, and a Super Circuits PC-23C Video Camera.

The computer in the observatory is a Packard Bell 233mhz Pentium Computer equipped with a wide range of astro-software, including The Sky, Level IV, Ver. 5.0, the Real Sky Palomar Sky Survey on CD-ROM, CCDSoft, CCDSharp, and Megastar.

A Daystar 0.6 angstrom TS-2 Hydrogen Alpha T-Scanner and a Thousand Oaks Type II White Light Solar Filters are used for imaging the sun.

## Location

The Eagle Observatory is located approximately 30 miles west

of the city of Milwaukee in Wisconsin and approximately 8 miles to the south. The city of Eagle is set at the edge of the beautiful Kettle Moraine area in Wisconsin, which is the furthest edge of glacial progression in this area during the ice age. The precise geographical location is North Latitude 42 deg 52 min, West Longitude 88 deg. 26 min.

Although light pollution is progressing, skies are still relatively good in Eagle, due to lighting restrictions imposed by the town of Eagle regarding the use of mercury vapor lights.

## About the Proprietor

My interest in astronomy dates back to 1950. The Eagle Observatory is my current project in astronomy. The Eagle Observatory was built on the same 36 acre parcel of land on which our main residence was built. My wife Jacki Lewis and my six year old son, Alex, are the primary 'caretakers' of the land, since one of Jacki's primary interests in life is Wisconsin prairie restoration.

In addition to being an avid amateur astronomer I am also an active ham radio operator WA9TGI. Jacki (N9COY) and I keep in touch via local 2 meter FM repeaters, rather than by cell phone. When I am not hiking through our woods, biking or exercising I spend a great deal of my time reading, mostly non-fiction but I also love novels and sci-fi (I am also a great movie nut). Photography is also high on my list of things to do. I use a Cannon T70, a Nikon N2000 and the venerable Cannon AE-1 as my photographic 'observing instruments'.

The bottom line on my activities, though, is that astronomy does 'wag the dog' in terms of being my preferred activity. Having run the visual observing route over the years with Messier and Herschel Club awards my desire to see more of those elusive objects that are always just out of reach in the eyepiece has driven me to CCD imaging, which I call 'electronic observing'. CCD imaging is still the most fun for me and my proficiency continues to build.

Stop by the Image Gallery on my web page, by all means, and view some of the images I have gathered with my cameras. I hope you enjoy them and will stop by often to see what's new.

Dick Adduci, Eagle Observatory  
<http://www1.wcf.net/~radduci/eagle/index.html>  
[radduci@wcf.net](mailto:radduci@wcf.net)



# The Jersey Astro Conference and Showcase



The first Saturday of every November, Amateur Astronomers, Inc., of New Jersey holds its annual Jersey Astro Conference and Showcase. This year's JACS was held on the Cranford Campus of Union County College,

1033 Springfield Avenue, Cranford, NJ 07016, on

Saturday, November 6, 1999, from 9:00 a.m. - 5:30 p.m.

Guest speakers at JACS 99 were Dr. Wil van der Veen, Astrophysicist from Columbia University, The Future of our Sun; J. Kelly Beatty, Senior Editor of Sky & Telescope, Exploration of Mars; Dr. William Gutsch, President of Great Ideas, Writer, Producer, and popularizer of astronomy, The 7 Greatest Wonders, the 7 Most Important Facts, and the 7 Greatest Mysteries...In the Universe; Phil Harrington, Author, Lecturer, and staff writer for Astronomy Harrington on Binoculars, and Inga Heyer, Astrophysicist at the Space Telescope Science Institute, The Latest Findings from the Hubble Space Telescope.

"The JACS conference is designed to bring out the astronomical community in the New Jersey, Pennsylvania, and New York areas for a day of intensive astronomical atmosphere," says AAI President, Stephen Clark.

Steve also informed me that this is the only fund-raiser that AAI holds each year, and it is because of this fund-raiser that AAI is able to begin construction on its new observatory in Hope, New Jersey. The observatory, which will house a Celestron CM1400 Schmidt-Cassegrain telescope, will be used as a dark sky research facility, open to AAI members at their discretion. AAI already holds public observing sessions every Friday evening at the Sperry Observatory, located on the campus of Union County College. The Sperry Observatory houses a 10-inch refractor and a 24-inch reflector. Amateur Astronomers, Inc is on the web at [www.asterism.org](http://www.asterism.org).

The Jersey Astro Conference and Showcase has a wide variety of speakers, from magazine editors to world renowned astrophysicists. A wide variety of astronomical sales dealers show off their product lines. When not purchasing astronomical equipment, most astronomers can be found in auditorium listening to the speakers. Although the conference hosts many speakers, I will go into detail for only a few of the noteworthy speakers that presented at JACS.

Dr. Wil van der Veen, an astrophysicist from Columbia University, spoke on The Future of Our Sun. His talk went into great detail about the life cycle of the sun. The thing I liked the most was that Dr. van der Veen was able to break the sun's life cycle down from ten billion years to a cycle of one year. Thus, for example, although the sun is about five billion years old, if its life cycle were scaled to one year, it is currently in the mid-July phase of it's full life.

The Second speaker I heard was J. Kelly Beatty, Senior Editor of Sky & Telescope magazine. He spoke on the Exploration of Mars, but specifically on where all the water has gone. He gave much evidence to support the theory that Mars and Earth were at one time twin planets, although it is unknown to scientists how Mars lost it's water.



AAAA Member Jared J. Lutkowski (right) visits with S&T Senior Editor J. Kelly Beatty during JACS 99. Kelly was a presenter at this year's JACS conference.



Jared J. Lutkowski shares a moment with Dr. William Gutsch during JACS 99. Dr. Gutsch is president of Great Ideas, and a well known writer, producer, and popularizer of astronomy.

Kelley concluded his presentation with a slide show depicting a three dimensional image of Mars, indicating where water might presently be found on that planet. The S&T web page is <http://www.skypub.com>.

The last speaker I had the opportunity to hear was Dr. William Gutsch. Dr. Gutsch is a very comical, happy-go-lucky kind of person. He spoke on the Seven Greatest Wonders, the Seven Most Important Facts, and the Seven Greatest Mysteries in the Universe.

According to Dr. Gutsch, a few of the Mysterious Questions of the Universe are: 1. What and Where is the Universe? 2. What is the age of the Universe? 3. What is the ultimate fate of the Universe? 4. What is a Black Hole comprised of? 5. Were there other universes in the past besides the one we live in? 6. Are there other universes that co-exist with ours?

Dr. Gutsch's Greatest Wonders of the Universe are: 1. Diffuse Nebulas; 2. Giant Globular Star Clusters; 3. Planetary Nebula; 4. Super Novas (These are celestial fireworks); 5. Black Holes; 6. Gravitational lensing (mirages); and 7. The Human Mind Itself.

Amateur Astronomers, Inc. looks forward to meeting you at JACS 2000, to be held on November 5, 2000. Visit the Amateur Astronomers, Inc., web site for more information: [www.asterism.org](http://www.asterism.org).

Amateur Astronomers, Inc. is a member of the United Astronomy Clubs of New Jersey, Located at William Miller Sperry Observatory, Union County College, 1033 Springfield Avenue, Cranford, NJ 07016

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## 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. You can also get The Practical Observer for \$12. 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:

AAAA, 3131 Custer Rd., Suite 175/175, Plano, Tx. 75075 — [WWW.CORVUS.COM](http://WWW.CORVUS.COM)

# Observing the Transit of Mercury

popped in. Frank, who was a navigator of USS Missouri during the Korean War, located the black dot of Mercury in relation to the other black dots I had drawn. Mercury's dot/disc was decidedly blacker than the others. We watched as it separated from the polar edge (it was perpendicularly away from the double-row of suns pots) of the Sun, which took quite a "longer" time than we expected, unlike that of the occultation of Aldebaran by the Moon. It nicely traversed near the edge but clearly detached from the edge -- we followed for almost an hour till it exited making a tiny little black dent in the Sun just as when it entered. Again it took a "long" time and finally about 14:10 the entire show was over.

It was very exciting to observe the transit, a very rare event, and I was very happy to see this event with Frank, who pointed out Mercury to me in our neighbor's yard three years ago for the first time in my life. Now I owe him my Double Mercury Firsts!

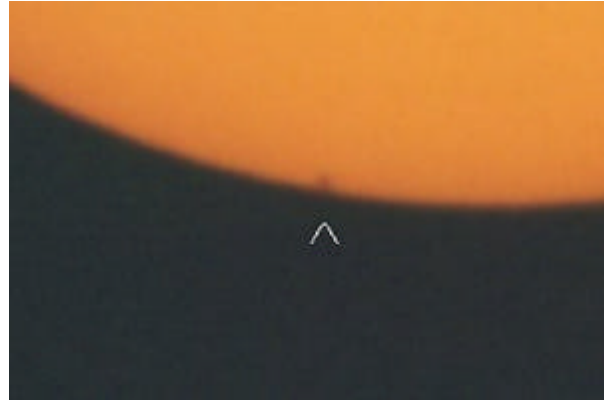
*Isaac Kikawada  
Mountain View, CA  
Schoggi@aol.com*

## Using a Baader Astrosolar Filter in Missouri

Just a quick note about the Mercury transit; I caught the event with a b&w video camera and visually. Since the sixteen isn't equipped for Solar observation I used the eight inch. Filters tried were W25 for the camera and both a full aperture TO type 2, as well as an off axis Baader Astrosolar filter. The home-made off axis filter provided superior performance. Thinking that the aperture reduction may have been responsible for most of the improvement in image quality, I tried adding a cardboard off axis stop to the TO filter.... Should you decide to try Baader Astrosolar film, you won't be disappointed! Great stuff!

During the event I was particularly interested in observing the "black drop effect". The seeing was hideous, chromatic distortion along the Solar limb was quite obvious visually.

It has been speculated that since the black drop effect was much more widely reported in the past, when common observing apertures were smaller, the effect itself might be caused by the reso-



AAAA President John Wagoner, seated, and Vice President Ed Flaspoebler, standing, observed the November 15th Transit of Mercury from the parking lot of The Observatory, Inc., a telescope store in Dallas. Ed used a 4-inch Mead 2045 SCT with a Thousand Oaks solar filter. John had a 4-inch INTES refractor from Russia, equipped with a 2-inch TeleVue eyepiece

lution limit attributed to smaller objectives, and possibly persistence of vision.

The clear aperture of the off axis mask used on the eight inch was 65mm. NO black drop effect was seen, either visually or on any of the video frames! It appears that the black drop effect, if real, must have been caused by the smoked glass filters and/or Herschel wedges used for past Solar observations.

Finally, the visual penumbral detail of Solar region 8765(?) was awesome. Granulation and limb darkening through the Astrosolar filter were much more apparent than I'd ever seen with the glass solar filter.

*Doug Kniffen  
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## At a Telescope Store in Dallas

AAAA president John Wagoner and I observed the Transit of Mercury at The Observatory, Inc., a new telescope store in Dallas. My friend John Briggs also joined us for an afternoon in the sun, and to stand in the "shadow of Mercury."

The event itself was fascinating. I did not time it accurately, but everything seemed right on schedule according to the published predictions, and I took pictures at each of the contact points and at mid-transit. Visually through the telescope, there was a clear, tiny black dot that slowly moved across the edge of the sun over the period of an hour. The planet showed up as a tiny blurred speck right on the edge of each of my pictures.

As you can see from the above

image, my photos really did not turn out, since I did not use eyepiece projection photography, as Wagoner suggested. Darn! He is always right! You don't get a second chance on these things. Maybe next time, about 40 years from now! Oh, Well!

We are friends with Rick McKay, the owner of The Observatory, Inc., and we were hoping to help out the store as well as get out a bit of information about the AAAA, so we set up in the parking lot in front of the store. But only a few people came by to look. I guess it was Monday. And this event did not get much play in the local press. Or the national press, for that matter. The few people that did stop by were interesting.

First off was a man who saw our setup from the highway, and drove into the parking lot about ten minutes before the transit started. He said he is about to retire, and is interested in astronomy, but did not stay for the event itself.

Then there was a young lady, a sort of blonde, who was just curious about what we were doing. Later on, we had Susanne Calvin, a chief announcer at WRR-FM, the local classical music station in Dallas, and one of their advertising managers. And the shop owner, endlessly. And we had a brown curly haired young man drop by to take a quick look near the end.

Everyone had a good time, and the transit itself was interesting. Still, we did not do much to create interest in the science of astronomy in the public at large. Or sell telescopes for Rick McKay.

*Ed Flaspoebler,  
Vice President AAAA*



# Dates to Remember

## December:

- 3 Hanukkah begins at sundown
- 7 New Moon
- 11 Lunar occultation of Neptune
- 12 Lunar occultation of Uranus
- 12 Lunar occultation of Mars
- 13-15 Geminid Meteor Shower peak
- 22 Full Moon
- 25 Christmas
- 31 New Year's Eve  
(NOT THE NEW MILLENNIUM!)

## January

- 1 New Year's Day (Not the new millennium!)
- 3-4 Quadrantid Meteor Shower peak
- 6 New Moon
- 20 Full Moon & Total Lunar Eclipse

## February

- 5 New Moon
- 19 Full Moon

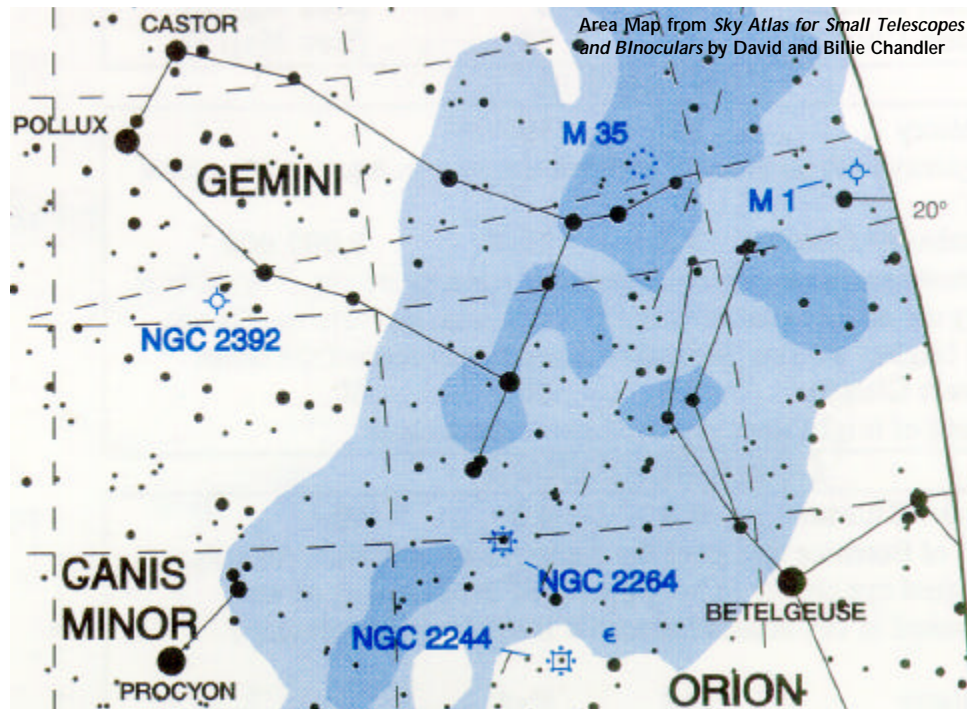
## March

- 6 New Moon
- 19 Full Moon
- 20 Vernal Equinox

There are several occultations of various sorts and other astronomical events over the next few months. Check your calendar for dates. Also *Sky & Telescope's* News Bulletin and *Sky at a Glance* will give specific information. You can e-mail me with your geographical coordinates and I'll check into any for you.

Brenda Clubertson  
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# W i n t e r



## Winter Ain't Like It Used to Be

Warm temperatures have dominated our winter season this year and we have not had to deal with frozen toes or fingers. Since we have not had to consume massive quantities of coffee to keep us warm, you may have noticed prices beginning to rise. Astronomers around the world will take the heat for those price increases, but heat in winter is usually nice to have.

Those who received new telescopes or binoculars as Christmas presents may be able to learn to use them while temperatures are still fairly warm. Learning to use a new piece of equipment is difficult in and of itself, but when the cold chills to the bones, that makes things much worse, although the stories later are good.

Warm temperatures, early dark nights, and clear skies are all what we like to have in the winter. The only thing left to urge us out is incentive. Listed below may be the incentive necessary to kick-start the desire to go out and observe.

### Easy Objects

The easiest star group to observe in the winter sky is the Pleiades. It leads the way for the rest of the cold weather constellations. Naked eye observers will see at least six members of this group, but binocular users should see 50 or more. Telescope users will be able to detect hundreds of members of this group. The blue wispy feature of the Pleiades is the remnant of the nebula in which these stars were formed. It has not been totally blown away by the solar winds from the members of the cluster.

Gemini holds one of the Messier Objects for easy recognition. M35 is a cluster that may be seen without aid from a very dark site. It is about 2 1/2 degrees northwest from Eta Geminorum.

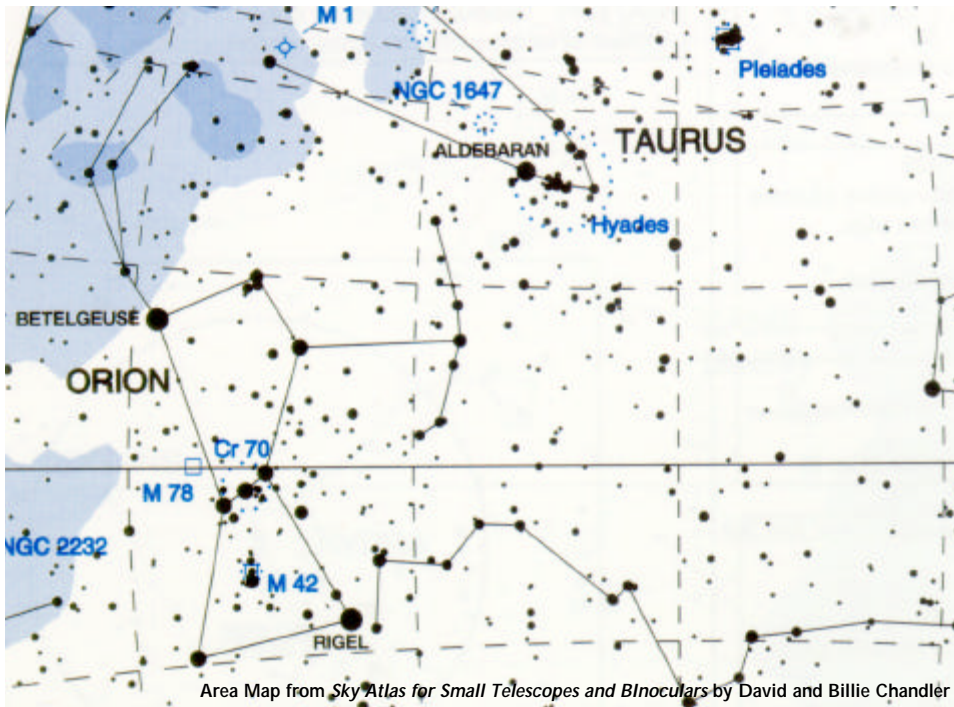
A wonderful star field to view surrounds Tau Canis Majoris, which is a 4th magnitude star. The stars in the cluster NGC 2362 have a variety of magnitudes and make an easy object to view in smaller apertures.

Look in Auriga to find M36, M37 and M38 star clusters. They are naked eye objects but closer view will show more detail.

### Moderately Difficult Objects

Gemini is known as the Twins. It is actually much more complicated than that. The Twins are Castor and Pollux, but Castor has multiple components. Castor A is about magnitude 2, and is actually two stars. Castor B, mag 3, consists of two stars

# O b s e r v i n g



Area Map from *Sky Atlas for Small Telescopes and Binoculars* by David and Billie Chandler

as well. These two are fairly easy to separate. But...Castor C (YY Geminorum) is a faint red dwarf with another red dwarf as a companion. Try to pull Castor C from the other components.

Close to M35 in Gemini is NGC 2158, another star cluster. It is about half a degree southwest of M35 and glows at about 11th magnitude. Several other star clusters can be found in Gemini.

You have seen pictures of the Eskimo Nebula, NGC2392, now is your chance to view it first hand. The Eskimo Nebula is a bright planetary and is about half way between Kappa and Lambda Geminorum. The central star is about 10th magnitude and a face can be seen surrounding it. Large aperture telescopes will pull in more detail, but it is easily found in moderate size apertures.

### Difficult Objects

Although Sirius is the 5th nearest star to us at a mere 8.7 light years, it has a surprise. It has a companion that is difficult to resolve. A fairly large-size aperture is necessary for a clear view of the companion, Sirius B. Sirius B is about a 9th magnitude white dwarf that is tucked in close to Sirius A.

The Horsehead Nebula in Orion is a wonderful photographic object. It is a very difficult visual object, however. It can be done, but the conditions have to be nearly perfect to actually see it and a very large aperture has to be used. Key off Zeta Orionis and go about half a degree south. There will be a long nebulous area in which the Horsehead resides.

While in the area and looking at things that are said to be impossible to see visually, look for S147, a circular threaded nebulous area in Taurus. It is about 1 degree northeast from 125 Tauri and about 5 degrees north-northeast of the Crab Nebula. Again, perfect conditions and large apertures will be required.

### Other

Don't forget to view the planets, the Moon and the Sun. Big things are happening with all of them. Many occultations occur during this time and there will be some to view from your area on Earth. Keep an eye out for aurorae, too. With the solar cycle at maximum, we should be seeing many more nights lighted up with a red glow.

Brenda Culbertson  
Mayetta, KS  
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The American Association of Amateur Astronomers teams up with Bushnell Sports Optics and the David Chandler Company.

## Observing Aids from David Chandler Company

Large Planisphere - \$10.00  
Small Planisphere - \$6.00  
Exploring the Night Sky - \$8.00  
Sky Atlas - \$13.00  
First Light Kit - \$25.00

*At David Chandler Company, our printed products focus on the needs of the beginning observer. The Chandler philosophy is that the beginner will not be a beginner for long! We want to nourish the enthusiasm of the beginner with solid, helpful reference materials. All of our observing aids are clear, accurate, and reliable. They are designed to help the beginner become knowledgeable and proficient as quickly as possible.*

*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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December 1999

# Nova Aquilae 1999 No. 2

On December 1st, while sweeping the Milky Way with his 14 x 100 binoculars, amateur nova hunter Alfredo Pereira of Cabo Da Roca, Portugal, found a 6th-magnitude star 2 degrees north-northwest of Delta Aquilae where none had been before. The Central Bureau for Astronomical Telegrams in Cambridge, Massachusetts, obtained quick confirmation from several other observers and late on December 1st issued IAU Circular 7323 announcing the discovery of Nova Aquilae 1999 No. 2 (V1494 Aquilae).

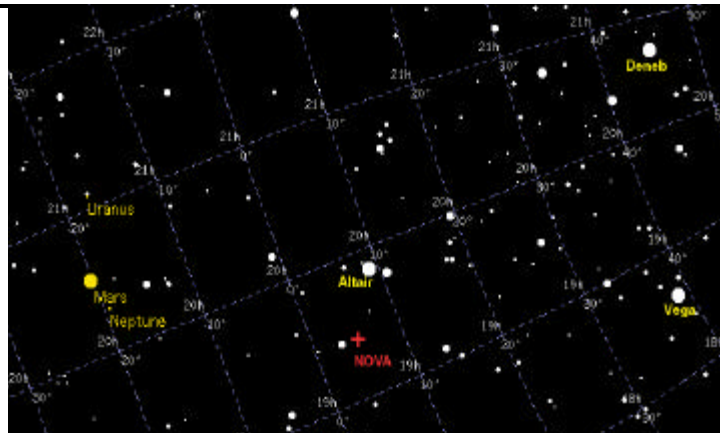
Over the course of the next week, Nova Aquilae faded to 6th magnitude, down from its peak of magnitude 4.1 on December 3rd. The "new" star is 2 degrees north-northwest of Delta Aquilae at R.A. 19h 23m 05s, Dec. +4 deg. 57' 20" (equinox 2000.0). The constellation of Aquila is still visible to Northern Hemisphere observers in the west-southwest right after dark.

Hawaiian amateur Mike Linnolt would like interested observers to submit their magnitude estimates so he can update his light curve on a real-time basis. Mike observed the nova on the evening of December 10, and noticed that it seems to have dropped less in brightness than expected! Such activity may be indicative of something unusual happening with the nova. The nova continues to fade slowly.

Mike reports that he has received many visitors, based on links from the AAAA page. One person has submitted a magnitude estimate, and several have provided useful feedback, to improve it. As a result of these efforts, Mike now has the best light curve of Nova Aquilae on the internet!

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Visit Mike Linnolt's Astronomy News Page to view an up-to-date light curve of Nova Aquilae, and submit your observations to Mike via e-mail to [ah6l@qsl.net](mailto:ah6l@qsl.net).



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