

Desert Skies

Tucson Amateur Astronomy Association

Volume LVI, Number 3

March, 2010



M34 in Perseus

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Membership in the TAAA

Annual Fees

- Individual membership..... \$25.00
- Family (includes two adults plus minor children)..... \$30.00
- Youth under 18 years must join as a family upon parental or guardian acknowledgement of participation in TAAA events. Ask the Treasurer for the required form.

Discounts (one discount allowed, subtract from above rates)

- Seniors (over 60 years) \$2.00
- College Students, Teachers (K - 12)..... \$8.00
- Youth under 18 yrs (form required, contact the treasurer)..... \$13.00

Options (add to above membership rates)

- Tucson society of the Astronomical League (TAL) fees \$ 7.50
- Sky & Telescope Magazine 1 year (12 issues) \$32.95
- Astronomy Magazine 1 year (12 issues) \$34.00
- 2 years (24 issues) \$60.00
- Postage for New Member Pack \$ 4.80

Donations are accepted for the following funds: SA-IDA/Light Pollution, TIMPA, Education, 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:

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15940 W Ridgemoor Ave
Tucson AZ 85736

Join our Email Lists on YahooGroups

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

President's Message

This past month after a great deal of hard work by many volunteer members and non-members, we were finally able to have first light at the new Chiricahua Astronomy Complex. I would like to congratulate and thank everyone who had a part in making this happen. While we have had first light and the plan is that we will continue to have our monthly dark night star party at the site, we will also plan an opening event at some point in time. The details will have to be worked out because the Special Use Permit does limit the site to no more than 30 vehicles and 60 people at a time. We will make inquiries as to what we will need from Cochise County to stage a larger event but until that time I want to make sure everyone understands that we must take special precautions to ensure everyone has reservations when going to the site. Reservations can be made through the site manager, John Kalas.

Plans are moving very rapidly now on the ALCon 2010 Expo we will be hosting in June. Speaker slots are filling up, vendors are making commitments for both coming to Tucson and for providing sponsorships, and registrations are being taken. Plans are now taking shape for our event partner IDA to conduct their Annual General Meeting on the same weekend. Also our latest sponsor, Lunt Solar Systems, will have their annual Arizona Solar Conference on site. They will have telescopes to demo along with the ALCON Friday Solar Luncheon where our own David Levy will speak. If you have not yet registered, that can now be done online via PayPal at the Expo web site <http://www.alcon2010.astroleague.org>.

TAAA will need about 15 to 20 volunteers to help with the registration desk sign-ins and the TAAA booth. These volunteers will be given free registration to the Expo but must commit to at least a 4-hour shift to receive the benefit. If you are interested please see me or contact one of the committee members on the web site to get on the schedule.

Lastly, the club needs to fill one of our most important positions, the Star Party Coordinator. I thank Paul Moss, who has unselfishly contributed five years to the club in this position. I am sure he will tell you that while it does take some work, there are many rewards. The club's mission statement talks about sharing the sky, and astronomy education. Our School Program is the main avenue in which we make that happen. Volunteers are the backbone of any non-profit organization, and TAAA is blessed with an abundance of individuals who continuously give from their heart to both the club and the community. If you are looking for a way to give back to a very important part of what the club is about, please see me or another board member about becoming the Star Party Coordinator.

Again, thank you to all the volunteers and clear skies,

Ken Shaver
TAAA President

Meeting Information and Calendar of Events

TAAA MEETING DATE: Friday, March 5, at the Steward Observatory Auditorium – Room N210

GENERAL MEETING: 6:30 pm

Title: Backyard Observatories - Presentations and Tours

Amateur observatories are becoming very common. There are books on how to build them, companies that sell plans, kits to be assembled, and companies that will build a turnkey system for you. Designs include simple roll-away buildings, roll-off roofs, and domes. An observatory allows amateurs to keep their gear ready-to-go, and can dramatically increase your observing time and the enjoyment you get out of it.

With Tucson's excellent skies for astronomy, many of our own members have built observatories. No two are alike, and each builder faced challenges and creatively solved issues with construction and use of their observatory. Our March meeting will consist of member presentations highlighting their backyard observatories, and will provide members with valuable information to use on their own setups. We'll also be hosting weekend field trips to some of these observatories. Whether you already have an observatory, are considering building one, or just want to see what your peers are up to, you won't want to miss this one!

BOARD OF DIRECTORS MEETING: Wednesday, March 10, 6:30 pm. The meeting is held at Steward Observatory Conference Room N305.

STAR PARTIES AND EVENTS:

01 Mar – Astro-Imaging SIG at China Rose
05 Mar – Ft. Lowell ES Star Party
06 Mar – Camp Cooper Star Party
07 Mar – UofA Astronomy Students Star Party
09 Mar – Alice Vail MS Star Party
11 Mar – Astronomy Fundamentals SIG
12 Mar – Marana High School Star Party
13 Mar – TAAA and AF-SIG Star Party at TIMPA
13 Mar – TAAA Star Party at Las Cienegas
13 – 14 Mar – Festival of Books
13 Mar – Messier Marathon at CAC
20 Mar – AF-SIG Solar Filter Workshop
22 Mar – Immaculate Heart Academy Star Party
24 Mar – Maldonado ES Star Party
26 Mar – Luz Academy of Tucson Star Party
30 Mar – Ft. Lowell ES/ Camp Cooper Star Party
01 Apr – Rio Vista ES Star Party
24 Apr – Sharing the Sky Star Party

NEWSLETTER SCHEDULE: Deadline for articles: Sat, 20 March. 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. 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, March 1, 7pm

China Rose, NE corner Speedway/Rosemont

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

Astronomy Fundamentals Special Interest Group

Solar Observing Program at March 11 AF-SIG meeting

Dennis Dawson and George Barber will be leading a solar observing workshop for the AF-SIG in March. The workshop will focus on how to safely observe our nearest star. The March meeting will concentrate on our Sun, how it works, and the various features you can see when observing in white light and hydrogen-alpha.

To help us prepare, please sign up at the next TAAA meeting, or email George Barber (mall[at]tucsonastronomy.org) or Dennis Dawson (dennisldawson[at]gmail.com). Let us know the aperture and type of telescope you plan to use, so that we can plan to have enough Baader film for everyone's scope. Or, you can obtain the adequate amount yourself and bring it to the workshop. Dates will also be selected for future white light and hydrogen-alpha solar observing over the course of a few months.

The Astronomy Fundamentals Special Interest Group (AFSIG) meets in room 253 of the Environmental and Natural Resources Building (USGS and Weather Service) on the northeast corner of Sixth Street and Park Avenue on the campus of the University of Arizona.

All members of TAAA and new members particularly are welcome to AFSIG meetings!

AF-SIG Solar Filter workshop

As part of the solar observing program, a workshop will be held on Saturday, March 20 at 10:00 am. The date of this workshop was changed from the 13th to accommodate solar telescope needs at the Festival of Books. You will make and use a white-light solar filter for your telescope,

at a very modest cost. This will be followed by an afternoon solar observing session. This workshop will be held in room 253 of the Environmental and Natural Resources Building (USGS and Weather Service) on the northeast corner of Sixth Street and Park Avenue on the campus of the University of Arizona.

AFSIG Activities for April

Presenter: Mary Turner

Although we astronomers often decry the Moon as "light pollution", deep down most of us enjoy observing it, showing it to others and trying to understand its history, which has much in common with that of our Earth. This month's AFSIG activities, both the classroom session as well as the TIMPA Observing Night activities, will be dedicated to understanding and observing the moon. We will discuss a series of lunar features, some of which can be seen naked eye, other requiring either telescope or binoculars. A list of 25 features, which can be seen at different stages of the month long lunar cycle, will be presented on Thursday, April 15. On the following Saturday night, all interested can get a start on finding the designated targets. Over the next several months, we can get together for real or virtual observing sessions to complete the hunt. After completing the requirements for observing all the targets, the observer will receive an AFSIG Observing Certificate. Additionally, each of the required features is also part of the Astronomical League's Lunar Club, so you can be well on your way to fulfilling that goal as well.

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.

Paul Moss Stepping Down

School Star Party Coordinator Position Open

By Terri Lappin

Paul Moss, after 5 years of dedicated service to the TAAA school star party program, will be stepping down as the program's coordinator. Paul has been our main contact point for teachers and other community leaders who request star parties from the TAAA. He has played a vital role in essentially every star party during the past 5 years, outside of our TIMPA and Las Cienegas events. Each TAAA member and literally thousands of youth and adults have Paul Moss and Roger Schuelke, our volunteer coordinator, to thank for those star parties. We would not have the successful program that we do

Club News (cont.)

without the dedication and enthusiasm of both Paul and Roger. Be sure to thank Paul personally for his 5 years of service to the TAAA

With the resignation of Paul, we are looking for an individual who can work closely with teachers and other youth leaders to coordinate the scheduling of star parties. This individual will need good organization and communication skills. Most contact comes through phone and email. The most difficult part of the job may be denying a star party because our schedule fills. The coordinator makes sure that specific conditions have been met by the school. In particular, the school contact needs to provide directions to the school and instructions about where the telescopes will be set up. Once all is in place, an announcement is written for the newsletter and the webpage. The final step in the coordinator's role is making the sign-up sheets for the meeting. Assuring that we have enough volunteers for the events is Roger's job.

Paul Moss, or any board member, can give you more information about this very important position that needs immediate filling.

Board of Directors Elections

It is time again to consider the election of new board members for TAAA. At this important time in TAAA's history, with the new dark sky site in-process, expanded outreach activities and special interest group activities, as well as all the other functions that help maintain the strength of our organization, it is important that you all help select a board that you feel can best serve these needs. And, if you or another club member you know is ready to step up and help with these efforts, it's time to let someone on the nominating committee know.

The slate of officers up for election includes the President, Vice President, Treasurer and Secretary as

well as the three Member-at-Large positions. Anyone who has been a dues-paying member of the TAAA for at least two years is eligible to be nominated and elected to the board. There are no requirements as to prior board service to be nominated to any of the board positions.

A nominating committee has been established to solicit nominations from members for the Board. Any nominated candidate must agree to have his/her name placed in nomination. If you are interested in running for any Board position, please let one of the members of the nominating committee know. If you are not sure what the responsibilities are for any of the Board positions, please talk to any of the Board members. E-mail information for all Board members can be found in the Newsletter. A list of candidates will be published in the April newsletter.

Nominations can be accepted prior to the balloting during the May meeting, as long the nominated member is there to accept the nomination. (Self-nominations are encouraged: if you have been looking for a way to become more involved in the activities of TAAA, here's your chance.)

April's newsletter will include a brief description of all confirmed candidates, so if you are considering running for office, this will be a good opportunity for you to let other club members know the directions you see for the club.

If you have any questions, please feel free to contact us.

The Nominating Committee

Mary Turner umurf@earthlink.net
Carter Smith herrcarter@gmail.com
Lawrence Schindler lschindler@yahoo.com

TAAA Volunteers Needed for Festival Booth

March 13 - 14

The TAAA will be participating in the Tucson Festival of Books on March 13 and 14, to be held on the UA campus. Last year's event was a huge success with over 50,000 people attending. Organizers expect more to attend this year. Is it because they heard that this year the TAAA will bring solar telescopes? The sun has finally become more



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Club News (cont.)

active, so maybe we'll see some sunspots on the solar disk. We'll also have a booth with several of our Night Sky Network hands-on activities for the public to experiment with, as well as general information about astronomy and the TAAA.

This Festival of Books is a lot more than a book faire. There will be many authors and publishing companies present, along with a full two day schedule of fun activities for kids, plus nearly 200 exhibits. The TAAA will be joined by the Tucson Audubon Society, Tucson Botanical Gardens, and other local interest groups. There will also be entertainment and food vendors. When you volunteer, be sure to plan extra time to see the rest of the festival.

Volunteers are needed to man our booth and for the solar viewing. The event is only during daylight hours, so only solar viewing will be offered. John Kalas is organizing the telescopes so contact him if you want to bring your solar scope. We anticipate that some members with Night Sky Network experience will volunteer, but booth volunteers do not need to have NSN toolkit experience. There will be plenty of opportunities for volunteers to explain what the TAAA does. Maybe we'll recruit some new members in the process. Volunteers are also needed for setting up on Friday evening (Mar 12) and taking down on Sunday evening.

Volunteers are asked to add their name to the sign up sheets at the March meeting or contact either Terri Lappin or John Kalas (see below). If you can donate a few hours of your time, we should be able to cover this event without difficulty.

Terri Lappin: tk-lappin[at]comcast.net, 579-0185

John Kalas: jckalas[at]cox.net, 620-6502

Messier Marathon at CAC

Saturday, March 13

What better way to follow up on the outstanding opening night at CAC in February than with a Messier Marathon in March. As in February, if you would like to attend the CAC Star Party on Saturday, 3/13, reservations are required. We are restricted by a 60 person/30 vehicle maximum limitation. There will be a sign-up sheet at the March 5th meeting. If you are unable to attend the meeting, contact John Kalas via e-mail at jckalas@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.

Star Party Report

By Bob Gilroy

We have a great group of volunteers for school star parties. In February we had a lot of school star parties

and they were covered. Then, at last minute, a request came through for some for star party for Copper Creek Elementary School at Catalina State Park on February 19th. I was asked if AFsig could cover this event and our members responded. A hearty thank you goes out to: Steve Marten who did his traditional "Walk-Around-The-Night-Sky" presentation; Brian McConnell who allowed some hands on demonstrations at the telescope (the kids really loved that); Jim and Kathy Schrode who showed some interesting deep sky objects. We appreciate your efforts and everyone had a great time

GEAR-UP FOR GLOBE AT NIGHT 2010: March 3-16!

With half of the world's population now living in cities, many urban dwellers have never experienced the wonderment of pristinely dark skies and maybe never will. Light pollution is obscuring people's long-standing natural heritage to view stars. The GLOBE at Night program is an international citizen-science campaign to raise public awareness of the impact of light pollution by encouraging everyone everywhere to measure local levels of night sky brightness and contribute observations online to a world map. All it takes is a few minutes to participate between 8-10 pm, March 3-16. Your measurements will make a world of difference. For more information, visit the Web site at www.globeatnight.org. As part of gearing up for the GLOBE at Night Campaign, check out this 10-minute audio podcast: <http://365daysofastronomy.org/2010/02/03/february-3rd-the-globe-at-night-campaign-our-light-or-starlight/>

SHARING THE SKY – FLANDRAU SCIENCE CENTER

National Astronomy Day Star Party and Fundraiser

Saturday, April 24

Mark your calendars for Saturday, April 24, from 3:00 to 10:00 PM. This year Sharing the Sky and Flandrau Science Center will be celebrating National Astronomy Day on the University of Arizona Mall across from Flandrau Science Center.

As in years past, we will have telescopes set up for solar viewing in the afternoon and for night sky viewing in the evening. There will also be some special hands-on activities utilizing the Night Sky Network Toolkits for children and adults. We will need members to help with these activities so, if you don't have a telescope and would like to help, we would appreciate your assistance with these activities and collecting donations. We would like to request that members supporting the event who have canopies bring them and set them up to enhance the early-afternoon sun protection of the donation tables and hands-on activities.

David and Wendee Levy would like to thank all of you for supporting this worthwhile event. Support from the TAAA is essential for the success of this activity. There will be

Club News (cont.)

sign-up sheets at both the March and April club meetings or you can call or e-mail Liz Kalas at 620-6502 or lizkalas@cox.net.

Upcoming Lectures

Apr 2	<i>Astronomy Essentials</i>	Seasonal Objects Dr Mary Turner
	<i>Invited Lecture</i>	Native American Concepts of Sky Beings Dr Carol Locust
May 7	<i>Astronomy Essentials</i>	Member's Night Meeting starts at 6:30pm No Astronomy Essentials Lecture
	<i>Invited Lecture</i>	



Night Sky Network Toolkits

We received a new addition to our set of outreach toolkits. Connie Walker presented the Dark Skies Education Kit to the TAAA after her lecture at our Feb 2010 meeting. This toolkit will be managed through our Night Sky Network program. The toolkit is very effective at demonstrating the problem of light pollution and control methods to reduce light pollution. Maybe your neighborhood has nasty outdoor lighting. Consider demonstrating the effectiveness of proper shielding using the materials in this toolkit. It's not only educational, but it may help them save energy by switching to lower wattage bulbs.

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

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

With the coming months of spring, the TAAA increases its outreach efforts with two public events. In March, we'll be at the Tucson Festival of Books, and in April we'll support the Sharing the Sky star party.

We heard so many good things about the Festival of Books that the board decided we couldn't pass up this opportunity to make ourselves better known in the community. The festival is two days long. We'll have a booth with some information about astronomy and the TAAA. We'll also have a few Night Sky Network activities to help the public understand astronomical concepts such as the sizes and distances to the planets, gravity, and black holes. Read about this event and our need for volunteers elsewhere in the newsletter.

We've added a new set of hands-on activities to our Night Sky Network Toolkit collection. While not a NSN toolkit, the Dark Skies Education Kit uses the same kind of visual methods to teach concepts. If you attended Connie Walker's Globe at Night lecture at last month's meeting, then you know how dramatic this toolkit demonstrates light pollution and the effectiveness of light control methods. This toolkit is available for checking out if you

Club News (cont.)

want to talk about light pollution to a group, young or old.

Please sign up to attend at least one of the 10 community star parties this month. There's an excess of star parties in the West but none in the South part of town. Let's all pitch in and help the west side members out. The star parties are clustered in the week after our meeting (one is on our meeting night) and a second cluster of star parties in the last week of the month. If you will miss the March 5th meeting, contact Roger Schuelke so he knows which event you will support. See page 2 for his contact information.

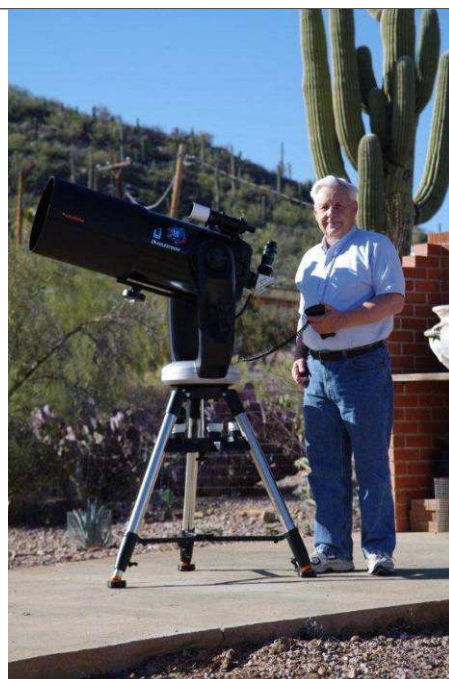
The Starry Messenger Special Interest Group provides an environment in which TAAA members can enhance their knowledge and understanding of astronomy and related concepts. We offer tools and techniques for explaining astronomy to people of all ages. By virtue of involvement in the TAAA's astronomy outreach programs, you are considered a member of the Starry Messenger SIG. The Starry Messenger SIG is currently lead by Terri Lappin and Loretta McKibben. If you are interested in becoming a Starry Messenger leader, talk to Terri or Loretta. The SIG leaders write newsletter articles, plan workshop and meeting activities, and contribute to the planning of outreach events.

Starry Messenger in our Midst

Lyle Johnsen

Lyle has have been interested in astronomy for as long as he can remember. He was born in Nebraska and raised in central Minnesota. Like many, he clearly remembers the total solar eclipse of June 30, 1954:

"Our farm was just inside the path of totality. It was a nice clear day and my dad had made some "smoked glass" filters by holding pieces of window glass in a candle flame. Totality occurred about 15 minutes after sunrise and lasted for only about 30 seconds, but I will never forget it. I was "hooked"."



From that time on Lyle spent a lot of time looking at the night sky and reading whatever he could find in the library. He didn't have a telescope or even binoculars, but the sky was very dark where he lived. The glow of Andromeda was clearly seen, along with the Double Cluster and the Beehive Cluster. He remembers seeing a couple of naked-eye comets. At that latitude, Northern Lights were common and always fascinated Lyle.

Lyle attended college at the University of Arizona and received a BS degree in Electrical Engineering in 1966. He met and married his wife, Nancy, while at the UA. For 35 years, he worked for Honeywell, first in Minnesota then in Illinois. After retiring in 2002, he and his wife started spending winters in Tucson and summers at their home in Freeport, Illinois. Freeport is a small town about 100 miles west of Chicago.

Lyle's first "real" telescope was a home-made, 8 inch Newtonian built in the early 1970's. He purchased the mirrors, focuser and other small parts from mail-order vendors in *Sky and Telescope*. These were mounted in a paper "Sonotube" and Lyle built an equatorial mount from wood and iron pipe. A large coffee can filled with concrete serves as a counterweight. A machinist friend helped Lyle build a clock drive for it. Lyle says, "The telescope still works well to this day, but I don't use it very much because the trees have grown so big around my house that I have very little sky left. My Newtonian is definitely not portable."

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

Club News (cont.)

In Freeport, Lyle is involved with a small, but active, club called TriCounty Astronomers (TCA) (<http://www.tricountyastronomers.com/>). They have a roll-off roof observatory at the edge of a municipal golf course, less than a mile from where Lyle and his wife live. There is a 14" Meade LX200 and a 5" Meade LXD refractor, both on equatorial mounts. The observatory is open to the public every Wednesday during the summer (weather permitting). Usually about ten visitors of all ages will come out for an evening of viewing. They also do star parties in other locations around the Freeport area. Jarrett DuBois, a TCA member, writes astronomy articles for Fotopress News (http://www.fotopressnews.org/duBois_wrtr.html) and also for the local newspapers, so the TCA club gets a lot of publicity for its events.

In 2008, Lyle joined the TAAA and enjoys participating in star parties of all types. His principle telescope is an 11" Celestron SCT on a GPS Altazimuth mount. It is quick and easy to set up and Lyle is usually one of the first to begin observing at a party. As many know, when there's a large



crowd, you usually spend a long time on a single object, so that everyone gets to see it. It helps to have a scope that accurately tracks the sky so you don't need to constantly reposition it. Lyle has converted the Celestron SCT to use 2" eyepieces.

Lyle says, "I found that this telescope, with a 31mm Nagler eyepiece, delivers a stunning, 52 arc minutes or 0.86 degree view at 90 power. For higher magnifications I use a 22mm Nagler (127x) and a 13mm Ethos (215x). It is also low enough to the ground that the "little people" only need a small stepstool. My main objective is to provide the best visual experience I can, with a telescope that I am still able to lift in and out of my car!"

Quite often, Lyle sets up two telescopes at a star party, the second one being an old Edmund Astroscan that he purchased years ago to look at Halley's Comet. The Astroscan is on a sturdy tripod. With wide 3-degree true field at 16 power, it gives a nice view of the Pleiades and other open clusters. Lyle allows star party visitors to reposition it and look at other objects of their choice.

Lyle thinks a 6 or 8 inch rich-field scope would be a great tool to have at some star parties.

Recently, Lyle joined the Sonora Astronomical Society (SAS) in Green Valley and will help with their upcoming star party at Whipple Observatory. Some day he'll go to the Grand Canyon Star Party.

Lyle doesn't have an interest in astrophotography or remote control observatories. He certainly likes to look at pictures but feels he couldn't add anything meaningful to the World in either of these areas. He says, "However, if I can show someone a live view of an astronomical object which they have never seen... it makes me happy when it makes them happy. It's all in the WOW's!" Lyle thinks the more interesting star parties he's recently participated in were those sponsored by the U of A. Lyle comments that "...you spend as much time listening and learning as you do talking."

He suggests to anyone who has never done a star party that they should try it. He describes himself as somewhat of an introvert, but he's found that star parties are very enjoyable. People are always appreciative and the kids are well behaved -- most of the time.

Lyle is dedicated to making people happy through sharing his scope with others. Thank you, Lyle, for your time and commitment to our community.

Opening Night at CAC By John Kalas

On 2/9, I sent out an e-mail announcement stating that the club had received verbal approval from Cochise County to use the new site. Members were invited to reserve a spot for the monthly star party on 2/13. Twenty-four members made reservations and arrived in 15 vehicles. Since we were only going to use half of the 30 parking spaces at the site, one parking space was left



Club News (cont.)



between each vehicle. My wife, Liz, set up a table inside the utility room with a coffee urn producing hot water. Instant coffee (regular and decaf), tea and hot chocolate were the hot beverages available to the attendees all night long. Cookies and bottled drinking water were also available.

As sunset approached, everyone was excited about the weather which was looking extremely good; not a cloud in the sky from horizon to horizon. As the sky darkened, everyone's anticipation was rewarded with a spectacularly dark sky. I have never seen the zodiacal light so prominent; a huge triangle about 40 degrees wide at the western horizon tapering to a point nearly at the zenith. The winter Milky Way was also very impressive.

The new bathrooms served the attendees well all night long. Seven vehicles stayed all night, leaving Sunday morning in beautiful bright sunlight. We could not have wished for any better weather for the inaugural star party. It was a fitting start to a great future for the site. Won't you join us?

Grand Opening Night - Dark Sky

By Dean Salman

Well the first night at the new dark site I would say was a success. We had great seeing and nice weather, cold, but optics like that kind of stuff. I have been to a number of astronomy clubs around the US, well 4 of them, and I have to say that this site has gotten off to a great start. You can see the results in how well the design and planning. Everything was very well thought out and a lot of credit goes to John and Bill as well as the rest of the team.

The site is 90 miles from southeast Tucson, but all high speed highways with only a couple of small towns to slow you down. I got down in about 75 minutes, ok, so I went a little quick sometime. The dirt road is fantastic and gravel road at the site keeps everything clean. The water tea and cocco was a nice treat as well as the official astronomy cookies, those that were there know which ones I am talking about. With a nice bathroom and even a shower, a tent makes a nice home. This is a site worth visiting.

But you will need a flash light to move around because it is dark. I even tripped over one of the parking blocks going to Keith's scope because I under estimated how dark it was. The winter Milky Way was quite bright all the way to the ground. I took a 10 minute polar star trail at ISO 800 with a Canon DSLR 24mm lens. It was very dark so I did 15 minutes and was still fairly dark, that is quite good for a digital camera.

Well, I had to go and haul my imaging equipment because this was the first official night. So what else to shoot but to honor the new street near by, Perseus Way.

This LRGB image of Messier 34 which is in the heart of that constellation is a 60 min image. I used a luminance which was just the combined RGB to help bring out the tiny galaxies seen in the big image. (Editor's note: This is the image on the front cover of the newsletter).

Later that night I did this B&W of Messier 106. (Yes I was nice and warm in my sleeping bag on this one) (3 hours on this guy)



Club News (cont.)**The new CAC**

By George Barber

I had a chance to attend our first official night at the Chiricahua Astronomy Complex. Even though I am probably the west-most member of the club, I still made the drive in less than 3 hours, including a stop for paper towels and to fill up the car with gas. It was a pleasant drive, and I always enjoy the chance to see Texas Canyon, with its unique rock formations. I always wonder if Wile E. Coyote is lurking about!

I breezed through Sunsites, and past those neat hills, and passed a lot of open territory. Finally, the turn onto Price Ranch road came. I noted how moist the road top was from all the rainfall we have had. The road was smooth and wide. As I progressed down Price Ranch road, I spotted the copper roofs of our facility. We really make a small "footprint" on the area. It was nice to turn onto Perseus Way and find a real road, instead of the glorified cow path I remember from previous trips to the area. The white fencing at the complex's entry way makes a nice touch.

Right away, I was impressed with how clean and well organized everything looked. We have an excellent start on our complex! The parking area is easy to negotiate, and there is plenty of room. We only filled every other space, so we were able to spread out nicely.

It really was quite picturesque, with the Chiricahua Mountains wearing their cap of snow. I shot off a few photos, but never got back to the camera after that. What really struck me, though, was how quiet and peaceful it was.

I had decided to bring my largest telescope, and proceeded to set it up. After that, we all just chatted as we waited for darkness to fall. And, when the stars came out, they just kept coming and coming! The winter Milky Way was quite impressive; you don't normally notice it that much. The Zodiacal light was a big cone. Once full darkness had set in, and your eyes were adapted, you could visually see both M41 in Canis Major, and the Beehive cluster. I was impressed with that.

Telescopic views of Mars were showing the red planet quite well. You could easily see detail on the planet, as well as its bright polar cap. I used my own scope to bag a few Caldwell objects, and to check out some of my favorites. One member had brought his large binoculars, and mounted them on a parallelogram mount he made. The views through the binoculars were astounding; you could see dust lanes in Andromeda galaxy. Perhaps the most memorable view I had that night, though, was of the Orion nebula. I don't remember who owned the scope, but Thom Peck had hooked in his new eyepiece. When I looked in, all 6 stars of the Trapezium were easily visible. I remarked that they were so obvious it was like being slapped in the face by a fish tail. We all laughed at my hokey metaphor. As I looked closer, I saw other stars in the haze of nebulosity, which are part of the Trapezium

complex. I had never seen those before. The entire nebula was astonishing in detail.

I spent more time wandering from scope to scope, as well as viewing from my own. A few cups of hot cocoa helped keep the evening going. It was getting cold. I had put on every layer of clothing I brought. A word to the wise, bring some gloves, too! Finally, I shut down for the evening and climbed into the back of the SUV for some shut eye.

Morning came, and we all tore our equipment down and stowed it in our vehicles. On my way home, I saw flocks of cranes flying in "V" formation. That was really cool, and a nice ending to a very enjoyable outing.

So, set your calendar, and make plans to come out for our next event. I think you'll love it!

Mars at the CAC

Here is one of the webcam images I captured with my 14.5" Starmaster at the star party Saturday night. I used a Philips SPC900NC webcam. Hope to see you at the next one.

Jim Militello



Items of Interest

The 5th Annual Globe at Night Campaign: 3-16 March 2010

What: The Globe at Night Campaign

When: 8pm to 10pm local time, March 3-16, 2010

Where: Everywhere

Who: You! (Everyone!)

How: See <http://www.globeatnight.org>

Why:

With half of the world's population now living in cities, many urban dwellers have never experienced the wonderment of pristinely dark skies and maybe never will. This loss, caused by light pollution, is a concern on many fronts: safety, energy conservation, cost, health and effects on wildlife, as well as our ability to view the stars. Even though light pollution is a serious and growing global concern, it is one of the easiest environmental problems you can address on local levels.

Globe at Night is an annual 2-week campaign in March that helps to address the light pollution issue locally as well as globally. This year the campaign is March 3-16, 2010. You are invited along with everyone all over the world to record the brightness of your night sky by matching its appearance toward the constellation Orion with star maps of progressively fainter stars found at http://www.globeatnight.org/observe_magnitude.html. You then submit your measurements on-line at <http://www.globeatnight.org/report.html> with your date, time and location. A few weeks later, organizers release a map of light-pollution levels worldwide. Over the last four 2-week Globe at Night campaigns, volunteers from over 100 nations have contributed 35,000 measurements.

To learn the five easy steps to participate in the Globe at Night program, see the Globe at Night website at <http://www.globeatnight.org>. You can listen to our 10-minute audio podcast on light pollution and Globe at Night at <http://365daysofastronomy.org/2010/02/03/february-3rd-the-globe-at-night-campaign-our-light-or-starlight/>

For activities that have children explore what light pollution is, what its effects are on wildlife and how to prepare for participating in the Globe at Night campaign see the new activities at <http://www.darkskiesawareness.org/DarkSkiesRangers>.

Monitoring our environment will allow us as citizen-scientists to identify and preserve the dark sky oases in cities and locate areas where light pollution is increasing. All it takes is a few minutes during the March 2010 campaign to measure sky brightness and contribute those observations on-line. Help us exceed the 15,000 observations contributed last year. Your measurements will make a world of difference.

Constance E. Walker, Ph.D.
Director, GLOBE at Night campaign
www.globe.gov/globeatnight

Astronomy Resources:

Under Dark Skies: A Guide to the Constellations
By Christopher Lancaster

174 pages; quality trade paperback (soft cover); catalogue #07-1664; ISBN 1-4251-4066-1; US\$14.99, C\$14.99, EUR10.24, £7.74. A guide to learning the shapes, locations, and origins of the constellations and finding the best deep sky objects they contain.

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

Member's Events

TAAA and AF-SIG Star Party at TIMPA

Saturday, March 13

Note: the star party was moved to the 13th due to the TIMPA jet rally.

Come on out and enjoy the winter 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 cold temperatures. Directions to the TIMPA site are located on the outside flap of this newsletter.

TAAA Star Party at Las Cienegas (Empire Ranch)

Saturday, March 13

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

Member's Events (cont.)

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 cold temperatures. 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.

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.

Ft. Lowell ES Star Party

Friday, 3/5/2010

East

No. of Scopes: 3

Ft. Lowell ES will be holding Math Science Night for an estimated attendance of 75 students and parents at 5151 E. Pima. East on Broadway to Swan Road; turn left. North on Swan to Pima Street; turn right. School is between Swan and Beverly. Viewing will be on the basketball court by activities building. Enter through the gate on Magnolia located on the east side of the school. Contact person Richard Dougall can be reached at 520-245-5441 or email obanbound@aol.com. Set-Up Time: 7:00pm. Observing will be from 7:30 pm to 9:30 pm. Sunset: 6:28pm, Dark Sky: 7:21pm Moon Phase: (no moon during viewing).

Camp Cooper Star Party

Saturday, 3/6/2010

West

No. of Scopes: 3

Camp Cooper will be hosting GLOBE at Night Star Party for an estimated attendance of 100 students and parents at 5745 W. Trails End Rd. Drive west on Speedway or Anklam Road. Just beyond the intersection of Speedway and Anklam turn right (north) on to Camino De Oeste. Turn left (west) on to Trails End Road. Drive one mile. Cooper ESC is on the left (south) side of the road. Viewing will be west & south of ramada on the road. South of kitchen and south of classroom on the road. Contact person Connie Walker can be reached at work 318-8535, Cell: 331-2448 or email cwalker@noao.edu. Alt. Contact: Colin Waite, Cell: 869-3797, E-mail: Colin.Waite@tusd1.org. Set-Up Time: 7:00pm. Observing will be from 7:30 pm to 9:30 pm. Sunset: 6:29pm Dark Sky: 7:22pm Moon Phase: (no moon during viewing).

UofA Astronomy Students Star Party

Sunday, 3/7/2010

West

No. of Scopes: 8

UofA Astronomy Students will be holding a Star Party for UofA Astronomy Students for an estimated attendance of 60 students and parents at Saguaro Nat'l Park West. Take Speedway Blvd. west past I-10 and continue about 3.5 mi. where Speedway becomes Gates Pass Road. Go over Gates Pass and continue about 5 mi. west to Kinney Road.

Turn right (north) on Kinney Road and continue past the Desert Museum. Viewing will be in the parking lot of the Visitor Center. Contact person Tom Fleming can be reached at 621-5049 or email taf@viking.as.arizona.edu. Set-Up Time: 7:00pm. Observing will be from 7:30 pm to 9:30 pm. Sunset: 6:30pm Dark Sky: 7:23pm Moon Phase: (no moon during viewing).

Alice Vail MS Star Party

Tuesday, 3/9/2010

East

No. of Scopes: 4

Alice Vail MS will be hosting Astronomy Family Viewing Night for an estimated attendance of 100 students and parents at 5350 E. 16th St. From midtown, head east on Speedway to Craycroft. Turn right (south) onto Craycroft till you reach 16th St. Turn right (west) onto 16th St. The School is on the south side of the street. Viewing will be on the backfield with access for vehicles. Contact person Debbie Hobbs can be reached at 584-5471 or email Deborah.hobbs@tusd1.org. Set-Up Time: 6:30pm. Observing will be from 7:00 pm to 9:00 pm. Sunset: 6:31pm Dark Sky: 7:24pm Moon Phase: (no moon during viewing).

Marana High School Star Party

Friday, 3/12/2010

Northwest

No. of Scopes: 8

Marana High School will be preparing for Family Science Night for an estimated attendance of 300 students and parents at 12000 W. Emigh Rd. Take the I-10 Freeway to the Avra Valley Road exit 242. Merge onto the North Frontage Road. Turn left on West Avra Valley Road. Go 5.2 miles to Sandario Road. Follow Sandario Road 2.5 mi to Emigh Road. MHS is on the right hand side. Viewing will be north of the school in the football practice fields. Contact person Gloria Gorosave can be reached at 682-1037 or email G.N.Gorosave@maranausd.org. Alt. Contact: Cassie LaFaye, Cell: 891-0134, E-mail: C.J.LaFaye@maranausd.org. Set-Up Time: 7:00pm. Observing will be from 7:30 pm to 9:30 pm. Sunset: 6:34pm Dark Sky: 7:27pm Moon Phase: (no moon during viewing).

Public Star Parties and Community Events (cont.)

Tucson Festival of Books

Saturday, March 13 and Sunday, March 14

See *Club News* section of the newsletter.**Immaculate Heart Academy Star Party Northwest**

Monday, 3/22/2010

No. of Scopes: 3

Immaculate Heart Academy will be celebrating Night with the Stars for an estimated attendance of 75 students and parents at 410 E. Magee Rd. North on Oracle, past Ina to Magee, turn east (right) on Magee, go to the stop sign, and continue about 1/4 mile. The school will be on your right, through the iron gates. (Sign on gate says Immaculate Heart Lodge). Viewing will be arranged later. Contact person Maureen Summers can be reached at 297-6672 or email msummers@ihschool.org. Alt. Contact: Roger Schuelke, Cell: 520-404-6724, E-mail: roger_s47@yahoo.com. Set-Up Time: 6:30pm. Observing will be from 7:00 pm to 9:00 pm. Sunset: 6:41pm Dark Sky: 7:34pm Moon Phase: First Quarter.

Maldonado ES Star Party

Wednesday, 3/24/2010

Central

No. of Scopes: 3

Maldonado ES will be planning a Star Party for an estimated attendance of 100 students and parents at 3535 West Messala Way. South on I-19 to Valencia; West on Valencia to Mission; south on Mission to Los Reales; West on Los Reales to Brackenberry; South on Brackenberry to Messala. Maldonado on corner of Brackenberry and Messala Way. Viewing will be on the Courtyard or playground. Contact person Susan Ropp can be reached at 908-4164 or email sropp2@msn.com. Alt. Contact: Mary Mercado (principal), E-mail: marymercado@tusd1.org. Set-Up Time: 7:00pm. Observing will be from 7:30 pm to 9:30 pm. Sunset: 6:42pm Dark Sky: 7:35pm Moon Phase: First Quarter.

Luz Academy of Tucson Star Party

Friday, 3/26/2010

West

No. of Scopes: 3

Luz Academy of Tucson will be hosting Family Science Night for an estimated attendance of 50 students and parents at 2797 North Introspect Drive. West on Grant Rd., Turn North on Silverbell. Drive .5 to 1 mi north. Introspect Drive will be on the left BEFORE the stoplight at Goret Rd. Take Introspect Dr. all the way to the end, and drive through the school gates. Continue ahead to the end of the drive, turn right and drive west to the basketball court. Viewing will be on the basketball court. Contact person Steve Beall can be reached at (520) 807-5892 or email beall@luzacademy.com. Alt. Contact: Sam Sanford, Cell: 820-5673, Email: ssanford@guerreroschool.org. Set-Up Time: 7:00pm. Observing will be from 7:30 pm to 9:30 pm. Sunset: 6:44pm Dark Sky: 7:37pm Moon Phase: near Full Moon.

Ft. Lowell ES/ Camp Cooper Star Party

Tuesday, 3/30/2010

West

No. of Scopes: 3

Ft. Lowell ES/ Camp Cooper will be hosting / holding / celebrating / planning / preparing Math Science Night for an estimated attendance of 75 students and parents at 5745 W. Trails End Rd. Drive west on Speedway or Anklam Road. Just beyond the intersection of Speedway and Anklam turn right (north) on to Camino De Oeste. Turn left (west) on to Trails End Road. Drive one mile. Cooper ESC is on the left (south) side of the road. Viewing will be at the telescope-designated location at Camp Cooper. Contact person Richard Dougall can be reached at 520-232-7159 or email obanbound@aol.com. Set-Up Time: 7:15pm. Observing will be from 7:45 pm to 8:30 pm. Sunset: 6:46pm, Dark Sky: 7:40pm Moon Phase: near Full Moon.

Rio Vista ES Star Party

Thursday, 4/1/2010

North-Central

No. of Scopes: 6

Rio Vista ES will be holding Rio Vista Science Night for an estimated attendance of 300 students and parents at 1351 E. Limberlost Dr. Viewing will be on the Play Ground. Contact person Sean Taylor can be reached at 520 696 5282 or email staylor@amphi.com. Set-Up Time: 7:15pm. Observing will be from 7:45 pm to 9:45 pm. Sunset: 6:48pm Dark Sky: 7:41pm Moon Phase: (no moon during viewing).

TAAA Board of Directors Meeting - 10 Feb 2010

Attending: Board members present (5): Ken Shaver (presiding), Keith Schlottman, Luke Scott, George Barber, and John Kalas. Members present (3): Terri Lappin, Liz Kalas, and Bill Lofquist

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

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

Member Feedback

Board members should post to the Forum more frequently.

Members have requested that the club keep Las Cienegas as an observing site.

Announcements for Record

The Meade 10-inch LX-200 Classic telescope was won by Mary Covell.

The telescope raffle earned the club \$1460.

The nominating committee members are Mary Turner, Carter Smith, and Lawrence Schindler.

The Sharing-the-Sky Star Party has been rescheduled for 24 April.

Upcoming Meetings

The March meeting will be devoted to amateur observatories.

The April Astronomy Essentials lecture will cover seasonal objects, and the invited lecture will be on Native American astronomy.

Treasurer's Report

There was no Treasurer's report this month.

Bill Lofquist reported that the Dark Site Phase 2 fund received \$2060 in donations at the February general meeting.

Web Team

Terri Lappin reported that the Web Team met in January. Terri Lappin, Roger Schuelke, George Barber, Tim Vandevender, and Michael White attended. An individual login procedure will be tested on the development site. Code clean-up is continuing.

The Night Sky network has a calendar widget that could connect to the TAAA website. This is being reviewed.

Tucson Festival of Books

Terri Lappin reported that the club is registered for the event and has permission to set up 2 or 3 telescopes for solar viewing. John Kalas will coordinate the telescopes.

Chiricahua Astronomy Complex

John Kalas reported a Phase 1 construction cost overrun in the amount of \$1077 pertaining to the well cover, and that the Eridanus Group has paid \$577 of the \$1077. A motion was entered by Keith Schlottman and seconded by George Barber that TAAA pay 20% of the outstanding \$520 balance.

The Eridanus Group will reimburse TAAA for 80% of the well house roof cost.

The site currently requires 7 keys to operate gates, doors, etc. John is investigating using a combination lock and key safe to secure the site and facilities and will submit a proposal to the Board.

Bill Lofquist reported that he and John Kalas met with representatives from the Arizona Electric Power Cooperative, Inc. to discuss ways the organization may be able to support CAC phases 2 and 3.

A suggestion has been made to invite local groups from Cochise County to the CAC as part of our community outreach effort.

As of 8 February, \$26800 has been contributed to Phase 2. The estimated cost for the first three features (ten public pads, roll-off roof observatory and amphitheater) of Phase 2 construction is \$29500.

Other

Bill Lofquist volunteered to organize an order of sky meters.

Meeting adjourned at 8:50 pm.

Respectfully submitted,
Luke Scott
Secretary

ALConExpo 2010

Photo: Marshall Field of TUCSON, AZ USA/1607



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 Dreamscope Giveaway announcement at the IDA AGM!

- A telescope and accessories worth \$10,000
- A partnership with Sky & Telescope, Meade, Celestron, Tele Vue, and more

For more information visit www.alcon2010.astraleague.org or
email ALCon2010Expo@gmail.com

Send to:

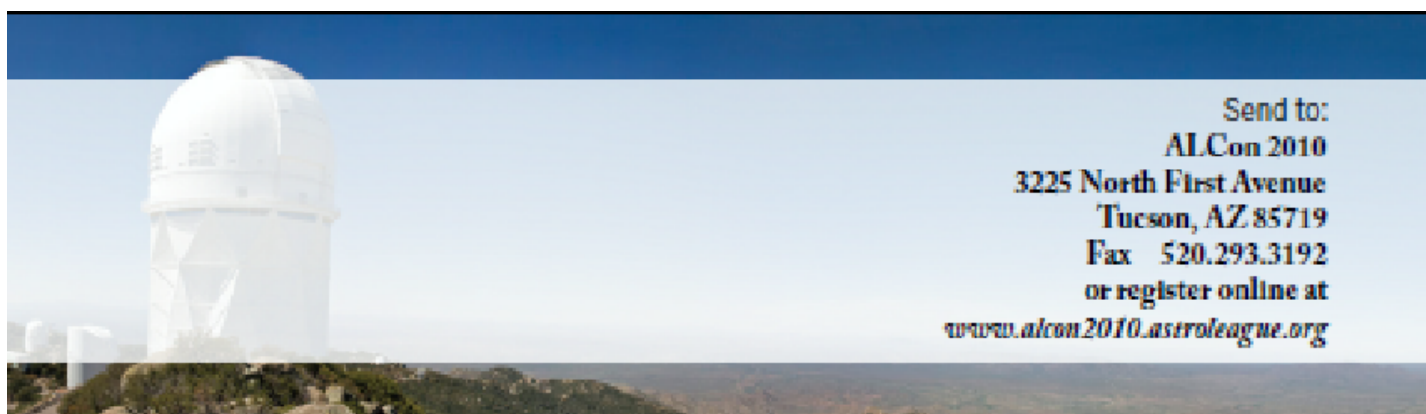
ALCon 2010

3225 North First Avenue, Tucson, AZ 85719

Fax: 520.293.3192

or register online at www.alcon2010.astraleague.org

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



Send to:
ALCon 2010
3225 North First Avenue
Tucson, AZ 85719
Fax 520.293.3192
or register online at
www.alcon2010.astroleague.org

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) | <input type="checkbox"/> \$30.00 per person—Fri. Solar Luncheon with David Levy |
| <input type="checkbox"/> 3 days; Sun. IDA AGM | <input type="checkbox"/> \$50.00 per person—Sat. Banquet at the Hilton |
| <input type="checkbox"/> \$30 1 day/After 1 June 2010 (\$40) | <input type="checkbox"/> \$30.00 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_____

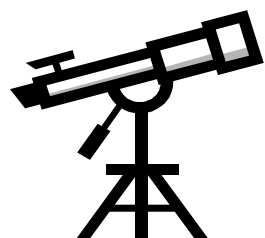
City_____ State/Province_____

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
Meade 10-inch f/4.5 on equatorial mount
Meade 10" LX200 GPS (requires training session)

Beginners, here's your chance to learn and observe the sky before buying any equipment. The Loaner Program is available to any current member after meeting requirements detailed in the TAAA Loan Policy. Contact the Equipment Loan Coordinator (see page 2) or any club officer for details about these telescopes.

Dark Skies for March 2009

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

Su/Mo	28/01	-	-	-	Th/Fr	11/12	19:51	-	4:48	Su/Mo	21/22	0:37	-	5:04
Mo/Tu	01/02	19:43	-	19:56	Fr/Sa	12/13	19:51	-	5:16	Mo/Tu	22/23	1:34	-	5:02
Tu/We	02/03	19:44	-	21:05	Sa/Su	13/14	19:52	-	5:14	Tu/We	23/24	2:25	-	5:01
We/Th	03/04	19:45	-	22:12						We/Th	24/25	3:11	-	4:59
Th/Fr	04/05	19:45	-	23:18	Su/Mo	14/15	19:53	-	5:13	Th/Fr	25/26	3:52	-	4:58
Fr/Sa	05/06	19:46	-	0:21	Mo/Tu	15/16	19:54	-	5:12	Fr/Sa	26/27	4:29	-	4:57
Sa/Su	06/07	19:47	-	1:19	Tu/We	16/17	19:54	-	5:10	Sa/Su	27/28	-	-	-
					We/Th	17/18	20:35	-	5:09					
Su/Mo	07/08	19:48	-	2:12	Th/Fr	18/19	21:34	-	5:08	Su/Mo	28/29	-	-	-
Mo/Tu	08/09	19:48	-	2:59	Fr/Sa	19/20	22:35	-	5:06	Mo/Tu	29/30	FULL MOON		
Tu/We	09/10	19:49	-	3:40	Sa/Su	20/21	23:37	-	5:05	Tu/We	30/31	-	-	-
We/Th	10/11	19:50	-	4:16						We/Th	31/01	20:06	-	20:57
Weekend	Sun	Sun	Mercury	Venus	Mars	Jupiter	Saturn							
Sa/Su	Set	Rise	Set	Vi	Rise	Vi	Set	Vi	Set	Vi	Set	Vi	Vi=Visibility	
27/28	18:18	6:50	6:27	-	19:09	3	5:14	-1	18:17	-	20:00	1	-3 brilliant	
6/07	18:23	6:42	Set	-	19:23	2	4:43	0	Rise	-	19:30	1	0 conspicuous	
13/14	18:28	6:33	18:24	-	19:36	1	4:14	0	6:09	9	19:00	1	3 moderate	
20/21	18:33	6:24	19:02	9	19:49	0	3:48	0	5:47	6	18:30	1	6 naked eye limit	
27/28	18:38	6:15	19:40	4	20:02	0	3:23	0	5:23	4	18:00	1	9 binoculars limit	

By Erich Karkoschka

Desert Skies Classified

For Rent	Beautiful New 3 Bedroom 2 Bath home in Arizona Sky Village, Portal AZ (sleeps 6). Bring your own telescope! Call Irene 520 777 6222 or ikitzman@yahoo.com [06/10]
Wanted	Used research-grade CCD camera. Thinking about upgrading to a newer, better CCD camera? Let me help by buying your old one! Preferences for USB 2.0 data/control connection, 1 1/4" nosepiece included, minimum array size 512x512, max pixel size 15 microns, 100,000 electron well, 16-bit, low noise, thermoelectric cooling, decent software control. Something similar to the SBIG ST-402ME would be ideal. Email Mark Meanings at cosmiclettuce AT yahoo DOT com . [05/10]
FOR SALE	Coronado P.S.T (Personal Solar Telescope). Includes eyepiece, very nice case, and Orion equatorial tripod with manual slow motion controls. Asking \$450. Contact Lyle Kolze, (608) 346-5957, lkolze[at]yahoo.com [05/10]
FOR SALE	Classic criterion dynascope 6" f8 telescope with German eq mount \$200. Celestron 8" wedge \$100. Steve, 975-0098. [05/10]
FOR SALE	ETX-80 beginners 80 mm go-to refractor used twice. Includes tripod, two eyepieces, erecting prism, two books, star chart, planisphere, and backpack. \$220. Byron 520-647-7836. [03/10]
FOR SALE	Coulter 13.1 inch mirror blank in original box /w receipt. \$70. Sky and Telescope mag. 1979 to 1999, complete \$50. obo contact Scott henning, @326-7039. [03/10]
SERVICE	Green laser pointer need repair or tune up? Contact Donald Arndt at (415) 215-2409 or donaldja(at)pacbell.net . Typical repairs cost \$25-50, including return shipping.

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.

ASTEROID OCCULTATION REPORT BY MARK MEANINGS

Observing and recording asteroid occultations is fun and easy, and unlike most other aspects of observational astronomy, something actually HAPPENS while you watch! All you need is a means of telling time (by way of the WWV on shortwave radio, for example), a recording device (like an MP3 player with a microphone), and the ability to see stars down to about 11th magnitude and oftentimes fainter (which means you'll need at least an 8" telescope and a pretty dark sky).

One thing that I'd like to see happen in the near future is to set up a series of synchronized observations in the Tucson area. This would allow us to collect some very useful data not only on the path of the occultation shadow (which will help in making orbital parameters more precise), but also direction, velocity, size, and shape of the asteroid. Plus, if you report your observation with IOTA, you'll be part of history!

The events associated with the large asteroids 45 Eugenia and 52 Europa are likely going to be observed by several, if not dozens, of people. The difficulty will be in actually seeing the occultations -- the magnitude drop in both of these cases is only about 0.5.

If you'd like to participate in a synchronized observation of any of these occultation events, please contact me at cosmiclettuce AT yahoo DOT com. Also, if you'd like more detailed occultation information for a specific location, just send me your latitude, longitude, and altitude to the same email address.

Likely Occultations for Tucson -- March 2010

UT Date	UT Time	Asteroid	Star	Star Mag
2010 Feb 28	04:17.3	304 Olga	TYC 0814-02651-1	10.9
2010 Mar 9	11:26.7	45 Eugenia	2UCAC 25420149	12.3
2010 Mar 10	10:49.7	429 Lotis	TYC 5736-02045-1	10.7
2010 Mar 26	10:49.5	1237 Genevieve	2UCAC 21385643	11.3
2010 Mar 28	07:11.1	479 Caprera	TYC 1341-01964-1	11.7
2010 Mar 29	03:41.3	52 Europa	2UCAC 39108118	11.3

CHIRICAHUA ASTRONOMY COMPLEX

CAC FUNDRAISING PROGRESS REPORT

By Bill Lofquist

As of the writing of this report, we are now about \$2,500 short of having enough to begin constructing the observing facilities for the public area of the Chiricahua Astronomy Complex. Members have contributed a total of \$26,795 since December 1, 2008. This is certainly a generous outpouring of club support for the CAC. Approximately 50 TAAA members have made these contributions.

These funds will build ten 10'x10' observing pads (with electricity), a roll-off roof observatory for the 14" telescope contributed by Wally Rogers, and the 8.4 meter amphitheater observing pad to accommodate the 18" DOB left to the club by the late John Zajac.

We would, of course, welcome additional contributions from members to help us begin work on these facilities. Other steps are being taken to generate the resources needed to complete Phase 2 development. This will include the Outdoor Education/Activity Center (a ramada), the four RV/Camper spaces and additional secure storage.

On February 13, with very short notice of approval from the Cochise County Permit Department, we opened the CAC for our first observing opportunity. The members who came were impressed with the very dark skies, as evidenced by the comments on the TAAA Forum. Now that the Complex is open for use, we will begin to enjoy many more nights of observing.

Phase 1 Construction Update

John Kalas - Construction Coordinator

FINALLY!!! It is with tremendous pride and satisfaction that I announce that the Chiricahua Astronomy Complex is open for business. After replacement of the water fountain on the front of the bathroom facility, the facility passed a follow-up inspection on 1/27. At that point, the only items remaining to be completed were the installation of the parking lot lights and the installation of the club's sign. On 1/31, I installed the parking lot lights. I called the Cochise County Permit Dept. and advised them that the sign was not yet installed. On 2/4, Cochise County performed their final inspection of the Phase 1 development. We were given verbal permission to use the site and I have 30 days to install the sign which should not be a problem. After the club's sign is installed, I will advise CC Permit Dept. and they will re-inspect the site. Then they will issue the "official" letter authorizing the use of the site.

Since the last report, I installed the Innerduct conduit into the well house and also installed a deadbolt in the well house door for added security. The signs on the two bathroom doors were also installed.

Our contractor, Randy Maddox, performed several minor tasks since the last report. He repainted the shower area with an elastomeric paint to better seal the concrete block walls and he installed weather stripping to seal the

bathroom facility doors against dust penetration. Automatic door closers were installed on the shower room and utility room doors because they open outward and are susceptible to being caught by the wind and damaged.

The following tasks will be performed next:

TAAA (J. Kalas) will install the club sign on the side of the entry road outside of the gates.

TAAA (J. Kalas) will install the accessories in the shower room including; a floor water dam, shower curtain, clothing hook and shower caddy. A new bench has already been installed.

On Saturday, 2/13, the site was opened for club use for the first time. See the report on opening night in the *Club News* section of this newsletter.



Parking lot lights installed



Replacement water fountain & bathroom signs installed

Constellation Report by Chris Lancaster

The Lynx

The American Heritage Dictionary defines a lynx as "a wildcat with thick, soft fur, a short tail, and tufted ears," and this is the animal Johannes Hevelius chose in 1687 for a constellation to fill in an area between the front of Ursa Major and the adjacent constellations of Gemini and Auriga farther west. It's not so much the pattern of stars that brought a lynx to his thoughts, but their dimness. The brightest star of Lynx is magnitude 3.1, and most others are dimmer than 4. Mr. Hevelius remarked that to observe this constellation, one would need the visual sensitivity of this nocturnal cat.

To find Lynx, you can start at the Big Dipper. Follow the body of Ursa Major to its snout, and then look within the triangle formed by the bear's nose and the bright stars of Capella in Auriga and the twin stars of Castor and Pollux in Gemini. The stars of Lynx are sprinkled here in a line going toward the southeast to just above the head of Leo the Lion.

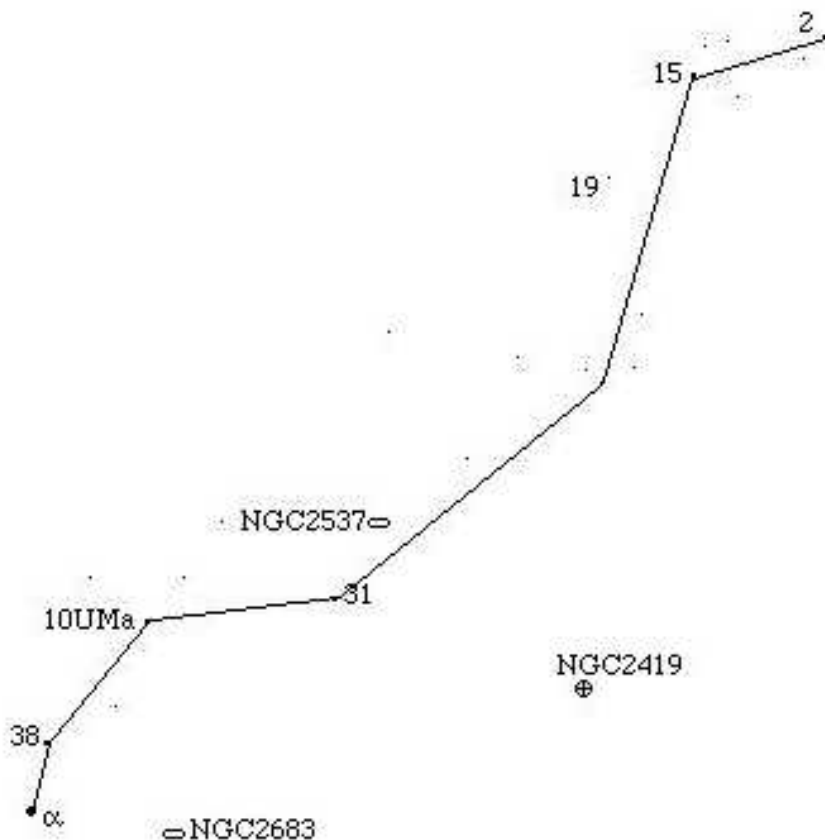
There are few deep sky objects in Lynx that could be called comparatively bright, and without any conspicuous guideposts to point the way; some can be difficult to hunt down. However, the best ones are well worth the effort.

All by itself (both in terms of its place in our celestial sky and also its actual location in space) is NGC2419. This globular cluster has been nicknamed the "Intergalactic Wanderer" since it is far removed from the group of other globulars that huddle in the Milky Way's halo. While a typical globular might be between 20,000 and 50,000 light-years away, this recluse keeps its distance at approximately 290,000 light-years. Despite its remoteness, it can be viewed fairly easily in amateur telescopes. It glows at magnitude 10.4 and measures 4.1' in diameter. A 5-inch scope will just bring out the round smudge, and while 8 to 10 inch instruments will make it more obvious, don't expect to see any individual stars. The brightest ones can't manage more than a 17th magnitude glow. But, to be seen this well overall must mean that it is quite a large and bright cluster, and would be quite an impressive sight if it were at a closer distance. NGC2419 is at RA 7h 38m 6s Dec +38d 53' 00".

Lynx's brightest galaxy, NGC2683, is an edge-on spiral of magnitude 10.4 and a size of 9.3'x 2.2'. It has a bright core and very dim, hazy outskirts. You'll see a sharp, thin oval contrasting very well with the background space. Point to RA 8h 52m 41s Dec +33d 25' 03", or start at Alpha Lyncis, move 1.2 degrees southwest to a 7th magnitude star, then just over 5 degrees due west of here to this fine galaxy.

NGC2537 is a different kind of galaxy. At first glance it may look like a globular cluster. Its round shape of magnitude 12.1 is 1.7'x 1.5' across, and various toe-like extensions on one side has led to the nickname of the "bear claw galaxy." Look to RA 8h 13m 15.1s Dec +45d 59' 29", or 3.3 degrees NNW of 31 Lyncis.

A great double star is found in 19 Lyncis. It's in the northern half of the constellation at RA 7h 22m 52s Dec +55d 16' 53". Here is a primary star of magnitude 5.6 with a secondary of magnitude 6.5. They have a separation of 14.8" and a p.a. of 315 degrees. Any telescope can find and separate this double, but if you have the aperture and dark skies, you can see two other stars that are a part of the same system. Turning to a p.a. of 3 degrees and 4' away is a magnitude 8.9 star, and 72" from the primary at a p.a. of 287 degrees is a faint 11th magnitude star completing this quadruple system.



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.