

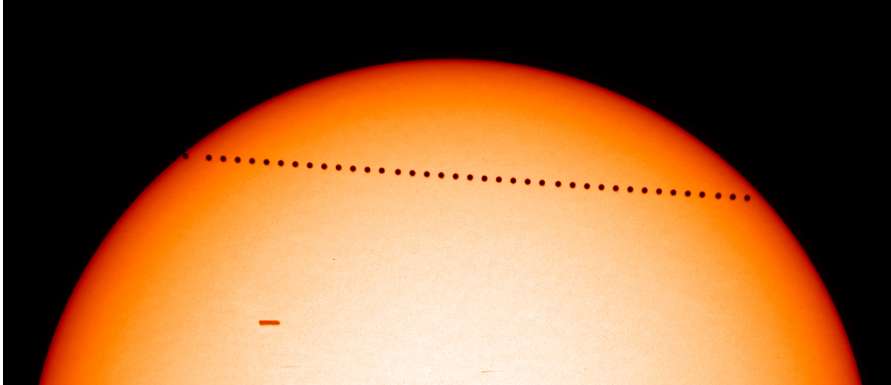


# Desert Skies

Tucson Amateur Astronomy Association

Volume LII, Number 11

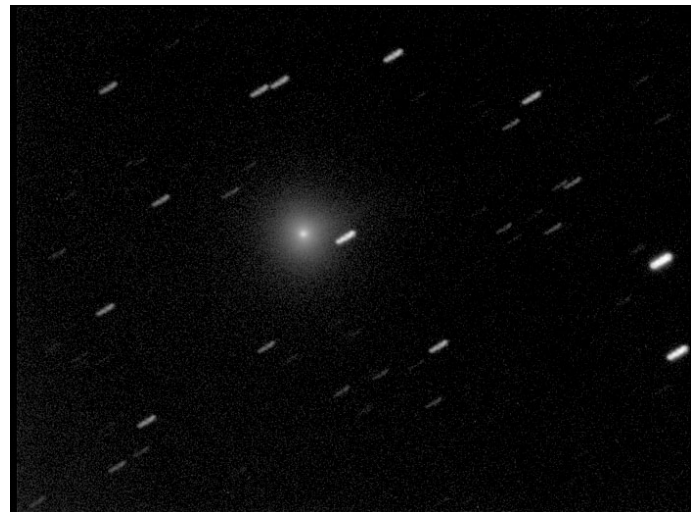
November, 2006



Mercury Transits the Sun

## Inside this issue

- ◆ Members Night—begins at 6:30pm
- ◆ Mercury Transit information
- ◆ *Shadows and Silhouettes* — the newest Night Sky Network Toolkit
- Constellation of the month—Sculptor
- Sign up for Email Lists
- ◆ BSIG and Astrolmaging Meetings
- ◆ Membership and School Star Parties



Comet C/2006 T1 (Levy)  
Congratulations to David Levy on finding his 8th comet visually, (22nd overall)!

- **Cover Photo:** Series of images taken in May 2003 by the spacecraft SOHO as the planet Mercury transited across the disk of the sun. We'll have an opportunity to see Mercury transit the sun this month. See page 7. The image of Comet Levy was taken by Andrew Cooper on October 4th using a C11 and Photometrics CoolSNAP ES2 CCD camera.

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

TAAA Phone Number: (520) 792-6414

Office/Position	Name	Phone	E-mail Address
President	Bill Lofquist	297-6653	president@tucsonastronomy.org
Vice President	Ken Shaver	762-5094	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	JD Metzger	760-8248	mal2@tucsonastronomy.org
Member-at-Large	Teresa Plymate	883-9113	mal3@tucsonastronomy.org
Past President	Thom Peck	505-323-1599	
Chief Observer	Wayne Johnson	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	Bill Lofquist	297-6653	novice@tucsonastronomy.org
Newsletter Editor	George Barber	822-2392	taaa-newsletter@tucsonastronomy.org
School Star Party Scheduling Coordinator	Paul Moss	722-2704	School-star-party@tucsonastronomy.org
School Star Party Volunteer Coordinator	Claude Plymate	883-9113	school-sp-volunteers@tucsonastronomy.org
Webmaster	Loretta McKibben	245-3942	taaa-webmaster@tucsonastronomy.org
Club Sales	Ann Scott	749-4867	taaa-sales@tucsonastronomy.org
TIMPA Gate Card controller	Ray Toscano	529-3074	timpa-key@tucsonastronomy.org
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\$ 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 .....\$ 4.05

**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

**President's Message**

The general meeting on November 3 is Members' Night and we still have room for two or three more presentations. If you would like to present please let me know by email or telephone. The meeting begins at 6:30, so we will use the time that is usually given to Astronomy Essentials to the Members' Night presentations. We will have a nice variety of content, including some beautiful images.

The Red LED Lamp workshop scheduled for Saturday, November 18 is almost fully subscribed. We do, however, have room for three more people. If you are interested let me know and we will add your name to the list. Information will be sent to those participating in early November.

Again in November the Board of Directors meeting will be held on the first Wednesday of the month instead of the second as it usually is. So it will be on November 1 at 6:30 PM in Steward Observatory

Conference Room N305. Of course, board meetings are open to all members, so any who wish to attend are welcome. After that we will be back on our usual schedule of meeting the second Wednesday of the month.

A number of TAAA members are working with the board on several issues being addressed at this time. We appreciate the contributions of many members to the ongoing work of the organization. As a volunteer organization we depend upon all of our efforts to keep things moving and dynamic. This includes our receiving the ideas of members for keeping TAAA relevant to and focused upon your interests. Thanks for all of your contributions.

Bill Lofquist  
 email: wlofquist@comcast.net  
 Telephone: (520) 297-6653

**Meeting Information and Calendar of Events**

**TAAA MEETING DATE:** Friday, Nov. 3, at the Steward Observatory Lecture Hall - Room N210

**ASTRONOMY ESSENTIALS:**  
 There will be no Astronomy Essentials lecture this month. Instead join us at 6:30pm for Member's Night

**GENERAL MEETING: 6:30 pm (SPECIAL START TIME!!!)**  
 Member's Night:

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

**BOARD OF DIRECTORS MEETING:** Wednesday, Nov. 1. The meeting is held at Steward Observatory Conference Room N305 beginning at 6:30pm.

- STAR PARTIES AND EVENTS:**  
 01 Nov - Board Meeting, Steward Observatory  
 03 Nov - General Meeting, Steward Lecture Hall  
 06 Nov - AstroImaging SIG at China Rose  
 08 Nov - Beginners SIG at China Rose  
 11 Nov - TAAA and Beginner's SIG Star Party at TIMPA  
 14 Nov - Cornerstone Christian Academy Star Party  
 15 Nov - Wilson Elementary Star Party  
 16 Nov - Doolen Middle School Star Party  
 17 Nov - Boys & Girls Club Star Party  
 18 Nov - TAAA Star Party at Las Cienegas  
 30 Nov - Roadrunner Elementary Star Party

**NEWSLETTER SCHEDULE:** Deadline for articles: Sat, Nov. 18. Printing: Mon, Nov. 20. Folding Party: Tues, Nov. 21. Mailing: Wed, Nov. 22. The newsletter is mailed at least one week prior to the following month's General Meeting.

**Upcoming Lectures**  
 Please contact Terri Lappin (see page 2) if you have a suggested topic or speaker for a future meeting.

Date	Lecture	Speaker	Topic
Dec 1	<i>Astronomy Essentials</i>	OPEN	
	<i>Invited Lecture</i>	Dr Fulvio Melia	Black Holes, tentatively
Jan 5	<i>Astronomy Essentials</i>	OPEN	
	<i>Invited Lecture</i>	OPEN	
Feb 2	<i>Astronomy Essentials</i>	AstroImaging SIG Presentation?	
	<i>Invited Lecture</i>		
Mar 2	<i>Astronomy Essentials</i>	OPEN	
	<i>Invited Lecture</i>	OPEN	

## Member's Events

### Astro-Imaging SIG Meeting

Nov. 6, 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!

### Beginners SIG Meeting and Star Party

Mtg: Nov 8, China Rose, NE corner Speedway/Rosemont

Star Party: Nov 11, TIMPA

The BSIG dates for November will be 11/8 for dinner at the China Rose Restaurant (6pm, the northeast corner of Speedway and Rosemont) and 11/11 (the following Saturday) for observing out at TIMPA. At the restaurant, we will have our usual discussion of objects suitable for observing in November, a presentation on so-called light pollution filters, and informal discussions of our own observing projects and progress. If you have been keeping a log of observations, please bring it along to share, along with your questions on observing and astronomy gear.

Something new for TIMPA this time around. We will try to gather participants together into a tighter group and hold an object finding 'workshop.' Three objects - most likely from the monthly list - will be selected and we will hunt them down as a group. Those who find them first will assist those who have problems. When each object is in view in all the assembled scopes we will share the view in order to help build an understanding of how different telescopes do their jobs.

### TAAA and Beginner's SIG Star Party at TIMPA

Saturday, Nov. 11

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. Be prepared for cold temperatures after sunset. Directions to the TIMPA site are located on the outside flap of this newsletter.

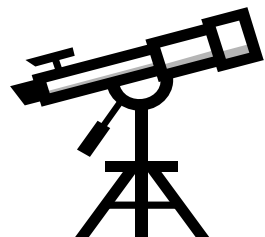
### TAAA Star Party at Las Cienegas (Empire Ranch)

Saturday, 18 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 Number: 23178**



**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 LXD-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) for details about these telescopes.

## Club News

### Basha's Thanks A Million Program

The TAAA is participating in Basha's Thanks a Million for Friends and Neighbors program. This is a no-brainer fundraising campaign. At your next run to Basha's, give the cashier our ID #23178. It's that easy! Just do it once. The TAAA could receive a donation from Basha's of 1% of all purchases, up to \$2500. The program runs until March 31st. If you participated last year, you still need to re-connect your Thank You card this year. Thanks to everyone who participates.

### TAAA Apparel

The new designed apparel is in! We've got hats, T-shirts, denim shirts, and patches (patches have old design). We take cash and checks.

### 2007 Calendars

Calendars for 2007 will be available for purchase at regular meetings this fall. You'll find them at the same table where you purchase TAAA apparel. This year you have your choice of either the Sky Publishing "Celestial Wonders" or the Astronomy magazine "Deep Space Mysteries" calendars...or get both. The cost for a calendar is \$10 each (~\$3 off the regular selling price), or \$9 each for more than one. These calendars have information about astronomical events and room for your own important dates.

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.

### AZ School Tax Credits in Support of Science

Arizona law provides a credit against state income taxes for donations to Arizona schools. With many TAAA members participating in Project Astro, we are organizing information on how TAAA members can use the school tax credit provisions, if they wish, to advance science education through science-related extracurricular activities. School teachers (or their astronomers) are invited to submit information on how donations would be used at their schools, how to designate the donation for those uses, and who to contact to obtain the donation form for their district. Please contact Robert Crawford at 520-546-1490 or at [rincon-ranch@earthlink.net](mailto:rincon-ranch@earthlink.net) to submit information about your school or to have your name put on the distribution list for the information packet. For more information about the AZ School Tax Credit see [www.azdor.gov/brochure/707.pdf](http://www.azdor.gov/brochure/707.pdf).

### Member News

We welcome these members who have recently joined the TAAA: Ritchie Falk, Carrie Hoffer, Russell Liederman, Brian O'Connell, and Matthew Whitehouse. 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 YahooGroups email list website under Files, or at most meetings.)

**November 3rd meeting  
starts at 6:30pm  
No Astronomy Essentials Lecture**

## Constellation Report by Chris Lancaster

### Sculptor

#### The Sculptor

The French astronomer Nicolas-Louis de Lacaille is given credit for establishing this constellation, which contains only a scattering of dim stars. His original name was L'Atelier du Sculpteur, the sculptor's workshop. Currently, only the sculptor remains. The constellation's southern boundary is about 19 degrees above the horizon, and it reaches the meridian close to midnight during the middle days of September. You can find Sculptor east of Piscis Austrinus (marked by the bright 1st magnitude star Fomalhaut), and southwest of Cetus, the whale.

Although Sculptor does not set itself apart by having bright stars, it contains a wealth of very exciting deep sky objects. A good one to start with is NGC253. This edge-on galaxy sits high in the constellation near its border with Cetus. So impressive is this system that it is often referred to as simply the Sculptor Galaxy and the 19th century Danish astronomer J. L. E. Dreyer effusively described it as

"very remarkable! Very, very bright, very, very large. . ." Indeed, when you point your telescope, no matter what size, at this bright galaxy, you'll see a magnitude 7.1 giant measuring 25'x 5', which is nearly half a full moon in length. Large telescopes will have no difficulty seeing some of the clumps of dust littering its tight spiral arms and bright knots of dense stars. To find NGC253, you can start with magnitude 2 Diphda (Beta Ceti) which is the southernmost bright star in the tail of Cetus, and move 7.5 degrees south and then 1.5 degrees east, or dial up coordinates RA 00h 47.6m Dec -25d 17' 00". Either way, this galaxy should be readily apparent in either your finder scope or binoculars. There are few examples of a better, more easy to see edge on galaxy than NGC253. It is also one of the nearest galaxies at about 9 million light years.

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

A mere 1.7 degrees southeast of the Sculptor Galaxy is what could be called the Sculptor Globular Cluster because this cluster, NGC288, is very bright and impressive as well. Measuring a wide 14' in diameter and glowing at magnitude 8.1, this globular is also within the grasp of any backyard scope. Small instruments will show a soft glow, and large scopes will have no trouble resolving many of the stars of this loose cluster, which range from magnitude 12 to 16. Look to RA 00h 52.8m Dec -26d 35' 00' for this cluster. As a side note, the south galactic pole (SGP) is less than a degree southwest of this globular cluster.

On par with NGC253 is another edge-on galaxy, but it is very low in the sky. It makes its transit across the meridian exactly at 1 am on September 1st, midnight on September 15th, and 11 pm at the end of the month, and these would be the best times to observe this galaxy since it will be the highest in the sky and away from the dust and atmospheric turbulence that will hamper the view. This galaxy is irregular in nature. It shows a mottled structure with uneven brightness across its length. Its western half is brighter than its eastern part, and in fact is sometimes given two designations--NGC55 for the western clump, and IC1537 for the dimmer, eastern clump. Dimmer clouds of stars intervene between these two bright features. This is also a very nearby galaxy, a member of the Sculptor group, residing only about 8 million light years away. NGC55 is 4 degrees south of magnitude 5.2 Theta Sculptoris, or RA 00h 14.9m Dec -39d 11' 00".

Another galaxy well within small backyard scopes is NGC300, which sits at RA 00h 54.9m Dec -37d 41' 00". This one is a face-on spiral, which means that its magnitude 9.0 light is spread out across a large area of about 20' in diameter, making its surface brightness low. Most telescopes will show only its brighter nucleus, but large scopes will begin to bring out some of the brighter

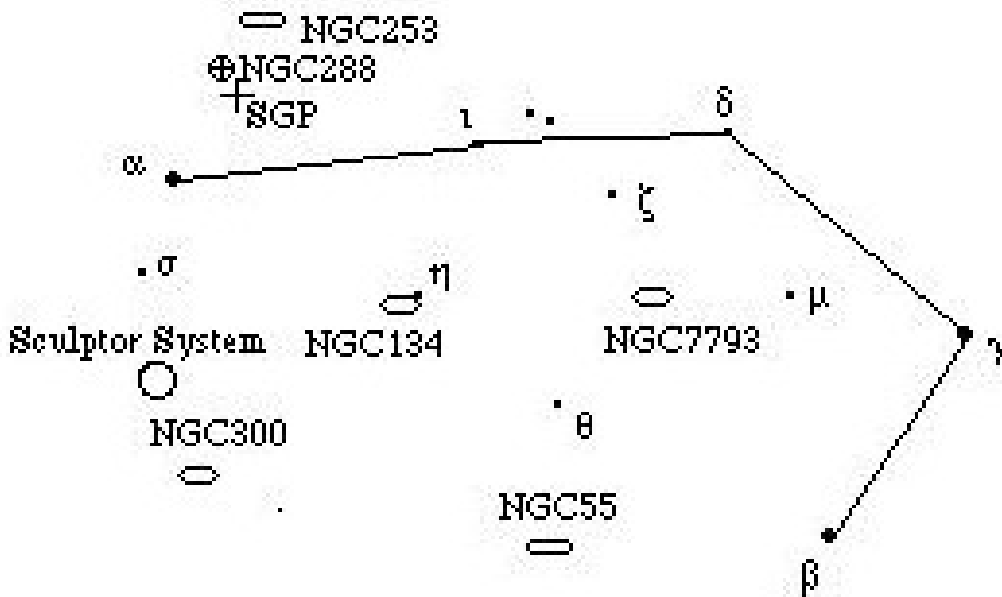
knots of stars in its arms. NGC300 is 1.7 degrees northwest of Zeta Sculptoris.

NGC134 is a worthy target due to its being easy to find. It sits about half a degree east southeast of a magnitude 4.6 star, Eta Sculptoris. It's a rather bright magnitude 11.1 galaxy of an 8.4'x 2.0' size. This is another galaxy nearly edge-on to our view also with mottled features in its spiral arms. NGC134 is situated at RA 00h 30.3m Dec -33d 14.7s.

Another in the long list of galaxies in Sculptor is NGC7793, a magnitude 9.6 face-on spiral with many tight spiral arms. It's a decent size at 9.4'x 6.3' located 3.7 degrees east of magnitude 5.3 Mu Sculptoris, or RA 23h 57.8m Dec -32d 35.4s.

An intriguing object, though beyond the grasp of most equipment other than long exposure images through large telescopes, lies halfway between Sigma Sculptoris and NGC300. It is identified as the Sculptor system, and is an extremely faint, sparsely populated dwarf elliptical galaxy that is a member of the local group. There are several other examples of this type of galaxy, such as the Fornax system and other systems in Leo, Draco, and Ursa Minor. All are nearby and would be invisible at much farther distances. This particular collection of stars covers a vast area of the sky--about 75', and is one of the intrinsically faintest galaxies in the heavens. It shines with a total luminosity of only 3 million suns. The earliest photographs of the Sculptor System showed such an elusive image of the galaxy that it was thought to be a photographic anomaly. Later, more modern images began to show stars within the galaxy.

For a dim constellation, Sculptor contains many fantastic objects.





**Items of Interest**

**Steward Observatory Public Evening Series**

Since 1924, Steward Observatory has been hosting public evening lectures in astronomy. The lectures are held on Monday nights at 7:30pm in room N210 of Steward Observatory. (Steward Observatory is located at 933 N. Cherry Ave. near the NE corner of the UA campus.) After each lecture, the 21-inch telescope will be open (weather permitting) to view the night sky. All of the lectures and the use of the telescope are free of charge and open to the general public.

Oct 30	Mr. James McGaha	<i>Planet X: The Search for an Illusion</i>
Nov 20	Dr. Michael Cushing	<i>Brown Dwarfs and Extrasolar Planets</i>
Nov. 27*	Dr. Frank Low	<i>How the Spitzer Space Telescope was Designed, Tested, and Built</i>

\*The National Radio Astronomy Observatory has named Dr Frank Low (UA Professor) as the 2006 Jansky Lecturer. Dr. Low has graciously agreed to present his Jansky Lecture again for Tucson on Nov 27. A reception for Dr. Low will be held in the main lobby of Steward Observatory immediately following the lecture. The public is invited.

**Rare Transit of Mercury on November 8**

In Tucson, we are fortunate enough to be able to watch the entire transit of the planet Mercury across the solar disk on Wednesday, November 8th! The transit lasts about 5 hours, from 12:12 to 17:10 MST (19:12 - 00:10 UT) on the afternoon of Wednesday, November 8. Paul Moss, school star party coordinator, has received requests from groups interested in having the TAAA set up telescopes for this event. Paul will take his telescope out for one group that already has a firm commitment. As of this writing, there is at least one more interested school group which is still tentative at this point.

We would very much appreciate anyone in the club who would be free that day & willing to show the public the transit to let us know so we might be able to fill these requests. As a recommended minimum, your telescope needs a FRONT APERTURE filter. This needn't be a fancy H-alpha type filter, a simply white-light filter would be quite

adequate to show the progression of the 10 arcsecond diameter planet across the solar disk. Eyepiece projection should be avoided as we certainly wouldn't want some uninitiated layperson trying to put their eye up to your eyepiece. (As we say, you only get 2 opportunities to try that!)

If you are available and willing to show the public this rare event, please let Paul Moss or Claude Plymate (see page 2) know. Our next opportunity to see such an event won't be until May 9, 2016 - another 10 years!

More information about the transit can be found at <http://tinyurl.com/o3jdt> (<http://sunearth.gsfc.nasa.gov/eclipse/OH/transit06.html>).

**SAIDA NEEDS HELP FROM 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 !!!**



**Our Sponsors**

**STARIZONA**

ADVENTURES IN ASTRONOMY AND NATURE

5757 N. Oracle Rd.      [www.starizona.com](http://www.starizona.com)

Tucson, AZ 85704      292-5010

*SINCE 1986*

**Stellar-Vision Astronomy Shop**

1835 S. Alvernon #206

Tucson, AZ 85711

(520) 571-0877

Credit Cards accepted.

## Public Star Parties and Community Events

All members 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.

**Cornerstone Christian Academy Star Party      Foothills**  
 Tuesday, 11/14/2006      No. of Scopes: 3

Cornerstone Christian Academy will be holding a *Night With the Stars* at 2150 E. Orange Grove. Go north on 1st Avenue to Orange Grove. Turn right (east) on Orange Grove. Follow Orange Grove to Sunrise and turn right. Go one block to Camino Miraval and turn right. Turn left at parking lot on corner. Viewing will be on the grassy play area east of the parking lot. Contact person Jack Hauschildt can be reached at 529-7080 or email [jack\\_hauschildt@hotmail.com](mailto:jack_hauschildt@hotmail.com) Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:30pm. Sunset: 5:25pm; Dark Sky: 6:20pm; Moon Phase: Last Quarter.

**Wilson Elementary Star Party      Northwest**  
 Wednesday, 11/15/2006      No. of Scopes: 4

Wilson Elementary will be preparing *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, 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 797-8019 or email [ewilkening@amphi.com](mailto:ewilkening@amphi.com) Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:30 pm. Sunset: 5:24pm; Dark Sky: 6:20pm; Moon Phase: (no moon during viewing).

**Doolen Middle School Star Party      West**  
 Thursday, 11/16/2006      No. of Scopes: 3

Doolen Middle School will be holding a star party at Camp Cooper, 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 and drive .5 mile. Turn left (west) on to TRAILS

END ROAD. Drive ONE mile. Camp Cooper is on the left (south) side of the road. Viewing will be at Main Ramada/ Amphitheater. Contact person Buell Jannuzi can be reached at (520) 318-8353 or email [jannuzi@noao.edu](mailto:jannuzi@noao.edu) Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:30 pm. Sunset: 5:24pm; Dark Sky: 6:19pm; Moon Phase: Crescent after New Moon.

**Boys and Girls Club Star Party      South-Central**  
 Friday, 11/17/2006      No. of Scopes: 3

Boys and Girls Club, South Tucson will be planning *Fun and Learning the Night Sky* at Pueblo Gardens Park, 2585 East 36th Street. Campbell/Kino south to 36th, east (left) on 36th, and the park will be on your left in about a mile. Come to the desk at the Boys and Girls Club and ask for Rosemary Badian. Viewing will be in the park next to the club. Contact person Rosemary Badian can be reached at (520) 990-3645 or email [Rosemouse@AOL.com](mailto:Rosemouse@AOL.com) Set-Up Time: 6:00pm. Observing will be from 6:30 pm to 8:30 pm. Sunset: 5:23pm; Dark Sky: 6:19pm; Moon Phase: Late Crescent.

**Road Runner Elementary Star Party      Northwest**  
 Thursday, 11/30/2006      No. of Scopes: 5

Road Runner Elementary School will be holding a *Stargazers* event at 16651 W. Calle Carmela. Take I-10 to Avra Valley exit. Turn left or west and go app. 13 miles until Anway road. Turn right or north and go approximately 3 miles until Calle Carmela. Turn left and the school is just a block ahead, on the left. Viewing will be on the basketball court or backfield. Contact person Diane Rockwell can be reached at 616-6363 or email [what.diane.likes@comcast.net](mailto:what.diane.likes@comcast.net) Set-Up Time: 5:45pm. Observing will be from 6:15pm to 8:15 pm. Sunset: 5:19pm; Dark Sky: 6:16pm; Moon Phase: First Quarter.

### Desert Skies Classified

For Sale Price Reduced to \$550!	Meade ETX-70AT w/883 heavy duty tripod, 495 Autostar handbox; PL4, PL6, MA9, MA25, 124-2X Barlow lenses, LPR filter, 670 dewshield, 827-8 x 25mm right angle view finder, 07379-T mount for Olympus OM 35mm camera, 2 flexible shutter release cables, extra battery pack. OM Olympus camera, 9 vdc adapter mounted on 883 tripod frame w/ 100 ft 3-wire outdoor power cord (to substitute for use of a battery pack, where 110 V power is available), (used 3 evenings) - valued over \$1500, asking \$750. All can be seen at Stellar Vision. Harland Beckman, 520-722-5070. [02/07]
For Sale	Orion Astroview 120 ST EQ, with Dual Axis Drive Controller [not go-to] and polar alignment scope. \$300. E-mail Jim Charboneau at <a href="mailto:stellarobservatory@starband.net">stellarobservatory@starband.net</a> [11/06]

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.





The TAAA received the newest Toolkit from the Night Sky Network for use in outreach activities. This Toolkit is called *Shadows and Silhouettes* and joins the other 5 toolkits that we have earned through our successful outreach program. *Shadows and Silhouettes* contains 3 sets of projects that can be used to explain lunar phases, transits, and eclipses. This is great timing for anyone doing outreach on November 8th when Mercury transits the sun (see article on page 7).

Using simple materials (most of them supplied), the first project in the Toolkit explains what a transit is and how a transit can be used to detect an extrasolar planet in orbit about it's star. The second project explains lunar phases, eclipses, and why eclipses don't occur every month. As in all the kits, the third activity is a telescope tour around the summer triangle and introduces the Kepler Search Area where NASA's Kepler Mission will look for extrasolar Earth-sized planets using the transit technique. In all, there are 14 activities to choose from in this Toolkit.

The Toolkit is available for borrowing by contacting Terri Lappin (see page 2) and can usually be borrowed for a few weeks at a time. One-on-one training is available, or if there's enough interest I will set up a training class covering all Toolkits.

The Toolkits we have are:

- ◆ *Shadows and Silhouettes*
- ◆ *Telescopes: Eyes on the Universe*
- ◆ *Black Hole Survival Kit*
- ◆ *Our Galaxy, Our Universe*
- ◆ *PlanetQuest—the search for extrasolar planets*

All Toolkits are available for loaning. You will receive a DVD and CD containing training materials which you may keep. The Toolkit itself, containing the "props", must be returned to the TAAA.

These Toolkits are funded by NASA. To justify their expense, we are required to log the usage of each Toolkit. Continued use of the Toolkits we have will assure that we continue to receive new Toolkits as they are developed and released.

The Night Sky Network is composed of amateur astronomy clubs throughout the US. Nearly 4500 outreach events have been logged (22 by the TAAA), reaching over 378,000 people.

### Dark Skies for November 2006

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

Tu/We 31/ 1 2:13 - 5:18	Sa/Su 11/12 18:50 - 23:19	Tu/We 21/22 18:46 - 5:34
We/Th 1/ 2 3:22 - 5:19	Su/Mo 12/13 18:50 - 0:17	We/Th 22/23 18:46 - 5:34
Th/Fr 2/ 3 4:31 - 5:19	Mo/Tu 13/14 18:49 - 1:13	Th/Fr 23/24 19:36 - 5:35
Fr/Sa 3/ 4 - - -	Tu/We 14/15 18:49 - 2:08	Fr/Sa 24/25 20:41 - 5:36
Sa/Su 4/ 5 Full Moon	We/Th 15/16 18:48 - 3:02	Sa/Su 25/26 21:48 - 5:37
Su/Mo 5/ 6 - - -	Th/Fr 16/17 18:48 - 3:56	Su/Mo 26/27 22:55 - 5:37
Mo/Tu 6/ 7 - - -	Fr/Sa 17/18 18:48 - 4:52	Mo/Tu 27/28 0:02 - 5:38
Tu/We 7/ 8 18:52 - 19:12	Sa/Su 18/19 18:47 - 5:31	Tu/We 28/29 1:08 - 5:39
We/Th 8/ 9 18:52 - 20:12	Su/Mo 19/20 18:47 - 5:32	We/Th 29/30 2:15 - 5:40
Th/Fr 9/10 18:51 - 21:15	Mo/Tu 20/21 18:47 - 5:33	Th/Fr 30/ 1 3:23 - 5:40
Fr/Sa 10/11 18:51 - 22:18		Fr/Sa 1/ 2 4:33 - 5:41

Weekend Sa/Su	Sun Set	Sun Rise	Mercury Rise Vi	Venus Set Vi	Mars Rise Vi	Jupiter Set Vi	Saturn Rise Vi	Vi=Visibility
4/ 5	17:29	6:42	6:50 -	17:37 -	6:23 -	18:14 6	0:32 1	-3 brilliant
11/12	17:24	6:48	6:09 -	17:37 -	6:18 -	17:52 9	0:06 1	0 conspicuous
18/19	17:20	6:55	5:28 4	17:39 9	6:14 -	17:30 -	23:40 0	3 moderate
25/26	17:18	7:01	5:24 3	17:44 7	6:10 9	Rise -	23:13 0	6 naked eye limit
2/ 3	17:17	7:07	5:40 3	17:50 6	6:06 8	6:23 7	22:46 0	9 binoculars limit

By Erich Karkoschka

## For Members Only

**The TAAA Email Lists - Announcements and TAAA Forum**

Do you have email? Are you a member of the TAAA Announcements List or the TAAA Forum? These are TAAA email distribution lists run on Yahoo!Groups. Members of the Announcements List receive reminders and information about TAAA events. The TAAA Forum List allows members to send emails to everyone on the forum. There are 137 members in the Forum. TAAA members can join either or both of these lists. There are about 15 announcements and about 75 forum messages per month.

Since Yahoo!Groups hosts these lists, you may see ads inserted into the email messages. The TAAA has no control over the content of these ads; however, your email program or internet security software may be configurable to block the ads so you won't see them.

Membership in these groups is restricted to TAAA members. Please follow the directions below to join. Please also send an email to Terri Lappin at [treasurer@tucsonastronomy.org](mailto:treasurer@tucsonastronomy.org) letting her know you have requested membership in the list (s). Be sure to include your name so she can verify your membership and approve your request.

*If you are a member of Yahoo:*

Go to the following websites and click on "Join this Group".

Announcements: <http://tinyurl.com/e7o3y> (same as <http://groups.yahoo.com/group/tucsonastronomy>)

TAAA Forum: <http://tinyurl.com/hwoau> (same as <http://groups.yahoo.com/group/taaaforum>)

*If you aren't a member of Yahoo:*

Join Yahoo by going to the above URLs and registering when you see the Login screen. Before joining Yahoo, it's recommended that you visit the Yahoo!Groups website (<http://groups.yahoo.com/>) to learn about their privacy policy (link is at the bottom of the screen). Once you join, you should check the default "Marketing Preferences" for your account by clicking on "My Account" (top of the screen), and then "Edit your marketing preferences" (about center of screen).

*If you don't want to join Yahoo:*

Send a blank email to the following addresses using your email account where you want the messages to be sent.

Announcements: [tucsonastronomy-subscribe@yahoogroups.com](mailto:tucsonastronomy-subscribe@yahoogroups.com)

TAAA Forum: [taaaforum-subscribe@yahoogroups.com](mailto:taaaforum-subscribe@yahoogroups.com)

If you have any problems, contact Terri Lappin (see page 2).

**What will you get?**

Once you join one of the email lists, what kind of emails will you receive? As mentioned above, the Announcement List has a pretty low activity level. Only a few TAAA members can post messages to this list. The messages are generally about TAAA activities. All Announcement List emails will be marked [TAAA] in the subject line.

The Forum has many more members and as expected has more activity. Most messages relate to observing. Some of our more observing-minded members send links to images they've taken. Others give written reports. Andrew Cooper and Dean Salman are usual contributors. If the weather is good, you might get an invitation to join someone who's observing on a non-scheduled star party night.

John Croft occasionally sends out "Trivia Time" which includes 5 or so fill-in-the-blank statements or questions.

Some members can't help but come up with silly answers, but John always lets us know the correct answers.

Most of us on the Forum learned of David Levy's recently discovered comet via the TAAA Forum. Supernova, when they occur, are often reported on the Forum.

Living in Tucson, there's almost always some special astronomy event going on during the month that wasn't known when the newsletter was published. The Phoenix Mission Open House is a good example of an event that didn't get announced in Desert Skies.

Yes, you might get some spam messages if you subscribe to either list. There's little that can be done to prevent spammers, but hopefully anyone using email has a spam watch program running on their computer.

Consider joining one or both of the lists. It's easy to unsubscribe, so you have little to lose.

**TAAA Board of Directors Meeting -**

October 4, 2006

Attending: TAAA Board Members present: Bill Lofquist, presiding, Ken Shaver, Steve Marten, Terri Lappin, George Barber, Teresa Plymate and JD Metzger. Members present: Loretta McKibben, David and Wendee Levy. President's Call to Order: 6:40PM

**September Minutes.** Accepted. Unanimous.

**Member Feedback**

Suggestion received for TAAA review of educational handouts/materials for public star parties.

Requests for more workshops; Board created committee to develop workshop schedule.

Suggestion to hold mini gatherings of new members/visitors perhaps during the break as an orientation. This idea came from Yahoo Astronomy Board Members group.

**Announcements**

One of TAAA projectors is in need of repair; Andrew Cooper will be asked to research and forward repair estimate.

One of the TAAA projectors is missing. If anyone knows whereabouts of "floating" projector please advise a Board member or bring it to the November General meeting.

**Spring 2007 Public Star Party Weekend Event** - David and Wendee Levy

David and Wendee Levy, Board members of Sharing the Sky Foundation, discussed changing spring MDA "Telescopes for Telethon (T4T)" event to a local event named "Sharing the Sky." The event would be organized to inspire kids to "reach for the stars" and funds raised would go to non-profit Sharing the Sky Foundation efforts here in Tucson particularly educational programs including MDA Summer Camp. Any checks collected expressly for MDA will be forwarded to them but other funds will support MDA and local Sharing the Sky Foundation programs. Bill suggested forming ad hoc committee to evaluate this and similar concepts for report to Board next meeting. Sharing the Sky event is scheduled for weekend of April 28, 2007; notices go out in Feb. Board reaffirmed commitment to April 28th star party date.

**Website Redesign** - Loretta McKibben

Loretta reviewed Board functionality requirements and design guidelines. Discussion of Microsoft vs UNIX (Linux); Loretta will research server language and report by email. Loretta is authorized to continue development and report to Board monthly for review and comment.

**TIMPA Observatory** - Bill Lofquist

In view of rising construction costs, increasing light pollution and additional FEMA and county requirements Board suspended construction planning for dome building at TIMPA (unanimous). In place of dome, Board voted to create an Observatory Committee to prepare proposals including suggested 200 sq ft roll-on/roll-off building to house TAAA 14" Meade scope (unanimous). Committee results will be presented at November Board meeting.

**Kitt Peak Picnic Ground Grill Repair** - Ken Shaver

Ken relayed proposal by John Kalas to repair Kitt Peak picnic area grill for future Star-B-Que and other events. Work would include new burners, gratings and dedicated TAAA propane tank. While grill is owned by Kitt Peak and other groups may use this grill, TAAA has not been assessed fees to use Kitt Peak Picnic Area. The Board approved up to \$500 in repairs (unanimous).

**TAAA/IDA Joint Projects** - Bill Lofquist

TAAA member and IDA President John Polacheck has suggested that TAAA and IDA conduct joint activities to promote IDA goals. Board agreed that TAAA Board will review proposals from IDA for joint projects on case-by-case basis. Board invited IDA to make a presentation at the Members Night General Meeting in November.

**Conflict of Interest Policy** - Terri Lappin

Board created committee to draft conflict of interest policy that is expected to be required by IRS late next year or 2008.

**Administrative Business** - Terri Lappin

Annual State Certificate of Disclosure form signed (by Bill and Steve) and will be mailed by 10.28.06 deadline. Keith Schlottman prepared IRS tax forms that are to be reviewed, signed (by Terri) and mailed by 11.15.06 deadline.

**Telescope Storage Shed** - Terri Lappin

Storage Shed rent has met \$300 limit approved by Board. Board approved an additional \$75 to extend shed use until end of November, if necessary (unanimous).

Adjourned at 9:35p.m.

Respectfully Submitted,  
Steve Marten, Secretary

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

NONPROFIT ORG.  
U.S. POSTAGE  
PAID  
TUCSON AZ  
PERMIT NO 1488

Address Service Requested

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. Contact a board member or the TIMPA Gate Card Controller to arrange access to TIMPA. 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.