

February 2018

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TUCSON AMATEUR ASTRONOMY ASSOCIATION

Monthly Events Bulletin

February 2nd General Meeting

Steward Observatory Lecture Hall, Room N210, UA Campus, 933 N Cherry Ave.

Introductory Presentation **6:30pm**

*The Latest On The Astronomical
League*
presented by
Douglas Smith, TAAA Observing
Program Coordinator for The
Astronomical League

Douglas Smith will give a brief history of the Astrological League; one of the largest amateur astronomy organizations in the world. Learn the latest about its benefits, resources, and services, as well as a review of the 50 or so observing programs available at this time.

Invited Lecture **7:30pm**

*CCD Photometry from Inside the
Light Dome - Leisure Time
Activity for a Retired Engineer*
presented by
Tom Polakis,
Contributing Editor for Astronomy
Magazine

Tom Polakis became an amateur astronomer on the night of the 1977 Perseid meteor shower. He is a Contributing Editor for Astronomy Magazine. His main interests are astronomical travel, visual observing, and all types of photography.

In the past few years, Tom has actively pursued photometry with his CCD imaging equipment in Tempe. During that time, he has determined rotation periods of asteroids, measured brightness and colors of eclipsing binary and pulsating variable stars, and created light curves of exoplanets and an active quasar along the way. During the first half of Tom's presentation, he will describe the fundamentals of photometry, his equipment and acquisition of images, and data reduction. Then Tom will show examples of his work to illustrate how measuring something as simple as the variation of light and color teaches us much about stellar and solar system astronomy.

Inside this Bulletin

Total Lunar Eclipse
Jan 31

AFSIG Meeting
Feb 8

Tucson Star Party
Feb 10

TIMPA Star Party
Feb 10 & 16

Ladies Night Out
Feb 15

CAC Star Party
Feb 16 & 17

Announcements
Page 5

Gateway to the Galaxy Capital Campaign 2017

As 2018 begins we can reflect on a very busy 2017 with many changes and developments at our Chiricahua Astronomy Complex (CAC) Dark Site and progress on our Gateway to the Galaxy Capital Campaign.

The next phase of growth at the Dark Site relates to the expansion of our outreach efforts at the site. Our plans provide for 3 buildings with facilities to accommodate groups in a classroom setting prior to observing the sky (the multipurpose building), a teaching observatory with 4 telescopes and additional sleeping rooms to accommodate the group, hosts and chaperones after a night of observing. Throughout 2017 the Fundraising Committee has pursued support from the TAAA membership as well as from the community which the facilities will serve. The tasks have included presentations to these various groups describing the vision for the site as an educational Gateway to the Galaxy, an outline of our outreach goals, and on site tours of the current facilities to highlight the benefits of adding on to the current infrastructure.

The Fundraising Committee expects to continue its work in 2018, telling the story of TAAA's good work of Astronomy Education in Southern Arizona, and soliciting gifts that will support the vision of our Gateway to the Galaxy.

This Month in Brief

Usual set-up time for most group and public events is 30 minutes before the start time stated here.

Outreach Star Party NW Tucson Jim Knoll	Feb 1 (Thu) St Elizabeth Ann Seton 8650 N Shannon Rd	6:00 PM
Outreach Star Party SE Tucson Jim Knoll	Feb 1 (Thu) Desert Willow Elem School 9400 E Esmund Loop	6:00 PM
General Meeting Ben Bailey	Feb 2 (Fri) Steward Obs. Rm N210 933 N Cherry Ave	6:30 PM
Outreach Star Party East Tucson Jim Knoll	Feb 6 (Tue) Kellond Elementary School 6606 Lehigh Dr	5:30 PM
Outreach Star Party West Tucson Jim Knoll	Feb 8 (Thu) Cholla High School 2001 W Starr Pass Blvd	6:00 PM
AFSIG Meeting (Beginners) Dennis McMacken	Feb 8 (Thu) USGS Bldg Room 253 520 N Park Ave	6:30 PM
Outreach Star Party NW Tucson Jim Knoll	Feb 9 (Thu) St Elizabeth Ann Seton 8650 N Shannon Rd	6:00 PM
Outreach Star Party Central Tucson Jim Knoll	Feb 9 (Fri) University High School 421 N Arcadia	6:00 PM
TIMPA Star Party Dennis McMacken	Feb 10 (Sat) TIMPA 3250 N Reservation Rd	Sunset
Outreach Event East Tucson Jim Knoll	Feb 10 (Sat) Tucson Star Party with Astronomy Magazine PCC East Campus 8181 E Irvington Rd	12:00 PM
Outreach Star Party Far North (Oracle) Jim Knoll	Feb 10 or 11 (Sat/Sun) Biosphere 2 32540 S Biosphere Rd	7:00 PM

Key:	TAAA Members Only	For Organization	Public Events
Outreach (NSN Only) SW Tucson Jim Knoll	Feb 12 (Mon) Apollo Middle School 265 W Nebraska St	5:00 PM	
Ladies Night Out Susan O'Connor	Feb 15 (Thu) XXX YYY	6:30 PM	
Outreach Star Party NW Tucson Jim Knoll	Feb 15 (Thu) Coyote Trail Elem School 8000 N Silverbell Rd	6:15 PM	
Outreach Star Party NW Tucson Jim Knoll	Feb 15 (Thu) Legacy Traditional School 3500 W Cortaro Farms Rd	6:30 PM	
Outreach Star Party SW Tucson Jim Knoll	Feb 16 (Fri) Miller Elementary School 6951 S Camino de la Tierra	6:30 PM	
Outreach Star Party Central Tucson Jim Knoll	Feb 16 (Fri) Cragin Elementary School 2945 N Tucson Blvd	6:30 PM	
TIMPA Star Party Dennis McMacken	Feb 16 (Fri) TIMPA 3250 N Reservation Rd	Sunset	
CAC Star Party Mike McDowell	Feb 16/17 (Fri/Sat) Chiricahua Astronomy Complex	Sunset	
Public Star Party NE Tucson Jim Knoll	Feb 17 (Sat) Agua Caliente Park 12325 E Roger Rd	6:30 PM	
Outreach Star Party NW Tucson Jim Knoll	Feb 17 (Sat) Girl Scouts of Southern AZ 3101 N Sabino Canyon Rd	6:00 PM	
Outreach Star Party Far West Tucson Jim Knoll	Feb 18 (Sun) Saguaro Natl Park West 440 S Main Ave	6:00 PM	
Public Star Party Far West Tucson Jim Knoll	Feb 24 (Sat) Ironwood Picnic Area 7300 West Hal Gras Rd	6:30 PM	

Future Events

Member Events	
Mar 2 (Fri)	General Meeting
Mar 8 (Thu)	AFSIG Meeting
Mar 10 (Sat)	TIMPA Star Party
Mar 14 (Wed)	Board Meeting
Mar 15 (Thu)	Ladies Night Out
Mar 16 (Fri)	TIMPA Star Party
Mar 16/17 (Fri/Sat)	CAC Star Party
Mar 19 (Mon)	SMSIG Meeting

Outreach Events	
Mar 6 (Tue)	Innovation Academy
Mar 8 (Thu)	Leman Academy of Excellence
Mar 9 (Fri)	University HS Astronomy Club
Mar 14 (Wed)	Harelson Elementary School
Mar 17 (Sat)	Ironwood Picnic Area
Mar 18 (Sun)	UA Astronomy Dept - Saguaro NP West
Mar 18 (Sun)	Tucson Hebrew Academy
Mar 19 (Mon)	Friendship Force International
Mar 23 (Fri)	St Michael's School
Mar 24 (Sat)	Agua Caliente Park
Mar 24 (Sat)	Oracle State Park

Astronomical Events in Our Community

Below is a list of astronomy presentations in the Tucson area, mostly on the UA campus. For more information, visit the websites listed. Take advantage of these opportunities. Miss an event? Many lectures are available on the web. Visit the listed website to find out.

Date/Time	Speaker	Title	Location	Information
Feb 19 Mon 7:30PM	Dr. Beth Williams Deputy Director, Large Synoptic Survey Telescope	<i>Mapping The Universe</i>	Steward Observatory Lecture Hall N210	http://www.as.arizona.edu/public-evening-lecture-series

Special Interest Group (SIG) Activities

Astro-Imaging SIG (AISIG)

Meeting: Next meeting TBA

Location: Total Wine & More (4370 N Oracle Rd)
Contact: Jim Heasley Phone: 520-268-8586
Email: astro-photo[at]tucsonastronomy.org

The next meeting of the AISIG is yet to be determined.
Contact Jim Heasley for more information.

Astronomy Fundamentals SIG (AFSIG)

Meeting: Feb 8 (Thu) 6:30 PM

U.S.G.S. Building, Room 253 (520 North Park Ave)
Contact: Dennis McMacken Phone: 520-609-7860
Email: fundamentals[at]tucsonastronomy.org

Come join us for a presentation from the fundamentals of amateur astronomy. Stephen Ferris will give a talk on "Exoplanets and the Habitable Zone". The "Constellation of the Month" is "Ursa Major", presented by Doug Smith.

Dennis and Bill Yohey are looking for people to present future "Constellation of the Month", whether it is an old favorite or a constellation you would like to learn more about. Also, do you have a topic the would help us become better or more knowledgeable observers? Present it at the AFSIG. Let Bill or Dennis know, so we can schedule you in. Is there a topic you would like to hear about? Let us know, also. The Astronomy Fundamentals Special Interest Group, is for all TAAA members who want to learn about and share the multiple aspects of the hobby.

The USGS Building is on the northeast corner of Park and 6th Street. Free parking is available nearby after 5pm. The closest free parking is on the south side of 6th Street. An elevator is available on request. Contact Dennis McMacken at phone number or email above.



Starry Messengers SIG
Opening Minds to the Universe

Next Meeting: Mar 19 (Mon) 6:30PM

Beyond Bread (3026 N Campbell)
Contact: Terri Lappin
Phone: 520-977-1290
Email: smsig@tucsonastronomy.org

Interested in spreading the fun of astronomy? Volunteer as an Astronomy Guide. Training is available and you'll be partnered with a seasoned Astronomy Guide at the event.

Plans are underway for our "Place in the Universe" exhibit at the 2018 Tucson Festival of Books/UA ScienceCity on March 10 & 11. We hope to increase people's awareness of how big the universe is through pictures, explanations, and discussions. There will also be activities for kids.

Other upcoming outreach activities are the Math Moves You Galileoscope Building event with Raytheon (Feb 1), award presentations at the Southern AZ Region Science Fair (Apr 12), Innovator's Night (Apr 13), and the TAAA Astronomy Festival (Apr 22). In addition, we have requests for Night Sky Toolkits at several community star parties over the next few months. For information or to help these events, contact Terri Lappin.

Member Star Parties

The TIMPA observing site is located a few miles beyond the Desert Museum. The CAC observing site is located in southeast Arizona near Sunsites, AZ, about 1.5 hours drive from Tucson. Maps to both sites can be found on the TAAA website. Locked gates protect both sites. Call or email the contact person to learn when the gate will be unlocked.

Chiricahua Astronomy Complex

Feb 16 & 17 (Fri & Sat)

Contact Person/RSVP to: Mike McDowell
Email: cac-director[at]tucsonastronomy.org
Phone: 206-356-6624

Chiricahua Astronomy Complex (CAC) is the club's dark observing site, located in Cochise County approximately 100 miles southeast of the center of Tucson. The site includes concrete telescope pads with electricity, a roll-off roof observatory with a Celestron 14" telescope, a picnic Ramada, and a full bathroom facility with shower room. The new Reynolds-Mitchell Observatory includes a 40" telescope and a large warm room. At an elevation of 4800 feet, be prepared for cooler temperatures. Try to arrive before sunset. Our use permit limits the number of attendees at any one time, so reservations and cancellations are required. If you would like to attend, you must contact CAC Director John Kalas. Reservations are on a first come – first serve basis. You need to reserve for both nights if observing both nights.

TIMPA

Feb 10 & 16 (Sat & Fri)

Contact Person: Dennis McMacken
Email: fundamentals[at]tucsonastronomy.org
Phone: 520-609-7860

The AFSIG hosts the TIMPA star parties. An AFSIG representative will open the gate for an evening of viewing. The Gila Monster Observatory with its Meade 14" Schmidt-Cassegrain telescope will be open for your viewing pleasure. The TIMPA site features a large parking area and full restroom facilities. Be prepared for cool temperatures after sunset. Guests are welcome, accompanied by a TAAA member. We hope to see you there!

TAAA Ladies Night Out

Thursday, February 15

Great Conversation!

6:30 pm

Delicious Food!

Culinary Dropout

2543 E Grant Road

(North side of Grant just east of Tucson Blvd)

Preview menu at culinarydropout.com

RSVP Susan at 520-546-2961 or cyzeh@aol.com

TAAA Outreach Events

Members are asked to support these outreach events. Details and maps can be obtained by logging into your Member Planet account. Sign up at a meeting, respond to Jim Knoll's email requests, or pick up the phone. Signing up is important so you can be contacted in case of cancellation. Contact Jim at school-sp-volunteers@tucsonastronomy.org or 520-241-3113. If interested in being an Astronomy Guide and presenting projects from the Night Sky Network Outreach Toolkits, contact Terri Lappin at smsgit@tucsonastronomy.org.

Desert Willow Elementary School Star Party

Feb 1 (Thu) Set-up: 5:30 PM
SE Tucson Observing: 6:00 PM to 7:30 PM
Leader: Jim Knoll Volunteers Needed: 3
Cross Streets: Rita Rd/Houghton

We are supporting a star party at Desert Willow Elementary School for about 200 K-5 students and their family members. Desert Willow Elementary is located at 9400 E Esmond Loop. Go west on Rita Road to Esmond Loop and turn left on Esmond Loop. The School will be on the left. Pull through gate and set up on the basketball courts. **Three volunteers with scopes are needed for this event.**

St. Elizabeth Ann Seton Star Party

Feb 1 (Thu) Set-up: 5:30 PM
NW Tucson Observing: 6:00 PM to 7:30 PM
Leader: Jim Knoll Volunteers Needed: 5
Cross Streets: Ina/Thornydale

We are supporting a star party and NSN toolkit demonstration at St. Elizabeth Ann Seton for about 200 K-12 students and their family members. St. Elizabeth Ann Seton is located at 8650 N Shannon Road. Go north on Thornydale to Magee and turn right (east) on Magee to Shannon Rd. Continue north on Shannon to the school which is next to Tucson National. Set up on the school field. **Three more volunteers with scopes are needed for this event.**

Kellond Elementary School Star Party

Feb 6 (Tue) Set-up: 5:00 PM
East Tucson Observing: 5:30 PM to 7:00 PM
Leader: Jim Knoll Volunteers Needed: 3
Cross Streets: Broadway/Wilmot

We are supporting a star party at Kellond Elementary School for about 200 K-5 students and their family members. There will be an astronomy talk until dark (sunset 6:02). Kellond Elementary is located at 6606 E Lehigh Drive. Go south on Wilmot and turn left (east) on Malvern St and continue to Lehigh and turn right into parking lot. Set up on playground to south of school. **Three volunteers with scopes are needed for this event.**

Cholla High School Star Party

Feb 8 (Thu) Set-up: 5:30 PM
West Tucson Observing: 6:00 PM to 8:00 PM
Leader: Jim Knoll Volunteers Needed: 2
Cross Streets: 22nd St/I-10

The Cholla High School is having a star party for about 50 students. The Cholla High School is located at 2001 W Starr Pass Blvd. From 22nd St and I-10 go west on 22nd until it becomes Starr Pass Blvd. Continue west to La Cholla Blvd. Turn into student parking lot (first one you come to) on the NE corner of the complex. The viewing Location is TBD. **Two volunteers with scopes are needed for this event.**

Thank You Volunteers!

Potential Contacts This Month: 2225
 Volunteers Needed This Month: 60

University High Astronomy Club Star Party

Feb 9 (Fri) Set-up: 5:30 PM
Central Tucson Observing: 6:30 PM to 8:30 PM
Leader: Jim Knoll Volunteers Needed: 5
Cross Streets: Swan/5th St

The University High Astronomy club is having a star party for 25 students. The school is co-located with Rincon High School which is located at 421 N Arcadia near. University High is at the south side of the campus. Setup on the practice field next to the football field. **Three more volunteers with scopes are needed for this event.**

Tucson Star Party with Astronomy Magazine

Solar and Star Party @ Pima Community College East

Feb 10 (Sat)
Solar Viewing: Set-up: 11:30 PM Viewing: Noon to 5:30 PM
Night Viewing: Set-up: 5:30 PM Viewing: 6:00 PM to 5:30 PM
Leader: Jim Knoll Volunteers Needed: 10
Cross Streets: Irvington/Fred Enke

We will be providing solar and night telescopes for this event being held at the Pima Community College East Campus. The campus is located at 8181 E Irvington Rd at the intersection with Fred Enke Dr. Set up on the parking lot by the observatories on the sw-side of the campus. **One more volunteer with a solar scope and four more volunteers with night scopes are needed for this event.**

Community Event at Biosphere 2

Feb 10 or 11 (Sat or Sun) Set-up: 6:00 PM
Oracle, AZ Observing: 7:00 PM to 9:00 PM
Leader: Jim Knoll Volunteers Needed: 2
Cross Streets: AZ Route 77/Biosphere Rd

We will be providing telescopes for a public event at the Biosphere 2 where 200 people are expected. The Biosphere 2 is located at 32540 S Biosphere Rd in Oracle, AZ. All viewing will be on grassy lawn next to west lung. **Two volunteers with scopes are needed for this event.**

Sunnyside Reading Under the Stars @ Apollo Middle School

Feb 12 (Mon) Set-up: 4:00 PM
SW Tucson Observing: 5:00 PM to 6:30 PM
Leader: Jim Knoll Volunteers Needed: 2
Cross Streets: Irvinton/Liberty

This is a non-telescope event being held at Apollo Middle School for 150 students and family members. The school is located at 265 W Nebraska St. Go south on Liberty Ave to Nebraska St. The school is on the SE-corner. **Two volunteers with NSN Toolkit are needed for this event.**

Legacy Traditional School Star Party

Feb 15 (Thu) Set-up: 5:30 PM
NW Tucson Observing: 6:30 PM to 8:00 PM
Leader: Jim Knoll Volunteers Needed: 4
Cross Streets: Cortaro Farms/Thornydale

Coyote Trail Elementary School is having a star party for 350 students and family members. The school is located at 3500 W Cortaro Farms Rd. Go east on Cortaro Farms from Thornydale the school is on the left. Set up on the back field. **Three more volunteers with scopes are needed for this event.**

TAAA Outreach Events (cont.)

Coyote Trail Elementary School Star Party

Feb 15 (Thu) Set-up: 5:30 PM
NW Tucson Observing: 6:15 PM to 8:00 PM
Leader: Jim Knoll Volunteers Needed: 3
Cross Streets: Cortaro Farms/Silverbell

Coyote Trail Elementary School is having a star party for 150 students and family members. The school is located at 8000 N Silverbell Rd. Go north on Silverbell from Cortaro Farms 2-3 blocks the school is on the right. Set up on the parking lot. **Three volunteers with scopes are needed for this event.**

Cragin Elementary School Star Party

Feb 16 (Fri) Set-up: 6:00 PM
Central Tucson Observing: 6:30 PM to 8:00 PM
Leader: Jim Knoll Volunteers Needed: 3
Cross Streets: Ft Lowell/Tucson Blvd

Cragin Elementary School is having a star party for 100 students and family members. The school is located at 2945 N Tucson Blvd. Go south on Tucson Blvd from Ft Lowell the school is on the right. Set up outside the cafeteria. **Three volunteers with scopes are needed for this event.**

Miller Elementary School Star Party

Feb 16 (Fri) Set-up: 6:00 PM
SW Tucson Observing: 6:30 PM to 8:00 PM
Leader: Jim Knoll Volunteers Needed: 3
Cross Streets: Valencia/Camino de la Tierra

Miller Elementary School is having a star party for 100 students and family members. The school is located at 6900 S Camino de la Tierra Road. Go south on Camino de la Tierra 1/2 mile. Set up on the basketball courts. **Three volunteers with scopes are needed for this event.**

Agua Caliente Park Public Star Party

Feb 17 (Sat) Set-up: 6:00 PM
NE Tucson Observing: 6:30 PM to 8:30 PM
Leader: Jim Knoll Volunteers Needed: 4
Cross Streets: Roger/Soldier Trail

We are supporting a public star party at Agua Caliente Park for the Pima County Natural Resources, Park & Recreation. About 50 people attend these regularly scheduled star parties at the Agua Caliente Park. The park is located at 12325 E Roger Road. This is near Soldier Trail. Setup will be at the bus lanes at the north end of parking lot. **Three more volunteers with scopes are needed for this event.**

Girl Scouts of Southern Arizona (GSSA) Star Party

Feb 17 (Sat) Set-up: 5:30 PM
NE Tucson Observing: 6:00 PM to 8:00 PM
Leader: Jim Knoll Volunteers Needed: 3
Cross Streets: Sabino Canyon/Cloud

The GSSA Astronomy Club is having a star party for 50 members at the Hacienda Center at 3101 N Sabino Canyon Rd. The Hacienda Center is located 100 yards south of Cloud Rd on the west side of Sabino Canyon Rd. Set up is on the volleyball courts at the back of the facility. **One NSN/Toolkit volunteer and 2 volunteers with scopes are needed for this event.**

TAAA Outreach Events (cont.)

UA Astronomy Department Star Party

Feb 18 (Sun) Set-up: 6:30 PM
Far West Tucson Observing: 7:00 PM to 9:00 PM
Leader: Jim Knoll Volunteers Needed: 5
Cross Streets: Kinney Road/Mile Wide

We're hosting a star party for UA students taking general sciences astronomy course. About 50 students are expected to attend this event held at the Red Hills Visitor Center at Saguaro National Park West. This is located at 2700 N Kinney Rd. Set up at the parking lot next to the Visitor Center. **Five volunteers with scopes are needed for this event.**

Ironwood Picnic Area Public Star Party

Feb 24 (Sat) Set-up: 6:00 PM
Far West Tucson Observing: 6:30 PM to 8:30 PM
Leader: Jim Knoll Volunteers Needed: 3
Cross Streets: Kinney/Gates Pass

We are supporting a public star party at the Ironwood Picnic Area in Tucson Mountain Park. About 50 people attend these regularly scheduled star parties at the Ironwood Picnic Area. This is located at 7300 West Hal Gras Rd, which is off Kinney Road just south of Old Tucson Studios. Setup will be near the restroom facilities, about 3/4 of the way in from Kinney Road. **Two more volunteers with scopes are needed for this event.**

Announcements

- TAAA Open or Opening Positions:
 - Introductory Speaker Member Coordinator
 - Blog Writer for TAAA Website
 - TAAA Equipment Loaner Coordinator
 - Astronomy Fundamentals SIG (AFSIG) Coordinator
 - Grand Canyon Star Party (GCSP) South Rim (SR) Manager
 - If you want to be considered for any of these positions, e-mail benbailey@tucsonastronomy.org.
- The February **Board of Directors Meeting** will be held on February 14th at 6:30 PM in the UMC Cafeteria, Rm 2500F (1500 N Campbell Ave).
- **Have you signed up for Member Planet?** This is where the TAAA Member's Only online information can be found. It's where you can learn about member's events, renew your membership online, renew magazine subscriptions, pay Astronomical League membership dues, and update your contact information. For information about accessing this information through Member Planet, send an email to [membership\[at\]tucsonastronomy.org](mailto:membership[at]tucsonastronomy.org).
- **Meeting refreshments are provided by fellow members. We need volunteers for calendar year 2018. A signup sheet will be at the meeting.** Be sure to thank them for the goodies. John Christensen coordinates this important aspect of our meetings—contact him if you want to bring refreshments. The TAAA reimburses up to \$25 (receipts not required). Duties can be shared. Contact John at [refreshments-coordinator\[at\]tucsonastronomy.org](mailto:refreshments-coordinator[at]tucsonastronomy.org).
- **Monthly Bulletin** deadlines are the 15th of the preceding month. Email all submissions to [taaa-newsletter\[at\]tucsonastronomy.org](mailto:taaa-newsletter[at]tucsonastronomy.org)