

June 2020

Observing our Desert Skies  
since 1954



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TUCSON AMATEUR ASTRONOMY ASSOCIATION

# Monthly Events Bulletin

## General Meeting June 2020

### TAAA June Meeting

Join Zoom Meeting at:

<https://arizona.zoom.us/j/96670009698>

Join by SIP:

[96670009698@zoomcrc.com](mailto:96670009698@zoomcrc.com)

Join by Skype for Business:

<https://arizona.zoom.us/skype/96670009698>

#### ***Invited Lecture***

***The Smallest and Faintest  
Galaxies: Clues to the Nature of  
Dark Matter and Galaxy  
Formation  
presented by  
Dr. Burçin Mutlu-Pakdil  
University of Arizona***

Dr. Burçin Mutlu-Pakdil studies the most peculiar objects in the Universe. Her research has led to a discovery of an extremely rare galaxy with a unique circular structure, which is now commonly referred to as Burçin's Galaxy. Her work has provided the first description of a double-ringed elliptical galaxy, introducing new challenges for our understanding of galaxy formation and evolution. Mutlu-Pakdil earned her Ph.D. at the University of Minnesota, and her undergraduate degree is from Bilkent University in Turkey. She is currently a postdoctoral research associate at the University of Arizona, a 2018 TED Fellow, and 2020 TED Senior Fellow. Her findings have been featured by CNN, Science Daily, Astronomy Magazine, Independent, and MPR News, among many others. Damon Brown wrote in his regular Inc. Magazine online column: "Many organizations are dedicated to filling the STEM pipeline with more girls and women. Others are supporting the cause by being an example. TED Fellow Burçin is representing by being one of the most notable astrophysicists today."

Dr. Mutlu-Pakdil will talk about the smallest and faintest galaxies around the Milky Way, which are the most ancient, most metal-poor, and most dark-matter-dominated systems known. These extreme objects offer unique access to small scales where the stellar and dark matter content can be studied simultaneously and hold the promise of major breakthroughs in understanding the nature of dark matter, and a more complete picture of galaxy formation. Thus, their discovery and characterization are among the most important goals in the field. She will share her team's ongoing observational efforts to detect these faint systems around the Milky Way and beyond, and upcoming advances in the era of deep and wide imaging instrumentation.

#### ***Topical Lecture***

***Conducting Virtual Star Parties  
presented by  
Jim Knoll, TAAA Member and Star  
Party Coordinator***

As you may be aware, Jim has been leading our TAAA Team for Virtual Star Parties and he will share experiences with you.

## **PRESIDENT'S MESSAGE**

Substantial progress has been made in the last month. That progress has been due to dedicated work of our TAAA leaders, members and Board. A rewarding highlight in May was resuming our first Friday Member Meeting on Zoom. At least 69 members attended the meeting. It featured an interesting astronomy presentation, and we also had some enjoyable and pleasant interaction with some informational and discussion questions where attendees provided input. Thank you for your participation and for all the supportive comments. We plan to continue Zoom (but not in-person) Member Meetings through the summer (the University is not scheduled to open up until fall), and we hope you will be able to join us either by computer or by phone. The information to join the Zoom Member Meetings will be sent to you through the regular Member Planet email system.

You may wish to note that the Virtual Grand Canyon Star Party is definitely in process. The hope is to be able to offer online 8 nights of activities that occur on the same dates as the 2020 GCSP was scheduled to occur: June 13th through June 20th. Some of the plans are in developmental stages at this point, but a number of people are working hard trying to get things done and organized. As you know, Jim Knoll and Bernie Stinger have already engineered some TAAA virtual star parties. Jim O'Connor has added his participation and, hopefully, they will be able to provide some TAAA virtual star-parties for the virtual GCSP event. We will send you emails and update you about the progress of the 2020 Virtual Grand Canyon Star Party.

### **The May TAAA Board Meeting (via Zoom) included:**

A preliminary budget was passed. (Note: No one yet really knows what expenditures and income will exist from July 2020 – June 2021. However, we do need some kind of approved budget to allow us to pay continuing bills -- like electricity, etc. When needed we can make revisions to the preliminary budget.

A COVID 19 individual use-policy for CAC was approved supporting limited/individual use. Note that at present we cannot offer training, supervision and immediate post-use inspection in the rules and procedures for opening, closing and operating individual aspects of the site; thus, potential individual users must have thoroughly demonstrated such skills previously. Also, cleaning and sanitization of the site has always been done by TAAA members, leaders, hosts, etc. TAAA has no budget for any cleaning services. Any persons using CAC during COVID 19 do so with the understanding that they must provide their own cleaning and sanitization of anything at the CAC site. (TAAA will provide cleaning solution WHEN WE CAN GET IT.) **So, approved users use the site at their own risk.** Persons interested in learning more about the rules and making reservations and can contact the CAC Director for more information at [CAC-Director@tucsonastronomy.org](mailto:CAC-Director@tucsonastronomy.org)

The TAAA Board was unable to pass policies at this time for the use of TIMPA because the City TIMPA Board that rents the site to us has not finished deciding what policies we must follow. This item will be reviewed again at the TAAA June Board meeting.

Some options were discussed for holding the TAAA election online. A decision was made not to follow that avenue at the present time.

TAAA will pursue having a free YouTube Account to post some virtual activities and established a committee to work on TAAA virtual activities and on storing copies of them.

TAAA plans to set up a virtual meeting for TAAA leaders on Zoom.

**President's Notes On Adapting to COVID-19 continued on page 5.**

## **Message From Radar Lane**

**Dear volunteer astronomers,**

**We hope you will join us in celebrating the Virtual Grand Canyon Star Party 2020, June 13-20!** We are all sad that we cannot be on site this year but we plan to showcase our outreach abilities in the virtual realm. Grand Canyon National Park's Facebook page has around 600,000 followers so our outreach potential is great.

The National Park Service, Tucson Amateur Astronomy Association, and Focus Astronomy have created **4 sessions of "virtual star parties"** that we plan on **"premiering" on Grand Canyon National Park's Facebook Page**. If you are unfamiliar, a "premiere" means that people online watch a video together at a scheduled time which allows for comments to be made and answered as the video is playing. This is where we all come in.

**Our goal for outreach this year is to get as many of us to "attend the premieres" as possible.** That way, we can stoke the interaction of our online audience by asking questions and answering questions as our volunteer astronomers take us on a tour of the summer sky. Please consider following Grand Canyon National Park's Facebook page to get notifications about the events. I will send out a specific schedule of the online events next week via email so we will all know exactly when the videos will premiere. Once we finalize the event schedule, share it far and wide!

The virtual star parties are between one hour and ninety minutes each. The experiences involve using telescopic video feeds to point out and discuss deep sky objects. Each broadcast focuses on 10-12 objects that would have been visible from the Grand Canyon Star Party.

We also plan on recording **our special guest speakers** through video conferencing websites. We will be premiering those as well—I encourage everyone to participate in the **chat rooms** for those videos too. Again, **anticipate a specific schedule soon.**

I want to thank **Mae Smith, Jim O'Connor, Jim Knoll, Bernie Stinger, Ed Foley, and Kevin Legore** for taking the time to create these fantastic virtual experiences and representing the Grand Canyon Star Party with such professionalism, passion, and expertise.

**Let's demonstrate our dedication and passion for our special event by convening in the virtual realm this year.** Together, we will keep the flame of enthusiasm lit so that by this time next year, we will hopefully have inspired everybody from the virtual world to visit us on site at one of the greatest night sky festivals in the National Park Service.

To be sure to not miss out on the excitement, please "like" Grand Canyon National Park's Facebook page and stay tuned for announcements about Virtual Grand Canyon Star Party 2020. And again, stay tuned for specific schedules soon.

[https://www.facebook.com/GrandCanyonNationalPark/about/?ref=page\\_internal/](https://www.facebook.com/GrandCanyonNationalPark/about/?ref=page_internal/)

**Respectfully,  
Rader Lane  
Park Ranger—Interpretation  
Grand Canyon National Park**

## Astronomical League Observing Programs

### What's Up List for June and July 2020

Fellow amateur astronomers. We can still be active astronomers. While TIMPA and CAC may be closed, we can still observe from our backyard. Many of the Astronomical League observing programs can be done from our backyards. The following is a list of objects visible thru mid May for the more common observing programs.

### Constellation Hunter Program – Northern Sky

The following constellations are well placed for observing for June and July:

**Bootes**

**Corona Borealis**

**Draco**

**Ursa Minor**

**Hercules**

**Serpens Caput**

**Serpens Cauda**

### Messier Observing Program

The following Messier Objects are well placed for observation during June and July (listed in ascending RA):

**M51, M101, M5, M4, M107, M13, M12, M10, M62, M19, M92, M9, M14, M6, M7, M23, M20, M8, M21, M24, M16, M18, M17, M28, M25, M69, M22, M70, M26, M11, M57, M54**

If you find M101, take credit for M102 also (duplicate entry).

### Urban Observing Program

The following deep sky objects are well placed for observing during June and July:

**M3, M5, M4, M13, NGC 6210, M62, M92, M6, IC 4665, M7, NGC 6520, M8, M17, NGC 6633, M22, M11, NGC 6709, M57**

The following Double Stars are well placed for observation during June and July:

**Beta Scorpius, Epsilon Lyra**

### Lunar and Binocular Lunar Observing Program

The following is a list of the dates for the lunar phase when observations should be made June and July:

New Moon: June 21, July 20

40 Hours waxing: June 23, July 22

72 hours waxing: June 24, July 23

4 days old: June 25, July 26

7 days old: May 30, June 28, July 27

10 days old: June 2, June 30, July 30

Full (14 days old): June 6, July 5

Gibbous: June 12, July 12

72 hours waning: June 18, July 17

40 hours waning: June 19, July 18

40 hours waning: April 21, May 20

### Solar System Observing Program

The following list describes the various solar system objects and their visibility during April and early May:

**Mercury** goes from an evening object in early June to a morning object in July.

**Venus** is a bright morning object and moves further from the Sun in July.

**Jupiter and Saturn** rise earlier each night and cross the zenith just after midnight by the end of July.

**Mars** rises late but very high in the sky by 4am.

**Uranus** rises very late and does not reach its zenith until after sunrise.

**Neptune** rise late but before Mars.

*by Douglas Smith*

## TAAA Trivia!

**NOTE:** Sometimes people have questions, comments, or additional information related to content in the TAAA Trivia. If you do, contact Mae at [ssmith@email.arizona.edu](mailto:ssmith@email.arizona.edu).

**Trivia :** Some time ago a lot of work was put into the development of TIMPA.

**Question 1a:** What did the original restrooms at TIMPA look like?

**Question 1b:** What do the current restrooms at TIMPA look like?

**Question 1c:** How was the change made and who was involved?

**Answers are on page 6.**

# 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

## 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

## Night Sky Network



## 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 Night Sky Network account, visit <http://nightsky.jpl.nasa.gov/login.cfm>

Easy online discounted magazine subscriptions



Track Your Volunteer Hours & Mileage



## Observing Planning Tools

Night Sky Planner October 31, 2015



IN THE SKY  
Halloween ghost of the summer sun



Telecons with NASA/JPL Scientists

FOLLOW THE NIGHT SKY NETWORK	
EVENTS IN YOUR AREA	
7:30 PM - 8:30 PM Mon 11/23/14 community event	Explore the Night Sky SC Regional Library 275 N Greenfield Rd Gilbert, AZ
6:30 PM - 9:00 PM Tue 11/24 community event	August General Meeting Reverend Observatory/Landmark Hall 303 N Chino Valley Rd Tucson, AZ
7:30 PM - 8:30 PM Mon 11/23/14 community event	Explore the Night Sky SC Regional Library 275 N Greenfield Rd Gilbert, AZ

## Upcoming Events

It's free with your TAAA Membership!



Developed and Managed by the Astronomical Society of the Pacific



## 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

**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

**Contact Person/RSVP to: John Mead**  
**Email: [cac-director\[at\]tucsonastronomy.org](mailto:cac-director[at]tucsonastronomy.org)**  
**Phone: 618-521-4270**

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.

### Adapting to COVID-9

Many of our TAAA Leaders have been finding ways to cope with COVID-19 to carry on TAAA activities and serve TAAA Members even though some of it is behind-the-scenes work. (Please note that this is an incomplete list.)

- Tom Rolfsmeyer and Gregg Ruppel, Astroimaging SIG send regular emails to their regular attendees with items of interest, individual images, etc. AISIG is currently having monthly virtual meetings on Zoom.
- Doug Smith, ALCOR, compiling and sending to the Bulletin, "What's Up for June and July 2020" for five popular AL observing programs.
- Terri Lappin, Starry Messenger SIG Coordinator: coordinating with SARSEF to arrange changes in judging; coordinating cancelling TFOB as well as cancelling the venue for Astronomy Day Event. Conducting SMSIG virtual meetings; working on TAAA virtual options for astronomy education.
- John Mead, Strategic Planning Group Coordinator was our first leader to set up regular meetings on Zoom.
- Terri Lappin, Steward Observatory Room Coordinator and Technology Operator: arranging, managing and hosting Zoom for TAAA General Member Meetings, assisting with Virtual club events and recordings, and providing expertise and assistance for other TAAA Zoom Activities.
- Doug Smith, Astronomy Fundamentals SIG Team, supplying information to the Bulletin relevant to AFSIG Member observing activities.
- Jim Knoll, School/Nonprofit Star Party Manager, Tucson Stargazing Adventure Coordinator, and Facebook Coordinator: Managing the development and implementation of a virtual star party event structure Interfacing with Facebook.
- Working on that system and Implementing it with Bernie Stinger and Jim O'Connor with Susan Knoll assisting. Working with that team to provide Virtual Grand Canyon Star Party videos. Working with Starry Messengers on Virtual activities.
- Ed Foley, Chuck Hendricks, Mike McDowell, Mae Smith, TAAA Grand Canyon Star Party Committee; and Don Cain, Jim Knoll, Susan Knoll, Bernie Stinger, Telescope Field SubCommittee. (Meetings via telephone). Working on considerations in holding the GCSP.
- Ralph Means, TIMPA On-Site Coordinator and John Mead, TAAA Representative to TIMPA Board, coordinating with all parties and supervising TIMPA changes and site welfare.
- Mike McDowell, CAC Director and Construction Supervisor, supervising both CAC site welfare and current CAC Construction Project adapting to COVID-19 Implications. Administering new CAC Covid-19 policies.
- David Rossetter, Ken Bertschy, Dale "Sandy" Nicholas, Ben Bailey, NVRC: (Meeting via Skype) worked extremely hard in thoroughly reviewing the TAAA election process and exploring implications of various decisions in managing the TAAA elections in light of Covid-19: a very hard task and an excellent job!!
- Ed Foley, Chuck Hendricks, Mike McDowell, John Mead, Ralph Means, Doug Smith, Mae Smith, TAAA Board: (Using telephone meeting and emails and currently, ZOOM) making responsible decisions in response to Information from government officials regarding TAAA activities and responsibilities during this time; Coordinating with NVRC in making decisions regarding handling the TAAA Election; sending emails to members with any updates related to Covid-19 impacts on TAAA.

**Thanks to all our leaders and members for getting us through this unusual and challenging period of time!**

## Trivia Answers!

Trivia Question 1a: Below is a picture of the original restroom facilities at TIMPA: (Picture provided by John Kalas.)



Trivia Question 1b: Below is a picture of the current three-room restroom facilities at TIMPA. (Photo after completion of building in March 2001 taken by and provided by John Kalas.)



Trivia Question 1c: John Kalas was TAAA President from June 1998 through May 2001. During those years a lot of effort was put into the TIMPA observing site. John Polacheck (a TAAA member, model plane operator, and very involved dark-skies person) was an active TIMPA advocate and successfully lobbied the TAAA Board to establish a joint arrangement with the TIMPA Board to share use of the facility. There was agreement that the restroom facilities needed upgrading from the rental, plastic stalls then in use, and that the two groups would share in the expense of that effort. The model plane group supplied free work from some of their qualified members including a mason, an electrician and a plumber, plus half of the expense. TAAA contributed some labor, \$8,000 in cash, and John Polacheck on behalf of TAAA donated all of the outside decorative chocolate-brown cement blocks that frame the entire building. The only blocks that were purchased were the ones for the interior walls separating the 3 sections. John Polacheck (and his wife, Faye) were dedicated TAAA Members and were known for their annual Spring Solstice parties. We miss them both. John died November 25, 2019 (Faye had died earlier.). For years to come we certainly will appreciate TIMPA and those restrooms!!!