



Desert Skies

Tucson Amateur Astronomy Association

Volume LIV, Number 1

January, 2008



TAAA Telescope Winner

Inside this issue

- ♦ *Learn about the*
- ♦ *January School star parties*
- ♦ *Constellation of the month*

Cover Photo: Congratulations to Victor Herrero on winning the Celestron/Byers 8-inch SCT at the holiday party. Photo by Ken Shaver.

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Membership in the TAAA

Annual Fees

Individual membership..... \$25.00
 Family (includes two adults plus minor children)..... \$30.00
 Youth under 18 years must join as a family upon parental or guardian acknowledgement of participation in TAAA events. Ask the Treasurer for the required form.

Discounts (one discount allowed, subtract from above rates)

Seniors (over 60 years) \$2.00
 College Students, Teachers (K - 12)..... \$8.00
 Youth under 18 yrs (form required, contact the treasurer) \$13.00

Options (add to above membership rates)

Tucson society of the Astronomical League (TAL) fees \$ 5.00
 Sky & Telescope Magazine 1 year (12 issues)..... \$32.95
 Astronomy Magazine 1 year (12 issues)..... \$34.00
 2 years (24 issues) \$60.00
 Postage for New Member Pack..... \$ 4.60

Donations are accepted for the following funds: SA-IDA/Light Pollution, TIMPA, Education, 30" Telescope & Land, and General/Undesignated.

Renewal Information

- Your membership expires as indicated on your mailing label.
- TAAA members may join the Tucson society of the Astronomical League (TAL) at the time they join or renew.
- Discounted Sky & Telescope or Astronomy magazine subscriptions are available to members and can be started or renewed at anytime. Rates are given above. Allow 3 months for processing. Subscriptions must be sent through the TAAA. Do not send money directly to the magazines. To change an individual subscription to the group rate, pay the

subscription amount to the TAAA treasurer. Include your magazine renewal notice.

- Please include a note explaining what you are paying for. Credit cards are not accepted. Write one check or money order for fees plus any options or donations. Make it payable to TAAA and send to:

Tucson Amateur Astronomy Association
 PO BOX 41254 Tucson, AZ 85717

Mailing Address or Email Changes - Send to address above or email the treasurer.

TAAA Mission Statement - The mission of the Tucson Amateur Astronomy Association is to provide opportunities for members and the public to share the joy and excitement of astronomy through observing, education and fun.

Desert Skies Publishing Guidelines - All articles, announcements, news, etc. must be submitted by the newsletter deadline. Materials received after that date will appear in the next issue. The editor retains all submissions unless prior arrangements are made. Submissions should be submitted in Word compatible files via e-mail or on a recordable media.. All material copyright Tucson Amateur Astronomy Association or specific author. No reproduction without permission, all rights reserved. We will not publish slanderous or libelous material! Send submissions to:

George Barber
 TAAA/Desert Skies Editor
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 Tucson AZ 85736

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President's Message

Greetings fellow TAAA Members,

The end of December found our president out of the country so this month we will have to call this section the Vice-President's message.

I hope that everyone had a happy and safe holiday. Thank you to everyone that helped to make this year's Holiday Party a success. Look for pictures throughout the newsletter from the party. I would like to offer a very special thank you to the Lofquists for hosting the event and opening their home once again. Thank you to everyone who provided items for raffle prizes to the club. We had a great selection this year and congratulations to all of the winners. A very big thanks to the commercial sponsors for their generosity for the holiday party and throughout the year.

We have had a very busy year with many projects making huge advancements. The home for the 14" LX200 at TIMPA is nearly ready. We should be looking to have first light early in the New Year. The Dark Site project has also seen tremendous gains. There is not enough room in this address to properly thank all of the people by name who helped with their time and money to make this happen.

The entire organization is very grateful to them all. The New Year promises to bring even more activity.

What we are able to set up and organize on the Land Project over the next several months will set the foundation for our Dark Site observing facilities for years to come. Please keep your eyes out for additional ways that you can help make our goals become a reality. There will be meetings in January on the 17th and 19th and in February that will identify and organize Ad Hoc groups. These groups will set up the needed infrastructures for the Astronomy Complex. We are looking for expertise setting up such things as Rules, Regulations, Utility installation, Observing structures, and Fund Raising needed to pay for all of the above. If you have ideas of what you would like to see at the complex, please get involved, come to the meetings and think about joining one of the groups that interests you.

I look forward to the coming year and all that it promises for the organization. A Happy New Year and clear skies.

Ken Shaver, Vice-President

Meeting Information and Calendar of Events

TAAA MEETING DATE: Friday, Jan. 4, at the Steward Observatory Auditorium - Room N210

ASTRONOMY ESSENTIALS: 6:30 pm

Title: Celestial Objects

Speaker: Dr. Mary Turner

It is time again for our quarterly look at some of the celestial objects that are good candidates for viewing over the next few months. Pictures and data will be presented on objects which may include constellations, globular and open clusters, nebulae, planets, galaxies or any other of the many wonders to be found in our night skies.

GENERAL MEETING: 7:30 pm

Title: A NEO Search Yields Much Science

Speaker: Roy Tucker

In the spring of 2001, a series of two-year surveys began with an array of three small telescopes with CCD cameras. What was initially an amateur asteroid search effort has grown into a productive amateur/professional collaboration. The history of this effort and some of the results will be presented by amateur astronomer Roy Tucker.

Roy grew up in Memphis, Tennessee and became interested in astronomy while in high school. He received a Bachelor's degree in Physics from Memphis State University (now The University of Memphis) in 1978. His Master's

degree in Scientific Instrumentation was granted by The University of California, Santa Barbara in 1981. He makes a living as an electronic instrumentation engineer and is currently employed at the University of Arizona's [Imaging Technology Laboratory](#).

BOARD OF DIRECTORS MEETING: Wednesday, Jan. 9, 6:30 pm. The meeting is held at Steward Observatory Conference Room N305.

STAR PARTIES AND EVENTS:

04 Jan- Flandrau Science Center Mars Viewing

05 Jan- Flandrau Science Center Mars Viewing

05 Jan - TAAA Star Party at Las Cienegas

07 Jan - Astro-Imaging SIG Meeting at China Rose

10 Jan - Beginners Special Interest Group at China Rose

12 Jan - TAAA and BSIG Star Party at TIMPA

17 Jan - Picture Rocks Intermediate School Star Party

22 Jan - Vesey Elementary Star Party

30 Jan - Wilson Elementary Star Party

NEWSLETTER SCHEDULE: Deadline for articles: Sat, Jan. 19. Printing: Mon, Jan.21. Folding Party: Wed Jan.23. Mailing: Thu Jan.24. The newsletter is mailed at least one week prior to the following month's General Meeting.

Club News

Member News

With sadness we announce that George Barber's father passed away recently.

Richard Dougall has recently undergone surgery related to the nearly fatal injury he had about a year ago. We wish him the best.

Astro-Imaging SIG Meeting

Monday, Jan. 7, 7pm

China Rose, NE corner Speedway/Rosemont

Our presentations feature CCD images, planetary webcams, and film. Come see some of the state of the imaging art over some Chinese food. Just show up and enjoy the show! For more information, contact Steve Peterson.

Basha's Thanks a Million Program

Basha's has an excellent program to support local non-profit groups like the TAAA. It's called the Basha's Thanks a Million for Friends and Neighbors program. This is a no-brainer fundraiser. If you shop at Basha's and have a "Thank you" card, the next time you go through the checkout, give the cashier this number: ID #23178. They can look up the number using our name, too. It's that easy! Just do it once. At the end of the program next spring, Basha's will make a donation to the TAAA based on the total sales of every Thank You card linked to our number. Anyone can participate, so give our number to family and friends. If you participated last year, you need to give our ID number again, or your sales won't count. Thanks to everyone who participates.



ID # 23178



WORKSHOPS IN THE NEAR FUTURE

A request has been made to arrange for NSN Toolkit workshops so members can learn more about them and perhaps get them into more use at our outreach events. Terri Lappin is looking into this. Let her know (see page 2 for contact info) you're interested and if you have a preference for when they are held. This will help her know how many people will attend and when best to schedule the workshop. The first workshop will most likely cover the Exploring the Solar System toolkit.

All NSN toolkits contain essentially all the materials needed for the projects. The projects are easy to do and you don't have to use all the projects in your outreach activity. You get to pick and choose the project(s) you demonstrate.

PlanetQuest: materials to explain how planets are detected, why we put telescopes in space, treasure hunt for objects related to stellar evolution, star chart of naked eye stars known to have planets in orbit

Our Galaxy, Our Universe: scale model of the Milky Way galaxy and the Universe

Black Hole Survival Kit: what is a black hole and how does it affect objects nearby, includes a game that a group or family can play

Telescopes - Eyes on the Universe: explains the basic principles of optics, the human eye, and observing

Shadows and Silhouettes: covers lunar phases, eclipses, and transits

Exploring the Solar System: scale model (size and distances) of solar system and NASA explorations of planets

All NSN toolkits include a Resources CD, a training DVD, and essentially all the materials needed for the projects. Each workshop attendee will receive a CD and DVD set. You can also request a copy of the CD and DVD set at a meeting.

The Night Sky Network has also given us a SolarScope to use in our outreach efforts. It will provide a white light image of the sun suitable for a small group to view together.

2008 Calendars

Calendars for 2008 will be available for purchase at regular meetings. You'll find them at the same table where you purchase TAAA apparel. This year you have your choice of either the Astronomy magazine "Deep Space Mysteries" calendars or the Vatican Observatory calendar...or get both. The cost for a calendar is \$10 each (\$3 or \$5 off the regular selling price), or \$9 each

Club News (cont.)

for more than one. Proceeds from the sale of these calendars will be used appropriately as decided by the board. Thank you to all who support the TAAA through the purchase of the yearly calendars.

TAAA Apparel

Looking for a special gift or a way to make that fashion statement? Try on something from our fine line of club apparel. We have got hats, T-shirts, denim shirts, and patches. We take cash and checks.

Beginners' Special Interest Group for January Note Meeting Date!

The Beginners Special Interest Group will gather for the monthly dinner meeting & TIMPA warm-up at the China Rose restaurant (NE corner of Speedway and Rosemont) on **Thursday, January 10**, at 6:00 pm. Note that this is a change from the normal Wednesday night. We will present an observing list for the TIMPA star party the following Saturday, January 12, and discuss topics of interest to beginning observers. Join us at the China Rose for information and good company, and at TIMPA for (we hope!) clear skies!

What's your name?

How many of us have struck up conversations with other members and then can't recall the person's name to whom we're talking? Its embarrassing asking someone you may sit next to each month, "What's your name?" Some members in leadership or volunteer roles already have nametags, but the TAAA Board of Directors has decided (at Keith Schlottman's suggestion) to get name tags for all TAAA members who want them. Over the next two months we'll be asking members attending our meetings if they want a name tag and what style they want (pin or magnet). You'll be under no obligation to pay for the nametag; your only obligation is to wear it at TAAA events. The current cost to the TAAA is going to be around \$5 each but we're looking for better pricing. We'll let you know how much the cost per nametag is so if you want to help offset this cost you can through a donation.

February Board of Directors Meeting

Meeting Date Change

The meeting date for the February board meeting has been moved to February 20. This is to support our application for a special use permit for our dark sky site.

Articles and Images Wanted

The Desert Skies newsletter is always open to member contributions. If you would like to submit an article, or an astro-image, just contact the newsletter editor. Perhaps there's something that you recently researched, or have always wanted to learn. Need a topic for study? Some members have expressed curiosity about the history and development of the Schmidt-Cassegrain telescope. All astronomy-related articles will be considered. See page 2 of the newsletter for contact information. Observing reports would also be interesting.

Grand Canyon Star Party

21-28 June, 2008

South Rim

With the coming of the New Year, it is time to make plans for attending the Grand Canyon Star Party '08. The dates are late this year, and the event starts only 3 days after full moon. There are a couple reasons for this - we could have held it June's first week, but our regulars (we put this to a vote last year) didn't want to hold the star party when kids might still be in school. And if we moved it back a week, we would run into the 4th of July weekend, which the NPS wanted to avoid, so here we are on the 21-28. But even so, moonrise on that first Saturday is about 10pm, so we still have a little dark sky, even on night 1, and it gets better during the week. We'll have Mars and Saturn in the west and best of all, Jupiter will be at opposition.

Note that the north rim staff wanted to severely curtail that version of the star party, so we will only be at the south rim this year.



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Club News (cont.)

So book your reservations if you need a hotel room and, as usual, I will take names for the complimentary campsites on 1 March. Hope to see you there!

Dean Ketelsen, ketelsen@as.arizona.edu

Radio Astronomy, Amateur Style

Several TAAA members have expressed an interest in forming a group to explore astronomy at radio wavelengths. NASA has a basic project called "Radio Jove" that involves building an inexpensive receiver to monitor signals from Jupiter, the Sun, and the Milky Way. You can buy various combinations including a complete kit (receiver, antenna, info CD) for \$155. There is also plenty of free information and software available for this type of observing. You probably won't make any cosmos-shattering discoveries with this kit, but you can reasonably expect to enhance your own personal knowledge of the universe by building and using it. NASA promotes this project as an educational outreach program, so for those of you interested in school outreach it might be a good project for some ambitious kids. The next "Observing Season" for Jupiter starts around February 2008, and the solar season is year-round, so if we order now and build in early 2008 we might have some results within a few months! If this sounds interesting, take a look at the Radio Jove website at <http://radiojove.gsfc.nasa.gov/>.

Upcoming Lectures

Our meeting lecture schedule for the first half of 2008 is looking very full. There are still openings for the Astronomy Essentials lectures in March and June.

Feb 1	Astronomy Essentials	Keith Schlottman Observing Accessories You Can't Live Without
	Invited Lecture	Doug Isbell
Mar 7	Astronomy Essentials	OPEN
	Invited Lecture	Peter Smith, LPL Mars Phoenix Mission
Apr 4	Astronomy Essentials	Mary Turner Seasonal Objects
	Invited Lecture	Gilda Ballester Exoplanets
May	Astronomy Essentials	Members Night, meet- ing begins at 6:30pm Election of Officers
	Invited Lecture	
Jun	Astronomy Essentials	OPEN
	Invited Lecture	Randy Jokipii Solar Heliopause and Voyager

Paid Star Parties – Year-end Recap

By John Kalas

The TAAA enjoyed another outstanding year regarding its Astronomy Services program. The success is directly attributable to the efforts and commitment of the members who support the program. This year the club provided astronomy services to 29 activities generating \$11,025 for the organization. I am deeply indebted to Michael Turner who took over the program while I was on medical leave in April and May of this year. His dedication kept the program rolling through a very busy time of the year. I would like to personally thank the following members for their support of this worthwhile program in 2007.

Michael & Mary Turner
Robert Crawford
Bill Lofquist
Jim O'Connor
Robert Wilson
J.D. Metzger
Steve Marten
Nick Applegate
Dean Ketelsen
Lou Faix
George Barber
Tom Rolfsmeyer
Thom Peck



MEMBER'S EVENTS

TAAA Star Party at Las Cienegas (Empire Ranch)
Saturday, January 05

Las Cienegas (formerly Empire Ranch) has been our normal dark-sky observing site for quite a number of years. Please try to arrive before sunset. Stay as long as you like, but let everyone know when you are ready to leave; someone may be taking astro-images. Bring a telescope if you have one, but you don't need one to attend. Any member would be glad to let you look through their telescope. And, there are now restroom facilities at the site. Las Cienegas is at 4000 feet so be prepared for cold temperatures. Attendees should park their vehicles either perpendicular to the airstrip facing toward the center of the strip, or parallel to the airstrip along either side facing west. That way, when you are ready to leave, you will not have to back up and turn on your bright white backup lights. See the directions to Las Cienegas on the outside flap of this newsletter.

TAAA and BSIG Star Party at TIMPA
Saturday, January 12

Come on out and enjoy the winter skies! TIMPA star parties are great for both beginners and experienced observers. Our novice members can get help with observing issues or equipment problems, as there are many experienced members there who would be happy to help. If you don't own a telescope, come anyway, because there are lots of telescopes set up and everyone is invited to look through them. This is a great way to check out different telescope designs before you make that all important decision to buy. We'll do our best to get you the answers you need. If you have friends or relatives who are curious about amateur astronomy, feel free to bring them along. The TIMPA site features a large parking area, and full restroom facilities. Directions to the TIMPA site are located on the outside flap of this newsletter. Be sure to dress warmly!

Items of Interest

Websites: Trips On The Internet Super-Skyway

By Rik Hill

The month for Barsoom

Mars (or Barsoom for you Edgar Rice Burroughs fans) is the dominant solar system object for this month, making its roughly biannual opposition visit on December 24, when many of us will be up to our armpits in relatives, presents and other holiday matters. But if you can, take some time to observe it in whatever telescope you have, maybe even sharing the view with some of those relatives. It's always rewarding, fun and can be instructive.

First, be sure to educate yourself on what you will be showing. There is one excellent website that is chocked full of great information and links. It's the Shallow Sky Mars website at:

<http://www.shallowsky.com/mars.html>

One of the facts they point out is that while Mars will be smaller at this opposition than it has been in a while (since 1997) but it will be much higher in the sky, in fact about as high as it can get. This should allow some good seeing observing especially for those in the city. One problem on this page is that they have not updated their ALPO links. The ALPO has a new web address (URL) of:

<http://alpo-astronomy.org/>

And you can get to the Mars Section page from there. Unfortunately, the ALPO Mars Section has not been very vigilant in maintaining their webpage and many links are now broken, dead or out of date.

A good article for the first time Mars observer is by Akkana Peck entitled "Mars Observing 101":

http://www.dustymars.net/Observing_Mars.html

The article is written for the 2005 opposition but still contains lots of information that is not specific to that opposition. One thing first timers need to keep in mind is that this is not the Orion Nebula or Andromeda Galaxy. Don't use low powers. Crank up the magnification to whatever the seeing will allow, preferably 50 or 60 times the aperture in inches. You'll need this to see the pole caps and dusky markings.

Long time Mars observer, formerly with the USNO, Jeff Beish has a nice manual on line at:

http://www.dustymars.net/Observing_Mars.html

that details much of what he has learned in 50+ years of observing the red planet.

A good source for news about Mars can be found at the website for the International Mars Watch:

http://www.dustymars.net/Observing_Mars.html

Lastly, you'll likely need a detailed Mars Ephemeris specific for Tucson for this opposition if you want to get all the information for the circumstances of your observations. If you don't want to generate one yourself you can find one at:

<http://seds.lpl.arizona.edu/~spider/spider/Mars/Eph/me2007tuc.txt>

Have fun showing family and friends Mars in all it's winter glory and impressing them with your newly acquired knowledge! Happy Holidays one and all!!

Items of Interest (cont.)

{As always, if you have a topic you'd like explored or have some interesting URLs you've turned up, drop me a line at: rhill@lpl.arizona.edu}

New Vistas In Astronomy

Smithsonian Institution
Fred Lawrence Whipple Observatory

Lectures in Astronomy, Free to the Public, In the Santa Cruz Valley. The Fred Lawrence Whipple Observatory takes pleasure in presenting its 38th year of public lectures on astronomy and astrophysics for the Southern Arizona community. The series presents recent discoveries in astronomy, local research projects, and modern methods used to explore the universe.

Whatever Happened To Pluto?
Trevor Weekes, Fred Lawrence Whipple Observatory
Wednesday, January 16, 9 a.m.

Clusters of Galaxies: A Very Big Laboratory
Jeremy Perkins, Fred Lawrence Whipple Observatory
Wednesday, January 30, 9 a.m.

Massive Stars as Cosmic Engines: Wolf-Rayet Stars, and Gamma-Ray Bursts
Grant Williams, 6.5-meter MMT Observatory
Tuesday, February 19, 9 a.m.

Strange New Planets
Emilio Falco, Fred Lawrence Whipple Observatory
Tuesday, February 26, 9 a.m.

News From Mercury: The MESSENGER Mission
Faith Vilas, 6.5-meter MMT Observatory
Wednesday, March 26, 9 a.m.

All lectures are held in the Green Valley Recreation Center West Auditorium, Green Valley, Ariz. Each 45-minute illustrated lecture is non-technical and intended for the interested layperson. A question-and-answer period follows each lecture. Admission is free and open to the public. For more information, call the Whipple Observatory Visitors Center at 670-5707. Co-sponsored by Green Valley Recreation, Inc.

SAIDA NEEDS MORE HELP FROM MORE TAAA MEMBERS. AFTER ALL, WE WILL ALL BENEFIT FROM DARK SKIES IN OUR AREA !!!

For more information, go to: www.sa-ida.org

Or feel free to contact:

John Polachek
President of SAIDA
E-mail: jpolach@dakotacom.net
Telephone: 743-1362

SAIDA meets on the second Wednesday of each month from 5:30 to 7:30 PM in the IDA office located at 3225 N. First Ave, just North of Ft. Lowell. And.....

WE USUALLY HAVE PIZZA !!!



Public Star Parties and Community Events

All members of are asked to support the TAAA School Star Party program and other community events listed below. TAAA either sponsors or co-sponsors these events. These are great opportunities for beginners as you may only need to know a few objects in the sky. Even without a telescope, you can be valuable in other capacities. Sign up sheets for many events can be found at the meeting or contact a TAAA officer.

Flandrau Science Center

Friday, January 04 and Saturday, January 05

Mars near Opposition: public viewing and presentations by Mars Phoenix Mission team members continues at Flandrau Science Center

The University of Arizona Science Center is hosting the first public outreach event of 2008, the second half of our public Mars viewing events this winter. TAAA astronomers and telescopes are needed for two (2) star parties on the UofA mall (organized by Flandrau) on Friday and Saturday January 4 /5 from around 6 p.m. (setup time is flexible and can start as early as 5:45 p.m. or as late as 7:00 p.m.) to 10:00 p.m., weather permitting. Those TAAA volunteers who need parking permits to park on the UA mall for this event should contact Michael Terenzoni (<miket@ns.arizona.edu>, or phone 621-3646). Otherwise evening parking (as on nearly all days) will be open and free of charge in any metered space on the UA campus; On Saturday there is free parking in any "Service Vehicle Only" spaces.

Because of possible news media coverage of this event, large numbers of the public may turn out. A sign up sheet will be available at the January meeting but members wanting to help out are encouraged to contact Michael Terenzoni (<miket@ns.arizona.edu>, or phone 621-3646) directly. For more information visit the Flandrau web site at <http://www.gotuasiencecenter.org/lectures-viewing/>

Picture Rocks Intermediate School SP **West**
Thursday, 1/17/2008 No. of Scopes: 4

Picture Rocks Intermediate School will be hosting Technology Night Activities at 5875 N Sanders Rd. Take I-19 south, exit Ajo. Go west to Kinney. Take Kinney north past Desert Museum, through Saguaro West National Park to Sandario. Turn right on Sandario and go north. Take

a left onto Rudasill, and then another left onto Sanders. Viewing will be at the bus loop turnaround. Contact person J.C.Schembri can be reached at 616-3700 or email J.C.Schembri@maranausd.org. Set-Up Time: 6:15pm. Observing will be from 6:45pm to 8:45 pm. Sunset: 5:44pm Dark Sky: 6:40pm Moon Phase: near Full Moon.

Vesey Elementary Star Party
Tuesday, 1/22/2008

Southwest
No. of Scopes: 4

Vesey Elementary will be holding Vesey Family Science Night at 5005 S Butts Rd. Take I-10 to I-19 and continue to Irvington exit and turn right at stop sign (go west-bound). Continue west on Irvington for several miles, past stop sign at Camino De Oeste, for about ½ mile. Viewing will be on the east side of the building outside of the cafeteria (dark parking lot and easy access to the astronomers to set up equipment) Contact person Jennifer Culbertson can be reached at 908-4600 or email jennifer.culbertson@tusd1.org. Set-Up Time: 6:15pm. Observing will be from 6:45pm to 8:45 pm. Sunset: 5:48pm Dark Sky: 6:44pm Moon Phase: Full Moon.

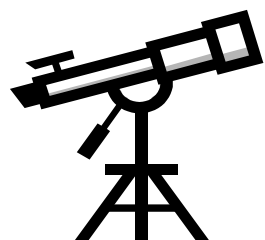
Wilson Elementary Star Party
Wednesday, 1/30/2008

Northwest
No. of Scopes: 3

Wilson Elementary will be planning A Tour of the Night Sky at 2330 W. Glover Rd. From Oracle take Ina west to La Cholla (Foothills Mall) and turn right (north). Proceed about 4 miles past Casas Adobes church, and then Naranja (stoplight) to Glover, turn left (west). School is a short distance on the right. Viewing will be on basketball court (follow signs). Contact person Betsy Wilkening can be reached at 954-2401 or email ewilkening@amphi.com. Set-Up Time: 6:30pm. Observing will be from 7:00 pm to 9:00 pm. Sunset: 5:56pm Dark Sky: 6:51pm Moon Phase: (no moon during viewing).



Telescopes for Borrowing



Free service



Only for Members

Don't own a telescope?
Our Loaner Program is your answer!

These telescopes are in the program

Sears 60mmf/15 on equatorial mount
Unitron 62mmf/14.5 on equatorial mount

Meade 90mm ETX

Coulter Odyssey8 8-inch f/4.5 Dobson

Meade 8-inch f/4 Schmidt-Newtonian LX200

Meade 10-inch f/4.5 on equatorial mount

Meade 10" LX200 GPS (requires training session)

Beginners, here's your chance to learn and observe the sky before buying any equipment. The Loaner Program is available to any current member after meeting requirements detailed in the TAAA Loan Policy. Contact the Equipment Loan Coordinator (see page 2) or any club officer for details about these telescopes.

Desert Skies Classified

FOR SALE	Meade DS-2114ATS Reflecting Telescope with Autostar Computer Controller. Optical diameter=144mm; Focal length/ratio=1000mm, f/8.8. Comes with 2 eyepieces (25mm, 9mm). Used 2x. Purchased new for Christmas 2005. Asking \$150. Call Kim at 574-2995. [03/08]
Wanted	Telescope for Sunnyside School District. Is that C-12 just taking up space around the house? The Sunnyside School District is looking for a telescope for use in school classes and programs. The ideal instrument would be a 10-inch telescope or larger and would be permanently mounted at a school site. Anyone who is interested in helping with any part of this project should contact the office of Tucson City Council member Steve Leal. Vice Mayor Steve Leal, Ward 5, 4300 South Park Avenue, Tucson, AZ 85714, Phone: (520) 791-4231, FAX: (520) 791-3188, E-Mail: steve.leal@tucsonaz.gov [02/08]

Your ad will run for 4 months unless specified. Month and year of last appearance is last item of ad. For additions or changes to this

Dark Skies for January 2008

DARK SKIES (no twilight, no moonlight) for Tucson in 24-hour MST: 18=6pm, 20=8pm, 22=10pm, 0=12am
RISE, SET, VISIBILITY for sun and bright planets: rise for morning object, set for evening object

Mo/Tu 31/ 1	18:57 - 1:28	Fr/Sa 11/12	21:03 - 5:59	Mo/Tu 21/22	Full Moon
Tu/We 1/ 2	18:58 - 2:24	Sa/Su 12/13	22:05 - 5:59	Tu/We 22/23	- - -
We/Th 2/ 3	18:58 - 3:21			We/Th 23/24	19:14 - 19:19
Th/Fr 3/ 4	18:59 - 4:19	Su/Mo 13/14	23:08 - 5:59	Th/Fr 24/25	19:15 - 20:22
Fr/Sa 4/ 5	19:00 - 5:16	Mo/Tu 14/15	0:13 - 5:59	Fr/Sa 25/26	19:16 - 21:22
Sa/Su 5/ 6	19:00 - 5:59	Tu/We 15/16	1:20 - 5:59	Sa/Su 26/27	19:17 - 22:20
		We/Th 16/17	2:31 - 5:59		
Su/Mo 6/ 7	19:01 - 5:59	Th/Fr 17/18	3:42 - 5:59	Su/Mo 27/28	19:17 - 23:16
Mo/Tu 7/ 8	19:02 - 5:59	Fr/Sa 18/19	4:52 - 5:59	Mo/Tu 28/29	19:18 - 0:13
Tu/We 8/ 9	19:02 - 5:59	Sa/Su 19/20	5:56 - 5:59	Tu/We 29/30	19:19 - 1:10
We/Th 9/10	19:03 - 5:59			We/Th 30/31	19:20 - 2:08
Th/Fr 10/11	20:01 - 5:59	Su/Mo 20/21	- - -	Th/Fr 31/ 1	19:21 - 3:06

Weekend	Sun	Sun	Mercury	Venus	Mars	Jupiter	Saturn	
Sa/Su	Set	Rise	Set Vi	Rise Vi	Set Vi	Rise Vi	Rise Vi	Vi=Visibility
5/ 6	17:31	7:24	18:19 7	4:37 -3	6:29 -1	6:38 6	21:35 1	-3 brilliant
12/13	17:37	7:24	18:47 4	4:49 -3	5:53 -1	6:17 4	21:07 1	0 conspicuous
19/20	17:43	7:22	19:09 3	5:01 -3	5:19 -1	5:56 2	20:37 0	3 moderate
26/27	17:50	7:19	19:11 4	5:12 -2	4:49 -1	5:35 1	20:08 0	6 naked eye limit
2/ 3	17:56	7:15	18:36 -	5:21 -2	4:21 -1	5:14 0	19:38 0	9 binoculars limit

By Erich Karkoschka

TAAA Board of Directors Meeting - Dec 12, 2007

Attending: TAAA Board Members present: Ken Shaver presiding, Steve Marten, Terri Lappin, George Barber, Teresa Bipert-Plymate and Keith Schlottman. Members present: Richard Crump.

Acting President's Call to Order: 6:32PM

November Minutes. November minutes accepted. Unanimous. Thanks to George Barber filling in for Steve Marten while he was away.

Member Feedback

Holiday Party was well received.

Suggestion to list astronomy topics in newsletter that members might want to research.

Suggestion to ask Gabrielle Gifford's astronaut husband to speak at a monthly General Meeting.

Presentation Schedule

Several persons considered for monthly General Meeting presentations including Claude Plymate on Corona research and Randy Jokipii, PhD of LPL on high energy astrophysics, interstellar media or other research.

Per above suggestion, astronauts would be welcome presenters; however, astronaut speaker fees are expensive and likely not within our budget constraints.

Announcements

Richard Dougall underwent more post-injury surgery on December 10 and remains hospitalized. The Board wished him a speedy recovery.

TAAA BOD meeting in January will be moved back to 2nd Wednesday but February will move to the 3rd Wednesday (to avoid conflict with Cochise County Planning and Zoning meeting regarding the Bumble Bee Dark site on that night.)

TAAA Telescope Loan program management has been reassigned to the Board of Directors for at least December and January. Email or call any Board member (posted on page 2 of newsletter) to borrow one of our loaner scopes.

Treasurer's Report - Terri Lappin

Terri presented the TAAA 2008 Budget. Most expenses are expected to remain approximately the same but additional costs for insurance related to the new dark site may require a revision in the next few months. The Board discussed 2008 cash flow and several possible changes. Website budget was increased from \$100 to \$500. Vote at next meeting.

Loaner Scopes - Ken Shaver

Ken discussed arrangements for moving loaner scopes from Richard Dougall's storage to the mini-mobile storage unit at TIMPA.

Dark Observing Site - Bill Lofquist

Bill Lofquist through Ken suggested Board schedule general membership ad-hoc meetings to help determine dark site policies and procedures. Two organizing ad-hoc meeting dates were proposed: Thu 1.17.08 at 6.30pm and Sat 1.19.07 at 9am. Also, Board discussed lighted sign at Dark Site (generally in favor) and design; Teresa will get clarification on when/if we need sign permit and should it be submitted with special use permit.

Rincon Area Development Including Astronomy Features -

Keith Schlottman received an email from Gil Lusk, possibly associated with development of the area east of the Rincon Mountains, asking to meet with Board members to obtain advice on astronomy features for a planned residential area. Keith will arrange a conference call with Steve Marten and Mr. Lusk to determine the nature of the request for advice.

Adjourned at 9:07 pm

Respectfully Submitted,

Steve Marten

Secretary



More Holiday Party Photos...



Constellation Report by Chris Lancaster

Columba The Dove

This obscure little constellation largely escapes notice by many stargazers because of two circumstances. First, it is in a part of the sky which contains many other bright constellations which present luring deep sky objects to steal attention away from it. Secondly, its southern location means that it is in its most favorable spot above the horizon for a comparatively short period of time before sinking back into the murky atmosphere. Columba made its first appearance in star charts published around 1679, having been split off into its own constellation from stars which were originally considered to be part of Canis Major. It is considered to be the dove which, in the book of Genesis, Noah released from the Ark after the rains had subsided. The dove returned to the Ark with an olive branch, signifying not only that flood waters had receded to uncover pieces of land but also the fact that God had made his peace again with his children on Earth.

To find Columba, look directly below the well known constellation of Orion. Your eyes will pass through the dim stars of Lepus, and when you get about 2/3 of the distance between Orion's feet and the horizon, you will see an irregular zigzag of 3rd and 4th magnitude stars. Columba is only slightly smaller in area compared with neighboring Canis Major and Lepus. In the middle of January, Columba is rising at 5pm, is at its highest by 9:30pm (15 to 25 degrees above the horizon), and is well on its way to beginning its descent below the western horizon by midnight.

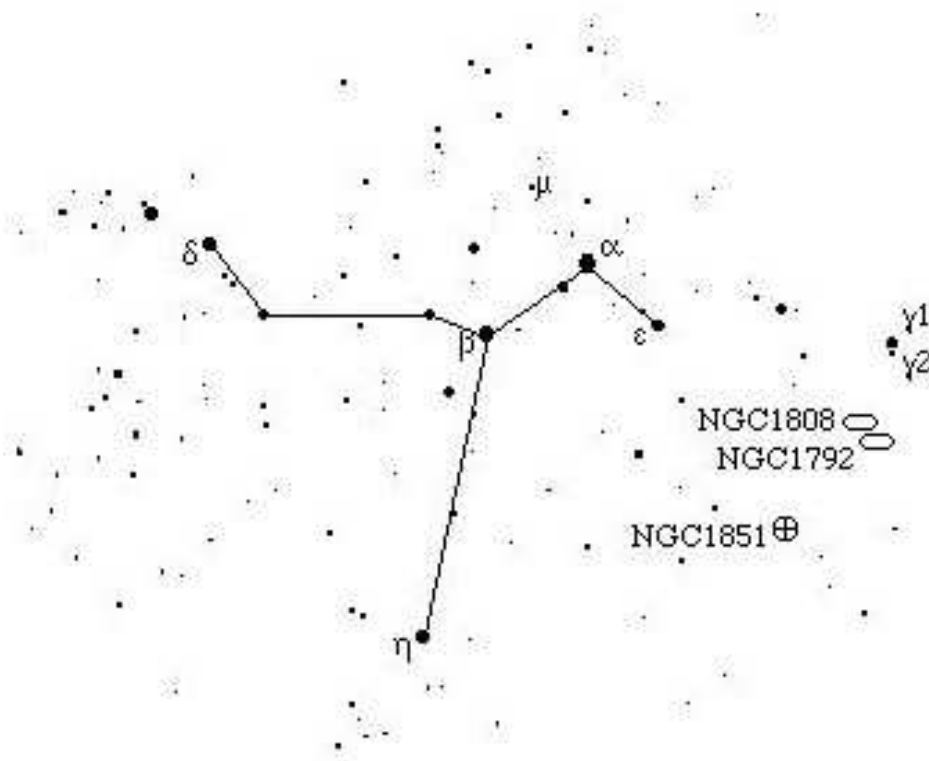
An interesting, but visually mundane, star is in the northern half of Columba. This is Mu Columbae. It is one of three stars (the others being AE Aurigae and 53 Arietis) which are termed "runaway stars" because of their high velocity through space. The three are moving in opposite directions from each other but are thought to have originated in the same nebulous regions of Orion. Mu is moving through space at close to 75 miles per second, which means it was launched on its present course between

2 and 3 million years ago. Perhaps Mu and its counterparts were members of close binary pairs, and their companions exploded as supernovae to release the stars from their grip, changing the orbital velocity to a straight line velocity. By simply looking at Mu Columbae, it is difficult to imagine the incredible speed at which it is traveling.

The best deep sky objects are all located in the southwest section of the constellation. NGC1808 is a bright magnitude 10.8 spiral galaxy at RA 5h 7m 42.7s Dec -37d 30' 51", or 1.9 degrees south southeast of Gamma 2 Columbae. Its bright center spans about 4'x 1' but including its faint outer arms increases its full expanse to about 6.5'x 3.9'. This barred spiral galaxy is near 40 million light years from Earth and about 35,000 light years across. There are a couple of unique features of this galaxy. Its disk is fairly warped and it has such a tremendous rate of star formation near its center that it can be put in the category of "star burst" galaxies. It is possible that its structure and behavior can be linked to its proximity to nearby galaxy NGC1792 described below.

NGC1792 is a similar spiral galaxy, presenting a magnitude of 10.7 and an expanse of 5.2' x 2.6'. It is only 40' to the southwest of NGC1808 or RA 5h 5m 15.1s Dec -37d 58' 47". It can be spotted in scopes as small as 3" and shows mottling in large scopes of 12" or larger.

Move 2.6 degrees southeast of NGC1792 (RA 5h 14m 6s Dec -40d 3' 00") to find a very good globular cluster. This is a rich, bright cluster, about 54,000 light years distant, and well worth the time to hunt down. Its thousands of stars are packed into a dense cluster with a bright center. The overall magnitude is 7.3 and a size of 11'.



Tucson Amateur Astronomy Association
P.O. Box 41254
Tucson, AZ 85717

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Please consider renewing your membership on time. Renewal month and dollar amount appears on your address label. Magazine subscriptions are not included. TAL fee is included if participating in TAL. See details on page 2.

Directions to TIMPA and Empire Ranch

Directions to TIMPA Site

GPS coordinates: 32 deg 15.868' N, 111 deg 16.390' W

From the North:

1. Take Ina Rd. west about three miles past I-10.
2. Turn left (south) on Wade Rd.. Wade Rd. becomes Picture Rocks Rd. when the Rd. bends to the right (west).
3. Take Picture Rocks Rd. west to Sandario Rd..
4. Turn left (south) on Sandario Rd. to Manville Rd..
5. Turn right (west) on Manville Rd. to Reservation Rd..
6. Turn left (south) on Reservation Rd. (dirt Rd.) and go about two miles. The TIMPA entrance is on the left.

From the East:

1. Take Speedway Blvd. west and it turns into Gates Pass Rd..
2. Go over Gates Pass and continue west to Kinney Rd..
3. Turn right (north) on Kinney Rd. and continue past the Desert Museum.
4. Kinney Rd. bends left at the entrance to Saguaro National Park West and becomes Mile Wide Rd..
5. Take Mile Wide Rd. west about five miles to Reservation Rd.. Mile Wide Rd. ends at Reservation Rd. and you must turn right (north) onto Reservation Rd..
6. Take Reservation Rd. north about one mile. The entrance to TIMPA will be on the right.

NOTE

A gate card is required for TIMPA access. Please **DO NOT** ask the caretakers for entry to the TIMPA SITE. A list of TIMPA key keepers is available on the TAAA website, or by contacting a board member. For scheduled TIMPA star parties, a designated TAAA representative will provide access to the site.

Directions to Las Cienegas (Empire Ranch)

GPS coordinates: 31 deg 47.356' N, 110 deg 37.913' W

Take I-10 East from Tucson. Take Exit 281 (Route 83 Sonoita-Patagonia Highway South). Travel south on Route 83 for about 19 miles, watch for green and white milepost 40 sign on the right side of the road. Approximately ¼ mile past milepost 40, turn left into Las Cienegas. The road is dirt and is "washboarded" so go carefully. At about 2.9 miles, there is a fork in the road. Stay to the right. When the road ends in a "T", take a left. Cross over a concrete section of the road down in a wash. Just up the hill from the wash (about .2 mile), turn left. 0.1 mile ahead will be the end of an abandoned airstrip with a covered ramada. The club members have been setting up several tenths of a mile down the runway. If you arrive after dark, as a courtesy to other members, use only your parking lights to approach the set-up location.