



Desert Skies

Tucson Amateur Astronomy Association

Volume LIV, Number 11

November, 2008



TAAA Members Tour the Large Binocular Telescope

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Cover Photo: TAAA members enjoyed a tour of the large binocular telescope. Photo by Bill Lofquist.

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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.....\$ 7.50
 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\$ 4.80

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
 15940 W Ridgemoor Ave
 Tucson AZ 85736

Join our Email Lists on YahooGroups

Announcements: <http://tinyurl.com/e7o3y> (TAAA news, no posting allowed, 15/month)
 TAAA Forum: <http://tinyurl.com/hwoau> (general astronomy discussion, posting allowed, 75/month)
 TAAA Dark Site: <http://tinyurl.com/3d8ts9> (discussion of dark site issues, posting allowed)

President's Message

Well, can you believe it is already November? I know that some of our northern members are now starting to arrive for the winter. I would like to welcome you all back. I hope that you all had clear skies during the summer. This month we will be having our semi-annual members' night. I am always excited to see the work and projects our members have been working on. We truly have some of the most talented astronomers in the country in our club.

Please free your calendars for November 22nd because we are planning to meet at TIMPA that evening to finally dedicate the 14" telescope observatory. A great deal of hard work and dedication from many of our members went in to make this happen. There are many people that I would like to thank for this effort but I would especially like to

thank George Barber for his leadership, planning, and tireless dedication in making this a success.

A reminder to everyone - the electronic newsletter is coming in January. If you have not received your notices of the newsletter via e-mail, then we may not have your most up to date information. Please see Terri Lappin to ensure that the transition and delivery of your newsletter goes smoothly.

As always,
Clear Skies

Ken Shaver

Meeting Information and Calendar of Events

TAAA MEETING DATE: Friday, Nov. 7, at the Steward Observatory Auditorium - Room N210

MEMBER'S NIGHT: 6:30 pm

Tonight is your night to share the spotlight! If you have an astronomy-related topic you would like to present, contact Ken Shaver to reserve a time slot during the meeting.

We still need speakers for the November member's night. If you have been thinking of or wanting to share what you have been working on, then now is your chance. We have some of the most talented astronomers in the country, and the projects we have seen you working on in the past are truly exciting to see. If you would please share your experiences we would love to see it. Each presentation is only 15 minutes long, so it really does not need to be a big project and take a lot of time out of your schedule. If you are interested, please contact Ken Shaver at president@tucsonastronomy.org or call me at 762-5094.

BOARD OF DIRECTORS MEETING: Wednesday, Nov. 12, 6:30 pm. The meeting is held at Steward Observatory Conference Room N305.

STAR PARTIES AND EVENTS:

- 01 Nov - TAAA and AF-SIG Star Party at TIMPA
- 03 Nov - Utterback MS Star Party
- 03 Nov - Astro-Imaging SIG at China Rose
- 04 Nov - Ft. Lowell ES/ Camp Cooper Star Party
- 13 Nov - Holaway ES Star Party
- 13 Nov - Astronomy Fundamentals SIG
- 14 Nov - Ft. Lowell ES Star Party
- 15 Nov - Pomerene ES Star Party
- 18 Nov - Wheeler ES Star Party
- 19 Nov - Wilson ES Star Party
- 20 Nov - Castlehill Country Day School Solar Observing Party
- 22 Nov - Telescope Dedication at TIMPA
- 22 Nov- TAAA Star Party at Las Cienegas
- 13 Dec - TAAA Holiday Party

NEWSLETTER SCHEDULE: Deadline for articles: Sat, Nov. 15. Printing: Mon, Nov. 17. Folding Party: Wed, Nov. 19. Mailing: Thu, Nov. 20. The newsletter is mailed at least one week prior to the following month's General Meeting. Note that the deadlines have been advanced one week so that everyone can have a happy Thanksgiving holiday!

Club News

Member News

We welcome these members who have recently joined the TAAA: Charles Edwards Adams, Nicholas Johnson, John Lancaster, Michael Lortie, Olivier & Eglantine Mousis (from France visiting Tucson through next March), and Karina Villarreal. We also welcome back former members Thomas Burdon, Chuck Dugan, Nina Lehman, and Brad Shankles. Glad to have all of you join! New members can pick up a members pack at a meeting if they didn't request it by mail. Hope you'll make it to our star parties or meetings so we can all get to know you. (Updated membership lists

are available online at either Yahoo Groups email list website under Files, or at most meetings.)

Astro-Imaging SIG Meeting

Monday, 3 Nov., 7pm
China Rose, NE corner Speedway/Rosemont

Our presentations feature CCD images, planetary webcams, and film. Come see some of the state of the imag-

Club News (cont.)

ing art over some Chinese food. Just show up and enjoy the show! For more information, contact Steve Peterson.

Astronomy Fundamentals Special Interest Group

Thu, 13 Nov., 6:30 pm

The Astronomy Fundamentals Special Interest Group (AFSIG) will meet on Thursday, November 13, at 6:30 pm in room 253 of the Environmental and Natural Resources Building (USGS and Weather Service) on the northeast corner of Sixth Street and Park Avenue on the campus of the University of Arizona.

Lou Faix will present Part One of a two-part talk entitled "But Where Is It?" The presentation is intended to help beginners find their way around the night sky and locate objects of interest. Lou will describe how to use a planisphere for identifying constellations, prominent stars, and major Deep Sky Objects, and finding the path of the planets. He will also explain monthly sky charts and the annual almanac chart, both of which can help determine when the best time for viewing the Moon and the planets. The Almanac also displays the rising and setting times for the Sun and the Moon for the entire year. If you have a planisphere, please bring it.

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 hats, T-shirts, denim shirts, and patches. We will have new apparel items available at the meeting, including long sleeve denim shirts, long sleeve t-shirts, and knit caps. Orders will be taken for jackets during the October and November meetings for delivery in December. Payment for jackets (\$60.00) must be made at the time of order. Pictures and descriptions of the jackets will be available at the meeting. We take cash and checks.

Upcoming Lectures

Our lecture topics for the next couple months are shown below. If you have a suggestion for either an Astronomy Essentials or Invited Lecture, or if you want to give one yourself, let Terri Lappin know.

Dec 5	<i>Astronomy Essentials</i>	George Barber Star Types
	<i>Invited Lecture</i>	Don Sweeney LBT
Jan 2	<i>Astronomy Essentials</i>	Mary Turner Seasonal Objects
	<i>Invited Lecture</i>	Bill Gates Supernova Remnants



Night Sky Network Telecon

How to Make an Itty Bitty (Sidewalk) Radio Telescope
November 18th

The Night Sky Network November Telecon will be presented on the evening of Tuesday, November 18th. Listen in to "How to Make an Itty Bitty (Sidewalk) Radio Telescope" with speaker Sue Ann Heatherly. Ms. Heatherly is the Education Officer of the National Radio Astronomy Observatory (NRAO) at Green Bank, West Virginia. Details will be given in the next Night Sky Network newsletter. If you don't already receive the NSN newsletter, then send a request to: tk-lappin [at] comcast.net. Be sure to include the email address you want the newsletter sent to.

Night Sky Network Toolkits

The TAAA has a wonderful resource available for outreach events. Below is a list of the Night Sky Network Outreach Toolkits developed by the Astronomical Society of the Pacific under contract with NASA. These toolkits are specifically developed for amateur astronomers and are perfect for those early hours at a star party before its dark enough to observe. Some projects are well suited for use when it's dark. They are best when used in a small group as you might have around your telescope at a school star party.

Here's a complete list of the NSN Outreach Toolkits we have:

PlanetQuest: explains planet detection techniques
Our Galaxy, Our Universe: scale model of the Milky Way galaxy and the Universe

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Club News (cont.)

Black Hole Survival Kit: what is a black hole and how does it affect objects nearby

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

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

Exploring the Solar System: scale model of solar system and NASA exploration of planets

GLOBE at Night: light pollution principles

Supernova!: life cycle of massive stars, touches on life cycle of sun-like stars

SolarScope: provides a white light image of the sun suitable for small group viewing.

These toolkits come to us free of charge. Using them as part of our outreach activities qualifies us to receive future toolkits. We appreciate those who have put the toolkits to use this year. Six activities have been logged so far – and we still have the fall months to go. This is better than we've done in the last couple of years.

Each toolkit contains several projects. You pick and choose which part you want to demonstrate. They contain essentially all the materials needed. All NSN toolkits include a Resources CD and a training DVD. You can request a copy of the CD and DVD set from Terri Lappin (give her a week or so to make them up). The CDs contain PowerPoint presentations, along with scripts and background information should you be presenting to a larger audience.

Anyone can borrow the toolkits, TAAA membership is not required. Contact Terri Lappin (see page 2) to make arrangements. Terri can also provide one-on-one training for all toolkits.

TIMPA Observatory Dedication

November 22 (Saturday)

The New TIMPA Observatory project has been completed and the 14" Meade LX200R Telescope has been installed. The observatory will be opened for review at 5:00 pm. At 5:30 pm there will be a dedication of the observatory and telescope followed by cake and beverages. As the evening sky darkens, the telescope will be placed into operation for all to enjoy. If you like, bring your telescope and celebrate the occasion with a fun club star party.

David and Wendee Levy will be present to accept the gratitude of the club for arranging to have Meade Instruments donate the telescope to the TAAA. David and Wendee will sign the telescope during the dedication. We will also show our appreciation to George Barber for coordinating the design and construction of the observatory roll-off building. Many club members supported George in the construction phase and we are very grateful. The final touches to the pier, in preparation for the telescope installation, were performed by Michael Turner, Jerry Farrar and J.D. Metzger. Michael Turner coordinated the installation of the telescope into the observatory. This highly successful project was achieved through the efforts of many TAAA Members, so come out and enjoy the finished product.

TAAA Website – Login/Password Required

The TAAA website now has more resources for members viewing. Members must login using the user name and password that has been distributed by email. If you haven't received the email message, it may mean we do not have your email address in our records. Please contact Terri Lappin who will update your information in our records. We currently have a common user and single password that everyone uses. You do not enter your email address or any other personal information to gain access to the member's pages. Should you not have email and want the user name/password, contact any board member.

Basha's Shop & Give

Basha's has an excellent program to support local non-profit groups like the TAAA. It's called Shop & Give. This is a no-brainer fundraiser for the TAAA. If you shop at Basha's and have a "Thank you" card, the next time you go through the checkout, give the cashier our ID number: #23178 for the Shop & Give program. 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. We can re-



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Club News (cont.)

ceive up to \$5000, but that will require lots of people to sign up. 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.



#23178

2009 Calendars

Calendars for 2009 are currently being sold at our regular meetings. You'll find them at the same table where you purchase TAAA apparel. This year we have chosen the Astronomy Magazine "Deep Space Mysteries" calendars. The cost for a calendar is \$10 each (nearly \$3 off the regular selling price), or \$9 each 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.

THE TAAA ASTRONOMY COMPLEX MARCHES FORWARD!

Bill Lofquist

We are taking major steps toward the development of the TAAA Astronomy Complex in Cochise County. The evaluation for the septic system was completed on October 21, and by the time you get this issue of Desert Skies the design of the restroom/shower room will be completed, along with the master site plan. We hope to be ready to see the property for the Complex transferred to TAAA in early November. The legal documents are being finalized now and will be ready soon. Steps for submitting the first building permit will follow our selection of a general contractor for the first phase of building.

At the November General Meeting of TAAA, which is Members' Night, we will have another update on where we are. At that time, we will discuss how members can reserve the use of a Member Observing Pad or a site for a small Member Observatory. This discussion will help us shape the policies and procedures for how these facilities will be developed and paid for.

If everything goes well we will begin construction around the first of December on the first phase of development.

This would mean that we can begin using our new Complex sometime early next year.

Please come to the November General Meeting to participate in this discussion.

TAAA HOLIDAY PARTY ON DECEMBER 13TH!

Bill Lofquist

The TAAA Holiday Party will be on Saturday, December 13th this year. That is the night following the full moon, so it shouldn't interfere with our observing schedule too much. Let's begin to gather at 5:00 PM.

The party will be held in the back yard of Bill and Mary Lofquist again this year. That means there will be no hassle for anyone, and that it will have no cost beyond what each person brings for the potluck. The club will rent portable heaters for warmth if we need it, and some tables for us to put the food on.

We will have another drawing this year for prizes that we all bring to put into the mix. We may even have a drawing for a nice piece of astronomy equipment, if someone donates such a prize. So look around your astronomy storage room and bookshelf to see if you have something you can contribute to the fun of the evening. George Barber has promised to provide some appropriate music for the occasion.

The meal will be a potluck as it has been the past couple years. Please bring some hors d'oeuvres, salads, breads, entrees, vegetables or deserts. We will have coffee, tea and hot chocolate. The club will provide some soft drinks and, of course, there will be ice water. We will have a gas grill if you would like to cook some meat, and you can use the oven and microwave in the kitchen.

The Lofquist's home is located at 1935 West Harran Circle, which is near the Foothills Mall. From the corner of Ina Road and La Cholla Boulevard, go south on La Cholla to the traffic light at Omar Drive. Turn to the east (left) and go a very short block and turn right on Amahl. Go one half mile and turn left on Harran Drive, and then take the next left on Harran Circle. We will be the first house on the left when you get to the turn-around circle. There is plenty of room to park on the circle and in our driveway. We will let the neighbors know you are coming. Please just try not to block their driveways. They are nice people who won't shoot at anyone.

If you get lost in the curvy streets, give us a call at 297-6653.

We look forward to seeing you at the TAAA Holiday Party!

Items of Interest

Websites: Trips On The Internet Super-Skyway

By Rik Hill

Webcamming

How's that for a new word? A lot of amateur astronomers are now using webcams to image the night sky. It's a cheap and easy way to get a lot of performance out of your telescope. For example, I've been doing sub-kilometer imaging on the moon with my 30-year-old Celestron 14 and a \$45 Phillips SPC900NC camera and an old laptop. It works great and maintains the family budget. You can see results for my lunar & planetary observing at: <http://www.lpl.arizona.edu/~rhill/obs.html>

But most cameras come with pretty awful software. It's hard to control and hard to reproduce settings or difficult to view the live image because it's so small in their software. I have yet to see any software provided by a webcam company that was any good. So where can the amateur turn? All of these programs can be used to output AVIs (the most useful video output) from webcams, but they also can output a number of other formats and do much more.

One of the imaging standards is K3CCD: <http://www.pk3.org/Astro/>. There is a trial version available and lots of bells and whistles in the purchased version. I will say that this was not my favorite software. It had too much going and was difficult to set things up the way I wanted. But many amateur astronomers swear by it.

Christian Buil, a well known name in European astronomical image processing, produced another freeware program called IRIS: <http://www.astrosurf.com/buil/us/iris/iris.htm>. This is an impressive program that will not only take images but process them too. It has a bit of a steep learning curve but can do a lot.

My favorite, since I have plenty of image processing software already, is wxAstroCapture. It too is freeware available at: <http://arnholm.org/astro/software/wxAstroCapture/>. There is a Linux as well as a Windows version of this program. I like it because all the slider settings have real numerical readouts and are thus reproducible.

Lastly, a program you should have on your computer whether you use it to capture image or not, is VirtualDub: <http://www.virtualdub.org/>. This is a powerful piece of freeware that will not only capture images in a number of formats but will convert easily from one format to another. It can also be used to repair webcam output video files that have been corrupted. Not bad for free!

=====

Do you have some favorite software not mentioned here? Drop me a line at: rhill@lpl.arizona.edu

The 2008 Aaronson Lecture

The next Aaronson Memorial Lecture will be given by Professor Michael E. Brown of the Division of Geological and Planetary Sciences at Caltech on Friday, November 21, 2008. The event is open to the public, free of charge. The Lecture is held at the Steward Observatory Auditorium, Room N210

Following a bachelor's degree from Princeton, Michael got his PhD from the University of California, Berkeley, in 1994. His thesis work was mainly on comets. He then did postdoctoral work at the UA Lunar and Planetary Laboratory, before receiving the offer from Caltech.

Mike is known for work on Titan using Keck's laser AO camera. In recent years he is best known for the discovery of large Kuiper Belt objects, including 2003UB313, which from HST imaging was found to be 5% larger than Pluto. This result triggered the IAU's reconsideration of Pluto's status as a planet, as either there were now ten planets or only eight. The IAU decided to invent the term "dwarf planet" to cover such icy objects in the outer solar system, much smaller than terrestrial planets and many giant moons in the solar system. It is likely that this topic will be the main theme of Mike's lecture.

Marc Aaronson came to Steward Observatory as a post doctorate after his degree at Harvard in 1977. He rose to the level of Associate Professor in 1983. His astronomical research focused on some of the most important problems of observational cosmology. Marc also made important contributions to our understanding of stellar populations. Above all, Marc displayed a passionate love for astronomy which serves as a lasting inspiration to his many colleagues, students and friends. Marc died in 1987 at the age of 37 in a freak accident while doing what he loved most, making astronomical observations. The Aaronson Memorial Lectureship was set up to recognize a person of similar age who has a similar passionate love for astronomy, and who has contributed an important body of work in their area of research.

New Observing Program at Kitt Peak

Kitt Peak National Observatory Visitor Center is offering stargazing nights for the general public on the WIYN 0.9-meter (36-inch) research telescope.

Offered in conjunction with the WIYN consortium and the public outreach department of the National Optical Astronomy Observatory (NOAO), this limited opportunity will be available from November 6-11.

The 0.9-meter telescope was one of the first research telescopes on Kitt Peak. It was built in 1962 and is used primarily for research that demands a wide-field view of the sky. The telescope is often outfitted with the NOAO Mosaic camera, which gives it a one degree field of view—

Items of Interest (cont.)

equal to the apparent size of two full Moons. Many of the most famous poster-quality images from Kitt Peak have been taken with the 0.9-meter telescope.

This reserved paid program is a specially expanded version of the world-famous Kitt Peak Nightly Observing Program (NOP). Nights on the 0.9-meter telescope will begin with dinner at 5:30 pm, a tour of the 0.9-meter facility, an overview of the night sky, and plenty of time looking at various objects through an eyepiece on the telescope.

There are a limited number of seats per night, and reservations will be taken on a first- come, first-served basis. The per-person cost for this rare night of stargazing will be \$95 person, which includes:

- Transportation to and from the mountain from a central location in Tucson
- A sit-down dinner at the Kitt Peak Dining Hall
- A night of stargazing you won't soon forget!

This rare event is sure to sell out fast, so call 520-318-8726 if you want to reserve your spot for a spectacular night under the stars with some of the darkest skies in the world. Cancellations will be accepted up to 48 hours in advance. This program is weather dependent; a full refund will be granted if the program is canceled before it begins.

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 Polacheck
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 !!!

Members Events

TAAA and AF-SIG Star Party at TIMPA

Saturday, 1 Nov.

Come on out and enjoy the autumn 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. Don't forget it will get cool after sunset!

TIMPA Observatory Dedication

November 22 (Saturday)

See article in the *Club News* section.

TAAA Star Party at Las Cienegas (Empire Ranch)

Saturday, 22 Nov.

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, and fall is here, so be prepared for cold temperatures after sunset. 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 AF-SIG Star Party at TIMPA

Saturday, 29 Nov.

Here's another opportunity to enjoy observing under the fall skies.

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.

Utterback MS Star Party

Monday, 11/3/2008

South-Central

No. of Scopes: 4

Utterback MS will be hosting Exploring the Night Sky at 3233 South Pinal Vista. East on Broadway to Kino Pkwy; turn right. South on Campbell to 36th Street; turn left. East on 36th Street to Campbell Avenue (1 block); turn right. South on Campbell to Pinal Vista (2 blocks); turn left. Utterback is on the left. Viewing will be on the field. Contact person Gricelda Meraz can be reached at 225-3500 or email Gricelda.Meraz@tusd1.org. Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:30 pm. Sunset: 5:35pm Dark Sky: 6:30pm Moon Phase: near First Quarter.

Ft. Lowell ES/ Camp Cooper Star Party

Tuesday, 11/4/2008

West

No. of Scopes: 3

Ft. Lowell ES/ Camp Cooper will be planning Planet Camp Out at 5745 W. Trails End Rd. Drive west on Speedway or Anklam Road. Just beyond the intersection of Speedway and Anklam turn right (north) on to Camino De Oeste. Turn left (west) on to Trails End Road. Drive one mile. Cooper ESC is on the left (south) side of the road. Viewing will be at the telescope designated location at Camp Cooper. Contact person Thalia Wright can be reached at 520-232-7153 or email thalia.wright@tusd1.org. Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:30 pm. Sunset: 5:35pm Dark Sky: 6:29pm Moon Phase: near First Quarter.

Holaway ES Star Party

Thursday, 11/13/2008

Central

No. of Scopes: 6

Holaway ES will be holding Math, Science and Technology Fun Night at 3500 N. Cherry Ave. From Speedway, turn north on Campbell Ave. Take Campbell to Prince Rd., Turn West on Prince Rd., and the second street on the left is Cherry, Turn Left. The school entrance is at the end of the block. Viewing will be on the Playground/Field. Contact person Teddy Lopez can be reached at 626-1602 or email teddy@holawaypto.org. Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:30 pm. Sunset: 5:28pm Dark Sky: 6:24pm Moon Phase: near Full Moon.

Ft. Lowell ES Star Party

Friday, 11/14/2008

Central

No. of Scopes: 4

Ft. Lowell Elementary will be hosting a Star Party Theme at 5151 E. Pima. East on Broadway to Swan Road; turn left. North on Swan to Pima Street; turn right. School is between Swan and Beverly. Viewing will be on the bas-

ketball court by the activities building. Contact person Celeste Aho can be reached at 520-232-7159 or email Celeste.Aho@tusd1.org. Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:30 pm. Sunset: 5:28pm Dark Sky: 6:23pm Moon Phase: near Full Moon.

Pomerene ES Star Party

Saturday, 11/15/2008

Far East

No. of Scopes: 4

Pomerene ES will be preparing for Pomerene School Star Party at 1396 N Old Pomerene Rd. Take I-10 East to exit 306 (approx 45 miles) Turn north, go approx 3 miles to Old Pomerene Rd. School is on the West side of the road next to the Post Office, across the street from the Fire Station. Viewing will most likely be set up on the football field. Contact person Kelly Merrill can be reached at 621-7659 or email kmerrill@as.arizona.edu. Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:30 pm. Sunset: 5:27pm Dark Sky: 6:23pm Moon Phase: near Full Moon.

Wheeler ES Star Party

Tuesday, 11/18/2008

Southeast

No. of Scopes: 2

Wheeler Elementary School will be celebrating "Pie in the Sky" a family event hosted by PTA at 1818 S. Avenida Del Sol. Go to 22nd St & Wilmot, head east on 22nd St. Turn right (south) on Avenida Sirio, go down to 4-way stop (Calle Betelgeux). Continue to next stop sign at end of street (Avenida Del Sol). Wheeler Elementary School will be directly in front of you. Parking lot is to your left; you can clearly see the cafeteria to the right. Viewing will be School field on south side or courtyard on north side. Contact person Mike Cannon can be reached at 260-4333 or email mike-cannon@cox.net. Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:30 pm. Sunset: 5:26pm Dark Sky: 6:22pm Moon Phase: Last Quarter.

Wilson ES Star Party

Wednesday, 11/19/2008

Northwest

No. of Scopes: 3

Wilson Elementary will be holding Exploring 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: 6:00pm. Observing will be from 6:30 pm to 8:30 pm. Sunset: 5:25pm Dark Sky: 6:21pm Moon Phase: (no moon during viewing).

Public Star Parties and Community Events (cont.)

Castlehill Country Day School Solar Observing Party Foothills

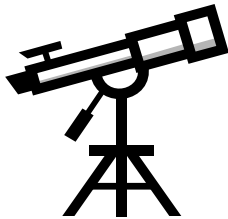
Monday, 11/20/2008
(Ha and White light)

No. of Scopes: 2

Castlehill Country Day School will be planning for Solar Observation at 3225 N Craycroft Rd. East on Speedway, Left on Craycroft, past Ft. Lowell Park to St Gregory Light, Turn left at light, turn right at first driveway, the Castlehill office is the brick house on the right. Viewing will be on the field or playground. Contact person Chellie Krajnak can be reached at 795-0008 or email thegrinches@comcast.net. Set-Up Time: 1:30pm. Observing will be from 2:00pm to 3:30 pm.



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 LX2-55

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.

Dark Skies for November 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

Fr/Sa 31/ 1	19:13 - 5:18	Mo/Tu 10/11	5:01 - 5:26	Fr/Sa 21/22	18:46 - 2:23
Sa/Su 1/ 2	20:03 - 5:19	Tu/We 11/12	- - -	Sa/Su 22/23	18:46 - 3:21
		We/Th 12/13	Full Moon		
Su/Mo 2/ 3	20:57 - 5:20	Th/Fr 13/14	- - -	Su/Mo 23/24	18:46 - 4:19
Mo/Tu 3/ 4	21:54 - 5:20	Fr/Sa 14/15	- - -	Mo/Tu 24/25	18:46 - 5:18
Tu/We 4/ 5	22:52 - 5:21	Sa/Su 15/16	18:48 - 19:49	Tu/We 25/26	18:46 - 5:37
We/Th 5/ 6	23:50 - 5:22			We/Th 26/27	18:46 - 5:38
Th/Fr 6/ 7	0:49 - 5:23	Su/Mo 16/17	18:48 - 21:00	Th/Fr 27/28	18:46 - 5:39
Fr/Sa 7/ 8	1:49 - 5:23	Mo/Tu 17/18	18:47 - 22:11	Fr/Sa 28/29	18:45 - 5:39
Sa/Su 8/ 9	2:50 - 5:24	Tu/We 18/19	18:47 - 23:19	Sa/Su 29/30	18:51 - 5:40
		We/Th 19/20	18:47 - 0:23		
Su/Mo 9/10	3:54 - 5:25	Th/Fr 20/21	18:47 - 1:24	Su/Mo 30/ 1	19:47 - 5:41

Weekend	Sun Set	Sun Rise	Mercury Rise Vi	Venus Set Vi	Mars Set Vi	Jupiter Set Vi	Saturn Rise Vi Vi=Visibility
1/ 2	17:31	6:40	5:34 4	19:36 -2	18:01 -	21:51 -2	2:37 1 -3 brilliant
8/ 9	17:26	6:46	6:00 7	19:42 -3	17:50 -	21:28 -2	2:13 1 0 conspicuous
15/16	17:21	6:52	6:28 -	19:51 -3	17:39 -	21:06 -2	1:48 1 3 moderate
22/23	17:18	6:59	6:55 -	20:02 -3	17:29 -	20:45 -1	1:23 1 6 naked eye limit
29/30	17:17	7:05	7:22 -	20:13 -3	17:21 -	20:24 -1	0:57 1 9 binoculars limit

By Erich Karkoschka



Your newsletter is going

Electronic!

Starting in January, 2009, the newsletter will be sent to your individual e-mail account

Why an electronic newsletter?



Go Green!

No need for paper or toners conserves resources



More Information

Articles and features can be added without additional cost



You'll enjoy full color photos and astro-images

Instant Access



Your e-mailed newsletter will arrive days before a printed and mailed version

Best of all, we'll save YOU money!



- The annual cost of newsletter production is over \$4,000.
- Club operating expenses are expected to increase
- Continued printing and mailing would require a dues increase.

Watch your email...

The October, November, and December newsletters will be sent to your e-mail account.

If you do NOT receive your electronic newsletter, contact Terri Lappin at 977-1290, treasurer@tucsonastronomy.org



No e-mail or internet?



Contact Terri Lappin at 977-1290, treasurer@tucsonastronomy.org, to continue receiving a printed newsletter

TAAA Board of Directors Meeting - 08 October 2008

Attending: Board members present (7): Ken Shaver (presiding), Keith Schlottman, Terri Lappin, Luke Scott, John Kalas, George Barber, and Teresa Bippert-Plymate. Members present (4): Robert Crawford, Liz Kalas, Claude Plymate, and Richard Crump.

The president called the meeting to order at 6:35 pm. Minutes from the September board meeting were approved unanimously.

Announcements

The club president was interviewed by Jimmy Stewart for the One on One program. The program will air October 19 at 6:30 am on KVOA.

Treasurer's Report - Terri Lappin

The club had no non-routine expenditures during the month.

Web Site

A direct link to the school and non-profit star party page will be added to the home page to simplify access to this information.

Dark Site Land Development - Robert Crawford

- The Strategic Planning Group (SPG) presented for discussion a proposed well-share agreement for the Perseus Group owners and TAAA Astronomy Complex. The purposes of the well-share agreement are:
 1. To develop one exempt well as defined by the Arizona Department of Water Resources.
 2. To serve water requirements for the five residential parcels which comprise the site (Water requirements for the TAAA Astronomy Complex are considered residential.)
 3. To share the cost of developing, operating, and maintaining the well.
- The board requested that the agreement be amended to include a specific process to notify owners of water quotas and rates. A motion was made to accept the proposed well-share agreement, in principle, with the noted provision regarding quotas and rates. The motion was approved unanimously.
- Robert Crawford will determine what documentation TAAA is required to provide to the title company in order to close on the land donation.

Telescope Dedication

The dedication of the Levy Telescope will be held on November 22 at TIMPA. Cake and refreshments will be served. Details will be provided in a newsletter article. A motion was made to approve funds for the telescope dedication from the TIMPA fund. The motion was approved unanimously.

Mount Lemmon Sky Center

In response to the invitation extended to the club at the October meeting, the board concluded that not enough time was available to organize a club visit to the Mount Lemmon Sky Center on November 1. The board will contact the Center regarding a trip in the spring and request more information on the Center's programs.

Meeting adjourned at 9:15 pm.

Respectfully submitted,
Luke Scott, Secretary

Desert Skies Classified

FOR SALE	Vixen GP-D2 German Equatorial Mount with tripod. Made in Japan, this is Vixen's latest version of their famous GP line. White, excellent condition, must see. List price \$1,169, asking \$799, neg. Call J.D. At 760-8248. [02/09]
FOR SALE	Meade 8 inch LX90 (in original box) including heavy duty tripod, 3 eyepieces, 2 diagonals, optical and Telrad finder scopes, Barlow lens, filter. Purchased from Sky works in 2002 for \$2,335. Sale price of \$1,300 includes your choice of several astronomy or viewing books. Jim Smith at sawtell1190@q.com or 572-1221 [02/09]
FOR SALE	REDUCED PRICE!! Orion Megaview 15X80 binoculars with hard case, and Sunpack Platinum Plus 7500 Pro tripod with soft case. Like new, \$300 for both (list price is \$479 for the binocs alone). These are LARGE binoculars with 20mm of eye relief for eyeglass wearers. Tim 398-6590 hm, 663-9350 wk. Review at: http://excelsis.com/1.0/entry.php?sectionid=21&entryid=150 [12/08]
SERVICE	Green laser pointer need repair or tune up? Contact Donald Arndt at (415) 215-2409 or donaldja@pacbell.net . Typical repairs cost \$25-50, including return shipping.
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. [11/08]

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 list, call or e-mail the newsletter editor.

Constellation Report by Chris Lancaster

Phoenix

The constellation that we know as Phoenix evolved from what the ancient Arabs called Al Zaurak, or the Boat, as well as Al Rial, the Ostriches. Johann Bayer first identified this constellation as Phoenix on his star atlas of 1603. The Phoenix is a mythological bird which, at the end of its long 500 year life span, would build a fire and throw itself upon it. Then, from the ashes, a new Phoenix would rise to begin a new life cycle. Its red and gold plumage is reminiscent of the fire which ends its life.

Phoenix is in a part of the sky that hugs the southern horizon from the southern United States as it crosses the meridian. All but a few stars which are along its southern border rise into the sky for a little while during the late pm hours in the middle of October. To find Phoenix, start with the easily recognizable constellation of Cetus, the whale or sea monster, go south through the dim stars of Sculptor, and just above the horizon you'll see the 2nd magnitude and fainter stars of Phoenix. It's brightest star, Alpha Phoenicis, forms a rough equilateral triangle with Beta Ceti and Alpha Piscis Austrini (Fomalhaut).

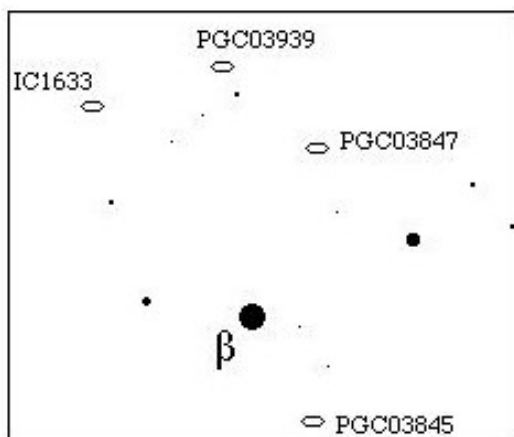
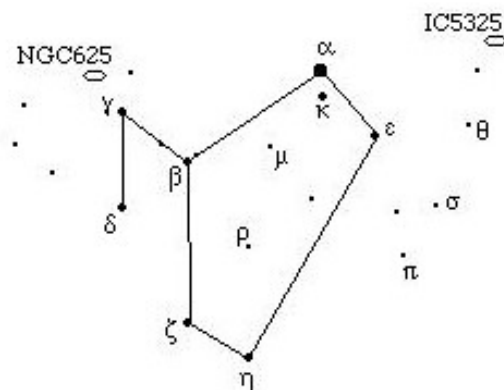
There is a large collection of galaxies in Phoenix, but many are dim and too close to the horizon to be worth finding. However, just a bit more than 2 degrees northeast of Gamma Phoenicis is a moderately bright spiral galaxy of magnitude 11.6. It's tilted between between face-on and edge-on, so it presents itself as a more or less featureless oval measuring 5.7' x 1.9' and oriented almost perfectly east to west in its long axis. NGC625 can be dialed up at RA 1h 35m 5s Dec -41d 26' 11".

The preceding galaxy can be glimpsed in most backyard telescopes in clear, dark skies. Another one would be IC5325, a slightly fainter magnitude 12.0 spiral at the western edge of Phoenix at RA 23h 28m 43s Dec -41d 19' 58", or 1.7 degrees northwest of Iota Phoenicis. This one shows its face to us, but is rather small at only 2.7' x 2.5'.

The remaining galaxies in Phoenix are much more challenging, but those of you with large aperture telescopes might want to look in the area of Beta Phoenicis (see the graphic below). In a two degree diameter circle around this 3.3 magnitude star are four faint galaxies. Starting 1 degree northeast of the Beta star, you'll see IC1633, a magnitude 12.2 elliptical galaxy 2.9' x 2.4' in size (RA 1h 9m 55s Dec -45d 55' 56"). Moving half a degree west from this galaxy will bring you to PGC03939, a magnitude 13 lenticular galaxy measuring a tiny 1.1' x 0.9 (RA 1h 6m 49s Dec -45d 49' 29"). Go half a degree southwest to find PGC03847, another lenticular galaxy of magnitude 13 and 1.3' by 0.7' (RA 1h 5m 00s Dec -46d 4' 35"). Finally, go south 1 degree from here (or half a degree southwest of Beta Phoenicis) and you might catch a glimpse of PGC03845, an elliptical galaxy 1.1' x 0.7' in size and of magnitude 13 also (RA 1h 4m 54s Dec -46d 59' 59").

Going for an easier target might be just what we need now. Look again to the western side of the constellation for Theta Phoenicis. This is a double star of magnitude 6. Go to high power to split this pair of magnitude 6.5 and 7 stars which are 4" apart.

Because Phoenix is so close to the horizon, it takes patience and determination to observe most of what it has to offer, but to round out the sky, it's worth pointing your telescope down to it.



TAAA congratulates Chris Lancaster on the publication of his book...

Under Dark Skies: A Guide to the Constellations

by Christopher Lancaster

174 pages; quality trade paperback (softcover); catalogue #07-1664; ISBN 1-4251-4066-1; **US\$14.99**, C\$14.99, EUR10.24, £7.74

A guide to learning the shapes, locations, and origins of the constellations and finding the best deep sky objects they contain.

For more information and to order a copy of Under Dark Skies, visit <http://www.trafford.com/07-1664>. Information about the book: Christopher Lancaster has been a member of the Tucson Amateur Astronomy Association since 1992. The "Constellation of the Month" reports that he wrote for the club's newsletter provide the foundation for his book. A comprehensive introduction for the beginning amateur astronomer precedes the discussion of each constellation.

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Directions to TIMPA and Las Cienegas

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.