

*Astronomy Club of Tulsa*

# Observer



**October 2008**

## Picture of the Month



### **M33 (NGC 598) Type Sc Spiral Galaxy in Triangulum**

*Credit: Palomar Observatory,  
Caltech and the STScI  
Digitized Sky Survey (AURA)*

A close (~ 3 million ly) neighbor, often called "The Pinwheel", M33 is the third largest galaxy in the Local Group, a group of galaxies that also contains the Milky Way Galaxy and the Andromeda Galaxy, and it may be a gravitationally bound companion of the Andromeda Galaxy. M33 is well placed for evening viewing in autumn and culminates at midnight on October 15<sup>th</sup>. M33 is notoriously difficult for viewing in long focal length telescopes and is best seen with binoculars or RFT at low magnification due to its low surface brightness and large diameter (70' x 40' or about twice the size of a full moon).

#### ***Inside This Issue:***

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#### ***Important ACT Upcoming Dates:***

Public Star Party... Fri. October 3, 2008 (p 9)

ACT Meeting @ TCC... October 17, 2008 **Elections**

Public Star Party... Fri. October 24, 2008 (p 9)

High Frontier, Pawhuska... Sat+Sun. October 25 & 26

## President's Message by Tamara Green

Hello All!

Elections for Officers and Board will be the theme of our meeting on Friday, Oct. 17. For those of you who are interested in either an office or board position please feel free to contact any officer and let us know, and make sure you get nominated. It is my hope that as many of you as possible attend this important meeting, to be held on Friday, October 17 at 7:00 PM at TCC Metro Campus, Phillips Building Auditorium.

For those of you who will not be at Okie-Tex, our first star party will be on Fri, Oct. 3. In the event of cloudy sky or bad weather, the back-up night is Sat, Oct. 4. The other star party for October will be on Fri, Oct. 24, with Sat, Oct. 25 as the back-up night. I know the dates seem a bit off, but the Friday closest to the New Moon is Halloween, and some of you may want to take the kids/grandkids out trick-or-treating. Just make sure y'all keep your young'uns safe!

Also, don't forget High Frontier, to be held at the airport in Pawhuska on Saturday and Sunday, October 25 and 26, with the Tulsa Rocketry Club! Come on out and watch the rocket launches during the day and enjoy a public star party that evening! This is always a fun event, and the folks around there love having us, so let's get as many of you to come as possible! If you are interested, contact Tony White.

The dinner meeting is scheduled for Fri, Nov. 14, time and location to be announced. There is one star party scheduled for November, on Friday, Nov. 21. Note that the Friday closest to New Moon is the day after Thanksgiving. Saturday, Nov. 22 is the back-up night.

The meeting for December (providing we don't have an encore presentation of the oh-so-wonderful ice storm of 2007) will be on Friday, Dec. 12 at TCC. The program for the meeting will be announced at a later time. The star party will be on Fri, Dec. 19, with Sat. Dec. 20 as the back-up. Note that the Friday closest to New Moon is the day after Christmas.

Don't forget that next year, 2009, is the International Year of Astronomy. Our club plans several big public events in celebration, so we will need volunteers, volunteers, and more volunteers! If you would like to help us out, contact any officer or board member. All who lend a hand and their support will be very much appreciated!

I really hope to see y'all at our events and meetings, and for those of you who are going to Okie-Tex, I'll see ya there!

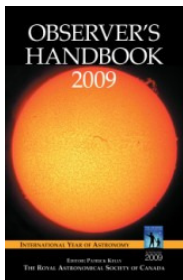
Clear Skies, Tamara

### Time to sign up for 2009 Astronomy Calendars and Observer's handbooks.

Each year we give our club members and guest an opportunity to sign up for 2009 calendars for a substantial discount over the retail cost. **If you are interested in either of these items please send an email to John Land [astroclubbiz@valornet.com](mailto:astroclubbiz@valornet.com) with the Subject TITLE "2009 Calendars"** or call at 695-3195. **DO NOT SEND MONEY AT THIS TIME.** We are just making a list to see how many to order.

Cost of the 2009 Astronomy Wall calendars will be \$ 8.00 ( retail cost is \$ 12.95 plus tax )

Cost of the 2009 Canadian Observer's handbook is \$ 21 ( Single copy cost is \$ 32.95 )



*Now 101 editions young! Published continuously since 1907 the RASC Observer's Handbook is a unique annual compendium of astronomical information and highlights for the coming year. Rigorously researched and developed for advanced amateurs and professionals, the Handbook is a must-have resource. <http://www.rasc.ca/publications/index.shtml>*



**2009 Deep Space Mysteries Wall Calendars** from Astronomy magazine are here. Twelve stunning Astronomy photos plus all the major astronomy events for the year. To see all twelve pictures go to the PDF file at <http://lib.store.yahoo.net/lib/kalmbachcatalog/68154spread.pdf>

As club members you can get yours for \$ 8.00 each a 38% discount over the cover price. Note: Price is based on you picking up your copy at a club meeting. Additional cost required if mailing them to you. Contact [John Land](mailto:John.Land@valornet.com) to reserve yours Do not send money yet. I hope to have the calendars by the Oct meeting.



ACT Word Search Puzzle by Peggy & Rick Walker

*The Great Eighty-Eight – Constellations*



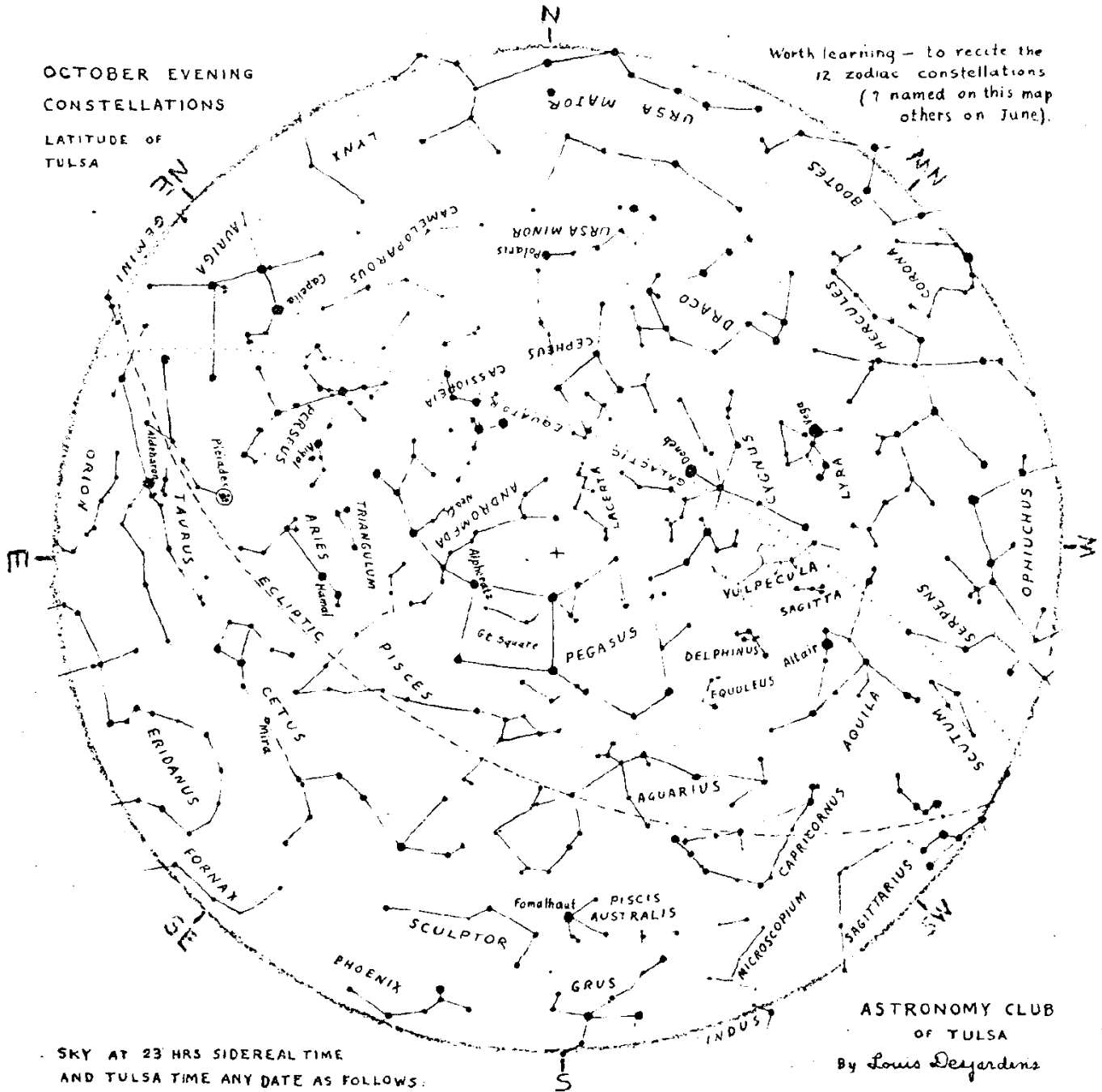
- |                    |                 |               |              |               |
|--------------------|-----------------|---------------|--------------|---------------|
| Andromeda          | Antlia          | Apus          | Aquarius     | Aquila        |
| Ara                | Aries           | Auriga        | Bootes       | Caelum        |
| Camelopardalis     | Cancer          | CanesVenatici | CanisMajor   | CanisMinor    |
| Capricornus        | Carina          | Cassiopeia    | Centaurus    | Cepheus       |
| Cetus              | Chamaeleon      | Circinus      | Columba      | ComaBerenices |
| CoronaAustralis    | CoronaBorealis  | Corvus        | Crater       | Cruce         |
| Cygnus             | Delphinus       | Dorado        | Draco        | Equuleus      |
| Eridanus           | Fornax          | Gemini        | Grus         | Hercules      |
| Horologium         | Hydra           | Hydrus        | Indus        | Lacerta       |
| Leo                | LeoMinor        | Lepus         | Libra        | Lupus         |
| Lynx               | Lyra            | Mensa         | Microscopium | Monoceros     |
| Musca              | Norma           | Octans        | Ophiuchus    | Orion         |
| Pavo               | Pegasus         | Perseus       | Phoenix      | Pictor        |
| Pisces             | PiscesAustrinus | Puppis        | Pyxis        | Reticulum     |
| Sagitta            | Sagittarius     | Scorpius      | Sculptor     | Scutum        |
| Serpens            | Sextans         | Taurus        | Telescopium  | Triangulum    |
| TriangulumAustrale | Tucana          | UrsaMajor     | UrsaMinor    | Vela          |
| Virgo              | Volans          | Vulpecula     |              |               |

(Answers on page 5)

OCTOBER EVENING  
CONSTELLATIONS

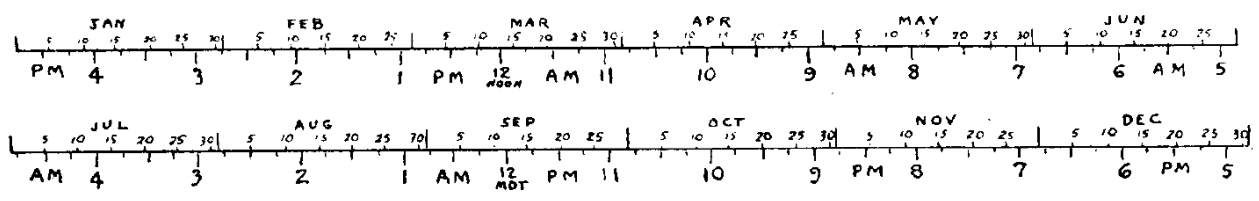
LATITUDE OF  
TULSA

Worth learning - to recite the  
12 zodiac constellations  
(7 named on this map  
others on June).



SKY AT 23 HRS SIDEREAL TIME  
AND TULSA TIME ANY DATE AS FOLLOWS:

ASTRONOMY CLUB  
OF TULSA  
By Louis DeJardens



First Quarter - 10/7/08 - 09:04 UT  
Full Moon - 10/14/08 - 20:02 UT  
Last Quarter - 10/21/08 - 11:55 UT  
New Moon - 10/28/08 - 23:14 UT

Mercury - 10/22/08 (Greatest Western Elongation - Morning)  
Vesta at Opposition - 10/30/08 (Magnitude 6.4 in Cetus)

## Astrosurfing – Astronomy on the Internet Historical Deep Sky Object Discoveries

Did you ever wonder who discovered all the wonderful deep sky objects such as star clusters, galaxies and nebula we enjoy observing with our telescopes? Perhaps when you've first observed a particularly interesting object you've wondered what it was like to be the first person ever to see such an object. While following some of the links on a recent Astronomy Picture of the Day, I came upon this fascinating list of 152 Historical Deep Sky Objects.

<http://antwrp.gsfc.nasa.gov/apod/astropix.html>



The list contains objects discovered before William Herschel's extensive deep all sky survey. On the list you'll see some of the naked eye objects like Andromeda Galaxy and the Beehive cluster, the Messier list and many more. What is neat about this list it also includes discovery dates and who discovered or first recorded them.

This can be some interesting information to share at public observing events as we tell about the objects in our telescopes. Maybe you might want to take up a new challenge to observe all of them for yourself.

Submitted by **John Land** - Astronomy Club of Tulsa

List arranged by date of discovery:

<http://www.seds.org/messier/xtra/histlist/histDis.html>

Section telling about all the Discovery astronomers and the catalogues they published or added to:

<http://www.seds.org/messier/xtra/history/deepskyd.html>

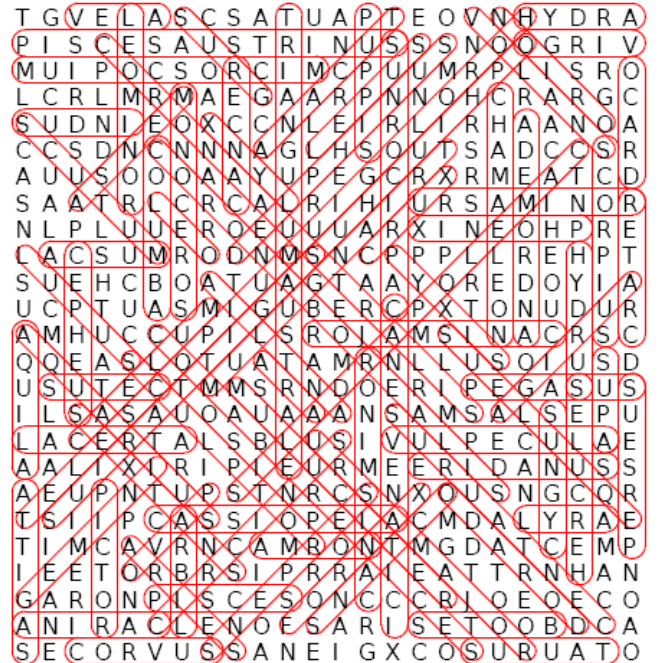
Main page of Historical Discoveries with many other links:

<http://www.seds.org/messier/xtra/histlist/histlist.html>



SEDS = Students for the Exploration & Development of Space

## Word Search – Answers



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**Predicted MAXIMA of long period variables - October 2008**  
North of -55° Declination ~ Tulsa, OK Viewing Limit  
(Predicted Maxima > 8.0 - Easy Binocular Range)

| Designation | Name  | Code | Range      | Est Max Date |
|-------------|-------|------|------------|--------------|
| *0122-33    | R Scl | #    | 6.0-9.1    | Oct 06 (?)   |
| 0652-08     | X Mon |      | <7.4-9.1>  | Oct 31       |
| 1324-22     | R Hya |      | <4.5-9.5>  | Oct 10       |
| 1336-33     | T Cen |      | <5.5-9.0>  | Oct 20       |
| *1343-27    | W Hya |      | 5.7-10.0   | Oct 14 (?)   |
| 1344+40     | R CVn |      | <7.7-11.9> | Oct 18       |
| 1621+19     | U Her |      | <7.5-12.5> | Oct 11       |

Codes:  
# - needs more observations  
& - needs more observations urgently  
@ - needs more observations very urgently  
% - has good CCDV or multicolor photometry, but more visual observations are needed (usually more visual observations are needed very urgently)

Source: AAVSO Bulletin 71

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## Call for Newsletter Input & Articles

OK, folks... It's your newsletter, so what would you like to see (or not see) in upcoming issues? Any ideas, articles, pictures, road-trip reports, visits to other clubs, complaints, changes or anything that would improve our newsletter would be most welcome and appreciated.

The newsletter will evolve over the next few months as I switch from Microsoft Word for Windows to Publisher (a much more difficult transition that I had anticipated...), so please tolerate the construction changes and take the opportunity to input suggestions and articles. Thanks – and let me know what's on your mind for improving the Observer!!

Dennis Karcher / [djkarcher@cox.net](mailto:djkarcher@cox.net) / 918-619-7097 cell



## Out of This World

I'm a huge fan of old celestial star atlases – especially the classic editions that are so often used as the examples of how our constellations came to be viewed. Recently, however, I stumbled across a museum exhibit on the Internet web site of The Linda Hall Library in Kansas City, Missouri that was dedicated to antique star atlases and was absolutely astonished at the number and beauty of these works of the 17<sup>th</sup> and 18<sup>th</sup> centuries. From the time honored constellations of Bayer and Flamsteed to innovative Christian star charts of Schiller the Linda Hall Library on-line exhibit left me in awe. The exhibition can be found at:

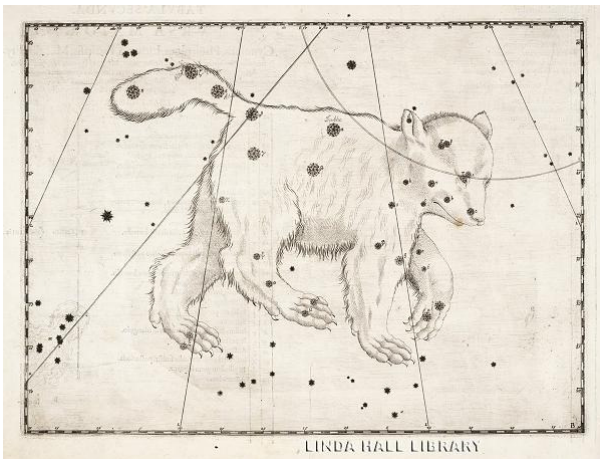
[http://www.lindahall.org/events\\_exhib/exhibit/exhibits/stars/welcome2.htm](http://www.lindahall.org/events_exhib/exhibit/exhibits/stars/welcome2.htm)

Be sure to read the Historical Essay, quoted in small part here:

*An exhibition of celestial atlases requires little justification. These are among the most beautiful scientific books ever published, capturing the sweeping grandeur of the heavens, superimposed with constellation figures, in a grand and monumental format. The period from 1603 to 1801, which comprise the inner markers of this exhibition, produced the most beautiful star atlases ever published, and one does not have to be an astronomer or a star gazer to appreciate their heavenly grandeur.*

*But however much we appreciate celestial atlases as works of art; they were first and foremost works of science. The purpose of a star atlas was to provide the positions of the visible stars as accurately as possible, using a consistent scheme of projection, and in a convenient format. A star atlas was not a guide to star-gazing, but was intended to be used by the working astronomer, as a backdrop on which to plot the changing positions of planets, comets, and the moon. The best atlases were produced by truly great astronomers, such as John Flamsteed, Johannes Hevelius and Johann Bode, and were based on the best available observations, usually their own...*

The great granddad of all modern star atlases is Bayer's *Uranometria* which was published in 1603, and it has always been recognized as a milestone work, because of the beauty of its plates, its utilization of the star catalog of Tycho Brahe, and its institution of a system of star nomenclature (*Greek letters*) that is still in use today.

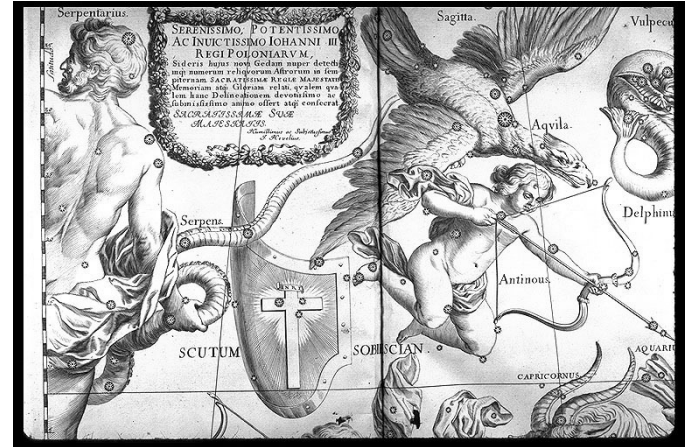


Bayer, Johann. *Uranometria*. Augsburg, 1603 – Ursa Major

Hevelius' *Firmamentum* was the first star atlas to rival Bayer's *Uranometria* in accuracy, utility, innovation, and influence. Hevelius was perhaps the most active observational astronomer of the last half of the seventeenth century. His star atlas is notable for many reasons. It contains fifty-six large, exquisite, double-page engraved star maps. The star positions for the charts were

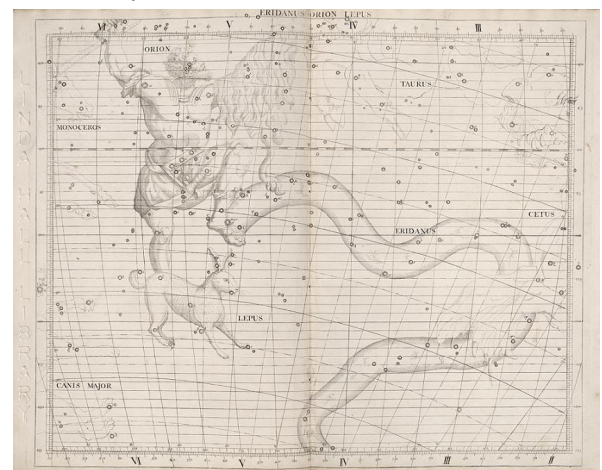
derived from Hevelius's own star catalog, based on his own observations, which was first published along with the atlas. It is unique among the Grand Atlases in choosing to depict the constellations as they would appear on a globe, that is, from the outside looking in, rather than from a geocentric point of view.

The Hevelius atlas also introduced eleven new constellations, including Scutum Sobiescanum, Canes Venatici, Leo minor, Lynx, Sextans, Lacerta (the lizard), and the fox with the goose, Vulpecula cum Anser. Four of his innovations were eventually subsumed into other constellations, but the seven just mentioned are all still in use today.



Hevelius, Johannes. *Firmamentum Sobiescianum sive Uranographia*. Gdansk, 1690

John Flamsteed was the first Astronomer Royal of England and presided over the building of Greenwich Observatory. He was a dedicated observational astronomer, and his "British Catalogue" of stars, finally published in 1725, well after his death, brought stellar astronomy to a new level. His star atlas, published four years after the catalogue but in development for over twenty years, was based on Flamsteed's accurate observations, and that fact, coupled with its impressive size (the largest star atlas that had ever been published at the time with 24" x 20" plates) immediately vaulted it into the select ranks of the great celestial atlases. As with Bayer, his number designation for stars remains in use to this day.

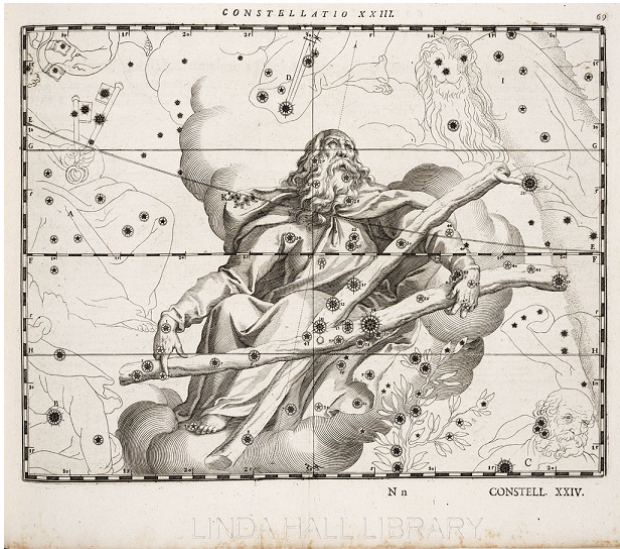


Flamsteed, John. *Atlas coelestis*. London, 1729 – Eridanus-Orion-Lepus

The most unusual atlas was Julius Schiller's *Coelum stellatum Christianum* published in 1627. Schiller's *Christian Starry Heavens* was aptly named, for in this atlas, Schiller replaced all of the pagan constellations with Christian counterparts. The twelve zodiacal constellations, for example, were renamed for the twelve apostles; so that Taurus the Bull, for example, became St.

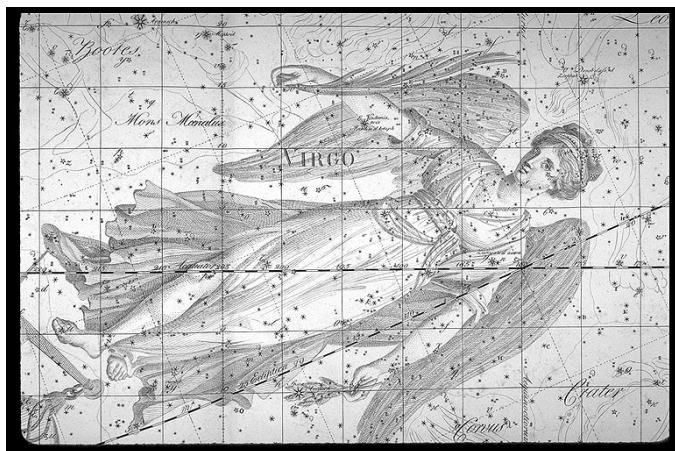


Andrew. Other notable replacements include The Red Sea for the river Eridanus; the Ark of Noah for the Ship of the Argonauts (right), and the Sepulcher of Christ for Andromeda. Note that the stars on the plates are in mirror-image positions from those in Bayer. Schiller preferred to show the stars as if they were placed on a globe, that is, from the outside, rather than as viewed from the earth.



Schiller, Julius. *Coelum stellatum Christianum*. Augsburg, 1627 – St. Andrew

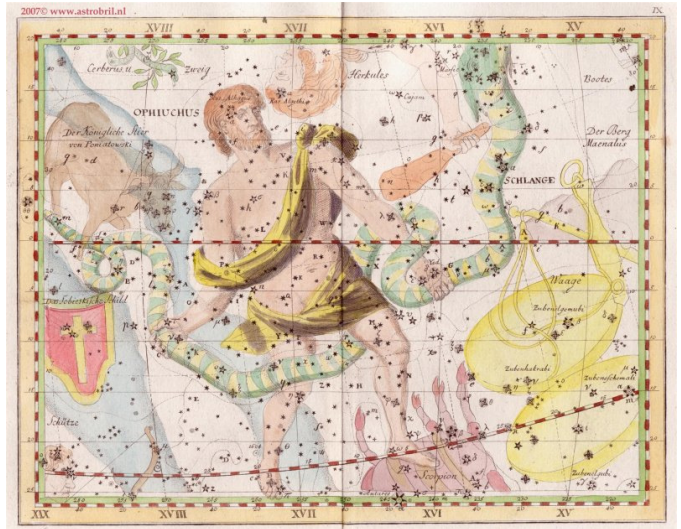
If the Golden Age of the Celestial Atlas began with Bayer's *Uranometria*, it ended almost exactly two centuries later, with Bode's *Uranographia*. In size, this is the largest star atlas that has ever been published. The positions of more than 17,000 stars are given, as well as just about every constellation ever invented, and no less than 2500 nebulae that had been discovered and catalogued by William Herschel. Even the style of the constellation figures is new, showing very little allegiance to Bayer, Hevelius, or Flamsteed. The image below shows a detail of the constellation Virgo, which is particularly rich in nebulae. In his *Uranographia* Bode offered the grandest star atlas ever produced. In its twenty oversize double-page plates we find new constellation figures for the old constellations, some entirely new constellations, new stars, and, most overwhelmingly, every one of the 2000 odd nebulae discovered by William Herschel in the preceding twenty years. Bode never discarded a constellation.



Bode, Johann. *Uranographia*. Berlin, 1801 - Virgo

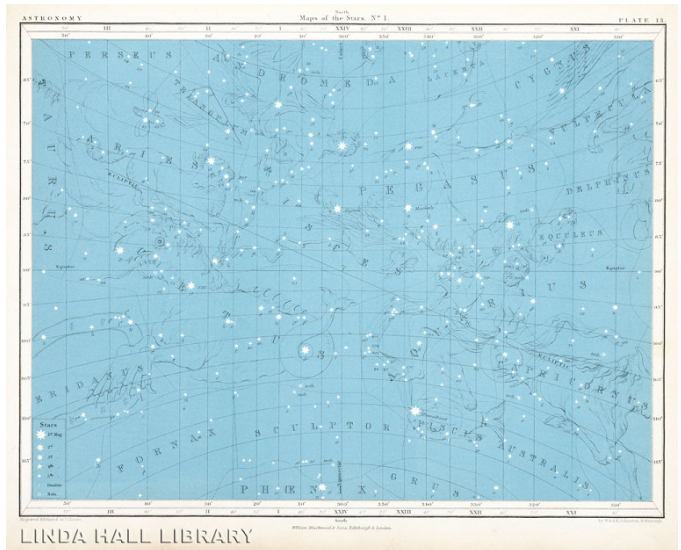
Bode has the distinction of being the only astronomer to produce two totally different star atlases. Bode's edition of Flamsteed's atlas was modest in size, adhered to the Flamsteed constellation

figures (as improved by the French). The image below is from a Dutch collector and not from the Linda Hall Library collection – but it shows the ultimate artwork that the grand celestial atlas had achieved at the beginning of the 19<sup>th</sup> century. Alas – Bode was the last of the great “artistic” celestial atlas authors and the end of an era was at hand.



Bode, Johann. *Vorstellung der Gestirne*. Berlin, 1805 - Ophiuchus

By the mid 1800s the celestial atlas in keeping pace with rapidly advancing scientific discoveries and the dawn of the industrial revolution had begun to assume an appearance that is familiar today, although it still retained a ghostly outline of the classic constellation figures. The era of the great atlases had passed and a dividing line began to separate art and science that would soon grow to the proportions of the Grand Canyon. No longer were the great scientists also artists. Leonardo DaVinci – painter and engineer, William Herschel – musician and King’s astronomer.



1855 Alexander Keith Johnston - Atlas of Astronomy

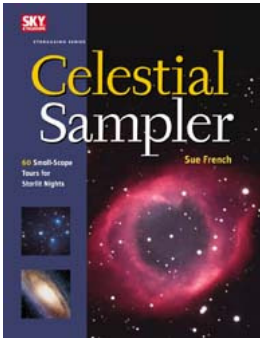
The golden age of the celestial atlas had finally come to an end and passed into history!

Reference/Source – Linda Hall Library Internet Exhibit: Out of this World – The Golden Age of the Celestial Atlas.

D. J. Karcher – September 12, 2008.



## Book Review: *Celestial Sampler* *60 Small Scope Tours for Starlit Nights* by Sue French



**Publisher:** Sky Publishing Corp.  
**Publication Date:** 2005  
**ISBN:** 1931559287  
**List Price:** \$24.95  
**(Amazon: \$9.03 - \$24.95)**

Published in 2005, this is an entry in the Sky and Telescope Stargazing Series of titles. The author, Sue French, is one of my favorite columnists in Sky & Telescope magazine and (at least in my mind...) a worthy successor to inherit the pen for Walter Scott Houston's classic "Deep Sky Wonders" column. Only one word of warning here - if you're looking for fresh new material, you're not going to find it in this book - it's a reprint of older material from S&T. (*What - you don't keep all your old back copies of astronomy magazines??? - Just don't tell my wife and give her ideas for clearing out shelf space...*) With that caveat stated, this collection is an excellent source of objects for small to medium telescopes along with great descriptions and very detailed finder charts.

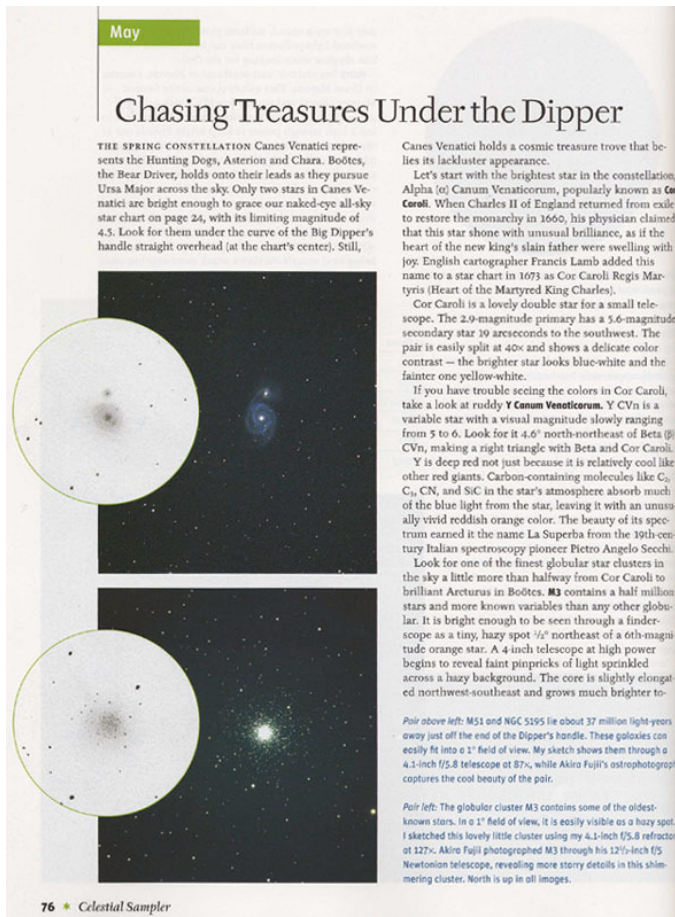


chart and finder scope, how to judge the conditions of the night sky (seeing, transparency, etc.), and a few visual observation tips. Following this, a general all-sky-map for each month is included. The text is well-written, and Ms. French handles the material excellently.

Chapter 2: APRIL • MAY • JUNE

pair of galaxies the Eyes, and the name stuck. Both are easy targets for the small refractor. NGC 4438 is a small oval aligned almost north-south, and it harbors a bright stellar nucleus. NGC 4439 is larger, more highly elongated, and tipped more to the north-northeast. A small bright core lies at its heart. The 10-inch increases the apparent size of the galaxies and adds a faint stellar nucleus to NGC 4438.

Recent observations with the Chandra X-ray Observatory indicate that this galaxy pair underwent a high-speed collision about 100 million years before our current view of them. This distorted NGC 4438 and ejected much of the hot gas that formerly belonged to NGC 4439. NGC 4438 may also have an active galactic nucleus, wreaking further havoc.

If you move 21° east-northeast of this pair, you'll find another galactic duo, **NGC 4458** and **NGC 4461**. With the 4.1-inch, NGC 4458 appears small, round, and quite faint. NGC 4461 is brighter and elongated nearly north-south. The 10-inch makes NGC 4458 easier to spot and shows a brightish core within a faint halo. NGC 4461 displays a stellar nucleus within a small, round core.

Crossing the constellation border from Virgo into Coma Berenices, we next come to **NGC 4473**. A very easy target for the 4.1-inch, this galaxy is an east-west oval of mist with a starlike nucleus. The 10-inch increases the apparent size of the galaxy and shows that it fades gradually outward from the center.

The final galaxy in Markarian's Chain is **NGC 4477**. It is another easy capture for the small refractor, which shows it to be small and round with a brighter center. Both the fringe and the core of the galaxy look slightly oval in the 10-inch, and a stellar nucleus sits within.

To fit both NGC 4477 and M84 in the same low-power field of the 10-inch, I must put them on opposite edges of the field with part of their halos cut off. With some careful maneuvering I can also lay **NGC 4479** along the edge. But this is a faint galaxy, hard to pick out at the edge of a low-power field.

Galaxy	Mag.	RA	Dec.
M84	9.1	12° 25.1"	+12° 53'
NGC 4387	12.1	12° 25.7"	+12° 49'
NGC 4388	11.0	12° 25.8"	+12° 40'
NGC 4402	11.7	12° 26.1"	+13° 07'
M86	8.9	12° 26.2"	+12° 53'
NGC 4413	12.3	12° 26.5"	+12° 37'
NGC 4425	11.8	12° 27.2"	+12° 44'
NGC 4435	10.8	12° 27.7"	+13° 05'
NGC 4438	10.2	12° 27.8"	+13° 01'
NGC 4458	12.1	12° 29.0"	+13° 15'
NGC 4461	11.2	12° 29.1"	+13° 11'
NGC 4473	10.2	12° 29.8"	+13° 26'
NGC 4477	10.4	12° 30.0"	+13° 38'
NGC 4479	12.4	12° 30.3"	+13° 35'

**Galaxies of Markarian's Chain**

The book is a bit difficult to navigate at the telescope based on its binding. A much better format would have been spiral bound. However as a desk reference it is classic and is best used for developing observing lists prior to telescope setup. Basically, it isn't made as a field book and if you avoid using it that way, you'll skip being disappointed.

D.J. Karcher - September 20, 2008

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**Celestron NexStar 8 SE** for sale. About a year old with case & several eyepieces. Asking \$1000. Don't want to ship and would prefer a local deal if possible.

John Podpechan  
 Claremore, OK.  
 email: K5JJ@Cox.net

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The book's pages are filled with finder charts (which I find invaluable...), object tables, photographs, and eyepiece sketches. The format of the book follows the night sky through the course of a calendar year, offering five different star hopping tours for each month. Before jumping into the tours, an introduction explains some basics of visual astronomy, how to navigate the night sky using a star



## September Star Party Summary – Rick Walker

September 26th presented some of the best viewing skies of the year at the Ronald McDonald Children's Charity (RMCC) Observatory. The site, owned and operated by the Astronomy Club of Tulsa (ACT) is located approximately 30 miles south of Tulsa.

With a large number of club members preparing and traveling the full length of the state to attend the Okie-Tex star party, this Friday had more visitors than members in attendance. With about a dozen members hosting about 16 visitors the observing field was full of Telescopes pointed into the amazingly clear and stable skies.

Our neighboring galaxy Andromeda (Messier 31) was clearly visible naked eye. Using just a little magnification her close companions Messier 32 and Messier 110 were easily spotted and enjoyed.

The always impressive band of our own galaxy the Milky Way glowed gloriously across the sky providing an uncountable number of beautiful Deep Sky Objects to marvel at. Even the dense space dust cloud causing the Great Rift were the Galactic Equator crosses the ecliptic in Sagittarius was easily seen.

Jupiter as expected was the first target of the evening presenting proudly four of her moons with even the smallest scopes in service for the evening. Later as darkness fully engulfed the night, members pointed their scopes at targets like the Ring Nebula (Messier 57), the Double Cluster in Peruses (NGC 884 and NGC 869), the Lagoon Nebula (Messier 8), numerous Globular Clusters like Messier 15 and even Double Stars like the Blue and Gold "TU Double" Albireo. Sharing the eyepiece with guests "OOHS and AWES" became the chant of the evening.

As many guest started heading home around 11:00 pm the ever stunning "Seven Sisters" or Pleiades (Messier 45) rose from below the horizon to say farewell though really teasing and taunting all to stay and wait for Taurus to arrive.

## ASTRONOMY CLUB STAR PARTY – OCTOBER TWO-FER

**FRIDAY OCTOBER 3<sup>RD</sup>** ALTERNATE DATE WILL BE SATURDAY OCTOBER 4<sup>TH</sup> IF SKY IS CLOUDY ON FRIDAY.

*GATES OPEN AT 6:00 PM SUNSET IS 7:04 PM / END CIVIL TWILIGHT IS 7:29 PM*

*NEW MOON ON 29 SEPTEMBER 2008 AT 3:12 A.M. CENTRAL DAYLIGHT TIME*

*PHASE OF THE MOON ON 3 OCTOBER: WAXING CRESCENT WITH 18% OF THE MOON'S VISIBLE DISK ILLUMINATED.*

**FRIDAY OCTOBER 24<sup>TH</sup>** ALTERNATE DATE WILL BE SATURDAY OCTOBER 25<sup>TH</sup> IF SKY IS CLOUDY ON FRIDAY.

*GATES OPEN AT 6:00 PM SUNSET IS 6:36 PM / END CIVIL TWILIGHT IS 7:02 PM*

*NEW MOON ON 28 OCTOBER 2008 AT 6:14 P.M. CENTRAL DAYLIGHT TIME*

*PHASE OF THE MOON ON 24 OCTOBER: WANING CRESCENT WITH 18% OF THE MOON'S VISIBLE DISK ILLUMINATED.*

Due to the uncertain weather reports, always check your local weather reports for sky conditions. Our club has an excellent resource for predictions of cloud cover on the observe section of our website: (<http://www.astrotulsa.com/Observe/observe.asp>). Since night-time temperatures can dip to the mid 50's or colder you should plan to bring a jacket.

- Insects can still be active so bug repellent (i.e. – "OFF" or "Cutter") will also be useful.
- Beginners Telescope Set Up on Center Pad: Several of our new members and guests have new telescopes they are trying to learn how to use. We would like to invite you to set up your equipment near the center concrete observing pad. Members let's all take time to meet these novice astronomers and help them get a good start with their equipment.
- Wireless Internet now available at the Observatory: For laptop users - Rod Gallagher has made arrangements for wireless Internet to be broadcast on the observing field. Details for log on are available at the observatory. This is available for members to use for astronomy, observing and weather information and should not be abused for other types of browsing and gaming.
- Things to bring to a star party: Of course a telescope or binoculars are great for observing but you don't have to have one to enjoy the evening. You don't have to own a telescope to enjoy an observing night. Our members are eager to share their views with others. There will be plenty of people willing to share the view if you just ask. Also bring a red colored or covered flashlight to see your way around. We have plenty of folding chairs and a clean restroom.
- Children are always welcome but must be supervised and must stay on observatory grounds. It's always wise to have an alternate activity such as a favorite book or tapes for younger children who may tire early. Closed toed shoes are preferred and a light jacket as needed.
- We would like to encourage our new members and guests to join us
- Plan to arrive before dark. We have plenty of chairs and a classroom area.
- We have a microwave and you can bring your own snacks. You need to bring your own drinking water!

**PARKING MAY BE AT A PREMIUM.** Reserve Parking is available next door in old ATT lot for those without equipment or planning to leave early. PLEASE DO NOT PARK VEHICLES near the center-observing pad blocking the view and traffic access.

**SAFETY ISSUE:** When large groups are present it is better to turn on your park lights or headlights on low beam rather than to try driving in or out without lights... especially if those groups include children. Just warn everyone when you are getting ready to leave.

**NEVER try driving down the hill without lights.**

*A donation of \$1.00 per guest would be appreciated to help us maintain the observatory.*

*October 2008*

## **Information Exchange**

The Astronomy Club of Tulsa has its own Yahoo Group. This group is a forum that allows for messages, photos and files that can be shared among the group's members. As stated in the group's description, "This group is for the members of the Astronomy Club of Tulsa to ask questions, share ideas, get information, plan observing sessions, or just communicate in general. Informal club business communications may also be announced here." This group can be found on the web at <http://tech.groups.yahoo.com/group/AstroTulsa/>. It is open to all club members so if you do not already belong, be sure to check it out! Tony White, our Observing Chairman is the group's moderator.

### **ACT Monthly Observing List**

Here's the ACT Observing List for October 2008.

	<b>Caldwell</b>	<b>Deep Sky Binocular</b>	<b>Double Star</b>	<b>Messier</b>	<b>Herschel</b>
1	NGC40 *	NGC129 *	Eta Cassiopeiae	M31	NGC40 *
2	NGC55	NGC253 *	65 Piscium	M32	NGC129 *
3	NGC147	NGC7789 *	94 Aquarii	M110 **	NGC136
4	NGC185		Sigma Cassiopeiae		NGC157
5	NGC188		Eta Cassiopeiae		NGC185
6	NGC7814				NGC205 **
7					NGC225
8					NGC246
9					NGC247
10					NGC253 *
11					NGC278
12					NGC288
13					NGC7789 *
14					NGC7814

\* - Multiple entries

\*\* - NGC205 duplicate with M110

Details of this list are located in a folder in the AstroTulsa Yahoo group's files section, "ACT Observing Lists." The list for September contains 27 objects. We plan to recognize anyone who observes 20 or more of these objects. The reason that there are so many objects is to give the observer a variety of objects that could also be used for Astronomical League (AL) Observing Clubs. For more information on the Astronomical League and the observing clubs, check it out on the web at: <http://www.astroleague.org/observing.html>. All of the objects cross the meridian between 9PM and 1AM. For this month, the list contains 4 double stars (AL Double Star Club), 3 Messier objects (AL Binocular Messier & AL Messier Clubs), 3 deep sky objects (AL Deep Sky Binocular Club), 6 Caldwell objects (AL Caldwell Club) and 14 Herschel-1 objects (AL Herschel-1 Club). Several of the Herschel objects are also on the AL Deep Sky Binocular list, so observing any of these with binoculars is the same as two observations. Several of the Herschel objects are also on the Caldwell list, so observing any of these is also the same as two observations.

As we continue with these lists, one should be able to complete several of the observing clubs in only one year. Of course the Herschel-1 list will take longer.

Please take a look and give feedback to Tony White or Rod Gallagher. Also, please provide a copy of your observing log to Tony.

Thanks,  
Rod Gallagher



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## Lands Tidbits – by John Land (September 15, 2008)

### Welcome Recent New Members: Bill & Vicki Stewart, Bobbie Willis, Mark Fraker

Our membership rates for 2008 – 2009 will be as follows:

**Adults** - \$35 per year (includes Astronomical League Membership)

**Sr. Adult** - discount \$25 per year for those 65 or older (includes Astronomical League Membership)

**Students** - \$15 (without Astronomical League membership)

**Students** - \$20 (with Astronomical League membership)

The regular membership allows all members in the family to participate in club events but only ONE voting membership and one Astronomical League membership. If an additional member of the family would like to join with voting rights the additional cost is \$15, and/or additional Astronomical League memberships within a family are \$5 each.

**Magazine Subscriptions:** If your magazines are coming up for renewal, try to save the mailing label or renewal form you get in the mail. Do NOT mail renewals back to the magazine! To get the club discount you must go through the club group rate.

Astronomy is \$34 for 1 year or \$60 for 2 years. "www.astronomy.com"

Sky & Telescope is \$33 / year. "www.skyandtelescope.com"

Sky and Telescope also offers a 10% discount on their products.

Note: You may renew your Sky & Telescope subscription directly with out having to mail in the subscriptions to the club.

NEW SUBSCRIPTIONS must still be sent to the club treasurer. Forms are available on the website.

We now have an automated on line registration form on the website for new AND renewal memberships plus magazine subscriptions.

You simply type in your information and hit send to submit the information. "<http://www.astrotulsa.com/Club/join.asp>"

You can then print a copy of the form and mail in your check to:

**Astronomy Club of Tulsa**

**25209 E 62nd St**

**Broken Arrow, OK 74014**

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### *Letters to the Observer*

**9/1/08** - I've suggested this previously and some seemed to think it a good idea but it never seemed to get off the ground. It would be very beneficial to many of us to have some "workshops or, "hands-on topical" get-togethers. For example, for those who have never done it, a "how to clean your mirror when plants begin to grow on it", "how to use your setting circles", collimating a dob, and on and on. Everyone I know has some pet project or problem they need to solve or learn to master. We have such a brilliant collection of minds in our club that could answer probably every question others have but we need a forum in which to do it. If this is something others are interested in how 'bout we give it a try some Saturday afternoon? Thanks for letting me air my idea.

Bob Boston

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### *Address Corrections- Email changes – Questions:*

You may forward questions to the club by going to our club website (<http://www.astrotulsa.com/>) and fill out an online form or just click on John Land and send an email. Please leave a clear subject line and message with your name, phone number, your question – along with email.

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### CLUB OFFICERS

POSITION	NAME	PHONE
<b>President</b>	Tamara Green	918-851-1213
<b>Vice-President</b>	Tom McDonough	918-665-1853
<b>Treasurer</b>	John Land	918-357-1759
<b>Secretary</b>	Teresa Kincannon	918-637-1477

### BOARD MEMBERS AT LARGE

NAME	PHONE
Ann Bruun	918-834-0757
Steve Chapman	918-342-1643
Rod Gallagher	918-369-3827
Owen Green	918-851-1213
Jim Miller	918-627-4551
Richie Shroff	918-835-3565
Bill Steen	918-251-3062
Tony White	918-258-1221

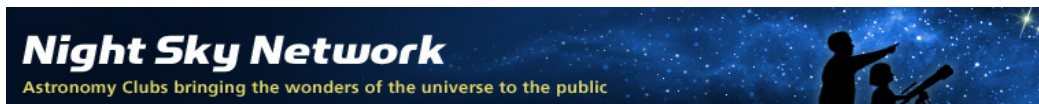
### APPOINTED STAFF

POSITION	NAME	PHONE
<b>RMCC Facility Manager</b>	Craig Davis	918-252-1781
<b>Membership Chairman</b>	John Land	918-357-1759
<b>Observing Chairman</b>	Tony White	918-258-1221
<b>New Members (co-Chairmen)</b>	Owen Green Rick Walker	918-851-1213 918-451-9235
<b>Observatory Director</b>	Teresa Kincannon	918-637-1477
<b>Webmaster</b>	Richard Alford	918-855-9986
<b>Newsletter Editor</b>	Dennis Karcher	918-619-7097
<b>Night Sky Network</b>	Teresa Kincannon	918-637-1477

### MEMBERSHIP INFORMATION

Astronomy Club of Tulsa membership (\$35/year) includes membership in the Astronomical League and subscription to ACT's "Observer" and AL's "Reflector". "Astronomy" (\$34/year) and "Sky and Telescope" (\$33/year) are also available through the club. For more information contact John Land at 918-357-1759. Permission is hereby granted to reprint from this publication provided credit is given to the original author and the Astronomy Club of Tulsa Observer is identified as the source.

The Astronomy Club of Tulsa is a member of the Astronomical League and the Night Sky Network



<http://www.astroleague.org>

<http://nightsky.jpl.nasa.gov>

ACT welcomes your questions, suggestions, comments, and submissions for publication.  
Please send all inquiries to [Newsletter@astrotulsa.com](mailto:Newsletter@astrotulsa.com)

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eMail article submissions to: [djkarcher@cox.net](mailto:djkarcher@cox.net)