

Desert Skies

Tucson Amateur Astronomy Association

Volume LVI, Number 6

June, 2010



Thirty Meter Telescope

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Cover Photo: An artist's interpretation of the Thirty Meter Telescope on Mauna Kea. From <http://www.tmt.org/gallery/photo-illustrations>.

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

TAAA Phone Number: (520) 792-6414

Office/Position	Name	Phone	E-mail Address
President	Keith Schlottman	290-5883	president@tucsonastronomy.org
Vice President	Bill Lofquist	297-6653	vice-president@tucsonastronomy.org
Secretary	Luke Scott	749-4867	secretary@tucsonastronomy.org
Treasurer	Teresa Plymate	883-9113	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	Michael Turner	743-3437	mal3@tucsonastronomy.org
Chiricahua Astronomy Complex Director	John Kalas	620-6502	cac-director@tucsonastronomy.org
Chief Observer	Dr. Mary Turner	743-3437	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
Astronomy Fundamentals SIG	Robert Gilroy	743-0021	fundamentals@tucsonastronomy.org
Starry Messenger SIG	Terri Lappin	977-1290	smsg@tucsonastronomy.org
Newsletter Editor	George Barber	822-2392	taaa-newsletter@tucsonastronomy.org
School Star Party Scheduling Coordinator	Mark Meanings	826-2473	School-star-party@tucsonastronomy.org
School Star Party Volunteer Coordinator	Roger Schuelke	404-6724	school-sp-volunteers@tucsonastronomy.org
Web Director	Terri Lappin	977-1290	taaa-webmaster@tucsonastronomy.org
Club Apparel Sales	Mary Lofquist	297-6653	taaa-sales@tucsonastronomy.org
TIMPA Gate Card controller	John Kalas	620-6502	timpa@tucsonastronomy.org
Equipment Loan Coordinator	Al Dohner	297-7118	elc@tucsonastronomy.org
Librarians	Claude Plymate	883-9113	librarian@tucsonastronomy.org
	Teresa Plymate		
Grand Canyon Star Party Coordinator	Jim O'Connor	546-2961	gcsp@tucsonastronomy.org
General Information	Terri Lappin	977-1290	Taaa-info@tucsonastronomy.org
Publicist	Liz Kalas	620-6502	publicist@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, TAAA Astronomy Complex, 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

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

Here in Tucson, we're spoiled by an abundance of opportunity for amateur astronomers. Clear skies and great weather provide us with observing that can't be matched elsewhere, and the presence of the professional astronomy community and world-class observatories results in Tucson appropriately taking the title of "Astronomy Capital of the World".

Members of TAAA should take pride in their role in maintaining this status. Our club tirelessly promotes astronomy through a variety of outreach and educational events. I've been a member of numerous organizations, and never have I seen so many dedicated, hard-working volunteers. Thanks to all of you who work hard in the various programs - you're what make our club so great.

I've occasionally been surprised by the fact that despite our club's strengths, we don't have a local major astronomy event. We do host the Grand Canyon Star Party, which is an amazing and well-known international event, but we don't have anything right here in Tucson. Perhaps we are in a comfort zone based on our outstanding monthly meetings - few clubs have access to the resources that we enjoy for their programs. Nevertheless, we are a strong enough club that a major event is certainly feasible.

At the end of June, we have such an event coming to Tucson. The Astronomical League's ALCON 2010 is an annual astronomical convention, and for almost two years we have been working to make this an event worthy of the TAAA banner. Along with the International Dark Sky Association and the League, TAAA is hosting this major event. In addition, Lunt Solar Systems will be hosting their Arizona Solar Conference. Amateur astronomers from all over the world will convene from June 24th to June 26th, and it's my hope that each of you reading this will join us for what's going to be a fantastic event!

Until then, I'll encourage you to get your telescope out to collect a few photons before we enter the summer weather patterns. If you have a chance, why not share the views with a neighbor? Or, consider joining the AFSIG for one of their educational events. See the website or elsewhere in this newsletter for upcoming star parties and events.

Keith Schlottman

Meeting Information and Calendar of Events

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

ASTRONOMY ESSENTIALS: 6:30 pm

Title: The AL and the ALCON

Speaker: Keith Schlottman

The Astronomical League (AL) is an organization that supports amateur astronomy and supports local clubs like the TAAA. Members of TAAA are able to participate in AL programs and events. Are you taking advantage of the numerous observing resources available through the AL? Did you realize that the AL has many different recognition programs for amateur astronomers of all ages and abilities? Would you like to attend the upcoming ALCON 2010 convention but don't really know what to expect? The June Astronomy Essentials portion of our meeting will provide you with everything you need to know about how to get the most out of TAAA's involvement with the Astronomical League.

GENERAL MEETING: 7:30 pm

Invited Lecture

Title: Towards More Telescope

Speaker: Konstantinos Vogiatzis

"Near the outskirts of Pasadena, California, a team of scientists, engineers, and project specialists is busily planning and designing what eventually will become the most advanced and powerful optical telescope on Earth.

When completed in 2018, the Thirty Meter Telescope (TMT) will enable astronomers to study objects in our own solar system and stars throughout our Milky Way and its neighboring galaxies, and forming galaxies at the very edge of the observable Universe, near the beginning of time."

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

STAR PARTIES AND EVENTS:

05 June - TAAA and AF-SIG Star Party at TIMPA

05 - 12 June - Grand Canyon Star Party

07 June - Astro-Imaging SIG at China Rose

12 June - TAAA Star Party at Las Cienegas

12 June - TAAA Star Party at CAC

12 June - Kuiper Space Sciences 50th Anniversary Celebration Event

12 June - City of Benson Rec. Dept. Star Party

14 June - SM-SIG Meeting

19 June - Sunnyside Neighborhood Association Star Party

24 June - San Miguel High School Star Party

25 - 26 June - ALCON Convention

25 June - ALCON 2010 Star Party at TIMPA

NEWSLETTER SCHEDULE: Deadline for articles: Sat, June 19. The newsletter is published 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: Philippe Bodin, James Miller, Steven Schwartz, Donald Izumita, Jack Allen, Richard Edwards, Gary Vecere, Charles Wiggins, Christian Weis, Mickey McCarter, Lonnie & Stephanie Price, and Helen Hobson. 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 at our website after logging in as a member. You can also pick one up at most meetings.)

Astro-Imaging SIG Meeting

Monday, June 7, 7pm

China Rose, NE corner Speedway/Rosemont

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

AFSIG Monthly Meeting June 10th Cancelled

The members of the AFSIG Committee are taking a well deserved hiatus, so there will be no AFSIG meeting in June. The July meeting will be as scheduled: July 8th. Please mark your calendars accordingly.

AFSIG Star Party at TIMPA – June 5.

Steve Marten has agreed to host another of his popular "Walk-Around-the-Night-Sky" events. In this tour of the night sky, Steve will "walk" us through the visible constellations with a memorable way to navigate from one to the other. He will point out the brightest stars of each constellation and some of the deep sky objects that reside in the constellations.

After Steve's tour, we will have the Gila Monster observatory open to look for some of those deep sky objects.

So come join us for an enjoyable evening. AFSIG will open TIMPA between 6:30pm and 7:00pm.

Adopt-A-Highway Clean-up Scheduled

J. Kalas – CAC Director

As I reported in last month's newsletter, the TAAA submitted an Adopt-A-Highway application to request permission to clean a one-mile long section of Route 181 near S. Price Ranch Road which leads to the club's Chiricahua Astronomy Complex. Recently, the club received approval of the application. I would like to

schedule the first clean-up for 3:00 pm on Saturday, June 12, just prior to the monthly CAC star party. I will be attending a required safety training class in Wilcox before the clean-up date and I will act as the coordinator for the activity. All volunteers will receive a safety briefing from me before the activity starts. All volunteers must be at least 12 years old. If you would like to help out with this new community activity, please contact me at 620-6502 or ickalasa@cox.net.



TAAA Apparel

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

Coordinator Needed

Our TAAA Apparel coordinator will be stepping down due to other commitments this summer. This opens a position for a new person or team to volunteer. If you've been looking for a way to get more involved and help the TAAA, this might be just the ticket. Contact one of the board members if you are interested.

Equipment Roundup

The club president is supervising an inventory of the club's equipment. We also plan to add property identification stickers to many items of club property. If you have any TAAA equipment, please notify the president.

AF-SIG Solar Observing Group

On Saturday, June 12th, we will meet from 9 am until noon at Fort Lowell Park (Craycroft @ Glenn) near the southeast corner. Just look for the telescopes. Bring your kids. Bring water and something to nibble on. You don't need to have a telescope; others will have them if you don't. Today, May 22nd, there were two nice groups containing about 8 sunspots. Hopefully the sun will oblige us and produce some while we're viewing. Hope to see you there.

If you would like to be added to our email list to keep posted about our activities and solar news, please send a request to <dennisldawson[at]gmail.com>.

Club News (cont.)

AFSIG Holds 2nd Lunar Observing Session

On May 22, AFSIG opened the gates at TIMPA at 6:45 pm to welcome participants of our Lunar Observing Program. It was a bit windy but the sky was clear. Different participants worked on locating and drawing different features. Everyone found at least two of the listed features with crater Copernicus being the most popular tonight. Also located was Mare Crisium, crater Cleomedes, Mare Tranquillitatis plus a few others, some of which were not on the list. After an intense 2 hours of searching and drawing, most participants switched to looking for some deep sky objects. With the light pollution from the moon, we could not do very much. We were able to split the double stars of Mizar and Grafias, but M4 was faint fuzzy in the eyepiece. It was a good night with temperature in the high 70's, everyone moving forward on their project, and having a great time socializing. We left TIMPA around 10:30 pm.

The Lunar Observing Program (like all of our observing programs) is open to all members of TAAA at no charge. It is a guided program which means that at the scheduled observing sessions, there is someone there to guide you in finding the features needed for successful completion of the program. You can join the program at any time and can either attend the guided sessions or work on your own. A certificate is awarded at the completion of all the requirements. The beauty of this observing program is that our moon, just like our sun, offers great flexibility in observing and recording the different features – you don't have to be concerned about light pollution or night vision.

If you are interested in participating in the Lunar Observing Program, email Mary Turner at [umurf\[at\]earthlink.net](mailto:umurf[at]earthlink.net) or Bob Gilroy at [bobgilroy\[at\]tucsonastronomy.org](mailto:bobgilroy[at]tucsonastronomy.org) for all of the particulars.

AFSIG to Launch New Observing Program

Coming in July, AFSIG will launch its **Constellation Observing Program**. This program will follow the guidelines of the Astro League's

Constellation Hunter Club. They have 39 constellations to identify. We will have 20 of those for our program. So it will be a good start for those who want to continue on for the AL certificate.

This will be a leader directed program to guide the participants in the right direction and to answer questions as they arise. The leader for this program is Paul Anderson.

An AFSIG certificate will be awarded to those who complete all the requirements for the program. More details will be forthcoming next month.

To participate in the Constellation Observing Program send an email to either Paul at [M44/M46\[at\]live.com](mailto:M44/M46[at]live.com) or Bob Gilroy at [fundamentals\[at\]tucsonastronomy.org](mailto:fundamentals[at]tucsonastronomy.org).

Upcoming Lectures

June 4	<i>Astronomy Essentials</i>	Keith Schlottman AL & ALCON
	<i>Invited Lecture</i>	Konstantinos Vogiatzis 30m telescope
July 2	<i>Astronomy Essentials</i>	Mary Turner Seasonal Objects
	<i>Invited Lecture</i>	OPEN
Aug 6	<i>Astronomy Essentials</i>	OPEN
	<i>Invited Lecture</i>	Mark Wagner Science at LBT



Night Sky Network Toolkits

Below is a list of our Night Sky Network Outreach Toolkits and other resources for teaching astronomical concepts.



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Club News (cont.)

The Night Sky Network program recognizes the essential role that amateur astronomers play in public astronomical education by providing us with these toolkits well suited for use at star parties. They were developed by the Astronomical Society of the Pacific under contract with NASA. If your scope is not well suited for public viewing, or if you want a change in pace, consider bringing a toolkit to one of our community school or church star parties. They are also great options for those questionable, cloudy nights. With each use of a NSN toolkit we are closer to qualifying for the next toolkit which has been rumored to be about comets.

Night Sky Network Toolkits:

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

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

Mirrors and Glass - An inside look at telescopes: how telescopes work

Other Resources:

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

Dark Skies Education Kit: light pollution principles, includes a Sky Quality Meter

Comet Chef: an apron (with a comet on it) and chef's hat to wear when mixing up comets

Each NSN toolkit contains several projects. You pick and choose which part you want to use. They contain all essential materials. A Resources CD and a Training DVD is also included. Individual training in their use is available.

Please make arrangements with Terri Lappin (tk-lappin [at] comcast.net or 579-0185) to borrow any toolkit.



Starry Messengers SIG -
Opening Minds to the Universe

Starry Messenger Status Meeting

Monday June 14, 6PM

Location: Beyond Bread (restaurant)

3026 N Campbell Ave (between Glenn and Ft Lowell)

A status meeting of the Starry Messenger SIG will be held on June 14th. TAAA members involved in outreach are being asked to attend. We'll consider if we've achieved goals the SM-SIG set out last fall, and we'll start thinking about next year. Our meeting location is the Beyond Bread near Campbell and Glenn at 6pm on June 14th. It's generally quiet at dinner time. Beyond Bread serves gourmet sandwiches and desserts that are surely not on your diet (but delicious anyway). You can have a sandwich dinner, or just come for the discussion.

If you can't make the meeting but have thoughts on TAAA outreach activities, call Terri Lappin (520-579-0185) in the evenings before the June 14th meeting. Email is okay (smsig[at]tucsonastronomy.org), but a phone conversation would be more valuable.

The Starry Messenger Milky Way Workshop was held last month. We learned about galaxies and in particular about the Milky Way Galaxy. Emphasis was placed on how to present our knowledge to the public so kids and adults gain an understanding of the vastness of our galaxy. The workshop used components from the Night Sky Network *Our Galaxy, Our Universe Toolkit*. This toolkit also covers the universe, so we briefly covered the projects in the toolkit that relate to the universe.

Explaining the Milky Way Galaxy and the Universe is basic to our mission to educate the public about astronomy. We'll likely offer this workshop again, as well as the other workshops the Starry Messenger SIG has developed.

The Starry Messenger Special Interest Group provides an environment in which TAAA members can enhance their knowledge and understanding of astronomy and related concepts. We offer tools and techniques for explaining astronomy to people of all ages. Any TAAA member involved in astronomy outreach is supporting the goals of the Starry Messenger SIG. Even if you have never attended a SM-SIG workshop or meeting, we consider you a member of the SM-SIG and value your contribution.

Member's Events

TAAA and AF-SIG Star Party at TIMPA

Saturday, June 5

Come on out and enjoy the early 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.

The new observatory at TIMPA, featuring a 14-inch telescope, will be open for use.

TAAA Star Party at Las Cienegas (Empire Ranch)

Saturday, June 12

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.

TAAA Star Party at CAC

Saturday, June 12

The Chiricahua Astronomy Complex (CAC) is the club's newest observing site. Located in Cochise County approximately 100 miles from the center of Tucson, the site includes a full bathroom facility. At an elevation of 4800 feet, be prepared for cold temperatures. Try to arrive before sunset. Unlike the other two club observing sites, TIMPA and Las Cienegas, the CAC site requires that members make reservations for both monthly club star parties and private member use. We are restricted by a 60 person/30 vehicle maximum limitation. If you would like to attend, contact CAC Director John Kalas via e-mail at

jkcalasfat@cox.net or by phone at 620-6502. Reservations will be on a first come - first serve basis. Depending on the number of members interested in attending, guests may not be allowed.

Directions to CAC:

The Chiricahua Astronomy Complex is about 90 miles and a 1½ hour drive from the TTT Truck stop at Craycroft Road and Interstate 10.

- Take I-10 East from Tucson past Benson.
- Exit I-10 at Dragoon Road (Exit #318) - Turn right onto Dragoon Road at bottom of exit ramp.
- Travel 13.5 miles southeast to intersection with Route 191 and turn right (south).
- Travel 17.9 miles south (past Sunsites and Margie's Corner Café at High St. on the right and Border Patrol checkpoint) to intersection with Route 181 at Sunizona and turn left (east).
- Travel 10.9 miles east to intersection with S. Price Ranch Road and turn right (south). S. Price Ranch Rd. is a dirt road just before you reach mile post 49 (cluster of mailboxes on right on Rte. 181).
- Travel ½ mile south on S. Price Ranch Rd. to intersection with E. Perseus Way (wide dirt road with E. Perseus Way street sign on left) and turn left (east).
- Travel east on E. Perseus Way slightly more than ¼ mile to entrance of Chiricahua Astronomy Complex, address 9315 on right (twin brown gates flanked by white rail fences set back 50 feet from road). Look for TAAA sign on left side of entry road.

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.

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.

Kuiper Space Sciences 50th Anniversary Celebration Event

June 12 (Saturday)

The Lunar & Planetary Laboratory in the Kuiper Space Sciences building at the UofA is hosting another 50th Anniversary Celebration event in June. They have requested two solar telescopes from 10:00 am - 2:00 pm on the grass mall in front of the Kuiper Space Sciences building (just east of Flandrau Science Center). Parking permits, allowing volunteers to park on the mall, will be provided. If you are able to help out with this activity, please contact John Kalas at 620-6502 or jckalas@cox.net.

City of Benson Rec. Dept. Star Party

Saturday, 12 June

No. of Scopes: 6

City of Benson Rec. Dept. will be doing a family star party for an estimated 50 students and parents at 435 N Adams. I-10 East to Benson Exit 303 Left on N. Patagonia to W. Walker St. turn left. W. Walker St goes straight in to Lions Park. The soccer field is the first field on the right as you enter the park from W. Walker St. Viewing will take place on the Lions Park Soccer Field. It is the first field on the right as you enter the park from Flint St. Contact person Laura Laird can be reached at or LLaird@cityofbenson.com. Observing will be from 8:30 pm to 10:30 pm, with setup 30 minutes prior to start.

Sunnyside Neighborhood Association Star Party

Saturday, 19 June

No. of Scopes: 6

Sunnyside Neighborhood Association will be doing a SOLAR VIEWING for an estimated 50 students and parents at 5901 S Fiesta. 12th Ave south to Drexel Rd east to Liberty south (crossing light) to patio wall that has a garden mural turn east into alley. You will come to the Peace Garden. Viewing will take place at the northwest corner of park. Contact person Buck Crouch can be reached at or

buck7@cox.net. Observing will be from 10:00 am to noon, with setup 30 minutes prior to start.

San Miguel High School Star Party

Thursday, 24 June

South
No. of Scopes: 6

San Miguel High School will be doing a Night Sky of the Ancients and Mythology for an estimated 60 students and parents at 6601 S. San Fernando Rd. Alvernon or Kino (Campbell) south to Valencia, Valencia west past 6th Avenue, Left on San Fernando (just before post office), Through stop sign, parking lot on left. ALTERNATELY: I-19 south to Valencia exit, East on Valencia to San Fernando (see above). Viewing will take place in the center courtyard (east of administration building). Contact person Karan Stewart can be reached at 294-6403, ext. 1302 or stewartk@sanmiguelhigh.org. Observing will be from 8:30 pm to 10:30 pm, with setup 30 minutes prior to start.

ALCon 2010 Star Party at TIMPA

June 25 (Friday)

No. of Scopes: 10 min.

One of the scheduled events for the ALCon 2010 Conference is a star party hosted by the TAAA at our TIMPA Site. Although the moon phase is not optimal (one day before full), the star party is being offered to the conference attendees as a Friday evening activity under clear, southern Arizona skies. Despite the moon phase, it will still be impressive to many of the attendees who reside in metropolitan areas around the country. This is an opportunity for the TAAA to show off our club and our TIMPA facility. Please consider supporting the club and volunteering for this activity. If you would like to help, please contact John Kalas at 620-6502 or at jckalas@cox.net.

Want better observing?
Join the group that's keeping the sky dark
International Dark Sky Association
Southern Arizona section

We get people to use better lighting, so we'll have a dark sky

Some of the things we do:

- Talks to schools and organizations
- Demonstrations at Desert Museum
- PowerPoint presentations on CD

- Work with government agencies
- Identify non-compliant lighting in So AZ

Monthly meetings
2nd Wednesday, 5:30 - 7 pm.
3225 N. First Ave

Contact: Joe Frannea
sky@sa-ida.org
www.sa-ida.org

To preserve and protect the nighttime environment and our heritage of dark skies through quality outdoor lighting

CHIRICAHUA ASTRONOMY COMPLEX

MOVING TOWARD PHASE 2 WITH CAC

By Bill Lofquist

Since Phase 1 of the Chiricahua Astronomy Complex (CAC) was completed in February, we have had four observing nights at our new facility, and members have used it on other nights as well. We are accustomed to observing from the bare ground and from gravel, and that is the way it has been so far.

As we begin the construction of Phase 2, however, we will move toward having some excellent facilities in the "public area" of the Complex. Funding for Phase 2 has been contributed by members from within the club. While we do have need for some more Phase 2 funds, we now have enough to begin construction of three important components. The Phase 2 building permit will include ten observing pads with electric power. These will be 10' by 10' and will be just to the southeast side of the parking area. We will also have a 12' by 14' roll-off roof observatory to house the 14" SCT given to the club by Wally Rogers. The third component of our public area observing facilities will be a large circular pad that we are calling the Amphitheater. This will have a storage building adjacent to it and will house the 18" DOB donated to the club by John Zajac. This pad will accommodate several scopes and will have electric power.

Additional facilities in Phase 2 will include four Camper/RV sites with electric service and two additional storage units. These units will be quite secure and will enable members to leave their equipment at CAC if they wish.

Our Fundraising Group will be working this summer on proposals to secure funding for those parts of the master plan beyond Phase 2. These are more costly items than we have developed so far, so we need to discover just what we are able to do in this restrictive economy. Members who have some experience in fundraising from foundations and other potential sources are encouraged to join us. We have some very experienced advisors, and we have a lot to learn, so we hope to be able to report progress as the year moves along.

The facilities beyond Phase 2 will include an Outdoor Education/Activity Center, Sleeping Rooms, a large roll-off roof observatory, the 16' dome observatory, an Education/Activity Building, and a Residence for an on-site technical support person. Other future developments will include 45 member pads and 15 member observatories.

We are still waiting for word from the electric service providers about the costs and their ability to help us extend the electric service to the rest of the Complex.

At the end of April we participated in two events that enlarged our relationship with the community. We provided a star party, the third annual one, for the Sunsites Library. Fifty interested people came to it and many showed interest in what we are doing. Then a week later we participated in Cochise Days in Sunsites. This event

was complete with many vendors, a parade and street dance, and resulted in a number of people who signed up to visit CAC, about 40 in all. John Kalas and I are planning to have two nights at CAC, on June 18 and 19, to which we will invite the people who said they would like to have An Evening Under the Stars. There will be a nice moon those nights, but we believe we should not let too much time pass before they become our guests.

As all of this indicates, the development of CAC moves ahead, and this summer, we hope, will see the completion of the public observing facilities. In the early fall we hope to have a Grand Opening for the many people who have supported us along the way. Equally important is a Grand Opening for TAAA members.

During the monsoon months we will have a Special Meeting to engage members in making plans for the Sleeping Rooms, the Education/Activity Center and the larger observatories. Please keep an eye open for reports on our progress.

Construction Update

John Kalas - Construction Coordinator/CAC Site Director

NOTE: Please see the article in the *Club News* section of this newsletter regarding the Adopt-A-Highway clean-up activity that is scheduled for Saturday, June 12th, prior to the CAC star party.

Randy Maddox, our contractor, installed an additional 110V duplex receptacle into the meter pedestal just south of the bathroom facility. This improvement provides additional electrical outlets (4 total) for members to use for powering their equipment. Randy's electrician attempted to install a replacement digital thermostat in one of the bathrooms to better control the freeze-protection system in the wintertime. Unfortunately, the thermostat that I donated for the job was not the right type and the replacement could not be performed. Randy will have his plumber replace the existing thermostat with a proper one.

I plan to install the new security system prior to the June 12th CAC star party. An industrial-grade cart sprayer has been placed on order to be used to spray weed killer at the CAC Site to control the weed growth problem.

Based on the outcome of Bill Lofquist's and my visit to the Cochise County Permit Dept. in Bisbee on 4/20 to review the documentation requirements for the Phase 2 building permit, we evaluated the drawings needed for the roll-off roof observatory. TAAA Member and Secretary, Luke Scott, had developed a nice set of drawings for his 12'x14' home observatory. Luke and I met on 5/11 to review the changes that would be required to his drawings to make them acceptable for the Phase 2 roll-off roof observatory design. Luke is currently revising his drawing package. I will be preparing the additional drawings required to define the other Phase 2 improvements; the ten

ALConExpo 2010

Photo: M. Mitchell of NRCO/ALRA/NSF



When

25 – 27 June 2010

Where

Tucson Hilton East*
7600 East Broadway, Tucson, Arizona 85710

**Featured
Speakers**

Saturday Night Banquet
Dr. Roger Angel
Director of the University of Arizona Mirror Lab
Solar Luncheon
David Levy
Astronomer and Comet Discoverer

With

**International Dark-Sky Association's Annual General Meeting 2010
on Sunday 27 June 2010**

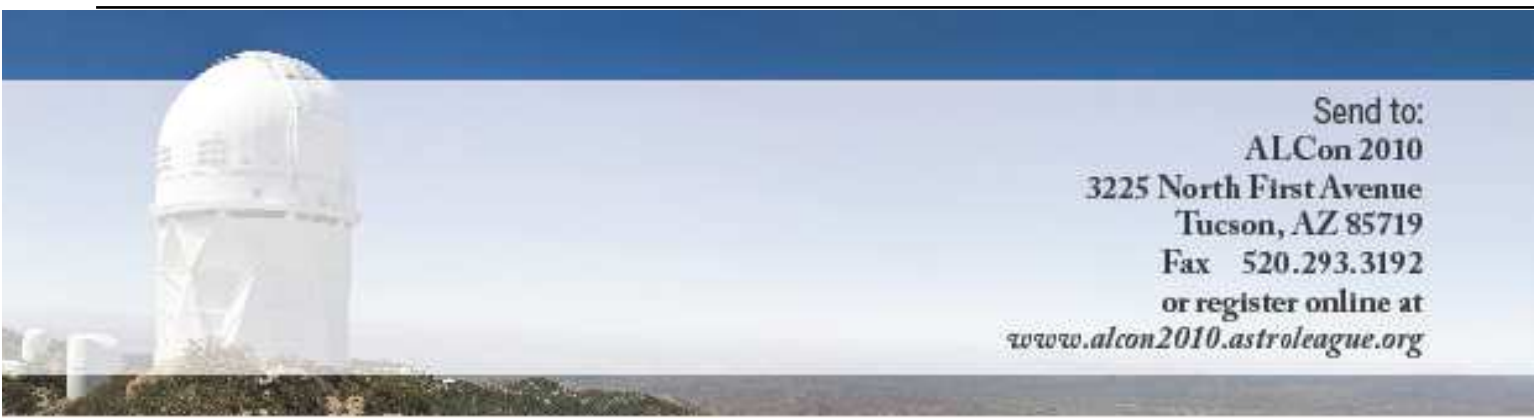
Don't miss... the Dark Sky Giveaway winner announcement at the IDA AGM.
Visit www.darksky.org to learn more.

For more information visit www.alcon2010.astroleague.org or
e-mail ALCon2010Expo@gmail.com

Send to:
ALCon 2010
3225 North First Avenue, Tucson, AZ 85719
Fax 520.293.3192

or register online at www.alcon2010.astroleague.org

*24 May 2010 is the deadline for Hilton rooms at the discounted rate.



Send to:
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Astronomical League Convention and Exposition 2010

www.alcon2010.astroleague.org | ALCon2010Expo@gmail.com

25–27 June 2010 at the Tucson Hilton East*

7600 East Broadway, Tucson, Arizona 85710

Astronomical League annual Council meeting and Thursday Evening Jarnac Observatory tour on 24 June 2010

International Dark-Sky Association's Annual General Meeting Sunday 27 June 2010

- | | |
|---|---|
| <input type="checkbox"/> \$60 2 days; After 1 June 2010 (\$75)
Fri & Sat ALCon | <input type="checkbox"/> \$30 per person—Fri. Solar Luncheon with David Levy |
| <input type="checkbox"/> \$60 3 days; After 1 June 2010 (\$75)
Fri & Sat ALCon with Sun. IDA AGM | <input type="checkbox"/> \$50 per person—Sat. Banquet at the Hilton |
| <input type="checkbox"/> \$30 1 day; After 1 June 2010 (\$40)
<input type="checkbox"/> Fri/ALcon <input type="checkbox"/> Sat/ALcon <input type="checkbox"/> Sun/IDA AGM | <input type="checkbox"/> \$30 per person—Sun. IDA AGM Luncheon |
| <input type="checkbox"/> \$15 Thursday Evening Jarnac Observatory Tour;
24 June 2010 (<i>Limited number of spaces</i>) | <input type="checkbox"/> \$20 ALCon T-shirt—XXL XL L M S |

Total \$ _____

** 24 May 2010 is the deadline for Hilton rooms at the discounted rate.*

Check(check #____) payable to ALCon 2010 VISA MasterCard American Express Discover

Card # _____ Date _____ CW _____ Name on card _____

Cardholder Signature _____

Title _____ First & Last Name _____

Name and Title for ID badge _____

Organization _____ Home Astronomical Society _____

E-mail _____ Phone _____

Address _____

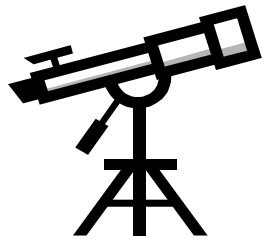
City _____ State/Province _____

Country _____ Postal Code _____

Payment must be received by 1 June 2010 in order to receive the early-registration rate. Whereas we request one registration sheet per attendee, you may put all payments onto one check. Conference registration is not required to attend the Luncheon or Banquet. A limited number of room reservations are

available at the Tucson Hilton East at a special rate of \$72.00 per night, plus taxes. 24 May 2010 is the deadline for Hilton rooms at the discounted rate. You may make your room reservations at the Hilton by calling 1-800-HILTONS. Be sure to tell them you are with the Astronomical League for this special rate.

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
Meade10-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.

CHIRICAHUA ASTRONOMY COMPLEX (CONT.)

public pads with electricity, the amphitheater, two additional storage containers and the four RV spaces. As soon as these drawings are complete, the club will submit a building permit application for the Phase 2 features.

The following tasks will be performed next:

R. Maddox will replace the thermostat that controls the freeze protection system.
 TAAA (J. Kalas) will install the accessories in the shower room including; a floor water dam, shower curtain, clothing hook and shower caddy.

Dark Skies for June 2010

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

Mo/Tu	31/01	21:04	-	22:43	Fr/Sa	11/12	21:11	-	3:37	Mo/Tu	21/22	2:00	-	3:37
Tu/We	01/02	21:04	-	23:17	Sa/Su	12/13	21:11	-	3:37	Tu/We	22/23	2:44	-	3:38
We/Th	02/03	21:05	-	23:46						We/Th	23/24	3:33	-	3:38
Th/Fr	03/04	21:06	-	0:14	Su/Mo	13/14	21:12	-	3:37	Th/Fr	24/25	-	-	-
Fr/Sa	04/05	21:07	-	0:41	Mo/Tu	14/15	21:48	-	3:37	Fr/Sa	25/26	LUNAR ECLIPSE		
Sa/Su	05/06	21:07	-	1:09	Tu/We	15/16	22:28	-	3:37	Sa/Su	26/27	-	-	-
					We/Th	16/17	23:05	-	3:37					
Su/Mo	06/07	21:08	-	1:38	Th/Fr	17/18	23:39	-	3:37	Su/Mo	27/28	-	-	-
Mo/Tu	07/08	21:09	-	2:10	Fr/Sa	18/19	0:12	-	3:37	Mo/Tu	28/29	21:15	-	21:16
Tu/We	08/09	21:09	-	2:47	Sa/Su	19/20	0:46	-	3:37	Tu/We	29/30	21:15	-	21:47
We/Th	09/10	21:10	-	3:30						We/Th	30/01	21:15	-	22:16
Th/Fr	10/11	21:10	-	3:37	Su/Mo	20/21	1:21	-	3:37	Th/Fr	01/02	21:15	-	22:43
Weekend	Sun	Sun	Mercury	Venus	Mars	Jupiter	Saturn							
Sa/Su	Set	Rise	Rise	Vi	Set	Vi	Set	Vi	Set	Vi	Rise	Vi		Vi=Visibility
05/06	19:26	5:15	4:06	5	22:01	-3	0:08	1	1:25	-2	1:30	1	-3	brilliant
12/13	19:29	5:15	4:16	6	22:04	-3	23:50	1	1:00	-2	1:03	1	0	conspicuous
109/20	19:31	5:16	4:37	8	22:05	-3	23:33	2	0:35	-2	0:35	1	3	moderate
26/27	19:32	5:17	Set	-	22:04	-3	23:16	2	0:09	-2	0:09	1	6	naked eye limit
03/04	19:32	5:20	20:04	9	22:00	-3	22:59	2	23:43	-2	23:42	1	9	binoculars limit

By Erich Karkoschka

TAAA Board of Directors Meeting - 12 May 2010

Attending: Board members present (7): Ken Shaver (presiding), Keith Schlottman, Luke Scott, Teresa Bippert-Plymate, George Barber, John Kalas, and John Croft. Members present (6): Terri Lappin, Claude Plymate, Mark Meanings, Bob Gilroy, Lawrence Schindler, and Michael Turner

Call to Order: The President called the meeting to order at 6:30 pm.

Minutes: Minutes from the April Board meeting were approved unanimously.

Member Feedback

- None.

Announcements for Record

- At the May general meeting, the following people were elected to serve as club officers for 1 year: Keith Schlottman - President; Bill Lofquist - Vice President; Teresa Bippert-Plymate - Treasurer; Luke Scott - Secretary; George Barber - Member at Large; Michael Turner - Member at Large; John Kalas - Member at Large. The elected board members will take office on June 1, 2010 and their terms will end on May 31st, 2011. As immediate past president, Ken Shaver will remain a member of the Board of Directors from June 1, 2010 through May 31st, 2011.
- For the upcoming year, bank account signature cards will be held by Bill Lofquist, Teresa Bippert-Plymate, and Ken Shaver.
- Ken Shaver accepted donation to the club of a Celestron Ultima 8 telescope.

Upcoming Meetings

- The June and July invited lectures are open.
- The August and December Astronomy Essentials lectures are open.

Treasurer's Report (Teresa Bippert-Plymate)

- The TAAA checking account balance is \$46,426.89; all club bills are paid.
- Six new members joined.
- There are currently about 390 club members.

Web Team Report (Terri Lappin)

- Terri Lappin demonstrated how to access and use the TAAA Google Apps account.

Special Interest Groups

- Bob Gilroy requested that, due to public outreach activity, the Board purchase business cards for the AFSIG. The Board decided to not purchase separate business cards for the SIGs, but agreed that SIG information could be affixed by label or stamp to the back of the existing TAAA business card.
- Bob Gilroy inquired about club memberships for youth. The Board stated that the current membership policy, which allows children under 18 to join as part of a family membership, will remain unchanged.

Grant Proposal

- Lawrence Schindler presented a draft proposal to solicit grants and donations from local businesses such as Costco and Target. After discussing the proposal, the President established a TAAA General Fund Raising Committee and appointed Lawrence Schindler as coordinator. The purpose of this committee is to solicit small donations from local businesses. The Board directed the committee to coordinate closely with the CAC Fund Raising Committee.

Volunteer Recognition

- The Board discussed the importance of club volunteers and will establish a process for recognizing volunteers that will be in addition to the Bok Award and the Service Award.
- John Kalas entered a motion to recognize Terri Lappin and George Barber with TAAA Service Awards. The motion was approved unanimously.

Paper Newsletters

- The Board discussed implementation of the policy (approved March 2010) to assess an additional charge on members receiving which would take effect at the member's renewal date. No decision on implementation of the policy was made. The Treasurer was directed to report on the cost of printing and

TAAA Board of Directors Meeting - 12 May 2010

mailing each newsletter. John Kalas requested information about members receiving paper newsletters and offered to notify those members of the March board decision.

Other

- Ken Shaver received property identification labels for attachment to telescopes and major accessories owned by TAAA.
- The Board rejected by a unanimous vote a motion to purchase a patio heater for \$139.
- Additional TAAA business cards will be ordered for distribution at ALCON 2010.
- George Barber was directed to develop an updated policy for classified advertisements in the newsletter.

Meeting adjourned at 8:55 pm.

Respectfully submitted,
Luke Scott
Secretary

Desert Skies Classified

FOR SALE	Meade 12" f/5 LightBridge Newtonian Telescope outfitted with a JMI Train-n-Track (TNT) alt-azimuth motor drive system with trainable tracking. Two eyepieces, red-dot finder. \$900. Joe. 520-722-6963 or e-mail jqj62[at]cox.net [09/10]
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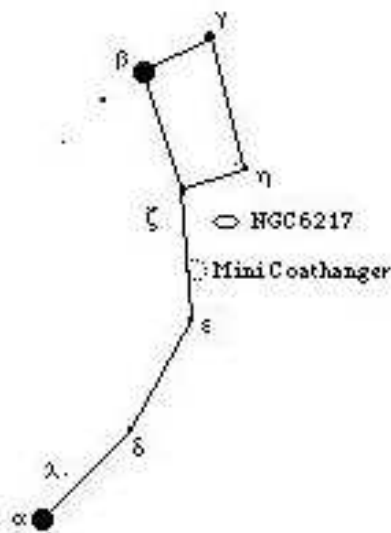
Your ad will run for 4 months unless specified. Month and year of last appearance is last item of ad. For additions or changes to this list, call or e-mail the newsletter editor.

Constellation Report by Chris Lancaster

Ursa Minor

The little bear

Without many bright stars, Ursa Minor might be just another overlooked constellation, but it holds a very important place in the sky and in legend. Greek folklore says that Ursa Minor is Arcas, son of Callisto, the maiden who attracted the desires of Zeus. This aroused the jealousy of Zeus's wife, Hera, who turned Callisto and Arcas into bears. Zeus then placed the bears in the sky--Callisto as Ursa Major and Arcas as Ursa Minor. This only angered Hera a second time, so she saw to it that the two bears circle the celestial pole endlessly without the luxury of setting below the horizon to seek rest.

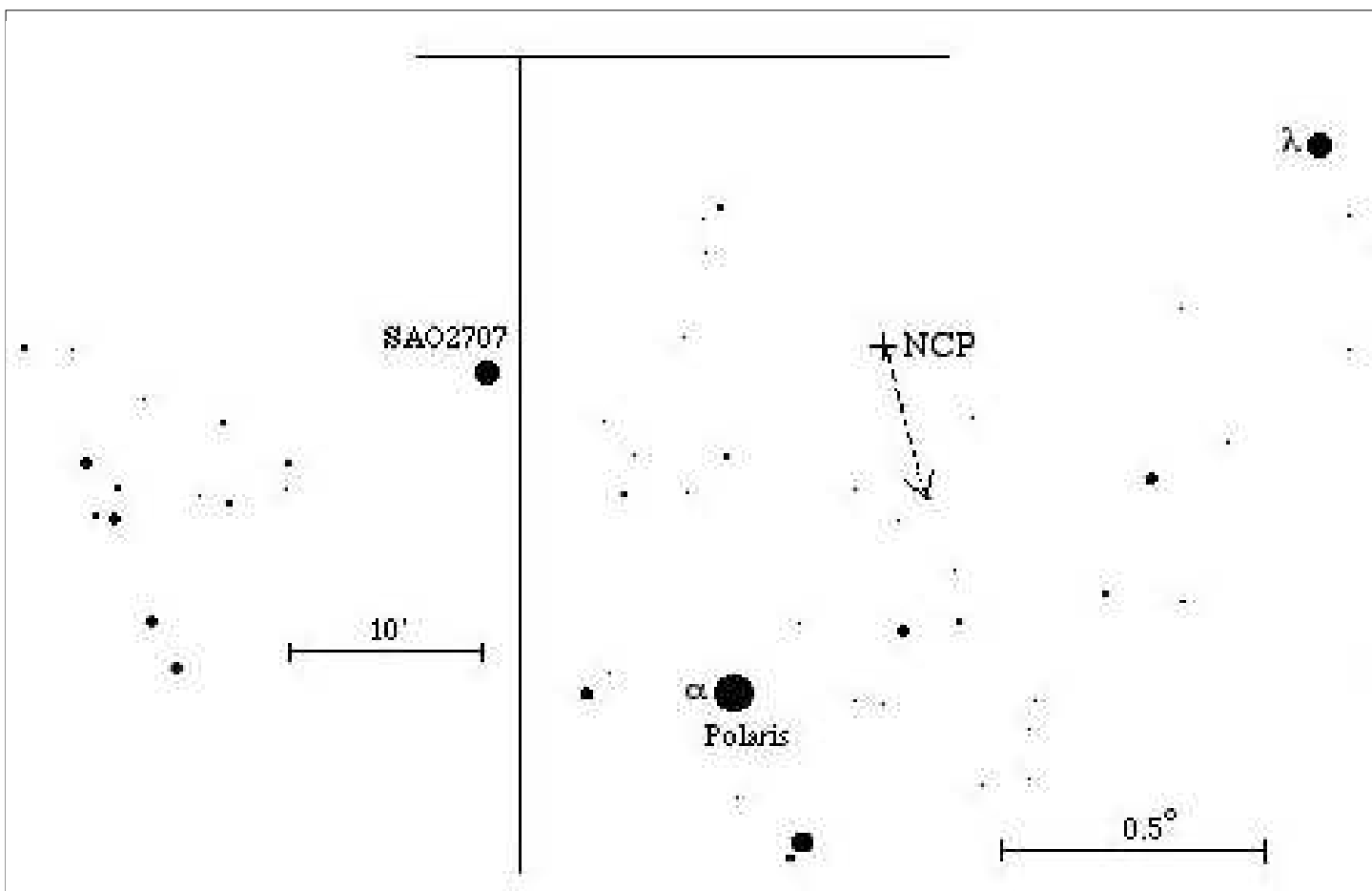


There have been a few different pole stars throughout history as the Earth's axis follows its 25,800 year long precession cycle. Currently that role is held by Polaris, but in centuries past Beta Ursae Minoris and Thuban (Alpha Draconis) have held that honor. In every case the pole star has been seen with reverence as representing the anchor of the heavens, the summit of a cosmic mountain where the gods of the sky reside, a symbol of consistency and endurance, and, in more modern times, a faithful guide star for ocean voyagers. The chart in the opposite column showing the stars near Polaris illustrates the precise position of the north celestial pole (NCP) and the distance and direction of its movement over the next 50 years.

Detailed observations of Polaris show that it is both a double and a variable star. Its oscillations, however, are extremely small--on the order of 0.1 magnitude over a period of 4 days. Amateur observers will have more satisfaction viewing it as a binary star. The magnitude 2 (spectral type F8) primary star is separated by 18" from the magnitude 9 companion.

An interesting asterism can be found 1.8 degree SSW from Epsilon Ursa Minoris, or up from the horizon and to the left if facing north, near the 7.7 magnitude star SAO2707. (For those of you with equatorial mounts, especially fork mounted Schmidt-Cassegrains, you may want to turn the telescope 180 degrees so the

Constellation Report by Chris Lancaster (cont.)



telescope's axis is pointing to the celestial equator to make it easier to navigate so close to the pole.) It's called the mini coat hanger from its resemblance to the "big" coat hanger asterism in the Summer Milky Way running through the southwest part of the constellation of Vulpecula. While the larger one measures 1.5 degrees from end to end, this one measures a tiny 17'.

The best deep sky object Ursa Minor has to offer is the galaxy NGC6217. It's a spiral, measuring approximately 2.5'x 2.0' and glowing at magnitude 12.1. It lies about 2/3 of the way along a line from Epsilon to Eta, or RA 16h 32.6m Dec +78d 12'.

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

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 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.