#### September 2018

**Observing our Desert Skies** since 1954



www.tucsonastronomy.org

# Event Bullet

September 7th General Meeting

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

#### Introductory Presentation

6:30pm Seasonal Night Sky Objects presented by Mary Turner, TAAA Chief Observer

Invited Lecture 7:30pm Are We Alone: Extraterrestrial Technological Life in Our Galaxy presented by Dr. Robert Strom, Professor Emeritus, University of Arizona

Mary Turner, TAAA's appointed Chief Observer, takes us on a tour of the spring night sky. As usual in her popular talks, Mary's use of astronomical data, images, and mythology brings the seasonal changes in the sky to life.

Retired after 36 years of teaching and research at UA, Dr. Strom remains active in research; his main interest is the planets, global warming, and exoplanet life. Dr. Strom holds numerous awards, including six from NASA, as well as the Career Distinguished Teaching Award from UA. He's been part of many Imaging and other Science Teams for space missions, and brings us a wealth of knowledge, experience, and wisdom.

In Dr. Strom's talk, he evaluates the number of technological civilizations likely to currently be in the Milky Way Galaxy, and presents a thought-provoking argument for why we are almost surely not alone. He begins with our current estimated number of Earth-like planets in the habitable region of Sun-like stars; about 6.6 billion. Using a modified Drake Equation and six constraints, he gives estimates that are "optimistic", "pessimistic" and "unlikely." Even "unlikely" values give over 600 technological civilizations in the Milky Way. Furthermore, almost all of their extra-solar system technologies are probably much more advanced than ours.

#### NOTES FROM THE PRESIDENT

Inside this Bulletin

**CAC Star Party** Sep 7 & 8

**TIMPA Star Party** Sep 8 & 14

**AFSIG Meeting** Sep 13

SIMSIG Meeting Sep 17

Ladies Night Out Sep 20

Announcements Page 5

The TAAA Board met on August 8, 2018. Many activities are underway at CAC, and the Board requested an update on all current and upcoming CAC activities and events. An update to Members regarding CAC activities and events for 2018 will be presented at the October 5th 6:30 Member meeting. The Board also began a discussion of whether to affiliate with the Astronomers Without Borders organization, and more information on that scheduled organization is to be reviewed by the TAAA Board at its October 10th meeting.

Want to help expand essential funds to maintain programs without having to raise dues?

The Fundraising team needs help to cultivate longterm relationships with a select small group of potential Foundations. Minimal grant writing and no telephone calling. This is a critical capability for the health and sustainability of TAAA. Contact Mike McDowell in his capacity as Fund-Raising Chair at cacdirector@tucsonastronomy.org.

Our TAAA paid star party program - Tucson Stargazing Adventures - portion of the TAAA website has been updated to reflect our new direction. The marketing team will be canvasing local resorts over the next several months to expand our services and raise additional funds to support club operations. Check out the updated web http://tucsonastronomy.org/communitypage at: services/tucson-stargazing-adventures/. Continued on Page 5

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# This Month in Brief

Key: TAAA Members Only

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	Sep 6 (Thu) Quest for Education & Arts 7570 N Paseo Del Norte	7:00 PM
Outreach Star Party SE Tucson Jim Knoll	Sep 7 (Fri) Esmond Station K-8 9400 S Atterbury Wash Way	7:00 PM
General Meeting Mae Smith	Sep 7 (Fri) Steward Obs. Rm N210 933 N Cherry Ave	6:30 PM
CAC Star Party Mike McDowell	Sep 7/8 (Fri/Sat) Chiricahua Astronomy Com- plex	Sunset
TIMPA Star Party Dennis McMacken	Sep 8 (Sat) TIMPA 3250 N Reservation Rd	Sunset
Outreach Star Party Elfrida AZ Jim Knoll	Sep 11 (Wed) Elfrida Public Library 10552 N Hwy 191	7:00 PM
AFSIG Meeting (Beginners) Dennis McMacken	Sep 13 (Thu) USGS Bldg Room 253 520 N Park Ave	7:00 PM
TIMPA Star Party Dennis McMacken	Sep 14 (Fri) TIMPA 3250 N Reservation Rd	Sunset

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Public Star Party NE Tucson Jim Knoll	Sep 15 (Sat) Agua Caliente Park 12325 E Roger Rd	7:00 PM
Outreach Star Party NE Tucson Jim Knoll	Sep 15 (Sat) Amity Foundation Circle Tree Ranch 10500 E Tanque Verde Rd	7:00 PM
Outreach Star Party Central Tucson Jim Knoll	Sep 17 (Mon) Catalina High School 3645 E Pima St	7:00 PM
SIMSIG Meeting Terri Lappin	Sep 17 (Mon) Beyond Bread 3026 N Campbell Ave	7:00 PM
Outreach Star Party SE Tucson (Vail) Jim Knoll	Sep 19 (Wed) Ocotillo Ridge Elementary 10170 S White Lightning Ln	7:00 PM
Ladies Night Out Susan O'Connor	Sep 20 (Thu) Le Rendez-vous 3844 E Fort Lowell Rd	6:30 PM
Outreach Star Party East Tucson Jim Knoll	Sep 20 (Thu) Sigma Alpha Sorority 1013 E University Blvd	7:30 PM
Outreach Star Party NW Tucson Jim Knoll	Sep 27 (Fri) Pusch Ridge Christian 9500 N Oracle Rd	7:30 PM

For Organization

**Public Events** 

# **Future Events**

Member Events		
Oct 5 (Fri)	General Meeting	
Oct 5/6 (Fri/Sat)	CAC Star Party	
Oct 6 (Sat)	TIMPA Star Party	
Oct 10 (Wed)	Board Meeting	
Oct 11 (Thu)	AFSIG Meeting	
Oct 12 (Fri)	TIMPA Star Party	
Oct 18 (Thu)	Ladies Night Out	

Outreach Events	
Oct 3 (Wed)	Cooper Center - Soleng Tom Elementary
Oct 6 (Sat)	Sunnyside Peace Garden Library
Oct 8 (Mon)	Fellowship Square
Oct 12 (Sat)	Elfrida Library
Oct 13 (Sun)	Agua Caliente Park
Oct 13 (Sun)	Catalina State Park
Oct 20 (Sat)	Boy Scouts of Southern Arizona
Oct 22 (Mon)	Cooper Center - Ochoa Elementary
Oct 23 (Tue)	Cooper Center - Wrightstown Elementary
Oct 25 (Thu)	Cooper Center - Gale Elementary
Oct 26 (Fri)	Chiricahua National Monument



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# **Special Interest Group (SIG) Activities**

# Astro-Imaging SIG (AISIG)

#### Meeting: TBD

Email: astro-photo[at]tucsonastronomy.org

Interested in Astronomical Imaging? Come to the next AISIG Meeting. New and experienced Astrophotographers welcome!! To assist with the Astro-Imaging Special Interest Group planning and organization, contact Tom Rolfsmeyer at mrolf@earthlink.net.

# Astronomy Fundamentals SIG (AFSIG)

Meeting: Sep 13 (Thu)

6:30 PM

U.S.G.S. Building, Room 253 (520 North Park Ave) Contact: Connor Justice Group email: fundamentals[at]tucsonastronomy.org, Leader email: elliot.c.justice[at]gmail.com

Come join us for a presentation from the fundamentals of amateur astronomy. Kay Lehman talk about the northern constellation Cetus, followed by Doug Smith who will be giving a break down on The Mechanics of Clock Drives for our main presentation.

The AFSIG is 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 Connor know, so we can schedule you in. Is there a topic you would like to hear about or do you to present but need help finding a topic? Shoot us an email at fundamentals[at]tucsonastronomy.org

The AFSIG, is for all TAAA members who want to learn about and share the multiple aspects of the hobby. It is not just for beginners or new members, though, of course, it is one of the best way for them to learn about the club and hobby. Please come and share in the fun, whether to learn something new or share some hard won knowledge.

The USGS Building is on the northeast corner of Park and 6th Street. Free parking is available in University parking lots nearby after 5pm. The closest free parking is on the south side of 6th Street. From Sixth Street turn south on Park, turn left into the alley behind The China Pasta House to get into the parking lot. Or, park at the meters, they are also free after 5 PM. Don't park at permit only spaces. The meeting room is on the second floor; use the stairway in the central courtyard. An elevator is available on request. Contact Dennis McMacken at 520-609-7860 or email Connor



Starry Messengers SIG-Opening Minds to the Universe

6:30PM

Meeting: Sep 17 (Mon) Beyond Bread (3026 N Campbell Ave) 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. 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

#### Sep 7 & 8 (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

#### Sep 8 & 14 (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 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-spvolunteers@tucsonastronomy.org or 520-241-3113. lf interested in being an Astronomy Guide and presenting projects from the Night Sky Network Outreach Toolkits, contact Terri Lappin at smsig@tucsonastronomy.org.

#### Quest for Education & Arts Star Party Sep 6 (Thu) NW Tucson Observi Leader: Jim Knoll Cross Streets: Oracle/Ina

Set-up: 6:30 PM Observing: 7:00 PM to 8:30 PM Volunteers Needed: 4

Quest for Education & Arts is having a star party for 300 K-8 students at their facility at 7570 N Paseo Del Norte. In addition to the star party a Welcome Back Carnival will be taking place. Four volunteers with scopes are needed for this event.

Esmond Station K-8 Star Party		
Sep 8 (Fri)	Set-up: 6:30 PM	
SE Tucson	Observing: 7:00 PM to 8:30 PM	
Leader: Jim Knoll	Volunteers Needed: 4	
Cross Streets: Houghton/Mary Ann Cleveland		

Esmond Station is having a star party supporting STEAM Night for 200 students in K-8 and their family members. Esmond Station K-8 is located at 9400 S Atterbury Wash Way. The viewing location will be on the Field, NOT the normal location of the basketball court. No more volunteers with scopes are needed for this event.

#### Elfrida Library Star Party Sep 11 (Tue) Set-up: 6:30 PM Elfrida AZ Observing: 7:00 PM to 8:30 PM Leader: Jim Knoll Volunteers Needed: 2 Cross Streets: Hwy 191/Gleeson Rd

TAAA is supporting a star party for about 50 people at the Elfrida Public Library. The library is located at 10552 N Hwy 191. I-10 or Dragoon Road to Hwy 191. South to Gleeson Road (south of 181). From Gleeson & Hwy 191, go south 1/2 mile. Turn right just past the Health Clinic and then turn a hard left and go around behind the community center. The Library is located there. Set up outside the library. **Two volunteers with scopes are needed for this event.** 

# Agua Caliente Park Public Star PartySep 15 (Sat)Set-up: 6:30 PMNE TucsonObserving: 7:00 PM to 9:00 PMLeader: Jim KnollVolunteers Needed: 4Cross Streets: Roger/Soldier Trail

We are supporting a public star party at Aqua Caliente Park. 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. **Four volunteers with scopes are needed for this event.** 

# Amity Foundation Circle Tree Ranch Star PartySep 15 (Sat)Set-up: 6:30 PMNE TucsonObserving: 7:00 PM to 9:00 PMLeader: Jim KnollVolunteers Needed: 3Cross Streets: Tanque Verde/Houghton

The Amity Foundation is having a star party at Circle Tree Ranch located at 10500 E Tanque Verde Rd. About 70 people ages 7 to 70 are expected to attendk. Go east on Tanque Verde Rd about 1/4 mile. The sign to Amity will be on the right. Setup will be at the center fo the compound. **Two more volunteers with scopes are needed for this event.** 

# TAAA Outreach Events (Cont.)



Catalina High School Star Party Sep 17 (Mon) Set-up: 6:30 PM Cental Tucson Observing: 7:00 PM to 9:00 PM Leader: Jim Knoll Volunteers Needed: 2 Cross Streets: Alvernon/Pima

The Catalina High School is having a star party for about 20 students. The school is located at 3645 E Pima St. From Alvernon go west on Pima to the school. The viewing Location is on the basketball courts east of the football field. **Two volunteers with scopes are needed for this event.** 

Ocotillo Ridge Elementary School SOLAR/Star Party		
Sep 19 (Wed)	Set-up: 4:30 PM	
SE Tucson (Vail)	Observing: 5:00 PM to 7:00 PM	
Leader: Jim Knoll	Volunteers Needed: 3	
Cross Streets: Rex Molly/Camino Loma Alta		

Ocotillo Ridge Elementary School is having a solar/star party and NSN Toolkit demonstration for 300 students. Sunset is not until 6:24 but will have a daytime Moon to view. If someone wants to do solar, that would be great as well. Ocotillo Ridge Elementary School is located at 10170 S White Lightning Ln. From Rex Molly Rd and Camino Loma Alta turn onto Rex Molly Road and follow until paved road ends & dirt road begins. Left onto South White Lightning Lane to school . Three volunteers with scopes and one NSN Toolkit volunteer are needed for this event.

Sigma Alpha Sorority @ UA	Museum	
Sep 20 (Thu)	Set-up: 7:00 PM	
Central Tucson	Observing: 7:30 PM to 8:30 PM	
Leader: Jim Knoll	Volunteers Needed: 3	
Cross Streets: Campbell/University		

The Sigma Alpha Sorority is having a star party at the UA Museum for about 60 members. The museum is located at 1013 E University Blvd on the UA campus. Three volunteers with scopes are needed for this event.

Cub Scout Pack 219 Star Party @ Rattlesnake Ridge		
Elementary School		
Sep 27 (Thu)	Set-up: 6:30 PM	
NW Tucson (Marana)	Observing: 7:00 PM to 8:30 PM	
Leader: Jim Knoll	Volunteers Needed: 3	
Cross Streets: Silverbell/Continental Reserve		
Cub Scout Pack 219 is having a star party for 70 scouts at		
	y School. The school is located at	
8500 N Continental Reserve	Loop. From Ina/N Silverbell Rd, go	

Rattlesnake Ridge Elementary School. The school is located at 8500 N Continental Reserve Loop. From Ina/N Silverbell Rd, go north on Silverbell past Cortaro & Wade. Turn left on the SECOND Continental Reserve Loop road. The school will be on the left. Reminder: Ina/I-10 closed. Access Silverbell from Sunset/I10 or Ruthrauff Rd (south of Ina) or Cortaro (north of Ina). Observing will be on the Basketball courts. Three volunteers with scopes are needed for this event.

#### NOTES FROM THE PRESIDENT CONT.

If you know of a private organization that could use our services, please refer them to the website or to Jim Knoll atstargazing@tucsonastronomy.org.

#### TAAA Trivia!

TAAA Trivia Q.1: Who was TAAA's 18th President?

TAAA Trivia Q.2: What TAAA club member was awarded Master Observer status at the recent July Astronomical League Convention in Minnesota? (Trivia answers below.)

The September TAAA Board meeting will be on Wednesday the 12th at Banner University Medical Center in meeting Room C (bordering the Cafeteria). Members are welcome to attend. At Board meetings, a member may give a five-minute presentation to the Board on any area of concern or a suggestion that they have for the Board. In planning the schedule for the next Board meetings, the Board will consider that topic and decide about placing it on the Board Agenda for further consideration. Members wishing to make a 5-minute presentation to the Board should contact Mae Smith atssmith@email.arizona.edu a week (Wed, September 5th) prior to the meeting to get on the schedule.

#### Answer to Trivia Q1:

Bob Gilroy was TAAA's 18th President serving from June 2013 through May 2015. Bob was a diligent and passionate President who was instrumental in organizing the Astronomy Fundamentals course, re-organized the Treasurer position, helped establish our new website, began recording and posting member meeting lectures, and spearheaded the development of the Nomination and Volunteer Resource Committee (NVRC). Bob will be missed, but his contributions live on.

#### Answer to Trivia Q2:

Paul Anderson was awarded Master Observer status at ALCON 2018. Although Paul and Cathy moved back to their home state many months ago, they still maintain their TAAA membership.

### Announcements

- The September **Board of Directors Meeting** will be held on September 12th 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.
- Holiday Party! The TAAA Holiday Party will be held at the Foley home December 1st.
- Astronomical League Workshop. Doug Smith is holding a workshop for people pursuing Astronomical League Programs on August 25th. You may contact Doug at dsmith217@cox.net.
- CAC Star-B-Que! Will be Saturday October 6th. Save the date.
- Volunteer needed to serve as TAAA Refreshment Coordinator. This person organizes volunteers to bring refreshments for each Member Meeting. Thanks to John Christensen for having done this job for several years and for doing an excellent job, but John cannot continue at present. To help out, please contact Mae Smith at ssmith@email.arizona.edu.
- Volunteer needed to edit and post videorecordings of Member Meetings. Contact Mae Smith at ssmith@email.arizona.edu.
- Web comments, suggestions or problems, contact our team atwebteam@tucsonastronomy.org.
- Monthly Bulletin deadlines are the 15th of the preceding month. Email all submissions to taaa-newsletter[at]tucsonastronomy.org

