

December 2019

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TUCSON AMATEUR ASTRONOMY ASSOCIATION

# Monthly Events Bulletin

## December 6th General Meeting

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

### **Introductory Presentation 6:30pm**

*Minor Policy Updates,  
Review and Training  
presented by  
Mae Smith, TAAA President*

TAAA President Mae Smith will give a presentation on the group's Minor Policy updates, review and training. Minor Policy procedures are to be fully enacted throughout TAAA by January 1, 2020. Mae's talk will include updates on any changes to the policy, reviews of responsibilities of members and leaders, and review of the procedures for TAAA members involved in the different TAAA activities. Attendance at this meeting will count as training in the fundamental minor policy course for TAAA leaders and members and as the required annual review for leaders who previously took the training.

### **Invited Lecture 7:30pm**

*Remote Observatory Operation,  
the good, the bad, and the ugly:  
or what can go wrong with your  
observatory?  
presented by Tim Hunter,  
TAAA Member/Past President*

Tim Hunter has been an amateur astronomer since 1950, and he is the owner of two observatories, the 3towers Observatory and the Grasslands Observatory (<http://www.3towers.com>). He also considers himself "a prime example of someone whose hobby has run amok, spending more time and money on it than common sense would dictate." Tim is a Past President of the TAAA and a member of the TAAA since 1975. He is the immediate past Chair of the Board of Trustees of the Planetary Science Institute (PSI). For decades, he has been interested in the growing problem of light pollution. In 1987, he and Dr. David Crawford founded the International Dark-Sky Association, Inc. (IDA). IDA is a nonprofit corporation devoted to promoting quality outdoor lighting and combatting the effects of light pollution.

Tim's talk will describe his experience owning and operating the Grasslands Observatory near Sonoita, Arizona. As Tim explains: "The observatory was founded in 1987 and evolved from a mainly visual use facility to three remotely operated telescopes used for astrophotography." He will illustrate the evolution of the observatory, and discuss remote telescopic operations in general and how his three telescopes—a PlaneWave CDK24 24-inch f/6.5 telescope, an ASA 20-inch f/3.6 telescope, and a Takahashi Epsilon 180 f/2.8 telescope—are remotely operated from Tucson and used for various astrophotographic projects. As Tim explains, "Remote telescope operation is quite possible and offers great convenience with respect to travel and sleeping. It comes with considerable costs including monetary as well as the need for constant attention to maintain the operation. Things can and will go wrong. One must be prepared to respond to the gravest of contingencies at a remote location in the darkest hours of the night."

### Inside this Bulletin

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Dec 7

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Dec 19

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Dec 21 & 27

CAC Star Party  
Dec 27 & 28



**Current Campaign: Perseus - December 18 to 27**

Visit [globeatnight.org](http://globeatnight.org)

## **PRESIDENT'S MESSAGE**

The last month has been exceptionally busy for TAAA. This time of year is a very active time for Star Party requests and programs using Night Sky Toolkits. For instance, Jim Knoll (and his volunteers) had 4 star parties scheduled for this week (although some were canceled due to the rain). TAAA volunteers were tremendously busy, as well, at other times this month, covering intermissions with telescope viewing for 12 of the 15 nights (Dr. Tom Fleming from Steward Observatory covered three of the nights) of the recent "Silent Sky" play (about Henrietta Levitt) performed by the Tucson Temple of Music and Art. Some of our members also took advantage of the group rates for the play obtained for TAAA by Vince Baker. In addition to all our regular member activities this month, we had 52 participants who had a great time at the CAC Star-B-Que. There was also an Evening Under the Stars Event (held every six months) that hosts a star-party at CAC for residents of the Cochise Community. The Mercury Transit TAAA event at Brandi-Fenton Park had a steady flow of community participants as well as about 12 telescopes (offering views of Mercury with a wide variety of filters (It must have been dazzling to first time viewers to see all the colors available!) and at least 3 Starry Messenger TAAA volunteers with other activities for children. There were also TAAA and GCSP participants at the two-day Tucson annual International Dark-sky Association yearly conference. TAAA, also, placed two more telescopes in Pima Public Libraries (Golf Links and Valencia Libraries) this month.

As always, TAAA's greatest asset is its tremendous volunteers who so generously share their time, knowledge, hearts, and ingenuity to do so much with such quality. While TAAA Volunteers give all year long, this has been a particularly active time. THANK YOU, THANK YOU, THANK YOU to all TAAA's Volunteers!!!!!!

## **Steven M Gootter Foundation**

### **Donates AED to TAAA**

We are pleased to announce that we have recently received an AED (Automated External Defibrillator) from the Steven M Gootter Foundation. Since 2009 the Foundation has donated and distributed hundreds of AEDs to schools, police and sheriff departments, places of worship, recreational and public places throughout Southern Arizona.

Should the need ever arise, this generous, lifesaving gift will be available for use, at The TAAA Chiricahua Astronomy Complex (CAC). For more information on the work of the Steven M Gootter Foundation visit [www.gootter.org](http://www.gootter.org).

## **Astronomical League Workshop**

We are having another Astronomical League Workshop on Saturday, December 14, from 10 am until noon at the Martha Cooper Library. The library is located at 1377 N. Catalina Ave (1 block east of Columbus and two blocks north of Speedway).

We will be in the "small" conference room (holds 20+). No reservations are required. This workshop is for those interested in starting an astronomical league observing program and those who are having trouble getting started on a program.

Please bring any questions about the programs and any materials you are using or need help with.

## **Announcements**

- The November **Board of Directors Meeting** will be held on Wednesday, December 11th, at 6:30 PM at Banner UMC Hospital, Room C off the hospital 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 at [ssmith@email.arizona.edu](mailto:ssmith@email.arizona.edu)** a week (the Wed.) prior to the meeting to get on the schedule
- **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).
- **Web comments, suggestions or problems**, contact our team at [webteam@tucsonastronomy.org](mailto:webteam@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)
- **Equipment Loaner program.** Contact Ralph Means at [elc@tucsonastronomy.org](mailto:elc@tucsonastronomy.org), or 520 460-8770 or [bookbuyer1769@gmail.com](mailto:bookbuyer1769@gmail.com) to check out a telescope, lenses or other equipment. You may try one type or size of telescope, return it, and try another one until you have tested all the scopes in our loaner program. Very helpful for choosing a first telescope or for moving to a new option.

## Upcoming Activities

### This Month's Events

### This Month's Events Continued

Key:	TAAA Members Only	For Organization	Public Events
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Outreach Star Party SE Tucson Jim Knoll	Dec 4 (Wed) UA Tech Park 9070 S Rita Rd (Bldg 9052)	5:00 PM
Outreach Star Party South Tucson Jim Knoll	Dec 5 (Thu) Rivera Elementary School 5102 S Cherry Ave	6:00 PM
General Meeting Mae Smith	Dec 6 (Fri) Steward Observatory 933 N Cherry	6:30 PM
AISIG Meeting Tom Rolfsmeier	Dec 9 (Mon) Total Wine and More 4370 N Oracle Rd	6:30 PM
Outreach Star Party East Tucson Jim Knoll	Dec 11 (Wed) Murphy-Wilmot Library 530 N Wilmot Rd	5:30 PM
Outreach Star Party NW Tucson (Marana) Jim Knoll	Dec 12 (Thu) Butterfield Elementary 3400 W Massingale Rd	5:30 PM
Outreach Star Party SW Tucson Jim Knoll	Dec 12 (Thu) Mission Manor Elementary 600 W Stand Rosa St	6:00 PM
AFSIG Meeting (Beginners) Connor Justice	Dec 12 (Thu) USGS Bldg, Rm 253 520 N Park Ave	6:30 PM

AFSIG Meeting (Beginners) Connor Justice	Dec 12 (Thu) USGS Bldg, Rm 253 520 N Park Ave	6:30 PM
Outreach Star Party NW Tucson Jim Knoll	Dec 13 (Fri) Catalina High School 7570 N Thornydale Rd	6:30 PM
Ladies Night Out Susan O'Connor	Dec 19 (Thu) Firebirds 2985 E Skyline Dr	
Public Star Party NE Tucson Jim Knoll	Dec 21 (Sat) Agua Caliente Park 12325 E Roger Rd	6:30 PM
TIMPA Star Party Connor Justice	Dec 21 (Sat) TIMPA 3250 N Reservation Rd	Sunset
TIMPA Star Party Connor Justice	Dec 27 (Fri) TIMPA 3250 N Reservation Rd	Sunset
CAC Star Party Mike McDowell	Dec 27/28 (Fri/Sat) CAC 9313 E Perseus Way	Sunset
Public Star Party Far West Tucson Jim Knoll	Dec 28 (Sat) Ironwood Picnic Area 7300 Hal Gras Rd	6:30 PM

January Member Events	
Jan 3 (Fri)	General Meeting
Jan 8 (Wed)	Board Meeting
Jan 9 (Thu)	AFSIG Meeting
Jan 16 (Thu)	Ladies Night Out
Jan 20 (Mon)	SIMSIG Meeting

January Outreach Events	
Jan 17 (Fri)	Carrillo Magnet K - 5
Jan 17 (Fri)	Cholla High School
Jan 18 (Sat)	Agua Caliente Park
Jan 23 (Thu)	Rattlesnake Ridge Elementary
Jan 24 (Fri)	Miller Elementary
Jan 25 (Sat)	Ironwood Picnic Area



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### Benefits of Night Sky Network Membership

All TAAA members are eligible for a Night Sky Network account. There is no additional cost to you and it gives you access to these and more services. If you haven't activated your Night Sky Network account, contact the treasurer or Terri Lappin. To log into your

**Observing Planning Tools**



**Telecons with NASA/JPL Scientists**





**Upcoming Events**

It's free with your TAAA Membership!

**Developed and Managed by the Astronomical Society of the Pacific**



## Special Interest Group (SIG) Activities

### Astronomy Fundamentals SIG (AFSIG)

**Meeting: December 12 (Thu) 6:30 PM**

USGS Building, Rm 253  
520 N Park Ave  
Contact: Connor Justice  
Group Email: [fundamentals\[at\]tucsonastronomy.org](mailto:fundamentals[at]tucsonastronomy.org)  
Leader Email: [Elliot.c.justice\[at\]gmail.com](mailto:Elliot.c.justice[at]gmail.com)

Come join us for a presentation from the fundamentals of amateur astronomy. For our main topic, Vince Baker will be discussing Atacama Large Millimeter Array. The constellation of the month has not yet been determined.

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 that 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](mailto:fundamentals[at]tucsonastronomy.org)

The Astronomy Fundamentals Special Interest Group, 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 ways 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. There is a fee to park in the Sixth Street parking garage to the east. 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 Justice (see above).

### Astro-Imaging SIG (AISIG)

**Meeting: December 9 (Mon) 6:30 PM**

Location: Total Wine and More (4370 N Oracle)  
Contact: Tom Rolfsmeyer  
Group email: [astro-photo\[at\]tucsonastronomy.org](mailto:astro-photo[at]tucsonastronomy.org)  
Leader email: [mrolf@earthlink.net](mailto:mrolf@earthlink.net)

If you are interested in astro-imaging, in being involved in planning, or in learning about it, please participate in these meetings.

TAAA Astro Imaging SIG (AISIG) Meetings usually occur on the 3rd or 4th Tuesday of the month, but the date and time may vary (please check the Events Calendar). We meet at Total Wine and More, 4370 N. Oracle Rd. If you are just getting into imaging the night sky or a veteran astroimager, AISIG is the group to ask questions, share your expertise and present your latest efforts. Best of all, the group decides what topics to address at upcoming meetings.



Starry Messengers SIG-  
Opening Minds to the Universe

**Meeting: January 20 (Mon) 6:30 PM**

Contact: Terri Lappin  
Phone: 520-977-1290  
Email: [smisig@tucsonastronomy.org](mailto:smisig@tucsonastronomy.org)

Please consider becoming involved with the Starry Messengers SIG. Our special interest is astronomy outreach. We will value your input and your time.

We have had several requests for astronomy demonstrations this fall. We're a small group and not nearly enough of us to cover all the requests. Unfortunately, this means we need to disappoint some kids. We're always in need of additional volunteers to cover the demand for hands-on learning. There are about 50 different activities to choose from and we can provide one-on-one training, or you can learn from a DVD. You'll work with a partner or can work alone once you feel comfortable with an activity. Some requests are for daytime events, but most are in the evenings.

With the support from a generous TAAA member and the Astronomical League, the Starry Messengers have established a loaner telescope program with the Pima County Public Library. We are very pleased with the public's response to the program and are told by the librarians that the scopes are always checked out.

### TAAA Ladies Night Out

Thursday, December 19

Great Conversation! 6:30 pm Delicious Food!

Firebirds

2985 E Skyline Dr

(E Side Upper level of La Encantada

Second Left off Campbell for parking)

Preview menu at

<https://tucson.firebirdsrestaurants.com/>

RSVP Susan @ [cyzeh@aol.com](mailto:cyzeh@aol.com)

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## 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.

### TIMPA

#### Dec 21 & 27 (Sat & Fri)

Contact Person: Ralph Means

Email: [fundamentals\[at\]tucsonastronomy.org](mailto:fundamentals[at]tucsonastronomy.org)

Email: [bookbuyer1769@gmail.com](mailto:bookbuyer1769@gmail.com)

Phone: 520-460-8770

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!

### Chiricahua Astronomy Complex

#### Dec 27 & 28 (Fri & Sat)

Contact Person/RSVP to: Mike McDowell

Email: [cac-director\[at\]tucsonastronomy.org](mailto: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 Mike McDowell. Reservations are on a first come – first serve basis. You need to reserve for both nights if observing both nights.

## Astronomical League Observing Programs



The Astronomical League Observing Programs are designed to provide direction for your observing, teaching you skills useful for the full enjoyment of our hobby. Each program has a set of requirements. Upon completion of the requirements, you qualify for a certificate and are awarded a pin. This program is only for those who are members of the Astronomical League.

Upon completing the requirements for a program, submit your observations to the TAAA ALCOR. Our ALCOR will review them and then forward them onto the appropriate program coordinator for further review. If they are complete you will be awarded your certificate and pin at one of our meetings.

For more information, ask our ALCOR or visit <http://www.astroleague.org/observing.html>

Our ALCOR is Doug Smith

### Beginner Programs

- ◆ Binocular Double Star Program
- ◆ Binocular Messier Program
- ◆ Constellation Hunter Program
- ◆ Dark Sky Advocate Award
- ◆ Deep Sky Binocular Observing Program
- ◆ Galileo Observing Program
- ◆ Lunar Observing Program
- ◆ Messier Observing Program
- ◆ Meteor Observing Program
- ◆ Outreach Observing Award
- ◆ Sketching Observing Award
- ◆ Sky Puppy Program
- ◆ Solar System Observing Program
- ◆ Southern Skies Binocular Program
- ◆ Universe Sampler Program

### Intermediate Programs

- ◆ Advanced Binocular Double Star Observing Program
- ◆ Asteroid Observing Program
- ◆ Caldwell Observing Program
- ◆ Carbon Star Observing Program
- ◆ Comet Observing Program
- ◆ Double Star Observing Program
- ◆ Earth Orbiting Satellite Observing Program (EOSOC)
- ◆ Globular Cluster Observing Program
- ◆ Lunar II Observing Program
- ◆ Open Cluster Observing Program
- ◆ Planetary Transit Special Observing Award
- ◆ Southern Skies Telescope Observing Program
- ◆ Sunspotters Observing Program
- ◆ Stellar Evolution Observing Program
- ◆ Two in the View Observing Program

### Advanced

- ◆ Advanced Binocular Program
- ◆ Analemma Observing Program
- ◆ Arp Peculiar Galaxies Northern Observing Program
- ◆ Asterism Observing Program
- ◆ Bright Nebula Observing Program
- ◆ Dark Nebula Observing Program
- ◆ Galaxy Groups and Clusters Observing Program
- ◆ Herschel 400 Observing Program
- ◆ Herschel II Observing Program
- ◆ Hydrogen Alpha Solar Observing Program
- ◆ NEO Observing Program
- ◆ Occultation Observing Program
- ◆ Planetary Nebula Program Observing Program
- ◆ Radio Astronomy Observing Program
- ◆ Variable Star Observing Program
- ...and more including the Master

## 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](mailto: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 [msig@tucsonastronomy.org](mailto:msig@tucsonastronomy.org).

## TAAA Outreach Events (Cont.)

**Thank You Volunteers!**

Potential Contacts This Month: 1100

Volunteers Needed This Month: 29

### UA Tech Park Star Party

Dec 4 (Wed)

Set-up: 4:30 PM

SE Tucson

Observing: 5:00 PM to 7:00 PM

Leader: Jim Knoll

Volunteers Needed: 5

Cross Streets: I-10/Rita Rd

VThe UA Tech Park is having a star party for 300 adults. The Tech Park is located at 9070 S Rita Rd (Bldg 9052). Go North on Rita Rd to Science Park Drive. Left (west) on Science Park Dr. Pass the security gate to first stop sign. Turn left and follow signs to Bldg 9052. Park in loading dock area to unload telescopes and receive further direction. Viewing Location: Building 9052 Patio. **Three more volunteers with scopes are needed for this event.**

### Mission Manor Elementary School Star Party

Dec 12 (Thu)

Set-up: 5:30 PM

SW Tucson

Observing: 6:00 PM to 8:00 PM

Leader: Jim Knoll

Volunteers Needed: 4

Cross Streets: South 12th/Valencia

Mission Manor Elementary School is having a star party for 200 students from K - 6. The school is located at 600 W Stand Rosa St. Go north on 12th. Mission Manor is on the left (west) of 12th and north of Santa Rosa. Setup on the playground. **Three more volunteers with scopes will be needed for this event.**

### Rivera Elementary School Star Party

Dec 5 (Thu)

Set-up: 5:30 PM

South Tucson

Observing: 6:00 PM to 7:30 PM

Leader: Jim Knoll

Volunteers Needed: 4

Cross Streets: Irvington/Campbell

Rivera Elementary School is having a star party for 200 students. The school is located at 5102 S Cherry Ave. Go south on Campbell and turn right (west) on Wyoming St to Cherry Ave. Setup on lower playground next to building. **Four volunteers with scopes are needed for this event.**

### Catalina High School Star Party

Dec 13 (Fri)

Set-up: 5:30 PM

Central Tucson

Observing: 6:00 PM to 8:00 PM

Leader: Jim Knoll

Volunteers Needed: 3

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: Basketball Court. To access, drive through parking lot to NW corner and exit through gate than north along east side of football field to the basketball courts to the north. **Three volunteers with scopes are needed for this event.**

### Murphy-Wilmot Public Library Star Party

Dec 11 (Wed)

Set-up: 5:00 PM

East Tucson

Observing: 5:30 PM to 7:30 PM

Leader: Jim Knoll

Volunteers Needed: 2

Cross Streets: Speedway/Wilmot

Murphy-Wilmot Public Library is having a star party for people of all ages. The library is located at 530 N Wilmot Rd. Go south on Wilmot and the library is on the left (east) side of the street. Setup on the grassy area behind the library. **One more volunteer with scope is needed for this event.**

### Agua Caliente Park Public Star Party

Dec 21 (Sat)

Set-up: 5:30 PM

NE Tucson

Observing: 6:00 PM to 8:00 PM

Leader: Jim Knoll

Volunteers Needed: 4

Cross 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. **Three more volunteers with scopes are needed for this event.**

### Butterfield Elementary School Star Party

Dec 12 (Thu)

Set-up: 5:00 PM

NW Tucson (Marana)

Observing: 5:30 PM to 7:30 PM

Leader: Jim Knoll

Volunteers Needed: 4

Cross Streets: Ina/Thornydale

Butterfield Elementary School is having a star party for 200 students. The school is located at 3400 W Massingale Rd. Go east on Ina from Thornydale to Meredith Rd and north on Meredith Rd to Massingale Rd. Set up on lower playground next to building. **Four volunteers with scopes are needed for this event.**

### Ironwood Picnic Area Public Star Party

Dec 28 (Sat)

Set-up: 5:30 PM

Far West Tucson

Observing: 6:00 PM to 8:00 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. **One more volunteer with scope is needed for this event.**