

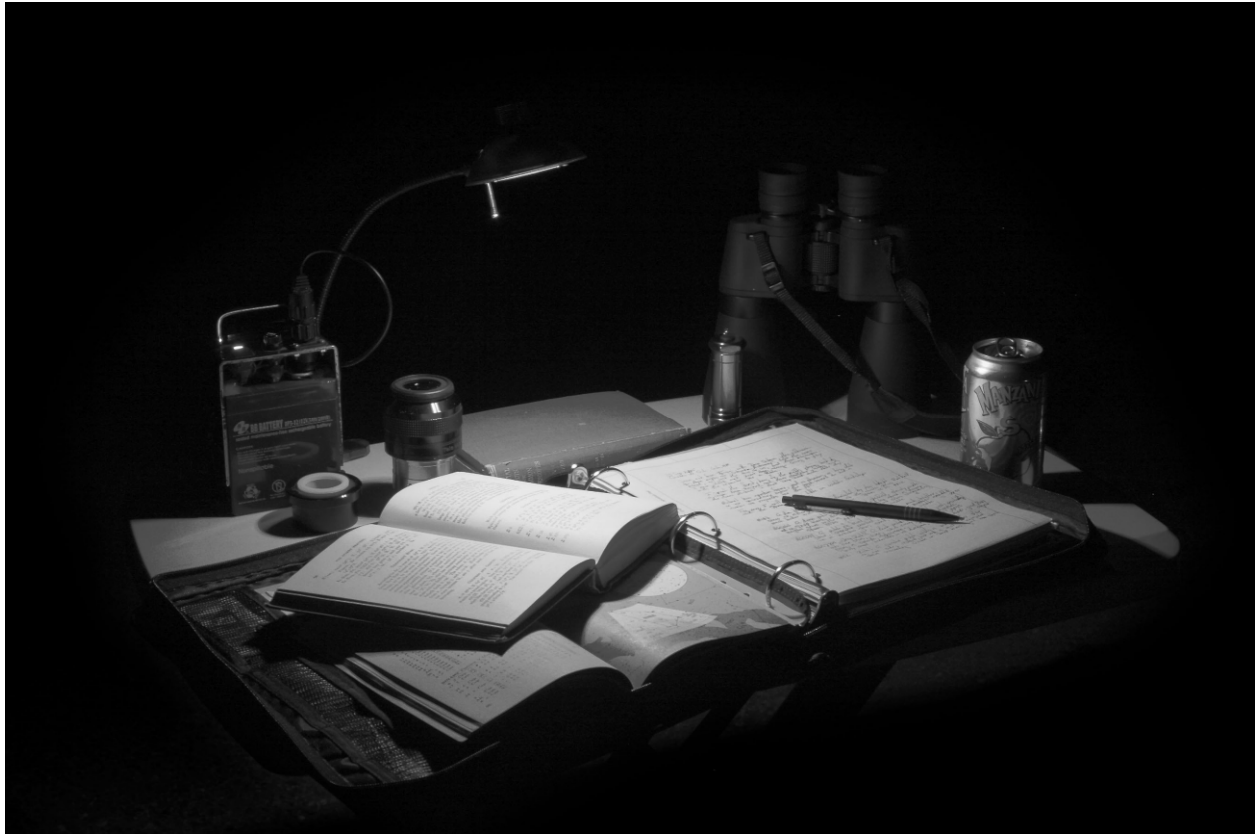


# *Desert Skies*

*Tucson Amateur Astronomy Association*

Volume LII, Number 9

September, 2006



## **Red Lamp Workshop**

- ♦ Learn about TAAA Projects and Goals at the Monthly Meeting
- ♦ School star parties
- ♦ TAAA Star-B-Que at Kitt Peak
- ♦ Project ASTRO needs YOU!
- ♦ Constellation of the month
- ♦ Create your own Website

**Cover Photo:** Members Construct Red Lamps at Workshop. Photo by Andrew Cooper.

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

TAAA Phone Number: (520) 792-6414

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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 to 18 yrs (form required, contact the treasurer)\$13.00

### Options (add to above membership rates)

- Tucson society of the Astronomical League (TAL) fee.\$ 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

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Tucson Amateur Astronomy Association, Post Office Box 41254, Tucson AZ 85717.

## President's Message

Dear TAAA Members:

The monsoon season is almost over, and by the time of the September meeting we may see the beginnings of fall and more viewing of the night sky. Let's hope so. During July and August we seem to have caught up to our annual rainfall, so it has been a productive monsoon. Now we can hope for clear skies without feeling too guilty.

On August 12 about 15 TAAA members got together for another red LED lamp workshop, and, again, all of them lit up as anticipated. Andrew Cooper provided his usual excellent instruction and walked us through things about electricity that few of us understood. In addition to being a productive workshop, it was a good time for members to get together and have some fun. This was the fourth such workshop, so even more TAAA members will exhibit the familiar red lamps at observing sessions.

The General Meeting on September 1 will focus on what is happening with TAAA as we head into the fall and the next year. While this is the beginning of the Labor Day weekend, we hope there will be a good turnout to help shape our programs for the months ahead. The volunteer spirit is alive and well within the organization. We want to continue to push the edges of our creativity for making astronomy of interest to a growing number of people while adding to our own enjoyment of this challenging and fascinating field of science.

Bill Lofquist

## Meeting Information and Calendar of Events

**TAAA MEETING DATE:** Friday, September 1, at the Steward Observatory Auditorium – Room N210

**ASTRONOMY ESSENTIALS:** 6:30 pm

Title: Overlooked Observing Gear- the Observing Notebook

Speaker: Andrew Cooper

One piece of gear that is so often overlooked is the observing notebook, but when set up and used correctly, this can be the most useful piece of gear you have besides your telescope.

**GENERAL MEETING:** 7:30 pm

Title: TAAA Projects Update

Speaker: Multiple

The TAAA Board of Directors wants astronomical observing to have more emphasis than it has had in recent years. A portion of the September meeting will be open discussion to allow you an opportunity to discuss the kinds of observing that interest you. We'll also have presentations about our other projects underway, mainly the TIMPA dome and the TAAA website redesign, and a brief financial report from our treasurer.

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

### STAR PARTIES AND EVENTS:

13 Sept - TAAA Beginner's SIG at China Rose  
15 Sept - Christian Home School Educators of Green Valley  
16 Sept - TAAA and BSIG Star Party at TIMPA  
16 Sept - TAAA Astrolmaging SIG at China Rose  
16 Sept - TAAA Fall Star-B-Cue at Kitt Peak  
19 Sept - Tu Nivito Star Party  
20 Sept - Tu Nivito Star Party  
21 Sept - Tu Nivito Star Party  
26 Sept - Tu Nivito Star Party  
27 Sept - Tu Nivito Star Party  
28 Sept - Tu Nivito Star Party

**NEWSLETTER SCHEDULE:** Deadline for articles: Sat, Sept. 23. Printing: Mon, Sept. 25. Folding Party: Tues, Sept. 26. Mailing: Wed, Sept. 27. 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: Jeronimo Cruz, Robert Elowitz, and Sally Vance. Glad to have all of you join! New members should 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.)

### September BSIG

The BSIG dates for September will be 9/13 for dinner at the China Rose Restaurant (6pm, the northeast corner of Speedway and Rosemont) and 9/16 (the following Saturday) for observing out at TIMPA. And this being September there's a fair chance we will actually be out there observing!

We will have our usual discussion of objects suitable for observing in September, as well as informal discussions of

## Club News

our own observing projects and progress.

There are a variety of topics of interest to beginners that we would like to cover at the dinner meetings, but to do so we need some help from the general membership. We are looking for members who are willing to share their experience with such matters as caring for optics (cleaning eyepieces and mirrors), making planetary and solar observations, sketching techniques, demonstrations of astronomy related software, or any other topic you think might be of use to beginners. If you have an idea and are willing to share your knowledge, contact a BSIG committee member or send us an email at: [novice@tucsonastronomy.org](mailto:novice@tucsonastronomy.org).

Hope to see some of you in September!

The BSIG Committee

### Astro-Imaging SIG Meeting

Because of Labor Day, the Astrolmaging SIG will not meet on its usual day. Instead, the group will meet Saturday, September 16th, at Argenziano's at Houghton and Sahuarita Road at 4 pm for an early dinner. Afterwards the group will go to Steve Peterson's backyard observatory for a presentation; and, weather permitting, imaging and observing will follow, so bring your equipment. Contact Steve Peterson at [astro-photo@tucsonastronomy.org](mailto:astro-photo@tucsonastronomy.org) to let him know you're coming, and for directions to his house.

### 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've got hats, T-shirts, denim shirts, and patches. We take cash and checks.

### 2007 Calendars

Calendars for 2007 will be available for purchase at regular meetings beginning in September. 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.

### TAAA Fall Star-B-Cue at Kitt Peak

September 16 (Saturday)

The TAAA has scheduled a star party and pot-luck barbecue at the picnic grounds up on Kitt Peak on Saturday, 9/16, starting at 4:00 pm. A maximum of 70 TAAA Members and families will be allowed to participate. The ramada gas-fired barbecue grill will be fired up starting at 4:30 pm and members are invited to cook their dinners between 4:30 and 6:30 pm. Bring a dish to share with other members. The grill will be turned off at 6:30 pm. Telescope observing will commence after sundown and will be concluded by 11:30 pm. All members must be heading down the mountain by midnight. Be prepared for cold temperatures.

There will be a sign-up sheet on the table at the back of the lecture hall at the start of the September 1st meeting. Because of the popularity of this event, attendance will be initially limited to TAAA Members and their immediate family members only. If, after all TAAA Members have had an opportunity to sign up, there are any openings or cancellations, the attendance of guests will be considered. If you are unable to attend the September meeting, phone and e-mail reservation requests will be taken on a first-come, first-serve basis *after* 9:00 am Saturday, 9/2. Contact John Kalas at 620-6502 or via e-mail at [<jckalas@cox.net>](mailto:jckalas@cox.net).

It is very important for all attendees to abide by the rules established by Kitt Peak and respect the facility. Adherence to the rules will help to continue TAAA activities on Kitt Peak in the future.

1. No vehicles are allowed above the picnic grounds after 4:00 pm.
2. Only the ramada gas-fired barbecue grill is permitted for cooking food at the picnic grounds. No open fires or use of the personal barbecue grills is permitted.
3. All trash must be placed in the garbage receptacles.
4. Use of cellular phones and radio walkie-talkies is prohibited. All cell phones must be turned off.
5. No alcoholic beverages are permitted.

When leaving the picnic grounds after dark, if possible, use your parking lights until you have reached the main road and are headed downhill after exiting the picnic area.

### Family ASTRO Training Workshops 2006

Hosted by the National Optical Astronomy Observatory

Project ASTRO became so popular with students that their families asked how they might enjoy similar activities. Family ASTRO meets that demand by offering to train "event leaders" to hold one to four thematic events. These thematic events take hands-on inquiry-based activities similar to those in Project ASTRO and move them to the extracurricular arena where parents and siblings can join the fun. Less formal than classroom instruction, these events focus on the moon, the planets, the night sky, and light in ways that get families together and thinking

### Club News (cont.)

creatively while having a lot of fun. The typical event lasts about two hours. Each training workshop teaches event leaders how to conduct one of the four events mentioned above and lasts about five hours. During the workshop the activities are modeled and additional facets of hosting the event are addressed. Each event leader receives a leader kit containing all the basic materials necessary for organizing the event. Available for purchase are additional games that may be used in the events or given to families to take home.

Dates: October 5 Cosmic Decoders

October 12 Race to The Planets

October 19 Night Sky Adventure

October 26 Moon Mission

Place: National Optical Astronomy Observatory headquarters, 950 N. Cherry Avenue, Tucson

Time: 4:30 to 9:30 PM

Cost: \$25.00 per workshop, including dinner

Applications to join the Family ASTRO program are available for teachers and for others. The application deadline is 3 weeks before training. Completed applications may be faxed to Robert Wilson at 520-318-8451 or mailed to him at 950 N. Cherry Ave., Tucson, AZ, 85719. For any further questions, feel free to contact Robert at [rwilson@noao.edu](mailto:rwilson@noao.edu) or 520-318-8440.

### Project ASTRO Training Workshop 2006

Hosted by the National Optical Astronomy Observatory

Developed by the Astronomical Society of The Pacific and coordinated in Tucson by NOAO, this unique educational program offers teachers instruction in conducting hands-on inquiry-based science activities in their classrooms plus an astronomer partner with whom to present the activities. During the two-day ASTRO workshop, a partnership is forged that blends the teacher's knowledge of methods and classroom discipline with the astronomer's knowledge of and passion for astronomy. Together the team brings the science of astronomy alive in the classroom when the astronomer makes four school visits during the academic year. Those activities in turn may serve as springboards into other lessons in math, physics, chemistry, and even writing that may be used to meet various standards. In the workshops both partners receive Universe At Your Fingertips, a resource book

containing seventy-seven lesson plans organized progressively from the solar system to galaxies. The workshop also includes a trip to Kitt Peak National Observatory for the Nightly Observing Program.

Date: September 29 and 30, 2006

Place: U of A Student Union

Time: Friday, 8:30 AM to 10:30 PM

Saturday, 8:30 AM to 5:00 PM.

Cost: Free

Applications to join the Project ASTRO program are available for teachers and for astronomers. The application deadline is September 8, 2006. Completed applications may be faxed to Connie Walker at 520-318-8451 or mailed to her at 950 N. Cherry Ave., Tucson, AZ, 85719. For any further questions, feel free to contact Connie at [cwalker@noao.edu](mailto:cwalker@noao.edu) or 520-318-8535.

### Upcoming Lecture Schedule

Below is our upcoming lecture schedule.

Oct 6	Astronomy Essentials	Seasonal Objects
	Invited Lecture	OPEN
Nov 3	Members Night begins at 6:30pm - No AE Lecture	
Dec 1	Astronomy Essentials	OPEN
	Invited Lecture	Dr Fulvio Melia

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 Polachek

President of SAIDA

E-mai: [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

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## Member's Events

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

Saturday, Sept. 16

Come on out and enjoy the summer 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. There is no scheduled talk for this activity, just come out and enjoy. 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 cool temperatures after sunset. It's also a good idea to bring insect repellent. Directions to the TIMPA site are located on the outside flap of this newsletter.

### TAAA Fall Star-B-Cue at Kitt Peak

September 16 (Saturday)

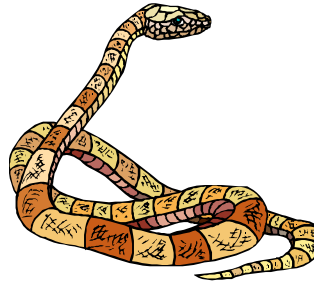
See article in the *Club News* section.

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

Saturday, Sept. 23

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 after sunset. It's also a good idea to bring insect repellent. 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 at TIMPA. These residents can leave holes and other potential tripping hazards, so be careful when walking.

Finally, the Tucson water department has declared the water at TIMPA is NO LONGER POTABLE. It is highly advised that you bring your own water.

## Items of Interest

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

By Rik Hill  
DIY

I've been doing this column for nearly 7 years and have cited and mentioned hundreds of web pages but I was very surprised recently when I discovered how few in the TAAA have web pages of their own! Web pages are a new form of communication, albeit only one way, that is completely revolutionizing the amateur astronomical community. It is doing so in other recreational pursuits as well, like in my other hobby of paleontology.

Originally amateur astronomical societies, associations and clubs were formed to facilitate communication among separated amateurs. The smaller clubs did it on a more local level, city or county, while the larger societies did it on a national or international level. While the local clubs are still doing fairly well, where people can meet face-to-

face, discuss and compare notes, the larger societies are having some difficulties dealing with our brave new world. Where once their newsletters were the things that promoted the work of their members and gave them a vehicle, that is no longer true or needed. Today an amateur in the farthest backwoods can make observations and have them posted on a web page, available to the world before sunrise!

Are you part of this revolution? Do you have a web page? If you've wanted one but did not know where to go or how to get started there are some places you can go to get help...on the web.

First you will need a service that will provide you with web space. There are a number of services, (Juno, NetZero, Access-4-Free to name a few) which will provide you with an email box and free web space, usually a Gb or two. These usually require that their advertising goes on your

### Items of Interest (cont.)

web page somewhere and they will want to attach an advertising banner on the bottom of your emails. Many do not see this as an unreasonable intrusion for the benefit of web access. For very little every month these benefits can be increased (better email access, more storage etc.).

Now that you have some space and access, what's next? You will probably want to build a website. Before you launch into this ask yourself, what is the purpose of my site? Are you trying to reach the maximum number of people? Do you want to keep it simple or show off GIF movies, have sounds, sidebars, linkable trailers and scrollers, lots of linked buttons and pop-up windows? Browse around the web and see the options, but realize, the more "features" you put on your website, the slower it will operate, especially on dial-up connections. I recommend that for your first website you keep it simple. I opted to reach the maximum number of people with my own. So I kept the graphics to a minimum and did not use frames. This will allow download from even the slowest dial-up line.

There is a good article on some of these issues at: <http://webdesign.about.com/>. You might want to read that before plunging in.

There are a number of help-you-build websites that you can go to get started if you don't want to cobble together your own site from scratch. Most may be more interested in selling you something but you can still get a lot of good information.

The first is: <http://buildfree.org/letsbuild.html>

The web pages he has designed as templates are a bit industrial in format but it gets you started and you can make changes from there. Here's a selection of some pages that have a lot of free templates and more to get you started:

<http://www.elated.com/>  
<http://freesitetemplates.com/>  
<http://www.oswd.org/>  
<http://build-website.com/>  
<http://www.homestead.com/>  
<http://www.netidnow.com/>

Now you have all the information you need to get your own website going. You'll be able to post your observations as fast as you make them, comparing them to others and you'll wind up meeting other amateur astronomers across the world as they see your work and contact you with questions and information. If you like this...try looking up astronomy blogs sometime. That'll eat up whatever spare time you have left!

As always, if you know of a particularly good website you would like mentioned here, or some web topic you like covered, drop me a line at: [rhill@lpl.arizona](mailto:rhill@lpl.arizona).

### Dark Skies for September 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

Th/Fr 31/ 1	23:06 - 4:34	Su/Mo 10/11	19:59 - 20:30	Th/Fr 21/22	19:43 - 4:50
Fr/Sa 1/ 2	23:58 - 4:35	Mo/Tu 11/12	19:58 - 21:08	Fr/Sa 22/23	19:42 - 4:51
Sa/Su 2/ 3	1:00 - 4:36	Tu/We 12/13	19:56 - 21:51	Sa/Su 23/24	19:41 - 4:52
		We/Th 13/14	19:55 - 22:41		
Su/Mo 3/ 4	2:09 - 4:37	Th/Fr 14/15	19:53 - 23:37	Su/Mo 24/25	19:39 - 4:52
Mo/Tu 4/ 5	3:22 - 4:38	Fr/Sa 15/16	19:52 - 0:36	Mo/Tu 25/26	19:49 - 4:53
Tu/We 5/ 6	4:35 - 4:38	Sa/Su 16/17	19:51 - 1:37	Tu/We 26/27	20:22 - 4:54
We/Th 6/ 7	- - -			We/Th 27/28	21:03 - 4:54
Th/Fr 7/ 8	Full Moon	Su/Mo 17/18	19:49 - 2:37	Th/Fr 28/29	21:51 - 4:55
Fr/Sa 8/ 9	- - -	Mo/Tu 18/19	19:48 - 3:35	Fr/Sa 29/30	22:47 - 4:56
Sa/Su 9/10	- - -	Tu/We 19/20	19:46 - 4:32	Sa/Su 30/ 1	23:51 - 4:56
		We/Th 20/21	19:45 - 4:50		

Weekend	Sun	Sun	Mercury	Venus	Mars	Jupiter	Saturn	Vi=Visibility	
Sa/Su	Set	Rise	Set Vi	Rise Vi	Set Vi	Set Vi	Rise Vi		
2/ 3	18:45	5:58	18:55 -	4:51 1	19:31 9	21:43 -1	4:11 3	-3	brilliant
9/10	18:36	6:03	19:00 -	5:04 2	19:15 -	21:19 -1	3:48 2	0	conspicuous
16/17	18:27	6:07	19:02 8	5:18 3	18:59 -	20:55 -1	3:24 1	3	moderate
23/24	18:17	6:11	19:01 7	5:31 5	18:44 -	20:31 -1	3:00 1	6	naked eye limit
30/ 1	18:08	6:16	18:59 6	5:44 6	18:28 -	20:08 0	2:36 1	9	binoculars limit

By Erich Karkoschka

## 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 valueable in other capacities. Sign up sheets for many events can be found at the meeting or contact a TAAA officer.

### Christian Home School Educators of Green Valley Star Party Far South Friday, 9/15/2006 No. Of Scopes: 2

Christian Home School Educators of Green Valley will be celebrating Consider the Heavens at Earth McGee Ranch Community Building. I-19 South to Sahuarita Rd., Right on Sahuarita Rd. (west), Left on Mission Rd (south), Right on McGee Ranch Rd. (west), About 10 miles the paved road ends right next to a white water tank and green gate, take the right fork Past the mail boxes, You'll come to another fork and again you'll take the right fork, community building is the rectangular building running north and south (east of the building running east and west). Viewing will be at the Earth McGee Ranch Community building. Contact person Hercilia Hill can be reached at 520-495-0394 or email [hercilia@cox.net](mailto:hercilia@cox.net) Contact person Amber Harris can be reached at 520-625-4959 or email [Leyte44@aol.com](mailto:Leyte44@aol.com). Set-Up Time: 7:00pm. Observing will be from 7:30 pm to 9:00 pm. Sunset: 06:30pm Dark Sky: 07:23pm Moon Phase: (no moon during viewing).

If you have questions about the directions please contact Paul Moss at [school-star-party@tucsonastronomy.org](mailto:school-star-party@tucsonastronomy.org)

### Tu Nivito Star Parties

Tuesday, 9/19/2006  
Wednesday, 9/20/2006  
Thursday, 9/21/2006  
Tuesday, 9/26/2006  
Wednesday, 9/27/2006  
Thursday, 9/28/2006

### North-Central

No. Of Scopes: 2  
No. Of Scopes: 2  
No. Of Scopes: 2  
No. Of Scopes: 2  
No. Of Scopes: 2  
No. Of Scopes: 2

3922 N. Mountain Ave. N on Campbell to Prince, turn left. W on Prince to the next traffic light at Mountain. Turn right N on Mountain to address. Viewing will be basketball court. (Parking in the rear via Duke Street (immediately north of TN's circular driveway)) Contact person Michele Harris can be reached at 322-9155 or email [foobelieves@aol.com](mailto:foobelieves@aol.com). Set-Up Time: 6:30pm. Observing will be from 7:00 pm to 9:00 pm. Sunset: 6:25pm Dark Sky: 7:18pm Moon Phase: Late Crescent.

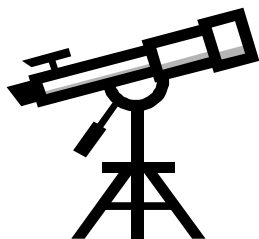
The theme of this gathering is "A Million Years From Now." Tu Nivito is an agency that provides support groups for children who have recently experienced a death in their family. We are planning a special evening for each group during which we would greatly appreciate the TAAA explaining the nature of starlight to our children and their accompanying adults. The correlation we are making is that when a star dies, its light continues on forever, and just as stars, when people die their essence continues going on forever. Just because their mother, father or sibling has died, for example, does not mean that the person has ceased to exist and left them completely. For this six-night event, one of our very own volunteers has written a children's book with this concept as the subject. We also will be including a hands-on activity when the family members will be constructing an art-project memento of their evening. Finally, we will be singing a song with the families, sort of an anthem for the evening's idea:

#### Chorus:

We'll still be shining a million years from now,  
Like old starlight that's just reaching us now,  
Oh, we'll be shining a million years from now.

Tu Nivito will be hosting A Million Years From Now at

## 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) for details about these telescopes.



**TAAA Board of Directors Meeting - August 2, 2006**

Attending: Ken Shaver, presiding, Terri Lappin, Teresa Plymate, J.D. Metzger, and George Barber. Members present: Claude Plymate. Called to order at 6:45 pm.

**July Minutes.**

- Move Losmandy mount donation in Star Party Report to Announcements section.
- Add announcement that we decided to request projector donation from Raytheon.
- Accepted, Unanimous.

**Member Feedback.** Several TAAA members expressed interest in three obsolete TAAA laptops; Terri Lappin will distribute the laptops.

**Announcements**

- Thom Peck moved 30" primary mirror into TIMPA barn locked storage area.
- We need speaker for General Meeting in October and Astronomy Essentials speaker for September and December.
- A representative from project ASTRO should speak at General Meeting. If not, announcement will be made regarding applications for project ASTRO participation.
- Raytheon has provided two projectors, one is missing lamp and lens; goal is to permanently assign projector to both Astrophoto SIG and Beginner's SIG.
- A previously donated Raytheon projector is missing. Ken will make announcement at August General Meeting.

**Treasurer's Report – Terri Lappin**

- Some important but unforeseen expenses this quarter were not budgeted, including telescope storage rental.
- Many members' pay dues in fall. Our budget items are mostly on target, although we will collect less in dues than anticipated. Cost of newsletter reproduction was provided to newsletter editor, who will reduce newsletter length. We currently have 369 members. TAAA investment fund market value fell in second quarter [along with market].

**Web site design – Terri Lappin**

- Dean and Brian now working tasks; Board reviewed and discussed progress of web boilerplate

**16-foot Dome status**

- Thom surveyed TIMPA and reported adequate room to move dome out of Brawley Wash; moving dome doesn't negate requirement to elevate structure two feet above surrounding ground level. Dome location will be decided this weekend (August 5 or 6)
- Board directed all future contractor communications be forwarded to Board and Steve Ratts.
- Operating Fund may be used for TIMPA dome expenses
- In order to make further decisions, Board requires following:
  - Revised estimate of building costs, based on current materials costs and labor rates
  - Separate estimates based on 3 elevation options: 1) Stem wall, filled with dirt, 2) Stem wall, filled with dirt and capped with concrete, 3) Stem wall with wood floor.
  - Estimate of cost to route electrical power to new dome location.
  - Final drawing, which includes all revisions previously presented to contractor.
- Terri Lappin will contact both Steve Ratts and contractor regarding above requirements.

**Public Star Party Activity**

- Target date for first public star party is October 28 at either Woods or Himmel library (both interested); event hours are tentatively 4 to 7pm; later ending times need to be suggested.
- Subsequent star party (ies) will be targeted for winter or early spring
- Number of telescopes required unknown, Board suggested at least 5 telescopes.

**TIMPA Gate Card policy**

- Board moved permit members to obtain long-term loaner card, approved by TAAA President or quorum of board members (replacing current requirement for full Board approval).
- Terri presented revised card policy proposal
  - TIMPA Gate Card Controller (currently Ray Toscano) shall conduct an annual audit, and position posted on page two of newsletter. TIMPA access note on back cover of newsletter will be amended to indicate need for gate card, and instruct reader to contact Gate Card Controller.
  - Each Board Member has one gate card and one loaner gate card to be loaned to members.
  - Publicity needed (TAAA website and newsletter) to know where to obtain TIMPA Gate Card.
  - Deposit for gate card would be raised to \$25; failure to return card will result in cancellation.
  - Members must be in good standing to obtain gate card.
  - List of Appointed Gate Card Loaners, on members only website and published periodically in newsletter, composed of strategically located members, will be created.

**TAAA Phone Service**

- Audio quality discussed; George Barber will check quality and report to Board via e-mail. Terri Lappin will contact vendor regarding audio quality issues.

Adjourn 9:30 p.m.

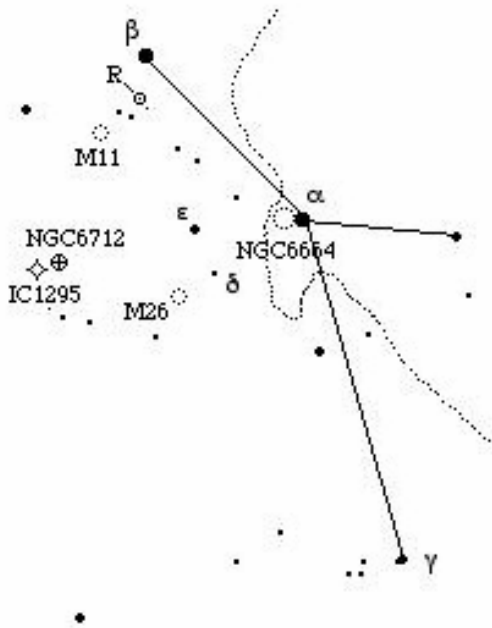
Respectfully Submitted,  
Steve Marten, Secretary

## Constellation Report by Chris Lancaster

### Scutum

The Shield

Johannes Hevelius takes credit for naming this constellation. The year was 1690, and the Polish astronomer selected a group of stars lying north of Sagittarius and southwest of Aquila and named it "Scutum Sobiescianum," or Sobieski's shield. It was in honor of King John III Sobieski, who had recently won an important battle in the defense of Poland against the Turks, and Hevelius decided that the constellation should represent the king's coat of arms. Currently, it is simply known as Scutum. Look for Scutum to cross the meridian at 11pm July 15th about 50 degrees above the horizon looking south.



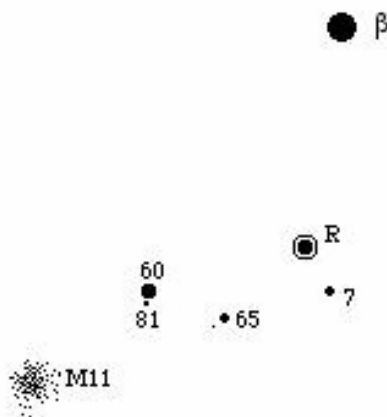
The area of the sky in which Scutum resides is one of the more richly packed areas of the Milky Way. The Scutum star cloud, a particularly dense region, occupies the northern half of the constellation. The area benefits from a lack of obscuring dust as you look through the inner arms of the Milky Way Galaxy, allowing the light of the star cloud to come through relatively unimpeded. Here's where we find Scutum's best star cluster, M11, 2 degrees southeast of Beta Scuti. This cluster lies in the foreground of the star cloud, and is one of the most densely populated clusters that you can hope to observe. Also known as the "Wild Duck" cluster after English observer William Smyth described it as "a flight of wild ducks," M11 shines at magnitude 5.8. The individual stars, numbering in the many hundreds, range in brightness from a single 8th magnitude star slightly offset from the center, to approximately 16th magnitude, all packed into an area measuring 15'. M11 is approximately 3,000 light years away and has been around for 150 million years. The total intrinsic brightness of this magnificent cluster is equivalent to about 10,000 suns.

Looking south, this time 1-degree southeast of Epsilon Scuti (or RA 18h 45.2m Dec -9d 24'), we find M26, another galactic cluster containing about 30 stars also occupying an area of 15'. Its total magnitude is 8.0, and its brightest stars shine at magnitude 10.

A very easy star cluster to find is NGC6664. It's a mere one-half degree directly east of Alpha Scuti, putting the two in the same field of view with low to moderate power. This one is a bit more scattered than M26, having about 40 stars filling an area of 17' and assuming a paisley shape. Even though this cluster is quite a bit sparser than the others, it is away from the edge of the Scutum star cloud where the stars thin out, so the cluster's contrast with surrounding space enhances it some. A star cluster of a different type is in the form of NGC6712. This globular cluster is 10 minutes in RA east and one-half degree south of fifth magnitude Epsilon Scuti (RA 18h 53.1m Dec -8d 42.0'). It's as bright as many of the globulars in Messier's catalog, so it's easy to pick out in small telescope, and you may even see it in your finder scope. It glows at magnitude 8.2. Even very small instruments can partially resolve this cluster, and large telescopes will present detail in the core.

Those of you with dark skies and large apertures may want to hunt for a faint planetary nebula, IC1295. It's a slightly elongated circle 1.5' across glowing feebly at magnitude 15. If you go back to our globular cluster, NGC6712, slide your telescope 23' to the east-southeast to RA 18h 54.6m Dec -8d 50'. At the center is a dim 17th magnitude stellar core, which gave birth to the nebula.

R Scuti provides an interesting study of variable stars. Officially, it is classified as an RV Tauri type, characterized by more than one period overlapping another. An approximate estimation of its period is 140 days, and most often its variations cover about a magnitude, from 5.0 to about 6.1. Every 4 to 6 oscillations, however, the minimum dips to magnitude 8. There are several adjacent stars, which provide good magnitude estimations. Regular observations of this star are necessary if you want to catch it in one of these deep minima, since it begins to rise in brightness after only a few days. The finder chart includes comparison magnitudes of R Scuti and surrounding stars.



## Member's Forum

### A Red LED Desk Lamp Workshop

Text and Photos By Andrew Cooper

Arizonan Monsoon Season... clouds, rain (hopefully), and more clouds, but not much observing. In southern Arizona Monsoon Season is a time for telescope maintenance and non-observing projects. Perfect timing for another TAA red LED desk lamp workshop.



This is the fourth workshop we have held, such is the desire of club members to make their own lights and learn a little electronics. A few club members have attended more than one session. We do not keep attendance, but something like sixty lamps have been made in the four sessions over the last couple years.

Much of the credit for the workshop goes to Bill Lofquist. Bill arranges each workshop, manages the signup and provides facilities in the form of a spacious back patio. I merely provide the electronics instruction.

A red LED desk lamp really is an ideal project for this sort of setting, a simple circuit that can be built in a few hours. Total parts run around twenty dollars for each participant including the lamp itself. The result is something everyone can use when out observing so the project addresses a real need.

Teaching a group of people who have never soldered before, or have limited experience in assembling electronics is an interesting challenge. I start with explaining the role of each component, resistor, capacitor, diode, etc. I also identify the components in the kit of parts. Along the way I use the schematic to show just what the information it contains and how to use it. Thus the course contains a little real electronics knowledge, not just a cookbook recipe. I try to impart just a bit of real knowledge.

Most people pick up the needed skills rather quickly, a simple demonstration of soldering and an explanation of what needs to happen for a good solder joint and soon everyone is soldering away. I spend most of the six hours moving from table to table giving personal attention, answering questions and checking work.

I believe the best way to teach much of this is to let people see how it should be done. I often solder a joint or two on each participant's board and let that joint be an example for what a good solder joint should look like. They can watch as the solder flows smoothly and see how it works; a demonstration is worth hours of explanations. I have spent thousands of hours practicing these skills, it very satisfying to pass them on to others.



Everyone claps as each lamp glows bright red for the first time, celebrating each success. This time was no exception, all of the lamps worked!

At any regional star party TAA members are easy to spot, look for the desk lights on chart tables, lighting up star charts and observing notes. On a tour of events like All Arizona Messier Marathon, Grand Canyon Star Party or our local TAA events you will see a dozen or more lamps in service.

## Desert Skies Classified

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]
For Sale	Celestron Pixcell255 320x240 CCD, use for guiding or entry imager \$450. Meade ETX60 with tripod plate and power supply \$100. Vixen LV 12mm eyepiece \$75. Orion 7-21mm zoom eyepiece \$60. 14mm Ifocus for SBIG 237 \$80. Contact Richard Schulze at 721-0694 or email at <a href="mailto:richard.schulze@cox.net">richard.schulze@cox.net</a> . [09/06]
For Sale	7" Maksutov LX200 GPS UHTC coatings for sale. This is BRAND NEW still in the box NEVER USED. Call Joe if interested, 520-908-3393. [09/06]
For Sale	3 year young Meade ETX 70 scope that has been used maybe 5 times. It has two eyepieces (9mm and 25mm), field tripod, hand-held remote, software, and carrying case (soft-pack). Like new. Asking \$275.00. Jim can be reached at 480-947-9904 (Scottsdale) [10/06]

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.

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### 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.
- 7.

#### **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.