



# Desert Skies

Tucson Amateur Astronomy Association

Volume LIV, Number 8

August, 2008



The MMT Search for Extra-solar Planets

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**Cover Photo:** Using adaptive optics, the MMT will find and observe planets around nearby stars. Image from <http://linmax.sao.arizona.edu/help/FLWO/whipple.html>

TAAA Web Page: <http://www.tucsonastronomy.org>

TAAA Phone Number: (520) 792-6414

Office/Position	Name	Phone	E-mail Address
President	Ken Shaver	762-5094	president@tucsonastronomy.org
Vice President	Keith Schlottman	290-5883	vice-president@tucsonastronomy.org
Secretary	Steve Marten	307-5237	secretary@tucsonastronomy.org
Treasurer	Terri Lappin	977-1290	treasurer@tucsonastronomy.org
Member-at-Large	George Barber	822-2392	mal1@tucsonastronomy.org
Member-at-Large	John Kalas	620-6502	mal2@tucsonastronomy.org
Member-at-Large	Teresa Plymate	883-9113	mal3@tucsonastronomy.org
Chief Observer	Dr. Mary Turner	586-2244	chief-observer@tucsonastronomy.org
AL Correspondent (ALCor)	Nick de Mesa	797-6614	alcor@tucsonastronomy.org
Astro-Imaging SIG	Steve Peterson	762-8211	astro-photo@tucsonastronomy.org
Computers in Astronomy SIG	Roger Tanner	574-3876	astro-comp@tucsonastronomy.org
Beginners SIG	JD Metzger	760-8248	novice@tucsonastronomy.org
Newsletter Editor	George Barber	822-2392	taaa-newsletter@tucsonastronomy.org
School Star Party Scheduling Coordinator	Paul Moss	240-2084	School-star-party@tucsonastronomy.org
School Star Party Volunteer Coordinator	Roger Schuelke	404-6724	school-sp-volunteers@tucsonastronomy.org
Webmaster	Debra Malmos	495-5830	taaa-webmaster@tucsonastronomy.org
Club Sales	Ann Scott	749-4867	taaa-sales@tucsonastronomy.org
TIMPA Gate Card controller	Ray Toscano	529-3074	Ray_toscano@earthlink.net
Equipment Loan Coordinator	Richard Dougall	245-5441	elc@tucsonastronomy.org
Librarians	Claude Plymate Teresa Plymate	883-9113	librarian@tucsonastronomy.org
Grand Canyon Star Party Coordinator	Dean Ketelsen	293-2855	gcsp@tucsonastronomy.org
General Information	Terri Lappin	977-1290	Taaa-info@tucsonastronomy.org
TAAA Board Of Directors	All Board Members		taaabod@tucsonastronomy.org

#### 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

Despite the limited viewing opportunities, I hope that everyone is still having an enjoyable summer. The new website looks fantastic and I hope everyone has had a chance to check it out by now. If you have not received an e-mail from Terri with the new members only login it may be because we do not have your current contact information. Please check with Terri Lappin if that is the case. This is especially important as the board is looking into ways to take advantage and utilize the website to provide more information and resources. We are also looking into ways we can save some money on our monthly printing costs by offering an electronic newsletter. There are many details that still need to be investigated but the opportunities and options that are available to us with the new web are exciting.

Plans are still moving forward on the Dark site and the TIMPA scope projects. This fall we are planning a dedication for the later and we will announce the date as soon as we can firm it up. The dark site permit process for the work that needs to be done in order for us to use the facility is ongoing. I would like to thank all of the people that have been involved in both of these projects for their generous dedication of time and resources. This club truly

runs on the efforts of its volunteers of which we all are very grateful.

We have recently submitted applications for two different types of fund raising opportunities to help pay for the dark site activities. A big thanks to Bill Lofquist and John Kalas for their help in writing and organizing those applications. If you have ideas on how we can get donations, grants, or other sources of funding to help us develop the Astronomy complex the Planning committee and Board would love to hear from you. As we are putting the plans on paper we can see that the funds needed to accomplish the different phases will be a large factor in the pace of its completion.

Have a great August and I hope that as we get later into the Monsoon season the attack of the moistions will diminish and let you view some of the great summer objects.

Clear Skies,

Ken

### Meeting Information and Calendar of Events

**TAAA MEETING DATE:** Friday, August 1, at the Steward Observatory Auditorium - Room N210

**ASTRONOMY ESSENTIALS:** 6:30 pm  
Title: Supernova!

Supernova! That's the name of the newest Night Sky Network toolkit that's available for use at school star parties and any other outreach activities of the TAAA. What is a supernova and how dangerous are they? These questions are often asked of us by the public. Come learn about supernova and be introduced to the Supernova toolkit which has fun hands-on projects for explaining these powerhouses of the universe to others. This toolkit, along with the other seven NSN toolkits, is available for you to borrow. Consider taking one to a school star party instead of your telescope. It's great fun!

**GENERAL MEETING:** 7:30 pm  
Title: Extrasolar Planet Hunt using the MMT  
Speaker: Matthew Kenworthy

Here in Arizona we have one of the largest telescopes in America on Mount Hopkins. the 6.5 meter MMT optical telescope. We also have a unique optical system that takes the effects of seeing out of our images, allowing us to look with great detail around nearby stars.

Many extrasolar planets have been indirectly detected by their effect on their parent star, either by causing the star to 'wobble' or by crossing the disk of the star and block-

ing out some of the light as it transits. Dr Matthew Kenworthy will talk about the hunt taking place at Steward Observatory to directly image the planet itself - an ongoing search looking around twenty of the closest stars in our Galactic neighborhood, and why he thinks his team will be the first to do so!

**BOARD OF DIRECTORS MEETING:** Wednesday, August 13, 6:30 pm. The meeting is held at Steward Observatory Conference Room N305.

#### STAR PARTIES AND EVENTS:

02 August - TAAA and AF-SIG Star Party at TIMPA  
04 August - Astroimaging SIG at China Rose  
05 August - Mansfield Park Neighborhood Star Party  
14 August - Astronomy Fundamentals SIG  
22 August - Brichta ES Star Party  
23 August - UofA College of Optical Sciences Star Party  
30 August - TAAA Star Party at Las Cienegas  
01 September - Astroimaging SIG at China Rose

**NEWSLETTER SCHEDULE:** Deadline for articles: Sat, Aug. 23. Printing: Mon, Aug. 25. Folding Party: Wed, Aug. 27. Mailing: Thu, Aug. 28. The newsletter is mailed at least one week prior to the following month's General Meeting.

## Club News

### Member News

We welcome these members who have recently joined the TAAA: Robert Beroza, Stan & Pamela Foutz, Martin G Galvez, Bill Gates, Laura A Howard, Andrew Jackson, and Scott Tannehill. 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, August 4, 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.

### Astronomy Fundamentals Special Interest Group AFSIG for August 14

The Astronomy Fundamentals Special Interest Group (AFSIG) will meet on Thursday, August 14, at 6:30 pm.

There will be two presentations, one by J.D. Metzger, and the other by Lou Faix.

Lou will give a short talk on the constellation Ursa Major. That star grouping has been celebrated by artists and poets for many centuries, and had a novel role in ancient mythology. It is the home for seven of Charles Messier's famous deep sky objects which can be enjoyed with small telescopes. Home photos of the constellation and the Messier objects will be featured.

J.D. will discuss Observing Multiple Star Systems. He will cover the different types of multiple star systems, binary star notation, offer some tips for observing these interesting objects, and provide a "best of" observing list.

The meeting will be held at the Environmental and Natural Resources Building (USGS and Weather Service) in room 253. The USGS building is on the northeast corner of Sixth Street and Park Avenue on the campus of the University of Arizona. Parking will be available in the lot to the east of the building. There are no restrictions on parking after 5:00pm. To get to the lot, go one block north on Park and turn east onto Lowell. The entrance to the lot will be on your right shortly past the building. From the parking lot walk through the breezeway to the open court yard. Take the stairway to the second floor patio area. Room 253 is immediately to the left side of the patio at the top of the stairs. Feel free to bring your own snacks and drinks.

### Upcoming Lectures

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. The September 5th Astronomy Essentials lecture is the next opening we have. Invited Lectures are currently scheduled through January 2009. Our next Members Night is on November 7th so start thinking about what you might want to present that night.

Sept 5	<i>Astronomy Essentials</i>	OPEN
	<i>Invited Lecture</i>	TAAA Status Report
Oct 3	<i>Astronomy Essentials</i>	Mary Turner Seasonal Objects
	<i>Invited Lecture</i>	Valerie Grindle Mt Lemmon SkyCenter
Nov 7	<i>No AE lecture, meeting starts at 6:30pm</i>	Members Night
Dec 5	<i>Astronomy Essentials</i>	OPEN
	<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

### 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.

### Grand Canyon Star Party '08

By Dean Ketelsen

We had a great time at this year's star party. It was great catching up with old friends from previous events. The weather cooperated too -though it was the latest we've held the party and we were concerned about monsoon clouds, we had 8 clear nights in a row, though we fought breezes every night but the last, which was perfect! As a

### Club News (cont.)

highlight, the last night also had great seeing, and we spent 2 hours showing hundreds of people a shadow transit of Io across Jupiter - what a way to cap off a great week!

Crowds were down slightly, perhaps because of high gas prices, but our ranger, Marker Marshall, indicates that entrance gate numbers don't support that. She was thinking that people were generally unprepared for cold weather, and the nightly winds drove people away... It was only the last calm night that we had over 300 people at my C-14. Thanks to our ranger Marker, the star party has evolved into a more pleasant event for our astronomers. Cars no longer come thru the parking lot, though buses still come thru about every 15 minutes, but a big improvement from car headlights every minute or two.

This was my last year as organizer (18 years!). Next year, Jim O'Connor of TAAA is taking over the organization of it. There was also a successful north rim event this year, run by Steve and Rosie Dodder of the Saguaro Astronomy Club. We've all agreed on dates for next year - 13-20 June, 2009. Mark your calendars!



Supernova! Toolkit is Here!

The recently acquired Night Sky Network toolkit, called "Supernova!" is available for borrowing. Terri Lappin will be reviewing this newest of the toolkits at the August 1st Astronomy Essentials Lecture. This toolkit contains several projects that help you tell the public about the demise of massive stars into neutron stars or black holes.

The complete list of NSN toolkits is below. Anyone wanting to borrow a toolkit for a school star party should contact Terri to make arrangements. These toolkits are also available for any outreach or educational activities (private star parties, public events). They contain essentially all the materials needed. All projects are easy to do. You can pick and choose which part you want to demonstrate.

**PlanetQuest:** explains planet detection techniques  
**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  
**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.

All NSN toolkits include a Resources CD and a training DVD. You can request your own copy of the CD and DVD set from Terri (give her a week or so to make them up). The CDs contain PowerPoint presentations, along with scripts and background information. All projects are described on the DVDs. Terri can also provide one-on-one training for all toolkits.

Contact information for Terri Lappin (our Treasurer) is on page 2.

### TAAA Website - Member's Pages

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.



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## Club News (cont.)



### Speakers Wanted

Do you have a topic which you feel would make an interesting Astronomy Essentials or Main Meeting presentation? If you'd like to give a talk to our group, then contact Terri Lappin, our speaker

coordinator. She can give you all the details, and even has a few extra topics if you need one!

## Member's Events

### TAAA and AFSIG Star Party at TIMPA Saturday, August 2

Come on out and enjoy the summer skies (monsoons willing)! 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.

If the weather is threatening, be sure to check the taaaforum Yahoo group before heading out.

### TAAA Star Party at Las Cienegas (Empire Ranch) Saturday, August 30

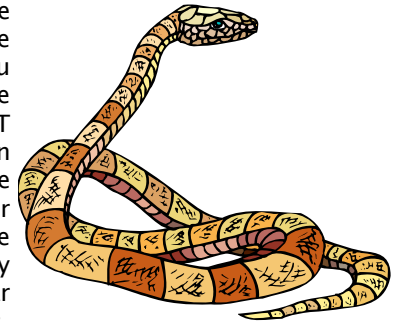
Las Cienegas (formerly Empire Ranch) has been our normal dark-sky observing site for quite a number of years. Please try to arrive before sunset. Stay as long as you like, but let everyone know when you are ready to leave; someone may be taking astro-images. Bring a telescope if you have one, but you 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 cool temperatures, and the possible summer monsoon storm. 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.

### Rattlesnake Alert!

Be alert for rattlesnakes! Rattlesnakes are generally aggressive only if disturbed. If you see one, keep a safe distance and DO NOT try to interact with it in any way. Snakes are much faster than our reflexes, and should be handled only by professionals. Wear boots and long jeans.

For more information, go to <http://www.friendsofsaguaro.org/rattlesnakes.html>.



Along with rattlesnakes, other desert critters, such as gophers and ground squirrels, make their home wherever they want. These residents can leave holes and other potential tripping hazards, so be careful when walking.

## Items of Interest

### Websites: Trips On The Internet Super-Skyway

By Rik Hill

#### In Praise of Small Telescopes

Many of us amateur astronomers, especially those whose formative years were in the 1960s and 1970s, started with the ubiquitous 2.4" refractor. Hopefully for you it was a good quality one. (Rick Feinberg, Editor in Chief of Sky & Telescope magazine, talked about his in an editorial in the recent June issue.) As we grew older and financially more secure, most of us migrated to larger and larger

telescopes, leaving behind the little telescope of our youth. But with the urban sprawl of Tucson ever increasing, the seeing gets worse (as seeing "cells" get smaller). So, we notice that the detail once visible in the larger telescopes is not what it used to be. Ever think of going back to a smaller aperture of 5" or less which is more portable and able to exploit just as much detail in the urban skies?

So what is the small telescope capable of doing? One amateur astronomer, Barry Carter in southeast Michigan, has almost nothing but small telescopes (the largest one

**Items of Interest (cont.)**

is a C8 ) and has done excellent work with these. It's very impressive:

[http://www.barrie-tao.com/astro\\_photo.html](http://www.barrie-tao.com/astro_photo.html)

Some more impressive results by Marc A. Murison can be seen at:

<http://www.alpheratz.net/murison/AmateurAstronomy/observations/>

Meade makes the ETX series of telescopes that have been used extensively by amateurs. They have an image gallery that shows some of this work using ETXs from 60mm on up at:

[http://www.meade.com/photogallery/etx\\_gallery.html](http://www.meade.com/photogallery/etx_gallery.html)

Though a bit dated this gallery, on Weaser's ETX site, is also impressive. Not only were they done with a small 'scope but with webcams! How economical is that?

[http://www.weasner.com/etx/quests/2004/quests\\_deepsky2.html](http://www.weasner.com/etx/quests/2004/quests_deepsky2.html)

Weaser also has an impressive ETX solar gallery at:

[http://www.weasner.com/etx/quests/quests\\_sun00.html](http://www.weasner.com/etx/quests/quests_sun00.html)

Of course, the Cadillac of the small telescope is the Questar 3.5" which has been on the market since 1954. I have owned both a Questar and a Meade ETX90. Optically they are both identical when aligned properly (a problem

for off-the-shelf ETXs) but mechanically there is no comparison, the Questar wins hands down and has been the industry standard for small Maksutovs for decades. The price reflects this with a new Standard model Questar running over \$4000, nearly 8 times the cost of a standard model ETX90.

Questar has a gallery of impressive images at:

<http://www.questar-corp.com/image.htm>

the same contributor to this gallery has a more comprehensive one at:

<http://www.princeton.edu/~rvdb/images/Questar/>

another Questar gallery can be seen at:

<http://www.questar-corp.com/imagep2.htm>

So give it some consideration. If you are stuck in the luminous umbrella of the Tucson sprawl, you might want to pick up a smaller telescope. It's easy to set up and will do surprisingly well in the the urban heat island and will travel well to those remote localities.

As always, if you have a website you think deserves some attention here, drop me an email at: [rhill@lpl.arizona.edu](mailto:rhill@lpl.arizona.edu)

**Dark Skies for August 2008**

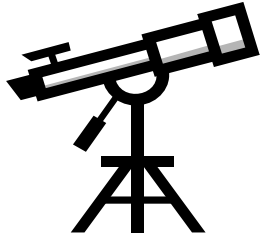
**DARK SKIES** (no twilight, no moonlight) for Tucson in 24-hour MST: 18=6pm, 20=8pm, 22=10pm, 0=12am  
**RISE, SET, VISIBILITY** for sun and bright planets: rise for morning object, set for evening object

Th/Fr 31/ 1	20:54 - 4:07	Su/Mo 10/11	0:44 - 4:16	Th/Fr 21/22	20:27 - 21:40
Fr/Sa 1/ 2	20:53 - 4:07	Mo/Tu 11/12	1:35 - 4:17	Fr/Sa 22/23	20:26 - 22:21
Sa/Su 2/ 3	20:52 - 4:08	Tu/We 12/13	2:31 - 4:18	Sa/Su 23/24	20:25 - 23:09
		We/Th 13/14	3:30 - 4:19		
Su/Mo 3/ 4	20:51 - 4:09	Th/Fr 14/15	- - -	Su/Mo 24/25	20:23 - 0:06
Mo/Tu 4/ 5	21:16 - 4:10	Fr/Sa 15/16	- - -	Mo/Tu 25/26	20:22 - 1:11
Tu/We 5/ 6	21:44 - 4:11	Sa/Su 16/17	Full Moon	Tu/We 26/27	20:20 - 2:21
We/Th 6/ 7	22:13 - 4:12			We/Th 27/28	20:19 - 3:31
Th/Fr 7/ 8	22:44 - 4:13	Su/Mo 17/18	- - -	Th/Fr 28/29	20:18 - 4:32
Fr/Sa 8/ 9	23:19 - 4:14	Mo/Tu 18/19	- - -	Fr/Sa 29/30	20:16 - 4:33
Sa/Su 9/10	23:59 - 4:15	Tu/We 19/20	20:30 - 20:34	Sa/Su 30/31	20:15 - 4:34
		We/Th 20/21	20:29 - 21:05		

Weekend	Sun Set	Sun Rise	Mercury Set Vi	Venus Set Vi	Mars Set Vi	Jupiter Set Vi	Saturn Set Vi Vi=Visibility
2/ 3	19:18	5:39	19:39 -	20:09 3	21:12 4	3:37 -2	20:43 4 -3 brilliant
9/10	19:12	5:43	19:51 8	20:06 2	20:56 4	3:06 -2	20:18 6 0 conspicuous
16/17	19:04	5:48	19:55 6	20:02 2	20:40 4	2:36 -2	19:53 8 3 moderate
23/24	18:57	5:52	19:54 5	19:57 1	20:24 5	2:07 -2	19:28 - 6 naked eye limit
30/31	18:48	5:57	19:50 5	19:52 1	20:08 5	1:38 -2	19:03 - 9 binoculars limit

By Erich Karkoschka

## 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.

## 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.

### **Mansfield Park Neighborhood Star Party Central**

Tuesday, 8/5/2008

No. of Scopes: 2

Mansfield Park Neighborhood Coalition will be hosting National Night Out at 2160 N 6th Avenue. Speedway Blvd to 6th Avenue, go North on 6th Avenue to Mansfield Park, which will be on the east side of 6th Avenue, just South of Grant. Viewing will be on the Soccer Field. Contact person Armando Vargas can be reached at 621-6282 or email [avargas@email.arizona.edu](mailto:avargas@email.arizona.edu). Set-Up Time: 7:45pm. Observing will be from 8:15pm to 9:30 pm. Sunset: 7:21 pm, Dark Sky: 8:19pm Moon Phase: First Quarter.

### **Brichta ES Star Party**

Friday, 8/22/2008

**West**

No. of Scopes: 6

Brichta ES will be planning Back to Brichta Star Spectacular at 2110 West Brichta Drive. West on Speedway to Silverbell, North on Silverbell, West on Brichta Drive (across from Joaquin Murrieta Northwest Park), dead ends into school. Viewing will be probably sports courts behind Multi Purpose Room, north west side of campus (I would be happy to meet someone at the school to view possible locations) Contact person Liz Dalgleish can be reached at (520) 740-3012 or email [ldalgleish@sc.pima.gov](mailto:ldalgleish@sc.pima.gov). Set-Up Time: 7:45pm. Observing will be from 8:00 pm to 10:00 pm. Sunset: 7:04pm, Dark Sky: 7:59pm Moon Phase: (no moon during viewing).

### **UofA College of Optical Sciences**

Saturday, 8/23/2008

**Southwest**

No. of Scopes: 10

University of Arizona College of Optical Sciences will be preparing New Graduate Student Picnic & Star Party at Kitt Peak National Observatory Picnic Area. Take I-10 to I-19 South. Less than 1 mile is Ajo Way/Hwy 86 (Exit 99). Take this exit West (right). Proceed past Ryan Airfield and Three Points. Continue until Junction 386 (Kitt Peak turnoff). Turn left onto 386. Viewing will be at the Kitt Peak Picnic Grounds. Contact person Barbara Myers can be reached at 520-621-8418 or email [bmyers@u.arizona.edu](mailto:bmyers@u.arizona.edu). A dinner picnic will be available for TAAA volunteers! Set-Up Time: 6:00pm. Observing will be from 8:00 pm to 9:00 pm. Sunset: 7:02pm, Dark Sky: 7:58pm Moon Phase: First Quarter.

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](http://www.sa-ida.org)

Or feel free to contact:

John Polacheck  
President of SAIDA  
E-mail: [jpolach@dakotacom.net](mailto: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 !!!



**TAAA Board of Directors Meeting - Wednesday, July 9, 2008**

**Attending:** TAAA Board Members present (6): Ken Shaver, presiding, Keith Schlottman, Steve Marten, Terri Lappin, John Kalas, and George Barber. Members present (4): Larry Brown, Debra Malmos, Liz Kalas and Mark Mismash.

The President called the meeting to order at 6.32pm.

**June Minutes.** June Minutes accepted unanimously.

**Member Feedback** – Keith Schlottman

A member asked why TAAA members are not providing advanced lectures at our monthly meetings. We have Members' Nights but that is for only for a limited time slot of approximately 10 minutes. Could a member draft an advanced speech outline and send to Board for approval? General Board consensus was positive. Members could be invited to speak by invitation of the Board. George will draft a newsletter article for review by Board and, on approval, incorporate in August *Dark Skies* and send a copy to Debra to post on the TAAA website.

**Announcements**

For the August Astronomy Essentials presentation, George Barber will present "Solar Observing" in place of Mary Turner's seasonal observing update.

Terri said she is helping with plans for a Club visit to LBT in September, 2008.

**Dark Site Land Development**

Mark Mismash attended the board meeting and requested some time to discuss a concern regarding his efforts as architect for the Bumble Bee Site project. With the meeting running much longer than expected, Ken offered to arrange a meeting between the SPG and the board to discuss Mark's concerns. The decision of that meeting would then be conveyed to Mark. John Kalas requested that Mark perform no further work on the project until a decision is made at the special meeting regarding Mark's future involvement with the project.

**Treasurer's Report** – Terri Lappin

Terri has reviewed the budget. She is concerned that membership has dropped from 380 to approximately 320. She suggested that we publicize TAAA more. Ken noted that several PR projects are underway. Also, member's packs had included a booklet for beginners that was provided by Sky & Telescope. These now need to be printed by TAAA and therefore, costs will be higher. About 100 packs are used every year. She is considering discontinuing Vatican Observatory calendar due to lack of astronomical data and small date numbers. She asked for authorization to order 100 2009 calendars to begin selling this fall; cost is \$6 sell for \$9-10.

**Website** – Debra Malmos

Debra commended John Kalas for the enhancements to the developing website. Completing details on the site continues; Debra is happy to receive feedback. Review of 3 approaches to send *Desert Skies* to members via email. Debra suggested all three be evaluated and report back to Board. George will work with Debra to determine the most effective and least expensive method. John Kalas noted that the benefits of an eNewsletter are considerable and should be pursued. He also noted that fewer copies mailed could cost the club more than current mailing costs. Discussion on continuing printed copy. Website committee will evaluate and report back to Board. Larry Brown suggested that the committee consider a one page printed copy w/significant info w/referrals to more complete articles in the newsletter online.

**Directors & Officers (D&O) Insurance** – Keith Schlottman

As TAAA planning continues for additional TAAA building projects, Keith recommended that the Board purchase D&O insurance. The cost will be approximately \$900. Motion by Keith for up to 1k for D&O, George Barber seconded.

Discussion. Vote 6-0. Keith will send D&O policy particulars by email.

**TIMPA Key** – John Kalas

John reviewed current Key Keeper policy. Discussion on Key Keeper holding extra card to lend to members. Card holders are not required to lend their card if other obligations are pending.

**Master Calendar- Steve Marten**

Ken will attend TIMPA board mtg. to get data plus, perhaps, joint event w/TAAA/TIMPA

Intl Year of Astronomy event(s) to be incorporated

Disclaimer that spontaneous star parties not on Master Schedule are not TAAA-sanctioned events

Add General Meeting Dates

**Astronomy Magazine Award** – John Kalas

John presented the draft of the 500-word essay on TAAA activities that indicate our outreach and educational programs with the community. John will next prepare a draft of a 250-word essay on how the \$2500 award money would be spent. Educational and Outreach projects for the draft were discussed. Board consensus was to spend the \$2500 for a special video camera system with display monitor.

**Conflict of Interest Policy** – Keith Schlottman

Keith presented a draft for Board review. Comments will be accepted via email with a vote at the next meeting.

Adjourned at 9:35 pm

Respectfully Submitted,

Steve Marten

Secretary

<b>Desert Skies Classified</b>
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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	Original case for an Astro-Physics AP140 telescope. I have an extra case. Outside dimensions 40"x10.5"x10.5". Foam lined. Could be used for many refractors. \$50 has slight damage. I was quoted \$237 plus shipping from AP. Local pickup or buyer pays for shipping. Call for details - Larry Phillips at 777-8027 or <a href="mailto:llp41astro@cox.net">llp41astro@cox.net</a> . [09/08]
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]

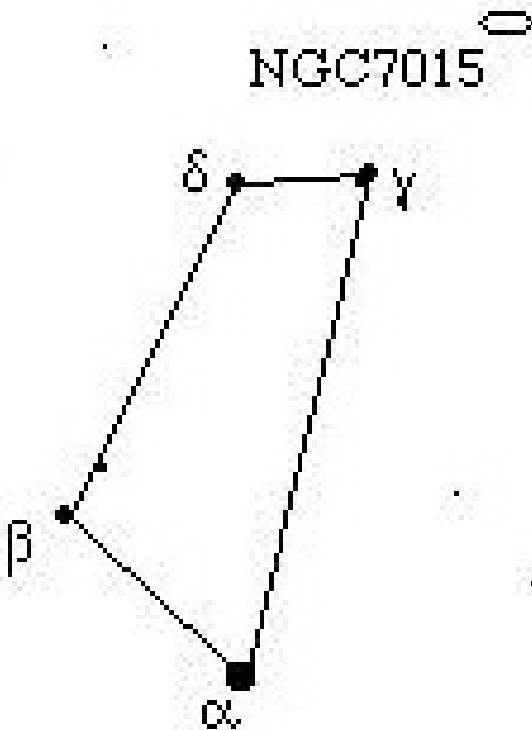
Your ad will run for 4 months unless specified. Month and year of last appearance is last item of ad. For additions or changes to this list, call or e-mail the newsletter editor.

<b>Constellation Report by Chris Lancaster</b>
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## Equuleus

The little horse

This month we feature two small, rather uninteresting constellations which don't merit a full article on their own. Even though they present rather little to the backyard observer, it's worth learning about these two obscure constellations.



This small, little known constellation lies between the nose of Pegasus and Delphinus and reaches its highest point in the sky at 11pm during middle to late August. Pegasus seems to be looking at his small counterpart which is just beyond his nose, and which is considered to be the invention of the Greek astronomer Hipparchus. Little mention of it is found in astronomical works since then, probably because it has only a few dim stars and virtually no interesting objects. Myth has it that Equuleus is the horse Celeris, which is the brother of Pegasus. Depending on which story you follow, Celeris was a gift to Castor (one of the twins of Gemini) from the god Hermes, or a gift to Pollux (the other twin) from Hera, the wife of Zeus. Another story contends that Celeris sprung from the earth when Poseidon's trident struck the ground in a contest with Athena.

Equuleus is a four-sided figure made up of stars no brighter than 4th magnitude. If you look toward Gamma Equulei, you'll see a visual binary star separated by 5.5 degrees. The brighter star shines at magnitude 4.7, while the dimmer one is magnitude 6. The two are of spectral types A (for the brighter star) and F, so you'll see stars of white or yellowish white color.

For large telescopes, a dim galaxy, NGC 7015, sits 1.7 degrees northwest of Gamma Equuleus. There are virtually no stars with which to star hop, so luckily it's not too far away from Gamma. Its

position is 21h 5m 37s Dec +11d 24' 50". If you have enough aperture, you'll see a dim, 13th magnitude spiral galaxy measuring 1.8'x 1.6' with diffuse boundaries getting gradually brighter toward the center.

Although not generally observable through an average telescope, an interesting double star is Delta Equulei, which marks the northeast corner of the box shape of Equuleus. The semi-major axis of this star is a tiny .26" with maximum separation of about .35". What sets this star apart is that its period of rotation is a short 5.7 years.

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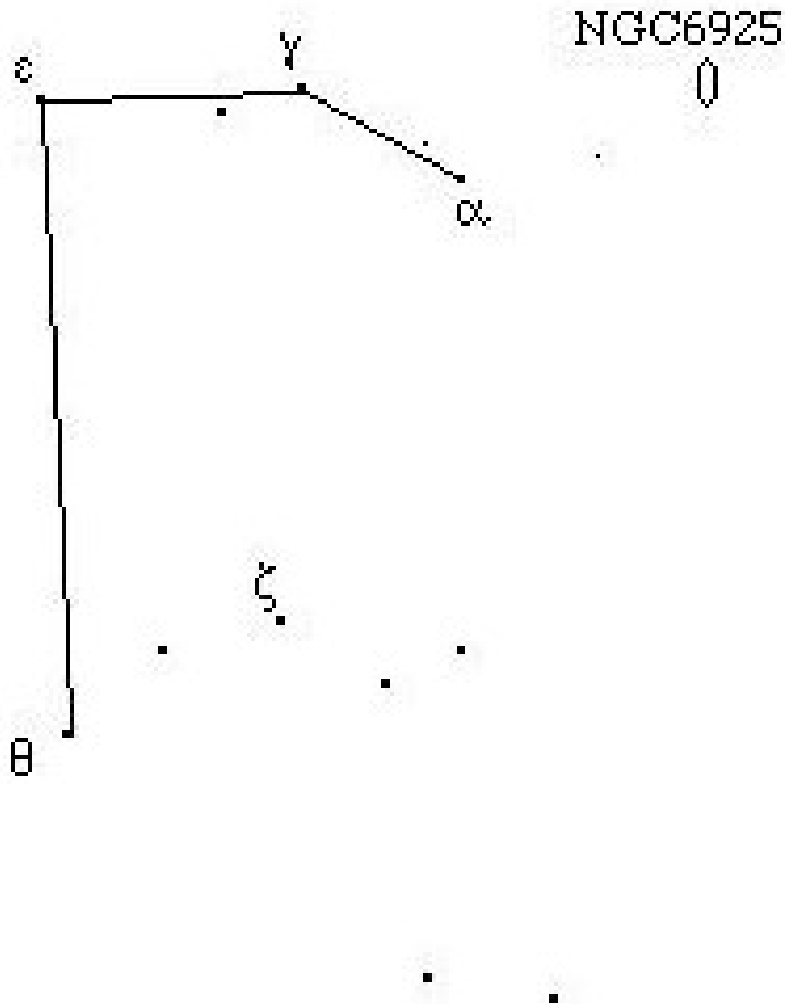
**Constellation Report by Chris Lancaster (cont.)**


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**Microscopium**

The microscope

This is a more modern constellation created by Nicolas-Louis de Lacaille in or about the year 1750. He named it along with Telescopium to honor two instruments which revolutionized the study of science. To the ancient observers, the area occupied by Microscopium had no named figures and was known as a vast area called "the sea" rising in the sky above the horizon. Microscopium is made of very dim stars (4.7 and dimmer) south of Capricornus and between Sagittarius and Grus. Similar to Equuleus, it also passes through the meridian at around 11 pm during the second half of August.



Making your way around Microscopium is difficult because there are no bright stars with which to navigate. One of the brighter stars of Microscopium, Alpha Microscopii, is an easy double star within the grasp of any telescope, and provides a good starting point. Individually, they shine with magnitudes 5 and 9.8, giving a naked eye integrated brightness of 4.9. Only 20 arc seconds separate the two, so low power is all that's necessary to split them. These two stars are very similar to the sun, having a spectral type of G8, compared to G2 for the sun.

There are a number of galaxies in Microscopium, but all are faint. One of the brightest that we find here is a fine example of a spiral galaxy--NGC6925. We can star hop from Alpha by going 2 degrees west to a star of 5.5 magnitudes, and then another two degrees northwest to NGC6925 (or go to RA 20h 34m 21s Dec -31d 58' 50".) This magnitude 12.1 galaxy is turned very close to edge on and measures 4.4'x 1.2', so you'll see a dim spear of light oriented almost straight north-south. In very large instruments or CCD images, some texture can be seen along the tightly packed spiral arms.

Tucson Amateur Astronomy Association  
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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.