

# TAAA DESERT SKIES BULLETIN

Observing Our  
Since



Desert Skies  
1954

January 2022

[www.tucsonastronomy.org](http://www.tucsonastronomy.org)

## Membership Meeting

January 7 @ 6:30 pm - 9:00 pm

TAAA's next general member meeting will be held online on Friday, January 7, 2022. The Main Presentation starts at 6:30 PM, followed by Mary Turner's popular Seasonal Night Sky Presentation. They will be followed by a Members Only Meeting. The Main Presentation and Night Sky Presentation are open to the public via Facebook at <https://www.facebook.com/TucsonAstronomy/>. Members should attend the meeting via Zoom. The Zoom link will be sent to members before the meeting.



## Main Presentation at 6:30 AZT

### Dark Skies in Southern Arizona: Past, Present and Future.

John Barentine, astronomer, historian, and policy-maker will present on the global dark-skies movement. That the movement effectively began in the Tucson area is no surprise given its long astronomical history. In his presentation, John will review regional achievements to date and the challenges we face in the coming decade that involve the balance of managing growth and sustaining astronomy's contribution to the local economy. Lastly, he will touch on satellite 'megaconstellations', an issue not limited to our region but of increasing concern to professional and amateur astronomers alike.

**Biography:** John Barentine is the Principal Consultant at Dark Sky Consulting, LLC, and was formerly the Director of Public Policy for the International Dark-Sky Association. He earned a Ph.D. in astronomy from the University of Texas at Austin, and previously held staff positions at the National Solar Observatory, Apache Point Observatory, and the Sloan Digital Sky Survey. Throughout his career, he has been involved in educating the public about science. He is a member of the American Astronomical Society and the International Astronomical Union, and is a Fellow of the Royal Astronomical Society. The asteroid (14505) Barentine is named in his honor. His interests outside of astronomy and light pollution research include history, art and architecture, politics, law and current events.

---

[David Rossetter](#) – Editor

Terri Lappin & Jim Knoll - Proofreading

Greg Ruppel -Images; Ken Bertschy – Graphics

### December 2021

Both members and the public have expressed a lot of interest in enjoying the skies, but clouds have also been plentiful. Thanks to all the star party volunteers who have been patiently waiting it out to see if tonight is a “go” or “no go” event.

We had a nice and joyful Holiday Party with 22 people attending, some of whom had not seen each other in person since COVID began. A number of members watched the JWST launch on Christmas day and are proceeding into the latest new era of astronomy data collection at the same time that we are getting daily reports on the U.S. progression of the Omicron COVID variant. It seems to be an era of searching for perspective.

The TAAA Board of Directors met on December 8th and the following items are from that meeting. Perspectives shared in the **President's Report** included:

1. **New Member Services.** Services to New Members have been recently addressed with the results that Terri Lappin is assuming the former position of Member Coordinator (previously held by Vern Dunlop prior to his moving) and will assist new members with Member Planet and initial enrollment. Susan O'Connor is resuming her former position as New Member Coordinator and will be providing updated TAAA material to new members. David Rossetter will continue to deal with advanced issues regarding Member Planet and Bob Reynolds will address new member questions received through the website. These four areas will coordinate efforts to support New Members.

2. **The Giving Tuesday Campaign** was completed with five fund-raising emails. In 2019 the Giving Tuesday Campaign asked donors to identify their donations specifically as part of that campaign and between \$9,000 and \$10,000 was collected. The 2021 campaign did not request donors to designate their gifts as part of the Giving Tuesday Campaign. However, \$6,100 was specified as being part of that Campaign.

3. **TAAA Minor Policy:** Prior to COVID TAAA had completed its Minor Policy and had conducted trainings with members. However, with the changes in in-person events implementation of the TAAA Minor policy was placed on hold. With the increases in star party events, other educational events and interactions with children, TAAA is updating the minor policy training and implementation. **In the first quarter of 2022, a TAAA MINOR POLICY Fundamentals training will be provided at a TAAA Member Meeting and practices will be implemented.**

4. To answer questions: The group in the VAIL area calling themselves “Reach for the Stars” is not part of TAAA or of the previous TAAA Program called “Reach for the Stars.”

5. The work in December on preparing for joint in-person and Zoom Member meetings went well and in the next quarter the coordinators of the TAAA Zoom meetings will conduct a trial TAAA meeting in the meeting room while all other TAAA Members are on Zoom.

6. **TIMPA** work is continuing and a white border has recently been painted on the concrete pads to improve the delineation of the pad perimeters both to assist astronomers and to deter others from parking on the cement.

7. **The Grand Canyon Star Party** is still planned as a 2022 in-person event June 18-25th.

Some items addressed by the TAAA Board at the December 2021 meeting included:

A. COVID status was continued as is, with a later post-meeting follow-up decision made to require vaccination for attendance at the TAAA Holiday Party event held at a member's home.

Substantial sales of unused items were completed prior to the Holiday event, so the limited remaining items served as door prizes.

B. The Member Observatory Project at CAC is in process as observatory spaces gradually fill up. Coordination with Backyard Observatories is in process. The Current Construction Project continues to be delayed due to illness of the contractor with COVID.

C. The Nominations and Volunteer Resource Committee presented to the Board suggestions related to the elections process that encompassed 5 major areas. The Board voted to support presenting resolutions for Bylaws changes to the membership that would involve: a) extending term of office of Board officers to two years with a staggering election process of 4 members of the Board elected in one year and the remaining 3 members of the Board elected the next year and b) to prohibit two members of the same family or living together from serving on the Board during the same period. Other NVRC recommendations were tabled for discussion at future meetings.

D. The Board reviewed current procedures for publishing images provided by AISIG in the newsletter and recommended some changes, including the need for clear review by and permission from the Member who took the picture for publication of the final image.

E. Review of the Starry Messengers TFOB Science City proposal for projects for 2022 was tabled until the January meeting.

F. The TAAA Board is, in general, supportive of establishing an official TAAA Field Trip Activity at Biosphere with specifics to be determined.

## School/Public Star Party Requests

**January 2022**

**by Jim Knoll**

Thank you for volunteering your time and talents for our extremely important outreach mission. Below is the Star Party list for January, 2022. Please let me know if you can support any events listed below. If you are new to Star Party outreach, let me know and we'll be sure to help you get started. It is important you sign up for star parties if you plan to attend, whether you bring a scope or help in other ways, so I can manage who from TAAA will be on-site and for you to be included in any reminder or weather emails.

The public Astronomy Events are also listed on the TAAA ([tucsonastronomy.org](http://tucsonastronomy.org)) and Night Sky Network (NSN) ([nightsky.jpl.nasa.gov](http://nightsky.jpl.nasa.gov)) calendars. Also, all PUBLIC star parties will be listed on the TAAA Facebook events page and will be updated based on weather, etc. in real-time. You can follow any of those events and get a notification when I update the event. Again, this is only for PUBLIC star parties listed on Facebook.

### **Saturday January 8 -- NORTHEAST TUCSON**

**Agua Caliente Park;** 12325 E Roger Road, 85749

Age/Grade Level: All Ages; # Participants: 503 Additional  
Scopes Needed (Jim Knoll & Bernie Stinger scheduled)

Setup: 5:45 pm. Start: 6:30 pm. End: 8:30 pm.

Nearest Moon Phase: First Quarter

Directions: Tanque Verde Road east past Houghton to  
Soldier Trail. Go about two miles north to Roger Rd.  
Turn east for about 1/2 mile to the Park on the left (north).  
Viewing Location: Bus Lanes (north end of parking lot).

### **Tuesday January 11 -- NORTH CENTRAL TUCSON**

**Satori Charter School,** 3727 N 1st Ave

Age/Grade Level: Grades 6 - 8; # Participants: 40

Nearest Moon Phase: First Quarter

2 Scopes Needed; 1 NSN Toolkit - Dark Skies (Teacher  
may present but would be good to have a TAAA volunteer  
to assist if needed)

Setup: 5:30 pm. Start: 6 pm. End: 8 pm.

Directions: From Prince & 1st Ave, north on 1st ~ 1/8 mile  
(just north of E Pasttime Rd. School is on left.

Viewing Location: Playground.

### **Friday January 14 - FAR SOUTH (GREEN VALLEY)**

**Canoa Ranch,** 5375 S I-19 Frontage Road

Age/Grade Level: All Ages; # Participants: 50

2 Additional Scopes Needed (Jim Knoll scheduled)

Setup: 5:30 pm. Start: 6:30 pm. End: 8:30 pm.

Nearest Moon Phase: Between First Quarter & Full

Directions: I-19 South to Exit 56. Cross under the  
interstate and take the frontage road north to the park  
entrance. Viewing Location: To Be Determined

### **Thursday January 20 -- NW TUCSON (Marana)**

**Butterfield Elem. School,** 3400 W Massingale Rd.

Age/Grade Level: K - 6; # Participants: 80

3 Scopes Needed; Setup: 5:30 pm. Start: 6 End: 7:30

Nearest Moon Phase: Between Full & Third Quarter

Directions: Ina/N Thornydale, east on Ina to N Mededith

Bldv. North to W Massingale Rd. West (Left) to the school  
on the right side, corner of W Massingale Rd & Eunice St.  
Viewing Location: Lower playground,  
paved area next to the building.

### **Thursday January 20 -- WEST TUCSON**

**Toleson Elementary @ Cooper Center for**

**Environmental Learning;** 5403 W Trails End Rd.

Age/Grade Level: Grade 4; # Participants: 25

2 Scopes Needed

Setup: 6:15 pm. Start: 7 pm. End: 8:30 pm.

Nearest Moon Phase: Between Full & Third Quarter

Directions: West on Grant Rd, becomes Silverbell,  
becomes Ironwood Hills Drive, dead-ends at Camino De  
Oeste. Turn south. ALTERNATE: West on Speedway west  
of I-10. North on Camino De Oeste. Both paths: Turn  
west on Trails End Road, follow signs to "Cooper Center".

Viewing Location: Open area near restroom facilities.  
Access the site from the dirt road at the east end of the  
main parking lot (near the dumpsters).

### **Friday January 21 -- DOWNTOWN TUCSON**

**Carrillo Elementary School,** 440 S Main Ave

Age/Grade Level: Grades K-5; # Participants:

3 Scopes Needed; 1 NSN Toolkit requested (Planet Quest  
or another). ; Setup: 5 pm. Start: 5:30 End: 8.

Nearest Moon Phase: Between Full & Third Quarter

Directions: Stone/Broadway. South on Stone, right  
on Cushing Stree (next to Police Department). West  
to stop sign (Main Ave). Left on Main past El Minuto  
restaurant on the corner. The school is on the right.  
Just prior to the school, turn right (south) on Simpson  
St and the next left on Samaniego Ave. You will see a  
gate to the south side of the school. Enter and make  
way through basketball court to the field.

Viewing location: Playground/Field (south end of  
school).

## School/Public Star Parties Continued

**Saturday January 22 -- FAR WEST TUCSON**  
**Tucson Mountain Park Ironwood Picnic Area**  
7300 W Hal Gras Road.

Age/Grade Level: All Ages; # Participants: 50  
(FILLED) 0 Additional Scope Needed (Jim O'Connor,  
Bernie Stinger, Phil Yehle scheduled)

Setup: 5:45 pm. Start 6:30 pm. End: 8:30 pm.

Nearest Moon Phase: Between Full & 3rd Quarter

Directions: On Kinney Road, 1.5 miles south of Gates Pass  
Road or 3.8 miles north of Ajo Way.

Viewing Location: Right side of road (parking pullout)  
near the 2nd restroom facilities (right side of road) at  
the Ironwood Picnic area (3/4 of way into picnic area or  
approximately .6 miles).

**Tuesday January 25 -- ORO VALLEY**  
**Wilson K - 8; 2330 W Glover Rd, 85742**  
Age/Grade Level: # Participants: 150

(FILLED) 0 Scopes Needed (Demonstration Activity Only)  
(Gregg Ruppel scheduled)

Setup: 3 pm. Start: 4 pm. End: 6 pm.

Directions: Ina & La Cholla. North on La Cholla ~6 miles.  
Left (west) on Glover (first light past Naranja before you  
reach Tangerine.

Viewing Location: TBD

**Friday January 28 -- NE TUCSON**  
**Tanque Verde Elementary School**

2600 N Fennimore Ave.

Age/Grade Level: Grades K - 5; # Participants: 75  
3 Scopes Needed; Setup: 6 pm. Start: 6:30. End: 8.

Nearest Moon Phase: New

Directions: East on Tanque Verde past Houghton Road.  
Continue past 49er Country Club to Fennimore (Hawk  
crossing light). Turn north to the school.

Viewing Location: Behind school.

## Special Interests Groups

### Astronomy Fundamentals SIG

*by Connor Justice*

The next meeting is **January 13th at 6:30 pm - 8:00 pm**. Topics to be determined.  
Contact [Conner Justice](#) for Zoom link and more information.

### [AFSIG on the Web](#)

Access videos of previous meetings through the Members Only section of the TAAA web site.

### TAAA Ladies Night Out

*by Susan O'Conner*

TAAA Ladies Night Out

Thursday, January 20, 6:30pm

Giuseppe's  
6060 N Oracle Rd  
(E side of Oracle just N of Rutasill – behind Eileen's)

Preview the menu at <https://giuseppes.com/menu/>

RSVP [Susan](#)





## ***Starry Messengers Special Interest Group***

### ***Opening Minds to the Universe***

The Starry Messenger SIG will begin meeting monthly in 2022. Our next Starry Messengers SIG meeting will be held via Zoom on Monday, January 10th at 7pm. The Zoom link will be sent via email to TAAA members.

We have two upcoming public events this spring. The Tucson Festival of Books/UA ScienceCity will be held the weekend of March 12 & 13 and the TAAA Astronomy Festival will be on Saturday, April 9th. We'll also provide awards at the SARSEF Regional Science and Engineering Fair being held in late February and early March. We will be looking for volunteers for all events.

Our meetings in January, February and March will be devoted to getting ready for these spring outreach events. The February and March meetings will be in-person (COVID conditions permitting). This will allow us to test our activities for these spring events.

We plan to hold other in-person meetings later in the year to give TAAA members an opportunity to learn some of our outreach activities. We want to encourage all TAAA members to help support the demand for activities at schools and other locations. Most of these activities take maybe 5 minutes to do with the public. They're designed for grades 4 and up, including adults, though some can be adapted to younger ages. We have over 100 separate activities from about a dozen themed Night Sky Network Toolkits, plus some activities we've created or adapted from other sources.

Anyone interested in learning toolkit activities should contact [Terri Lappin](#) (or 520-977-1290). Toolkit topics can be reviewed on the TAAA website (<http://tucsonastronomy.org/community-services/teachers-corner/>).

[Terri Lappin](#)    [SMSIG on the Web](#)

### ***Astro-Imaging SIG***

***by Gregg Ruppel***

The next AISIG meeting is **Monday, January 17 @ 7:00 pm** via ZOOM. AISIG meetings going forward will be on the 3rd Monday of each month. Email [Gregg Ruppel](#) for the ZOOM link or find it in the [TAAA Forum](#).

Check out [AISIG On the Web](#) or contact [Gregg Ruppel](#) for the latest information and Zoom links. Gregg and the AISIG folks are very active on the [TAAA groups.io](#) forum. Check out all the helpful advice and amazing images there. For more information or instructions on how to join the forum, check out the [TAAA Forum](#) web

**Imagers, to help ensure that the TAAA Desert Skies Bulletin has explicit permission to publish your fine work, we need you to submit your images directly to [Gregg Ruppel](#), our Image Editor and Astro-Imaging SIG guru. Or come up with alternative arrangements with Gregg. To keep the bulletin at a reasonable size, we would like you to restrict the size of your images to around 10MB (a little over is okay if needed). That way, I do not have to mess with your files. If you desire, please include a link to the full-size version so our members can see your work in all its glory. Finally, if you do submit an image (or more), I will include you in a pre-publication version of the bulletin for your approval of the quality and layout. Feel free to ask me ([David Rossetter](#) – Desert Skies Bulletin Editor) or [Gregg](#) if you have any questions.**

## December Highlights from the Astro-Imaging SIG



### **Alex Woronow - Sh2-235**

This is a small cloud but with active star formation, so there is some structure. In fact, the small star that is thought to be ionizing the cloud (see the discussion on Astrobin) is blowing the gas away from it (causing arcuate features to the north) and maybe it already punched a hole through the clouds. <https://astrobin.in/jesji8/0/>

# Observing Sites

**CAC & TIMPA are open at full capacity (all pads are open).**

The COVID Rules are posted on the TAAA Website (<http://tucsonastronomy.org>) under the respective observing Site (TAAA Resources, Observing Sites) and contain additional information.

**Remember, reservations are required!** (see below)

## TIMPA

*by Ralph Means*

TIMPA (Tucson International Modelplex Park Association), Dark Sky site west of the Tucson Mountains.

[TIMPA on the Web](#)

**TIMPA Star Party Dates this month: *January 28 and 29***

Location: The TIMPA observing site is located a few miles beyond the Desert Museum.

The TIMPA site is only partially improved. There are no inside buildings provided other than restrooms. TAAA does not provide seating (members are welcome to bring folding chairs). Please note that members visiting the TIMPA site may encounter things commonly found in partially improved desert areas such as desert creatures and/or their remnants (such as gopher holes or ant hills), uneven terrain, weeds and desert pollens. Members using the site are encouraged to bring red lights and to move cautiously taking appropriate safety measures. The site does not have potable water, so bring your own non-alcoholic drinks.

**Please contact the TIMPA Director to make a reservation:** [Ralph Means](#)

## Chirichaua Astronomy Complex

*by Jim Knoll*

**CAC Weekend Dates coming up (Friday/Saturday):**

*December 31, 2021 & January 1, 2022 (New Moon 2nd)*

*January 28 & 29, 2022 (New Moon January 31st)*

**Chirichaua Astronomy Complex (CAC)** is the club's dark observing site, located in Cochise County approximately 100 miles southeast of the center of Tucson. If you would like to attend, **you must make a reservation** (see below).

Unless you are qualified to open and close the site, dates will be limited to those around the New Moon and are listed on the CAC web page. Hosted personnel are generally on site a few days before and after these dates. All facilities are currently open, but the Board will review COVID status each month.

**Reservations:** There is a [reservation form](#) on the website for all CAC reservations. Click [here](#) or click on the TAAA Web Site (<https://tucsonastronomy.org>), then the TAAA Resources tab, CHIRICAHUA ASTRONOMY COMPLEX (CAC) tab, CAC DARK SITE RESERVATIONS tab, and complete the form to make a reservation. Please start using it to make your reservation. After the initial reservation then we can coordinate any changes via email.

CAC Director: [Jim Knoll](#)

[CAC on the Web](#)



## Observing Sites Star Party Dates 2022

### TIMPA

January 28 and 29  
February 11 and 26  
March 25 and 26  
April 2 and 23 and 29  
May 20 and 21. 27 and 28  
June 24 and 25  
July monsoon season no dates set.  
August monsoon season no dates set  
September 23 and 24  
October 21 and 22  
November 18 and 19  
December 16 and 17.

### CAC

January 28 – 29 (New Moon January 31)  
March 4 – 5 (New Moon March 2, CAC Messier Marathon March 5)  
April 1 – 2 (New Moon March 31)  
April 29 – 30 (New Moon April 30; Member Star-B-Que April 30)  
May 27 – 28 (New Moon May 30)  
June 24 – 25 (New Moon June 28)  
July 29 – 30 (New Moon July 28)  
August 26 – 27 (New Moon August 27)  
September 23 – 24 (New Moon September 25)  
October 21 – 22 (New Moon October 25)  
November 25 – 26 (New Moon November 23)  
December 22 – 23 (New Moon December 23)

## Committee Reports

### **MemberPlanet**

The main task of MemberPlanet is to provide membership services related to registering new members, recording renewals, and collecting payments. As the MemberPlanet Manager, I work with the Membership Manager, Treasurer, and other related volunteers. Mae recently appointed a new Membership Manager (Terri Lappin). I have been working with her and her volunteers to transfer some of the detail work in MemberPlanet to that group. This should greatly enhance the efficiency of the membership tasks and services to you.

[David Rossetter](#) - MemberPlanet Manager

### **Nominations and Volunteer Resource Committee**

*by David Rossetter*

The NVRC is getting ready for the Spring, 2022 club elections! Hard to believe this is coming around again. There are some changes coming up this cycle. Some will be announced later but below is what you can expect in the coming months.

As you may know, each year the club holds an election for the governing Board of Directors. This includes President, Vice President, Secretary, Treasurer, and three Members At Large. In addition, we elect two of four members to the Nominations and Volunteer Resource Committee (NVRC) for a two-year term.

Recruiting nominees and running the election are some of the primary duties of the NVRC. And it can be challenging to get qualified members to run for these positions. We send out emails, place notices in the bulletin each month, announcements during meetings, talk to all current and elected and volunteer leaders, and make lots of calls/emails to potential candidates.

This year, to make sure we get good, qualified candidates, and to ensure that all candidates get all the information they need to make informed decisions regarding potential leadership decisions, we are putting together election “packets” for these positions. Each packet will contain job descriptions, expectations, relevant bylaws, other regulations that may govern the jobs, and details of the election process. We hope to have these ready in early January.

In the meantime, please think about how you might serve your fellow TAAA members in an elected position. Details to come! Questions? Contact the [NVRC](#) directly.



December 2021

by Jim Knoll



Ritz-Carlton Dove Mountain  
(Jim Knoll & Ben Bailey)

December was another busy month for our community outreach with 14 events accomplished. This included four schools, two public, and eight paid resort or private events. Our volunteers once again stepped forward with their time, talent, and equipment. We deployed 25 telescopes for 46 hours with 27 volunteers providing 112 volunteer hours providing astronomy education to just over 300 excited participants. This assumes we get in the four paid events the last week of December, which may get weathered out.

The two December public events supported Pima County Natural Resources Parks and Recreation at Agua Caliente Park and Tucson Mountain Park Iroonwood Picnic area. The four school events were at Pusch Ridge, Safford K-8, and two at the Cooper Center for Satori and Hollinger K-8. This time of year it is easy to wow the participants with both Saturn and Jupiter prominently in the night sky. I never get tired of hearing the excitement and the “wow” when someone sees Saturn or Jupiter for the first time! And now we are getting into the Orion Nebula part of the year, allowing participants to see a stellar nursery and “baby” stars in the making.

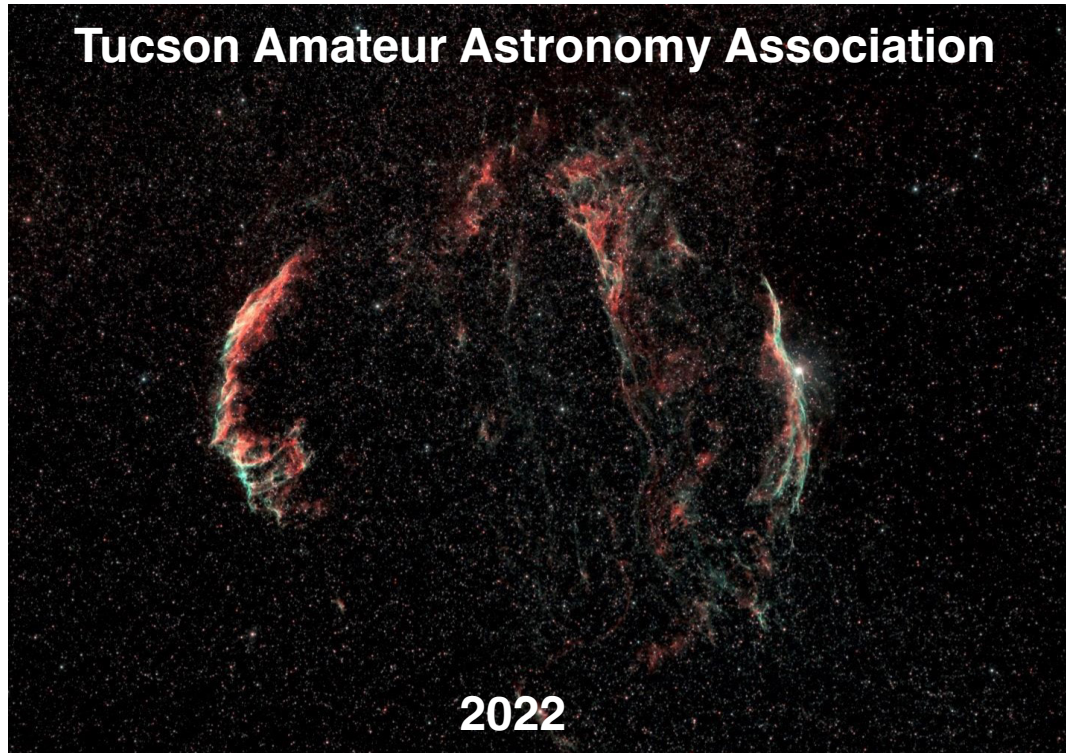


CAC Private Event with 40" Telescope

January (see separate listing in the newsletter) is building to be another very busy month with 17 events scheduled. Normally January – March are the busiest school event period when they are culminating their science studies. This is when they tend to host many of the STEAM (Science, Technology, Engineering, Arts, Math) Festivals and Science Fairs. We will see how things shake out with Covid this year. I am seeing more smaller rather than all school events and we have had a few cancel due to a school or district Covid surges. Weather can also be an issue this time of year. Wish I could get the scheduling down so rain & clouds would be scheduled on non-star party evenings.

Let me know if you want to support any of our outreach events. Please register with me so I know who will be supporting and whether you plan to bring a scope or just observe/attend. If you are new to outreach, we can partner you with someone experienced to get you started. This is a great way to learn the night sky by studying up on 4-5 objects, show them at an event, then learn about 4-5 new ones for the next event. Before you know it, you will have a nice repertoire of night sky objects. We also have Night Sky Network (NSN) Toolkits that are requested by schools that you can learn how to use and demonstrate at an event.

## TAAA 2022 Calendar



The 2022 TAAA calendars are available. Only a few left so hurry! The cost is \$15 each. To order your calendar, please contact: [Susan OConnor](#)



## 2021 HOLIDAY PARTY

The TAAA Holiday party was a complete success. After a year hiatus, the Holiday party was held on Dec 11 - the first time many TAAA members have met since the beginning of the pandemic. The event was a potluck dinner. We thus had a fine assortment of food from Paul L's salads to Paul K's chocolates. A number of new members were in attendance and noted how great it

was to see other members in person rather than as avatars on zoom. This year we hosted a raffle of astronomy related items at the party. The raffled items were donations we had received over the past 2 years that included books, optics and two telescopes. There were enough items that we sent almost every member home with a party remembrance, full bellies and good cheer.

## **What's Up list for January 2022 - February 2022**

Fellow amateur astronomers. Many of the Astronomical League observing programs can be done from our backyards. The following is a list of objects visible during January and February for the more common observing programs.

### **Constellation Hunter Program – Northern Sky**

The following constellations are well placed for observing for January and February:

Auriga, Camelopardis, Canis Minor, Gemini, Lynx, Monoceros, Orion, Perseus, Taurus

### **Messier Observing Program**

Prime time for the winter Milky Way. The following Messier Objects are well placed for observation during January and February (listed in ascending RA):

M45, M79, M38, M1, M42, M43, M36, M78, M37

### **Lunar and Binocular Lunar Observing Program**

The following is a list of the dates for the lunar phase when observations should be made during January and February:

New Moon: January 2, February 1

40 Hours waxing: January 4, February 3

72 hours waxing: January 5, February 4

4 days old: January 6, February 5

7 days old: January 9, February 8

10 days old: January 12, February 11

Full (14 days old): January 17, February 16

Gibbous: January 25, February 23

72 hours waning: January 29, February 28

40 hours waning: January 30

### **Solar System Observing Program**

The following list describes the various solar system objects and their visibility during January and February:

Mercury is an early evening object in January, becoming an early morning in late January & February.

Venus becomes a morning object during the first week of January and throughout February.

Mars rises about 2 hours before sunrise during January and February.

Jupiter sets earlier each night during January and February, disappearing in the evening twilight late February.

Saturn is in evening twilight during January and becomes an early morning object in mid February.

Uranus and Neptune are still well placed for evening observation. Neptune transits around sunset while Uranus transits around 3 hours later.

### **Urban Observing Program**

The following deep sky objects are well placed for observing during January and February:

Tr 3, Stock 23, Mel 20, NGC 1342, M45, Hyades, NGC 1647, NGC 1807, NGC 1817, M38, M36, M42, NGC 1981, M37

The following Double Star is well placed for observation during January and February: Trapezium

The following Variable Star is well placed for observation during January and February: Algol



# Skyward

By David H. Levy  
January 2022



## Imagination and the Astronomical League.

“A Dragon Lives forever, but not so girls and boys.”

Three quarters of a century ago, during the Second World War, the famous Harvard astronomer Harlow Shapley, along with Charles Federer, founding editor of Sky and Telescope Magazine, launched an association of astronomy clubs across the United States. It is called the Astronomical League, and it thrives to this day with more than 100 astronomy clubs. Unlike the national Royal Astronomical Society of Canada, the League is designed to be a more loosely structured organization. According to Carroll Iorg, its current president, one of its most critical and central goals is to inspire the next generation to enjoy the night sky. If that goal should fail. The possibility exists that there may be no Astronomy for future generations.

As part of this vital goal, the Junior Astronomical League, a new subset of the Astronomical League, is now meeting every second Sunday over zoom. But there is something more. My next book will be devoted to those young stargazers. It actually began as a typewritten saga I wrote in 1958 when I was ten years old, and of all the 40 plus books I have written, this is Wendee's favorite. I am now completing a second edition of this book, in which a small group of children go on a stargazing adventure with Clipper, a magic beagle, and with Eureka, an enchanted reflector telescope. They go past the Moon and planets, the stars, the distant superclusters of galaxies, and even the great voids in distant empty space.

In its final chapter, this book explores the theme articulated in the last verse of Peter, Paul, and Mary's eminent song “Puff” “A dragon lives forever, but not so girls and boys.” The children, now grown, go to university. When they complete their college education, the young woman, adept at math and physics, becomes an astronomer, but the young man goes on to become a lawyer. He marries, has children who are now grown themselves, and unhappily gets a divorce. To recover he decides to take a vacation trip to Arizona. Driving his rented car one evening, he pulls off the road, gets out of his car, and looks at the stars. As childhood memories flood back, a second car pulls off. The young woman astronomer gets out of her car. The two cannot believe they are reuniting, and they catch up for hours. Then there is a break in their conversation. As the couple looks up silently at the stars, the magic beagle, and the telescope, appear and take shape. In that one ultimate celestial adventure, the magic of the night has returned.



*Clipper, when he was a puppy, circa 1956. He began his life as a Bar Mitzvah present for David's brother, Richard.*