



Astronomy Club of Tulsa

# Observer



October 2009

Globular Cluster M15



Hubble Heritage

NASA and The Hubble Heritage Team (STScI/AURA) • Hubble Space Telescope WFPC2 • STScI-PRC00-25

## Messier 15

Jean-Dominique Maraldi discovered M15 on September 7, 1746. He described it as 'A nebulous star, fairly bright and composed of many stars'. Charles Messier, who cataloged it on June 3, 1764, and Johann Bode couldn't make this out and described it as 'nebula without stars,' so that it remained to William Herschel in 1783 to resolve this fine star cluster.

M15 was the first globular cluster in which a planetary nebula, Pease 1 or K 648 ("K" for "Kuster"), could be identified (Pease 1928, on photographic plates taken at Mt. Wilson in 1927).

M15 can be found extremely easily: First find the 2nd magnitude star Epsilon Pegasi, and Theta Pegasi SE of it. Follow the line from Theta over Epsilon and find M15 3 1/2 deg W and 2 1/4 deg N of Epsilon. A 6th magnitude star is about 20' away to the East; another one of magnitude 7.5 is about 5' to the NNE.

With its apparent visual brightness of magnitude 6.2, M15 is about at the limit of visibility for the naked eye under very good conditions. The slightest optical aid, opera glass or small binoculars, reveals it as a round nebulous object. It appears as a round mottled nebula in 4-inch telescopes, with at best the very brightest stars visible, but otherwise unresolved in a fine star field.

Be sure to catch & log M15 this month!

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### Important ACT Upcoming Dates:

ACT Monthly Meeting @ <b>Bass Pro</b> - Fri, Oct. 2, 2009 7:00p - 9:00p Upstairs Conference Room (Annual Elections)
RMCC Work Day... Sat, Oct 3, 2009
Public Star Party... Fri, Oct. 9, 2009 (p13)
Member Star Party... Fri, Oct. 16, 2009
Fall Messier Marathon... Sat, Oct. 17, 2009 (p11)
Sidewalk Astronomy... Fri+Sat, Oct. 30-31, 2009 (Theme = "Dress as Your Favorite Astronomer")

## October 2009

Tulsa, Oklahoma

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Sunrise: 7:18am Sunset: 7:08pm Moonrise: 5:40pm Moonset: 4:46am	2 <b>ACT MEETING</b> Sunrise: 7:19am Sunset: 7:07pm Moonrise: 6:06pm Moonset: 5:45am	3 Sunrise: 7:20am Sunset: 7:05pm Moonrise: 6:32pm Moonset: 6:45am
4 Sunrise: 7:21am Sunset: 7:04pm Moonrise: 7:01pm Moonset: 7:47am Full Moon: 12:11am	5 Sunrise: 7:22am Sunset: 7:02pm Moonrise: 7:33pm Moonset: 8:51am	6 Sunrise: 7:22am Sunset: 7:01pm Moonrise: 8:11pm Moonset: 9:58am	7 Sunrise: 7:23am Sunset: 7:00pm Moonrise: 8:57pm Moonset: 11:05am	8 Sunrise: 7:24am Sunset: 6:58pm Moonrise: 9:51pm Moonset: 12:11pm	9 <b>RMCC PUBLIC</b> Sunrise: 7:25am Sunset: 6:57pm Moonrise: 10:53pm Moonset: 1:12pm	10 Sunrise: 7:26am Sunset: 6:55pm Moonrise: none Moonset: 2:07pm
11 Sunrise: 7:27am Sunset: 6:54pm Moonrise: 12:01am Moonset: 2:53pm Last Qtr: 2:56am	12 Sunrise: 7:28am Sunset: 6:53pm Moonrise: 1:11am Moonset: 3:33pm	13 Sunrise: 7:28am Sunset: 6:51pm Moonrise: 2:23am Moonset: 4:07pm	14 Sunrise: 7:29am Sunset: 6:50pm Moonrise: 3:33am Moonset: 4:39pm	15 Sunrise: 7:30am Sunset: 6:49pm Moonrise: 4:41am Moonset: 5:08pm	16 <b>MEMBERS</b> Sunrise: 7:31am Sunset: 6:47pm Moonrise: 5:49am Moonset: 5:38pm	17 <b>FALL MESSIER</b> Sunrise: 7:32am Sunset: 6:46pm Moonrise: 6:57am Moonset: 6:09pm New Moon: 11:34pm
18 Sunrise: 7:33am Sunset: 6:45pm Moonrise: 8:04am Moonset: 6:43pm	19 Sunrise: 7:34am Sunset: 6:43pm Moonrise: 9:11am Moonset: 7:21pm	20 Sunrise: 7:35am Sunset: 6:42pm Moonrise: 10:16am Moonset: 8:04pm	21 Sunrise: 7:36am Sunset: 6:41pm Moonrise: 11:17am Moonset: 8:53pm	22 Sunrise: 7:36am Sunset: 6:40pm Moonrise: 12:12pm Moonset: 9:46pm	23 Sunrise: 7:37am Sunset: 6:38pm Moonrise: 1:00pm Moonset: 10:43pm	24 Sunrise: 7:38am Sunset: 6:37pm Moonrise: 1:41pm Moonset: 11:41pm
25 Sunrise: 7:39am Sunset: 6:36pm Moonrise: 2:17pm Moonset: none First Qtr: 6:43pm	26 Sunrise: 7:40am Sunset: 6:35pm Moonrise: 2:48pm Moonset: 12:39am	27 Sunrise: 7:41am Sunset: 6:34pm Moonrise: 3:15pm Moonset: 1:37am	28 Sunrise: 7:42am Sunset: 6:33pm Moonrise: 3:41pm Moonset: 2:34am	29 Sunrise: 7:43am Sunset: 6:31pm Moonrise: 4:06pm Moonset: 3:32am	30 <b>SIDEWALK BASS PRO &amp; RIVERWALK 7:00-10 PM DRESS AS FAVORITE ASTRONOMER</b> Sunrise: 7:44am Sunset: 6:30pm Moonrise: 4:32pm Moonset: 4:31am	31 <b>SIDEWALK BASS PRO &amp; RIVERWALK 7:00-10 PM DRESS AS FAVORITE ASTRONOMER</b> Sunrise: 7:45am Sunset: 6:29pm Moonrise: 5:00pm Moonset: 5:32am

### Lands Tidbits – by John Land

**October 15–18: Heart of America Star Party in Butler Missouri** (<http://www.hoasp.com/>) There is a excellent article on this event and its origins in the June AL Reflector.

#### Welcome Recent New Members: Sherry Doherty, Michael Rose, Mickey Smith, Jeremy Gentry

Our membership rates for 2009 – 2010 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](http://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**

#### 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.

## *President's Message - October 2009*

Fellow ACT members,

This will be my last message to you as President of ACT. I have decided not to seek re-election to any position -- officer or board -- in the club for 2010.

I have for the most part enjoyed serving as your President for 2009. Yes, we've had some issues, and we've had some challenges, but I think overall the club has begun to change for the better. I will take no real credit for that, since you, the members, are the real agents of change. However, I realize that it's best both for me personally and for the club as a whole for me to step aside and allow someone else to lead the club going forward. I appreciate the support I have been given this past year -- without which I could have done nothing meaningful.

We have two excellent candidates for President for 2010 -- Tom McDonough, who has served the club for many years as its vice-president, and Rick Walker, who, along with his wife Peg have served so well this past year doing the many sidewalk astronomy events and International Year of Astronomy events. Please give whomever is elected President your full support. Also, please give the Club as much support as possible. The observatory needs regular maintenance to stay operational, and as my dad used to remind me, "the yard isn't going to mow itself." That is our second most valuable asset, and we should not let its needs go unattended. I applaud Chris Proctor for what he has done up to this point and I also ask for you to give him your full support and assistance on observatory work days.

I hope that some of the things that we started together will continue. I think that the Astronomy 101 sessions were good ideas and that a lot of newer and less experienced members of the club got good information out of them. I also think that the decision to hold two star parties a month is a very good one, and I hope to see that continue. There are those in the club who enjoy sharing and educating the public -- and, let's be honest -- there are those that don't. This gives both groups the opportunities they need. And I enjoyed getting to socialize with those that came to Hideaway Pizza after the regular meetings. I've learned a lot about some of our fellow members that way.

Whatever happens, though, don't let your passion for astronomy get lost. When people used to ask me why I enjoyed it so much, I would tell them that it was the replacement for the expensive psychotherapy I would otherwise need to stay sane (well, that might not be exactly what I said, but it's close enough). While that might not be your reason or your passion, I urge you to not lose sight of what makes it something you love to do, and go out and do it as often as you can -- no matter who or what comes along that dampens that enthusiasm. Do it, and enjoy it, and drink in the beauty and peace that it has to offer, and share that with others.

Clear skies, **Tony**

## *Secretary's Corner - October 2009*

ACT 8-30-09 / Board Meeting Minutes

Those present: Tony White, Teresa Kincannon, Chris Proctor, Jim Miller, Rod Gallagher, Steve Chapman, Tamara Green, Ann Bruun, David Karcher, Tom McDonough, Rick Walker, Peggy Walker.

Minutes from last meeting were approved.

Business items:

1. Club budget requirement. Formation of a budget committee: Open discussion included considering any new dark site we may make arrangements for the club. Members present seem to feel a budget would be a good thing. John would like to see a committee formed to set a budget. This committee can help set a budget and set fund raising goals. Tom McDonough makes a motion for the formation of a budget and fundraising committee. Chris Proctor seconded the motion. All were in favor. Members of the committee: Peggy Walker, John Land, Dennis Karcher, others will be added at the Presidents discretion.
2. IYA Door prizes -- we need to get a record of the donations, a list and who donated, and a date of when the drawing will occur. We will have the drawings of the door prizes from our IYA events at the October business meeting. Members will draw prizes as we come into the meeting at the door. Records will be kept of who won and contacts made to the winners after the drawings.
3. IYA Budget approval -- this will be included with the new budget and fundraising committee.
4. Woolaroc event update -- we need more volunteers for the exhibits.
5. Roof repair update: RMCC observatory as of today we have had no leaks since the repair and have had rain since then.
6. Officers/board nominations recommendations for the board. Tony will include in the general announcements at the meeting in September, that anyone that is interested in being on the board to let the board members know that in an email or in person.
7. Proposal for 2010 calendars needed so that we can. Motion to accept the calendar. Rod motioned, Dennis seconded. Most were in favor.
8. Continue side walk astronomy for the year 2010. Rick Walker will continue as the committee chair for the sidewalk events.
9. Scheduled group event for the purpose of astronomy: Fees for groups that make arrangements to the observatory. Facility use for a donation to be determined at a later date. Tony makes a motion for groups up to 20 = \$40.00. And \$1 per person over 20. Seconded by Ann, all were in favor. Over night camping at observatory for non-members will be granted by special requests and arrangements only.
10. Do we need to request increased amount for non members at our meetings for members star meetings? Discussion over increase donation, but after talking it over we decided that having someone man the front gate and a table at the door of observatory. Giving directions at the gate.
11. Report on possible Pawhuska dark sky site -- Tony: we have a few people join the club and he went to Kansas to look at a possible site. The gentleman we are talking to is being very accommodating to us. Reasonably close access to electrical. Possible put in pads and a structure. Site we could have access to, we should have 4 or 5 or 6 of us to go up there. No restroom facility. Any part of his land, he is willing to let us have access to this. Light is comparable to the TU dark site.
12. A suggestion was made for committee to form to investigate the dark site in question. Tony White motions to form committee, Rod Gallagher seconded. All were in favor. Tony appoints: Rod Gallagher, Ann Bruun, Steve Chapman, and Tom McDonough.
13. John Land asked to purchase calendars from Astronomy. Tony approved him to purchase 50. All were in favor.

Meeting adjourned 4:00

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I thank you the Astronomy Club of Tulsa for allowing me to serve you as secretary of your club for many years. Any and every board member of this club has an obligation to maintain the integrity of the club. We are handed much from the board members that were before us and we should respect that. Now it is time for me to bow out and allow someone else to come in as secretary. I just got off the phone with our own Tamara Green who is willing to take that place. Not only would I like to nominate her for the office of secretary but I support her knowing that she will hold the club business with respect and honor for the work that was done in the club before her. Anything that I can do to assist you in this new position, Tamara, just let me know.

See you all at the observatory, **Teresa Kincannon**

*October 2009*

# Word Search – by Rick & Peg Walker

## US STAR PARTIES Astronomy Club of Tulsa

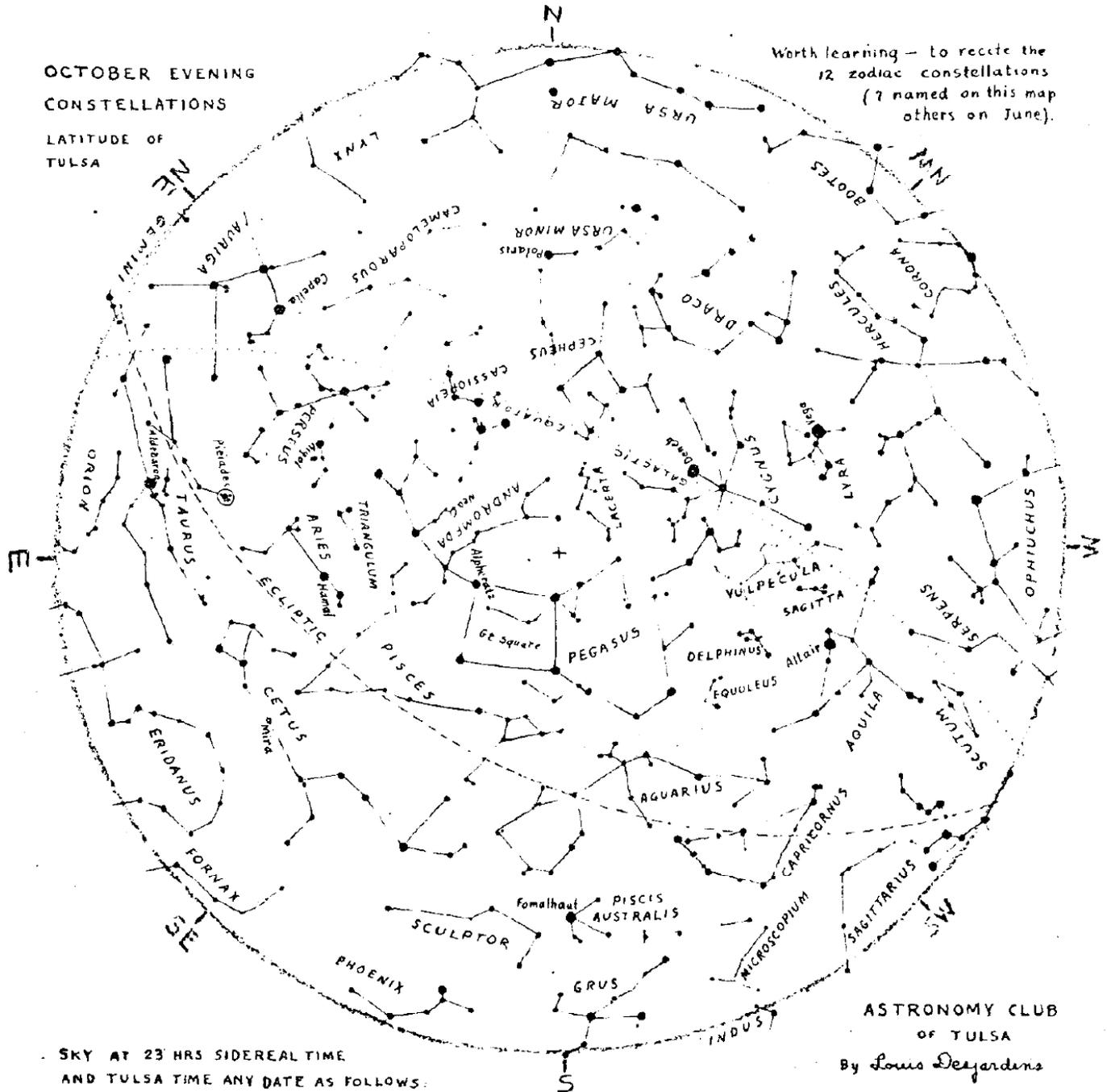
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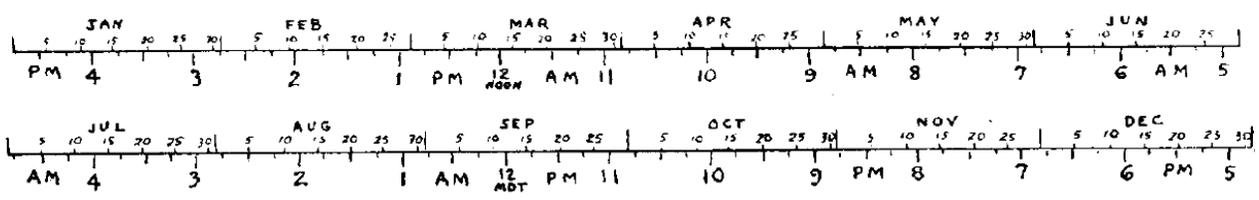
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|--------------------------------|--|
| Astrofest                      | Black Forest Star Party                  |
| Chiefland Star Party           | City of Rocks Star Party                 |
| Craters of the Moon Star Party | Deep South Regional StarGaze             |
| Driftless Zone Star Party      | Escambia Amateur Astronomers Association |
| Golden State Star Party        | Grand Canyon Star Party                  |
| GSMNP and SMAS Star Party      | Hidden Hollow Star Party                 |
| Idaho Star Party               | Indiana Star Party                       |
| Mid Atlantic Star Party        | Mt. Bachelor Star Party                  |
| Nebraska Star Party            | Okie-Tex Star Party                      |
| Oregon Star Party              | Pomerelle Mountain Star Party            |
| Prairie Skies Star Party       | Rocky Mountain Star Stare                |
| RTMC Astronomy Expo            | Sierra Summer Starparty                  |
| Smoky Mountain Star Gaze       | Stellafane                               |
| Table Mountain Star Party      | Texas Star Party                         |
| Winter Star Party              |  |

(Answers in next month's newsletter)



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



- Full Moon..... October 4<sup>th</sup>
- Last Quarter..... October 11<sup>th</sup>
- New Moon..... October 18<sup>th</sup>
- First Quarter..... October 26<sup>th</sup>
- October 5<sup>th</sup> – Mercury G. W. Elongation (18°) – Morning
- October 13<sup>th</sup> – Venus passes 0.6° S. of Saturn (11am CDT)
- October 21<sup>st</sup> – Orionid Meteor Shower peaks
- Evening – Jupiter / Morning – Mercury, Venus, Saturn & Mars

Predicted MAXIMA of long period variables - October 2009  
 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 12?
0515-33	T Col	&	<7.5-11.9>	Oct 17
1231+60	T UMa		<7.7-12.9>	Oct 6
1315+46	V CVn		<6.8-8.8>	Oct 16
1336-33	T Cen		<5.5-9.0>	Oct 19
1517+31	S CrB		<7.3-12.9>	Oct 3
1528-49A	R Nor		<7.2-13.2>	Oct 26 (I)
1546+15	R Ser		<6.9-13.4>	Oct 1
1632+66	R Dra		<7.6-12.4>	Oct 16
1821-33	RV Sgr	#	<7.8-14.1>	Oct 3
1951-42	RU Sgr	#	<7.2-12.8>	Oct 21
2307+59	V Cas		<7.9-12.2>	Oct 14

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

**The 2010 Astronomical Calendar: specially priced for Astronomical League members**

The Astronomical League is pleased to announce a special offer for our members from the Universal Workshop, the producers of Guy Ottewell's popular Astronomical Calendar. They are making the 2010 edition of the Calendar available at a discounted price.

There are plenty of good reasons why it has been published for over thirty years. The 2010 edition will not disappoint! Packed throughout the Astronomical Calendar's 84 pages are monthly sky charts; daily celestial highlights; charts, tables, and explanations of planetary movements; eclipse times and paths; and lunar occultation specifics. There are extensive descriptions of the year's meteor showers and periodic comets, as well. This calendar tells, in clear language, what events occur and when they happen.

League members can order this incredible compilation of the year's celestial events for \$19.95, shipping included. (It is normally priced at \$24.95 with another \$7 added for shipping.) Volume discounts (a minimum of 15 copies) for clubs are available.

But, to take advantage of the free shipping offer, you must order by Friday October 31, and either use the special website, [www.universalworkshop.com/clubs.htm](http://www.universalworkshop.com/clubs.htm), or call 800-533-5083. The League's special low price of \$19.95 expires on December 31, 2009. Universalworkshop.com accepts Mastercard, Visa, Discover, American Express and PayPal.

**Win your own Meteorite - Oct 2nd**

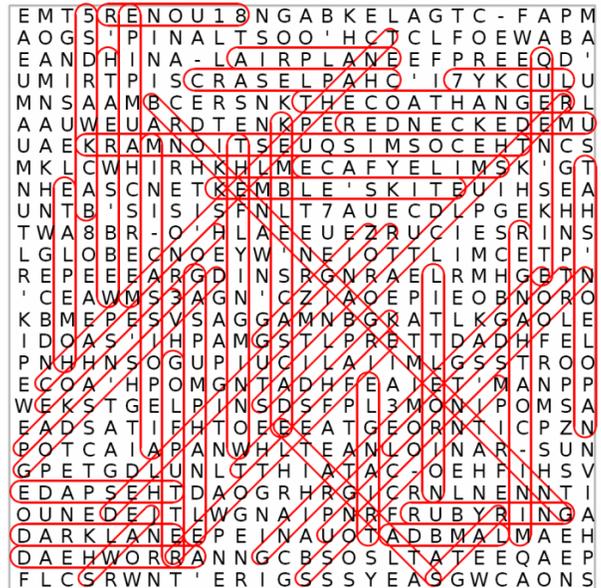
At our Sept 4th meeting Bob Boston was thrilled to win a meteorite. We have a second meteorite to give away at our Oct 2nd Annual meeting. Tickets will be sold for \$ 1.00 each for a drawing to win the meteorite. Proceeds of ticket sales will support the ACT observatory fund. Note - If you bought a ticket Sept 4th they are still in the drawing but you must be present to win.

An iron meteorite from Argentina.



<http://www.meteoritemarket.com/CCinfo.htm>  
 These meteorites come with documentation card

**45 Asterisms**  
**Astronomy Club of Tulsa**  
 Small starpatterns for telescopes



Answers for September 2009 Word Search

**2010 Canadian Observers Handbooks**

Several of you enjoy ordering this publication each year. If we order ten or more copies we can get them for around \$ 20 each. I don't have the exact 2010 price yet but you may get your name on the reserve list by letting John Land know you want to order one.

**Money will be due a Nov dinner meeting**

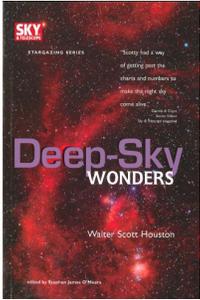
The **2010 Astronomy Wall Calendars** should be here by Friday. Many of you purchase these as Christmas presents for friends. You may purchase them for **\$ 8.00 each** (a \$ 4.95 savings over the cover price). Calendars available on first come basis. Contact John Land to reserve your calendar **NOTE: Please bring Exact change in cash or pay by check.**

Avoid bringing \$20 bills that need lots of change back

**Fall Work Day at RMCC Observatory**  
 Major work day planned for **Saturday, Oct. 3<sup>rd</sup>, 2009**. Tentative start time 9:00am. It is rumored that our own gourmet chef, Chris Proctor (also our Observatory Coordinator) will cook breakfast for early bird volunteers. **Be There...**

## Book Review: *Deep-Sky Wonders*

by Walter Scott Houston & Edited by Stephen James O'Meara



**Paperback: 320 pages**  
(shown at left...)

**Currently out of print...**

**Publisher: Sky Pub Corp**

**Date: May 4, 2005**

**ISBN-10: 1931559236**

**ISBN-13: 978-1931559232**

**or**

**Hardcover: 309 pages**

**Publisher: Sky Pub Corp**

**Date: December 1998**

**ISBN-10: 093334693X**

**ISBN-13: 978-0933346932**

Walter Scott "Scotty" Houston is a name many astronomers know well. Author of the Sky & Telescope's Deep Sky Wonders column from 1946 until his death in December of 1993, he was a passionate amateur astronomer to the end of his long life. Houston's last column appeared in Sky & Telescope in July 1994 issue, and since that time, amateurs have had to scour back issues to excavate Houston's gold mine of observational knowledge. Enter Stephen James O'Meara.

O'Meara has been on the staff of Sky & Telescope magazine since the late 70's, and was editor of Houston's column from 1990 until his death. O'Meara began the compilation by working with photocopies of the nearly 550 individual columns spanning Houston's career. He sorted, organized, and collated each of the works and produced a chapter for each month of the year, into which he inserted Houston's colorful prose, descriptive history, and observational commentary. O'Meara begins each section with some light annotation, but most of the words in this book are Houston's, and as a collection, they jell beautifully into a seasonal observer's guide that challenge Burnham's for the sheer elegance and depth of feeling that emanates from the pages.

Upon receiving the book, I quickly turned my attention to a few of my favorite deep sky objects and marveled at the timelessness of Houston's descriptive prose. Before I knew it I had been reading for over an hour and could have spent several more lost in the beauty of Houston's finely knit web of description, quotes from other authorities, and the words of his readers. An example from his description of NGC 2403, a little known but beautiful galaxy in Camelopardis: "My 4-inch Clark refractor shows it as a lovely gem. I logged it as an 'ocean of turbulence and detail' as seen with a 10-inch reflector under dark Kansas skies in the 1950's. In 1992 I saw it with a 20-inch telescope from the Florida Keys - a view that transformed it into a hurricane of cosmic chaos." (pp 28-29)

O'Meara's compilation of Houston's works has quickly taken its place as one of my favorite cloudy night books. It is also a valuable resource for planning observing sessions. It's organization by month lends itself well to selecting some prime targets for easy observing, with a generous dose of difficult challenges for the more adventurous. This book is destined to be an instant classic.

John Rummel / Madison, WI - Reviewed in the May 2000 issue of the Astronomical League's "Reflector".

### ***A.C.T. AMBASSADOR – Peggy Walker***

No, that's not an elected or appointed position! On Tuesday, September 8th, the Astronomy Club of Tulsa was the headlined speaker for a brand new club called 4-H, S.E.T. club. Or, 4-H, Science, Engineering and Technology Club. This meeting was held in the OSU Extension office on the fairgrounds on 15th street. Eric Alspaugh, had sent an email to the club looking for speakers and I responded to it. I let Eric pick from all the speakers and their topics from the club meetings, and the special presentations from the star parties. I sent him a list of subjects, and he selected Astrophotography and Black Holes.

There were 6 to 8 boys ranging from 8 to 14 years of age with their parents. I opened with a warm thank you for the invitation and how the 72 year old Astronomy Club of Tulsa was excited to help birth a new club. Their eyes got big when they heard 72 years! (maybe they thought I said I was 72 years old, not sure) The presentation went well, and at the end I had mentioned that if any family was interested in purchasing a telescope for Christmas, please consult us before you buy a plastic thing from K-Mart. A family came up to talk to us afterwards and they may be interested in our club activities. I got a great hand-made thank you card from Eric where he taped planets and a mosaic sun on black paper with silver inked stars. It is a definitely a keepsake for me!

At Okie Tex, Rick was next to a father and son from St. Louis who had cleaned out their astronomy closet and wanted to give stuff away. Besides some cool books (one on black holes from my friend Stephen Hawking), they had made a 4" telescope they wanted to give away. Rick had mentioned the S.E.T. club, and they gave it to Rick to give to them! So, not only did we kick-start their club with a great science - black hole presentation, we are also giving them a telescope to get some serious astronomy started as well! It needs some intense cleaning, so we need someone willing to help this club of boys, learn how to do that and see how to build a telescope. Any volunteers please let me know.

### ***CLUB E.R. DOCTOR IS CONTAGIOUS***

At our September T.C.C. meeting, I had the opportunity to meet John Grismore and Arden Striker from the Bartlesville Astronomical Society. Before the meeting we had a chance to visit since we had extended to them an opportunity at a joint venture at Woolaroc. After the meeting they had asked if I would attend their meeting and talk about the Woolaroc plans and what we have been doing this year. He had said that they were running very lean and usually the meetings were not about astronomical topics.

Although I have never owned uniform, or ever was a cheerleader, I socked it to them without pom-poms. On Tuesday, September 22nd, Rick and I drive up to the B.A.S. meeting. I was pumped and did my deal. I talked about Woolaroc plans and we now have five more helpers.

The icing on the cake was my "This is what A.C.T. did", this is what "B.A.S. could do". I talked about them finding a dark sky sight and the need to view as a club and be with their peers. I mentioned that they need to join the Astronomical League and work on personal certificates. I suggested meeting at the library since they had a nice audio-visual room and they needed to have guest speakers since meetings are your classrooms. I told them that they have an obligation to educate their members. I offered our membership to them and talked about how we started 101 classes conducted by various people in the club to help with the newbies.

I recommended they start sidewalk events at the mall and have a flyer on their club to hand out. I gave them samples of our BassPro and Public Star Party and meeting topics for the year that we gave out at our Bass Pro nights. I talked about our calendar and how we book our nights and gave them a copy of our calendar. I mentioned donation buckets and an information table. I talked about how we were getting people coming up to us with membership forms and money and how we have been averaging 2-5 new members a month. I suggested having membership forms available wherever they go and gave them a copy of ours.

I suggested that they join the Night Sky Network and download those presentations and have those as meetings or public star party topics. Although there were only 6 people, I think I stirred the pot in a good way because we were given each a B.A.S. T-shirt and before we got home, John Grismore emailed me and thanked us for coming up there. They were sparked with some new ideas and approaches to grow the club.

I mentioned that they find out about the OK Mozart Festival in May and John is looking into that so we can team up with them on this event. So, basically this month I helped deliver a brand-spanking new club, and help resuscitate an old club. All in a days work.

# “Sun Day” on Saturday at Woolaroc



**Area Cub Scouts plan Fun-O-Ree ...**  
On Saturday, a Fun-O-Ree is being held from 11 a.m. to 4 p.m. at Johnstone Park. And just what is a Fun-O-Ree?  
• See story on page C8

EXAMINER-ENTERPRISE

## Community

# C

## SUNDAY

September 20, 2009

Celebrations,  
Page C4

www.examiner-enterprise.com

## Woolaroc prepares for ‘sun’ day ... on Saturday

Special to the E-E

Woolaroc Museum and Wildlife Preserve recently announced that they will host the Astronomy Club of Tulsa for an all-day “solar viewing” from 10 a.m. to 5 p.m. Saturday.

The Astronomy Club will be presenting a special “Black Hole” presentation at 3:30 p.m. in the Woolaroc Events Center. The Club will host a “cosmic scavenger hunt” on the grounds of Woolaroc which will lead guests to a Star Wobble Exhibit, Solar System Exhibit, Matter Down the Hole and Inside a Telescope Exhibit.

This event is open to the general public at no additional charge beyond the normal admission to Woolaroc.

On Saturday evening, the Club will present a special Celestial Event for the members of Woolaroc from 6:30-11:30 p.m. This special event

will include a Black Hole presentation from 7-8 p.m. With telescopes set on the grounds of Woolaroc, members will be able to view the stars and the galaxies in a way they have never seen before.

Bob Fraser, CEO of Woolaroc, says, “This is a great example of the ever-changing events that we are hosting at Woolaroc for the general public and Woolaroc members. This should be a great day of fun and excitement as the ‘magic’ of Woolaroc shines with the help of the Astronomy Club and the stars in the heavens.”

Admission to Woolaroc is \$8 for adults, \$6 for 65 and over and children 11 and under are free. Woolaroc is located 12 miles southwest of Bartlesville and 45 miles northwest of Tulsa on State Highway 123. Woolaroc is listed on the National Register of Historic Places in Washington, D.C.



Special to the E-E  
The Astronomy Club of Tulsa will be on hand for an all-day “solar viewing” on Saturday at Woolaroc Museum and Wildlife Preserve. Events include special presentations, a “cosmic scavenger hunt” and a members-only viewing.

**Preliminary Report – Weather was perfect! Event was fantastic! Full write-up in November Newsletter.**

### ACT Treasurers Report for Sept 24, 2009 John Land - Treasurer

#### Membership

101 Long Term members

plus 81 guests signed up for email

43 New Members

144 Total Membership on Sept 24th

As of Jan 1, 09 we had 130 members

#### Annual Report of Accounts

	Sept 24-2009
Checking	\$ 1,228.53
Savings	\$ 859.07
<b>Available Liquid Assets</b>	<b>\$ 2,087.60</b>

Sept 18, 09 the club sold a pair of antique Japanese Binoculars for \$ 3600 - \$ 79.07 packing and fees

**\$ 3,520.94**

A net of \$ 3520.94 is currently held in reserve in Savings

**Total Assets in Bank \$ 5,608.54**

#### Wells Fargo Investments accounts

( formerly Wachovia )

	Sept 24-2009	Sept 30-2008
Cash Balance	\$ 709.98	\$ 14.36
Franklin Income Fund	\$ 7,810.72	\$ 7,765.54
American Balanced Fund	\$ 2,127.44	\$ 2,234.57
Washington Mutual Inv Fund	\$ 1,891.59	\$ 2,210.21
<b>Total Club investments</b>	<b>\$ 12,539.73</b>	<b>\$ 12,224.68</b>

#### Actual Out of pocket investment in funds

Franklin Income Fund	\$ 6,840.14
American Balanced Fund	\$ 2,268.06
Washington Mutual Inv Fund	\$ 2,268.06
<b>Totals</b>	<b>\$ 11,376.26</b>

**Note:** As of Sept 10, 2008 we stopped dividend reinvestment  
Dividends are deposited in a cash account to provide the club a source of income

## Observing Pages

### Information Exchange

The Astronomy Club of Tulsa has started a new Yahoo Group for the club. For those of you who are unfamiliar with Yahoo groups, it 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 be sure to check it out! Tony White is the group's moderator.

## October 2009 Observing List

	Double Star	Galaxy	Star Clusters		Nebula		
			Globular	Open	Bright	Planetary	Dark
1	Zeta Sge	NGC6902	M71	NGC6802		NGC6879	
2	10 Sge	NGC6912	M72	H 20		NGC6886	
3	Theta Sge	NGC7172	M15 *	M73		IC4997	
4	NGC7839	NGC7173	M2	NGC7772		NGC7009	
5		NGC7174	M30			Pease 1 *	
6		NGC7176				NGC7293	
7		NGC7410					
8		IC1459					
9		NGC7418					
10		NGC7421					
11		NGC7424					
12		IC5269					
13		IC5271					
14		IC5273					
15		NGC7448					
16		NGC7454					
17		NGC7456					
18		NGC7462					
19		NGC7469					
20		NGC7479					
21		NGC7552					
22		NGC7582					
23		NGC7590					
24		NGC7599					
25		NGC7619					
26		NGC7626					
27		NGC7678					
28		NGC7819					
29		NGC1					
30		NGC2					
31		NGC16					
32							

\* - Pease 1 is a Planetary Nebula within Globular Cluster M15

Details of this list are located in the folder, "ACT Observing Lists" in the AstroTulsa Yahoo group's files section. This list contains too many objects to "observe" in one evening, but we will recognize anyone who observes 20 or more of these objects. The reason there are many objects is to give the observer a variety of objects that can also be used for

completion of a Astronomical League (AL) Observing Club. For more information on the Astronomical League and the observing clubs, check them out at <http://www.astroleague.org/observing.html>.

All of the objects cross the meridian between 8 PM and midnight. For this month, we are continuing with a new list of objects. These objects are based on the book, "Deep-Sky Wonders" by Walter Scott Houston. For those who may not know, Walter Scott Houston had the monthly column "Deep-Sky Wonders" in Sky and Telescope. This book is adapted from his many years of information contained within that column. It is a great book and I highly recommend it for those who want to find out more information about these objects, how to find them and especially how to observe them. Sue French authors the present column in Sky & Telescope.

For the month of October, the Milky Way is sinking to the west and becoming less prominent in the overhead sky. Because of this, the dust of the Milky Way does not obscure the skies as much and you can now start seeing some of the Fall galaxies. This month's list is dominated by many such galaxies. Also you can start to see some of the more distant local objects that do not lie within the Milky Way disk such as Globular Clusters. Be sure to check out M15, the Great Pegasus Cluster. While observing this object, look for the very small planetary nebula, Pease 1 that is contained within this globular cluster.

Another beautiful planetary nebula that you do not want to miss is NGC 7293, the Helix Nebula. This fairly large nebula is easily visible with medium sized scopes. If you have one, be sure to use either a UHC or OIII filter to show more contrast of this object. If you do not have one of these filters, I'm sure that someone would probably be willing to loan you one. If you really want to view planetary nebulas, owning one of these filters is worth the experience. Here's an image of NGC 7293 that I took at the Okie-Tex Star Party in 2007. You can see a more detailed view of this image on my website at <http://web.olg.net/vgallagher-olg/NGC7293.htm>.



Please take a look and give feedback to either Ann Bruun or Rod Gallagher. Also, please provide a copy of your observing logs to Ann Bruun.

Thanks – Rod Gallagher

## First Annual Fall Messier Marathon

Since blizzards and clouds thwarted our two attempts in March and April, on the evening of October 17th we will be holding our first annual Fall Messier Marathon. Most everyone is familiar with the March event but few know that a similar window is available in October ([http://en.wikipedia.org/wiki/Messier\\_marathon](http://en.wikipedia.org/wiki/Messier_marathon)). There is a short period during the fall where 107 out of 110 objects can be seen from our latitude. This will be quite a bigger challenge than the traditional marathon since the two most object laden parts of the sky occur at sunset (Sagittarius) and sunrise (Virgo Cluster). I will have log sheets and finder charts available.

Ron and Maura Wood have graciously extended an invitation to hold the marathon at TUVA in Council Hill, near Checotah. As is the tradition, each attendee brings food and/or drinks to supply the always bountiful pot luck feast. For anyone who has never been to their facility, we can organize a caravan.

I encourage everyone to attend, as this event is so unique, fun, and unlike any other observing experience you've ever had, you won't be disappointed.

Tom McDonough

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## The Return of BART – A “Thank you” from Ron Wood

I would like to thank all the Tulsa club members who helped refurbish Bart with their donations and I am glad to report that the job is now finished. With the help of Byron Milland, the original builder, the scope has been sandblasted and painted. It is now a green telescope with gold lettering. The mirror was recoated by Optical Mechanics Inc in Iowa at a cost of \$820. Several other improvements were made including new wiring for brake, signal and turn lights, a set of valve springs around the pull bolts under the mirror cell for easier collimation, a crank type elevator jack on the trailer tongue for easier hitching and a lock down strap on the fork arms for travel mode. So Bart is back better than ever thanks to his generous friends in the Tulsa club. To top it all off Bart also now has a new two-inch 17mm Ethos eyepiece courtesy of Al Nagler and the Okie-Tex giveaway. Thanks again and we are hoping everyone will soon get a chance to enjoy the view.

Ron Wood



Garrett Optical® stocks over 50 astronomy binoculars from six different manufacturers, and we're based right here in south Tulsa.

Visit our websites  
[www.GarrettOptical.com](http://www.GarrettOptical.com)  
[www.AstronomyBinoculars.com](http://www.AstronomyBinoculars.com)  
for more information!

## *Menu for November 6<sup>th</sup> Dinner Meeting*



### **Grilled Mahi Mahi - \$12.95**

Served with long grain and wild rice and seasoned vegetables

### **Rotisserie Broiled Chicken - \$9.95**

A half chicken, infused with lemon and rosemary slow-roasted in our custom hickory-fired rotisserie, served with long grain and wild rice and seasoned vegetables

### **Top Sirloin - \$13.95**

An 8-oz USDA choice top sirloin, cooked medium in temperature, served with white cheddar mashed potatoes and seasoned vegetables

### **Grilled Tilapia - \$10.95**

Served with long grain and wild rice and seasoned vegetables

# ASTRONOMY CLUB STAR PUBLIC PARTY

**FRIDAY OCTOBER 9<sup>TH</sup>** - ALTERNATE DATE WILL BE SATURDAY OCTOBER 10<sup>TH</sup> IF SKY IS CLOUDY ON FRIDAY.

GATES OPEN AT ~6:30 PM / SUNSET 6:56 P.M. / END CIVIL TWILIGHT - 7:21 P.M.

LAST QUARTER MOON ON 11 OCTOBER 2009 AT 3:56 A.M. CENTRAL DAYLIGHT TIME

Due to the uncertain weather reports, always check your local weather reports for sky conditions. Our club has excellent resources for predictions of cloud cover on the observe section of our website <http://www.astrotulsa.com/Observe/observe.asp>, or check the AstroTulsa Yahoo Page <http://tech.groups.yahoo.com/group/AstroTulsa/> for cancellations if weather is uncertain!

- 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 \$2.00 per guest would be appreciated to help us maintain the observatory.*



### CLUB OFFICERS

POSITION	NAME	PHONE
<b>President</b>	Tony White	918-258-1221
<b>Vice-President</b>	Tom McDonough	918-665-1853
<b>Co-Treasurers</b>	John Land Jim Miller	918-357-1759 918-627-4551
<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
Bill Steen	918-251-3062
Chris Proctor	918-810-6210
Rick Walker	918-451-9235
Dennis Karcher	918-619-7097

### APPOINTED STAFF

POSITION	NAME	PHONE
<b>RMCC Facility Manager</b>	Chris Proctor	918-810-6210
<b>Membership Chairman</b>	John Land	918-357-1759
<b>Observing Chairman</b>	Ann Bruun	918-834-0757
<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>	Tom McDonough	918-665-1853
<b>Newsletter Editor</b>	Dennis Karcher	918-619-7097
<b>Night Sky Network</b>	Peggy Walker	918-640-0832

### 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 proud 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 [djkarcher@cox.net](mailto:djkarcher@cox.net)**

*Deadline for November Article submissions: October 23, 2009  
 Target Publication for November Observer = October 28, 2009  
 eMail article submissions to: [djkarcher@cox.net](mailto:djkarcher@cox.net)*