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!

**Important ACT Upcoming Dates:**

- **ACT Monthly Meeting @ Bass Pro** - 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

<table>
<thead>
<tr>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sunrise: 7:31am</td>
<td>Sunset: 7:04pm</td>
<td>Moonrise: 7:01pm</td>
<td>Moonset: 7:41am</td>
<td>First Qtr: 12:14am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

**October 15–18: Heart of America Star Party in Butler Missouri** ([http://www.hoasp.com/](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](http://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/](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.

Information for October 2009
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 damps 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. Woularc 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

---

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

PTSOYMARDRNARIPYRSBWGBHARSOAYOSRCSPOXEYMONTSRACMTRMSTSAIRRERRITTDNRSSSAUIRRTDARTHSTOFSELTRUYNNAENRRYATINLAA
PKTAYONATAEARSSTCRALOTTEADMELSAAINONSYTBDAIPINFGAMTATSARBEPSFRPTLREOEYTRAPRATSSKCORFOYTICRAARTRAAAYTIMWQ
REAPCRESYSPTDISLRYAKOAANAPPASPLSTYNERRYTSPHRNIRIHTDRTLYYKETTAROTRNLAGTOAUITOREEARTOTTFIERRSRIMYSIASRAYAOTENNIS
YRPTALAYALPPLNCSANEOSTPSAATTRYDTAMRMMAERTOERTRTAASPRUPHYUERACNRSNPSASALPMBSRSPAPRRLGTORATATLONARCNAATNFRRRORSAAACORPANACANDCELSTTRRIPITONRASS
EAAMSTEINAAARTNKTIYRRTOTOHTAATRDTIGMTRDAATRMEAHAGIAIPEYESLMAOEPRNNIFANTNRESYT
ESSERRGSMNPANDSMASSTARPARYNTALNIGRA
RDTTOPEEPERCYTOPKREUEITYITTSLOERUOTTNEMFARLASSAIUSIERRASUMMERSTARPARY
AATMKRTTLYRROSRAISDOTOYRAHREAAEANSAG
ALTCTPEAEEAHOHPTRYBSTFRYSNIDAREDEAO
RFOSAYTDNPMROAAABTPFPEERXAYSKITGCSAA
TEIHLATORNROPAIRIEEITPNASTDAMSMUACAYED
TITGBURAIAUYNSTNRSHELMTACNEILAYNZAI
MHSMRTTTEOAXBALNYSORTETPOIMMPIEITAYEEELLSCSRNSEOAESUXSTTNOKMRTDARAKOPTSSCOYCO
TATESSNALYTRAPRATSWOLLOHNEDDIHHRNAIO
OTASAMAMFEJEKERFARYEOLEPTTDSSAPLUSARG
ADVSCYGXANAUIOSSRNHNNTMTEPIIRAIATAAM
ZERITTRRNOGRDRIFFLESSZONESTARPARTYATMB
TTROUBLEMOUNTAINSTARPARYSMTUPRROA
METOIORAGSSSTASRRYYAAATTTEALEATPSNP
ATYTRAPRATSSXTETIKORSRAPPMMNOOSZRAXTOT
EATPYTSROESPPOYSUMRPAIPNAROREIAYRTAO
RSIODEEPSOUTHREGIONALSTARGAZETSBEYMIITOAAODCTSTASERNNAOCRYPCCRYIPBTRNYYRRNR
NOITACOSSASEREMONORTSARUETAMAIBMACSEMUEATOECSRMUSAUYPTPRDDBYTXNALLYLRO. TCDYIT

Astrofest
Chiefland Star Party
Craters of the Moon Star Party
Driftless Zone Star Party
Golden State Star Party
GSMNP and SMAS Star Party
Idaho Star Party
Mid Atlantic Star Party
Nebraska Star Party
Oregon Star Party
Prairie Skies Star Party
RTMC Astronomy Expo
Smoky Mountain Star Gaze
Table Mountain Star Party
Winter Star Party

Black Forest Star Party
City of Rocks Star Party
Deep South Regional StarGaze
Escambia Amateur Astronomers Association
Grand Canyon Star Party
Hidden Hollow Star Party
Indiana Star Party
Mt. Bachelor Star Party
Okie-Tex Star Party
Pomerelle Mountain Star Party
Rocky Mountain Starare
Sierra Summer Starparty
Stellafane
Texas Star Party

(Answers in next month’s newsletter)

October 2009
October Evening Constellations

LATITUDE OF TULSA

Sky at 23 hrs sidereal time.

Astronomy Club of Tulsa

By Louise Desjardins

<table>
<thead>
<tr>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEP</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM 4</td>
<td>3</td>
<td>2</td>
<td>1 PM</td>
<td>12 AM</td>
<td>11 AM</td>
<td>10 AM</td>
<td>9 AM</td>
<td>8 AM</td>
<td>7 AM</td>
<td>6 AM</td>
<td>5 AM</td>
</tr>
</tbody>
</table>

Full Moon............. October 4th
Last Quarter......... October 11th
New Moon............. October 18th
First Quarter........ October 26th

October 5th – Mercury G. W. Elongation (18°) – Morning
October 13th – Venus passes 0.6° S. of Saturn (11am CDT)
October 21st – Orionid Meteor Shower peaks
Evening – Jupiter / Morning – Mercury. Venus, Saturn & Mars
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, 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

EM755B7825B85B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B785B75B
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 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.

ACT Observer

Page 7 of 14

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

or

Hardcover: 309 pages

Publisher: Sky Pub Corp

Date: December 1998
ISBN-10: 093334693X

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 reflection 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 Rimmel / 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.

October 2009
**Preliminary Report** – Weather was perfect! Event was fantastic! Full write-up in November Newsletter.

---

### ACT Treasurers Report for Sept 24, 2009

**John Land - Treasurer**

<table>
<thead>
<tr>
<th>Membership</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>101 Long Term members</td>
<td></td>
</tr>
<tr>
<td>43 New Members</td>
<td></td>
</tr>
<tr>
<td><strong>Total Membership on Sept 24th</strong></td>
<td><strong>144</strong></td>
</tr>
<tr>
<td>As of Jan 1, 09 we had 130 members</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Annual Report of Accounts</th>
<th>Sept 24-2009</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Checking</td>
<td>$1,228.53</td>
<td></td>
</tr>
<tr>
<td>Savings</td>
<td>$859.07</td>
<td></td>
</tr>
<tr>
<td>Available Liquid Assets</td>
<td>$2,087.60</td>
<td></td>
</tr>
</tbody>
</table>

| Sept 16, 09 the club sold an 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                     |   |

<table>
<thead>
<tr>
<th>Wells Fargo Investments accounts (formerly Wachovia)</th>
<th>Sept 24-2009</th>
<th>Sept 30-2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Balance</td>
<td>$709.98</td>
<td>$14.36</td>
</tr>
<tr>
<td>Franklin Income Fund</td>
<td>$7,810.72</td>
<td>$7,765.54</td>
</tr>
<tr>
<td>American Balanced Fund</td>
<td>$2,127.44</td>
<td>$2,234.57</td>
</tr>
<tr>
<td>Washington Mutual Inv Fund</td>
<td>$1,691.59</td>
<td>$2,210.21</td>
</tr>
<tr>
<td>Total Club investments</td>
<td>$12,539.73</td>
<td>$12,224.68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actual Out of pocket investment in funds</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Franklin Income Fund</td>
<td>$6,840.14</td>
</tr>
<tr>
<td>American Balanced Fund</td>
<td>$2,268.06</td>
</tr>
<tr>
<td>Washington Mutual Inv Fund</td>
<td>$2,268.06</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$11,376.26</strong></td>
</tr>
</tbody>
</table>

**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
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

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

* - 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.olp.net/vgallagher-olp/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

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
www.AstronomyBinoculars.com
for more information!

October 2009
Menu for November 6th 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
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](http://www.astrotulsa.com/Observe/observe.asp), or check the AstroTulsa Yahoo Page [http://tech.groups.yahoo.com/group/AstroTulsa/](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. 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.*

---

October 2009
### CLUB OFFICERS

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>PHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Tony White</td>
<td>918-258-1221</td>
</tr>
<tr>
<td>Vice-President</td>
<td>Tom McDonough</td>
<td>918-665-1853</td>
</tr>
<tr>
<td>Co-Treasurers</td>
<td>John Land</td>
<td>918-357-1759</td>
</tr>
<tr>
<td></td>
<td>Jim Miller</td>
<td>918-627-4551</td>
</tr>
<tr>
<td>Secretary</td>
<td>Teresa Kincannon</td>
<td>918-637-1477</td>
</tr>
</tbody>
</table>

### BOARD MEMBERS AT LARGE

<table>
<thead>
<tr>
<th>NAME</th>
<th>PHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann Bruun</td>
<td>918-834-0757</td>
</tr>
<tr>
<td>Steve Chapman</td>
<td>918-342-1643</td>
</tr>
<tr>
<td>Rod Gallagher</td>
<td>918-369-3827</td>
</tr>
<tr>
<td>Bill Steen</td>
<td>918-251-3062</td>
</tr>
<tr>
<td>Chris Proctor</td>
<td>918-810-6210</td>
</tr>
<tr>
<td>Rick Walker</td>
<td>918-451-9235</td>
</tr>
<tr>
<td>Dennis Karcher</td>
<td>918-619-7097</td>
</tr>
</tbody>
</table>

### APPOINTED STAFF

<table>
<thead>
<tr>
<th>POSITION</th>
<th>NAME</th>
<th>PHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>RMCC Facility Manager</td>
<td>Chris Proctor</td>
<td>918-810-6210</td>
</tr>
<tr>
<td>Membership Chairman</td>
<td>John Land</td>
<td>918-357-1759</td>
</tr>
<tr>
<td>Observing Chairman</td>
<td>Ann Bruun</td>
<td>918-834-0757</td>
</tr>
<tr>
<td>New Members (co-Chairmen)</td>
<td>Owen Green</td>
<td>918-851-1213</td>
</tr>
<tr>
<td></td>
<td>Rick Walker</td>
<td>918-451-9235</td>
</tr>
<tr>
<td>Observatory Director</td>
<td>Teresa Kincannon</td>
<td>918-637-1477</td>
</tr>
<tr>
<td>Webmaster</td>
<td>Tom McDonough</td>
<td>918-665-1853</td>
</tr>
<tr>
<td>Newsletter Editor</td>
<td>Dennis Karcher</td>
<td>918-619-7097</td>
</tr>
<tr>
<td>Night Sky Network</td>
<td>Peggy Walker</td>
<td>918-640-0832</td>
</tr>
</tbody>
</table>

### 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

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

October 2009