TAAA Desert Skies Bulletin

Observing Our Desert Skies Since 1954

March 2026

www.tucsonastronomy.org

Membership Meeting

Friday, March 6, 2026 6:30PM

TAAA's next general member meeting will be held on **Friday, March 6, 2026**. The Main Presentation will start at 6:30 PM. This will be a hybrid meeting (both in person and on social media). TAAA members will receive a Zoom link should they wish to attend remotely. The public may attend in person at the **Steward Observatory Lecture Hall (Rm N210), 933 N Cherry Ave, Tucson,** or stream from the TAAA YouTube page.

Inside this issue:

Main Presentation at 6:30PM AZT

Title: **A Cosmic Odyssey: The Epic Journey of our Milky Way Galaxy**

Presentation: Astronomers estimate that approximately one in a thousand galaxies in the nearby universe is in the act of colliding. Although rare locally, we find that galaxy mergers were far more common and produced the majority of all the infrared emission in the early universe. Therefore, studying these rare mergers in our local Universe gives us a window into the galactic train wrecks of the early universe that shaped galaxy evolution. It has been over 100 years since astronomer Vesto Slipher discovered that, unlike every other galaxy we observe, our nearest neighbor, Andromeda, is on a collision course with the Milky Way. In order to understand the fate of our galaxy, observations of hundreds of ongoing galaxy mergers, which have been collected with every major space-based observatory available—e.g. Hubble, Spitzer, Herschel, GALEX, Chandra, and JWST— as part of the Great Observatories All-Sky LIRG Survey (GOALS), are used. These luminous infrared galaxies host the most extreme dust-enshrouded stellar nurseries in the local universe. In this talk, Dr. Sean Linden presents the story of the Milky Way; how the ongoing interaction with Andromeda has shaped it so far, and what we have learned about galaxy mergers in GOALS that allow us to predict what the Milky Way will look like in the future.

Biography: Dr. Sean Linden received his PhD in the Spring of 2020 from the Department of Astronomy at the University of Virginia working with Dr. Aaron Evans and Dr. Eric Murphy at the NRAO. He then moved to a position as a postdoctoral researcher at the University of Massachusetts, Amherst, for three years working with Dr. Daniela Calzetti on studies of star clusters in nearby galaxies with JWST. Sean is currently the Peter A. Strittmatter Prize Postdoctoral Fellow at the University of Arizona, and will be starting a new position as an assistant professor in the School of Physics and Astronomy at Rochester Institute of Technology next Fall.

Dr. Sean Linden
Credit: U of Arizona

Notes From The President

February 2026

by Ed Foley

We are now entering what has become our Astronomy Camp season. We have been hosting students at our eastern dark site for overnight observing programs for more than a decade. In the past, before 2023, the 'Camp' was truly camping. While we had wonderful observing facilities, there were no formal accommodations to house visitors. The sky experience at the site was still so positive we had schools repeatedly attending the camps, one from as far as California.

With the construction of the Learning Center buildings, one building able to house up to 17 visitors and the other with rooms for our volunteers, we began a more comfortable housing experience. We also recently built the Stinger Pad of telescopes, giving us additional optics on site. The Pad additionally provides a gathering place to host volunteer equipment and allow small teams of students to gather to complete their observing tasks.

The programs available to students over the years have expanded from what was a simple star party-like program to sessions with more complex learning activities. Teachers over the years have contributed their ideas to what we have provided. The programs range from simple visual observing and identification of objects (i.e. stars and constellations) to more involved observations and recording of those observations for later discussions. This past year we incorporated the operation of a SeeStar smart telescope into the program for the students to compare their visual observations to this enhanced viewing method. This instrument enables students to create and take home images from the program to share with their friends. With the depth of volunteers we have available at TAAA, we also can bring in speakers to talk on everything from telescope making to the latest NASA missions.

This year, we have three schools scheduled. A grant from the Southwestern Foundation for Education and Historical Preservation enables us to support schools' expenses for these sessions and allows us to expand the capability of the program with equipment like the SeeStar. We have the capacity for as many as six sessions during a school year including additional dates this school year. We continue to promote the availability of the Astronomy Camp to other schools. Should a TAAA member be involved with a teacher or school they think might have an interest in one these programs, they should contact AstronomyCampDirector@tucsonastronomy.org to learn more and get their preferred dates penciled into the calendar.

Ed

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Desert Skies Bulletin
Contributions to Editor: David Rossetter by the 24th.
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The TAAA Board of Directors meets the second Wednesday of every month at 6:30pm. Members are welcome to attend Board meetings. If you would like to attend, you may email Ed Foley to receive a Zoom link for that meeting. Please send your email to Ed by the Monday prior to the meeting (by 5:00pm) and you will receive an email with the link on either Tuesday evening or Wednesday. ALL MEMBERS ARE WELCOME.

Astronomical League Observing Awards for March 2026

by Doug Smith

Below is a list of Astronomical League members who earned AL Observing awards during the month of February 2026:

Christian Weiss – Master Observer Award
Gus Gomez – Lunar Evolution Observing Program
Gus Gomez – Meteor Observing Program (gold)

The NVRC is **seeking potential candidates for elected leader positions this upcoming May. Positions to be voted on include Secretary, Treasurer, 2 Board Members-At-Large and 2 members of the NVRC; all are 2-year terms that will commence June 1, 2026. To-date, the NVRC is aware that the positions of Secretary and at least one member of the NVRC will be open this election and that we will need a few members to step forward and declare their candidacy for either.**

The TAAA Board of Directors is also looking to ramp up member recognition and service awards. As a result, they have asked the Nominating and Volunteer Resource Committee to look for an **experienced member to head up the Recognition Committee.** This person should be familiar with past awards and have ideas for future recognitions. They will need to track past records and work with the committee to determine future awardees. The Recognition Committee already exists. They have met and recorded some ideas of how to move forward. As might be expected, they are some of the busier leaders in the club. They are looking for someone to head the committee's efforts.

The TAAA President is also **looking for volunteers to fill the position of club publicist**. Karen Liptak has filled this position for some time and we certainly thank Karen as she moves on to other endeavors.

Members may review the position descriptions for both elected and appointed leader positions through their Member Planet accounts – from the main Tucson Amateur Astronomy Association webpage, select "Members Only" from the tabs located near the top just below the main search bar; then login with your email/username and password; then scroll down to the 6th item "TAAA Docs and Videos"; select/click, from the "MEMBER ONLY INDEX" page, scroll down and select/click on the 6th item HANDBOOKS and REFERENCE MATERIALS; then finally, click or select on a specific "Job Position Descriptions – TAAA Board" or immediately below, "TAAA Position Descriptions – Leader Descriptions", which are the non-elected volunteer opportunities.

Please contact the NVRC Chair for additional information or if you have questions pertaining to a particular position.

The NVRC encourages **all members to update their Member Planet profile** particularly with respect to volunteer positions or activities they may be interested or seek to participate in.

TAAA Dark Site Needs for the Future

TAAA members enjoy access to two dark sites, each of which are outfitted with facilities including restrooms, observing pads, and telescopes in their own observatories. Over the years, with support of members and the community, the TAAA investment in those facilities has grown to over $1.5 Million. Both our owned site, the Chiricahua Astronomy Complex, and our leased site, TIMPA, are currently in very good condition and repair. However, they are by design in remote locations subject to the unforgiving desert environment.

To understand what will be required to maintain those facilities in good condition, the teams managing each site determined the site needs over the next ten years to maintain the infrastructure and equipment in good repair. This 'reserve analysis' gives an estimate of the painting, repair of roofs, the recoating of mirrors, and replacing certain items of equipment that will wear with use over that ten year period.

Here is the chart the teams assembled showing the ten year overall need for these sites:

TAAA Reserve Analysis of its Dark Sites - December 2025

CAC Reserve Analysis (v.6)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Yr Total
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Needed
Facility Painting	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	10,000
GttG AC Units	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	30,000
RMO AC Unit	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	10,000
Site Electronics	750	750	750	750	750	750	750	750	750	750	7,500
Site Roofing	750	750	750	750	750	750	750	750	750	750	7,500
Exterior Wood Replacements	750	750	750	750	750	750	750	750	750	750	7,500
Mount Updates	500	500	500	500	500	500	500	500	500	500	5,000
Tractor	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	15,000
Mirror Recoatings	1,333	1,333	1,333	1,333	1,333	1,333	1,333	1,333	1,333	1,333	13,330
Mount Replacements	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	10,000
County Road rework	5,000	5,000	5,000	0	0	0	0	0	0	0	15,000
Floor sealing	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	20,000
Replace Shed Doors	150	150	150	150	150	150	150	150	150	150	1,500
32" Painting	300	300	300	300	300	300	300	300	300	300	3,000
32 Software	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	25,000
32 Spares	100	100	100	100	100	100	100	100	100	100	1,000
Annual Reserve Requirements	**21,633**	**21,633**	**21,633**	**16,633**	**16,633**	**16,633**	**16,633**	**16,633**	**16,633**	**16,633**	**181,330**
Cumulative Reserve Requirements	**21,633**	**43,266**	**64,899**	**81,532**	**98,165**	**114,798**	**131,431**	**148,064**	**164,697**	**181,330**	

TIMPA Reserve Analysis (v.1)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	10 Yr Total
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Needed
Facility Painting	100	100	100	100	100	100	100	100	100	100	1,000
Site Electronics	20	20	20	20	20	20	20	20	20	20	200
Site Roofing	75	75	75	75	75	75	75	75	75	75	750
Mount Updates	200	200	200	200	200	200	200	200	200	200	2,000
Landscaping/Weed Maintenance	200	200	200	200	200	200	200	200	200	200	2,000
Mount Replacements	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	30,000
Replace Shed Doors	50	50	50	50	50	50	50	50	50	50	500
Annual Reserve Requirements	**3,645**	**3,645**	**3,645**	**3,645**	**3,645**	**3,645**	**3,645**	**3,645**	**3,645**	**3,645**	**36,450**
Cumulative Reserve Requirements	**3,645**	**7,290**	**10,935**	**14,580**	**18,225**	**21,870**	**25,515**	**29,160**	**32,805**	**36,450**	

Combined Yearly Requirement	**25,278**	**25,278**	**25,278**	**20,278**	**20,278**	**20,278**	**20,278**	**20,278**	**20,278**	**20,278**	
COMBINED CUMULATIVE RESERV	**25,278**	**50,556**	**75,834**	**96,112**	**116,390**	**136,668**	**156,946**	**177,224**	**197,502**	**217,780**	

Sound management of our assets requires us to find a way to ensure these needs are met to deliver the best member experience into the future. While the total dollars needed may seem daunting, the board has begun discussions about how to meet these needs. The 2026 TAAA Planning Session will also address this subject and develop approaches to address the funding over time.

TAAA – GILA Community College Collaboration

Gila Community College AST 231 **Advanced Astronomy Research Seminar** Section 80187
In-person **Apr 5-9, 2026**, Chiricahua Astronomy Complex (CAC), Southeast Arizona

Gila Community College AST 231 **Advanced Astronomy Research Seminar** Section 80192
Four online Zoom sessions, every Wed 7:00 PM MST Apr 15-May 6
In-person **Fri-Sun, Apr 17-19, 2026**, Tucson, Arizona

These two seminars are available to TAAA members at low or no cost. Gila Community College (GCC) features low tuition rates. Tuition for these two-credit classes for Arizona residents is $196 for attendees younger than 55 years of age, and $0 for attendees 55 and older.

Short Summary: Gila Community College is offering two late-spring Binary Discovery Research Seminars. You can enroll in either one or both seminars.

The first seminar, all in-person, will observe dozens of Gaia two-parameter (G2P) stars, most of which will turn out to be new binary star discoveries. These observations will be made on the 0.8-meter DFM Engineering research telescope at the Chiricahua Astronomy Complex (CAC) in southeast Arizona. The second, hybrid seminar will reduce and analyze the observations from the first seminar and write them up in a draft paper.

The second seminar consists of four Zoom sessions and a three-day in-person session in Tucson that will feature a tour of the Caris Mirror Lab at the University of Arizona, lectures and work on the paper at the El Conquistador, a daytime insider-tour of the telescopes at Kitt Peak National Observatory (KPNO), and evening telescope observations at KPNO.

Seminar participants will be a mix of new and seasoned researchers. The seminar will be conducted within a larger community of practice, follow the normal rules of scientific research, and stress teamwork to produce a peer-reviewed paper.

Registration for the Seminars: Gila Community College has an open registration policy, so anyone 18 or over can register for the seminars. Please email the GCC Instructor, Russell Genet, and let him know that you would like to attend the seminar. He will ask the GCC Registrar to place you on the instructor-approved list.

For more information about the seminars see the details at this link

by Doug Smith

Workshop Schedule for Spring 2026 Set

Enrollment Open!

To enroll (or questions), contact the instructor: Douglas Smith

alcor@tucsonastronomy.org 520-396-3233

Constellation Locating and Identification Workshop

Place: TIMPA; *Date:* Thursday, March 12, 2026; *Time:* 6:00 PM until completed

Synopsis: This is a workshop in the Practical Astronomy Workshop series. The students will be taught how to locate and identify the constellations without having to memorize the night sky. Each student will learn to use a supplied planisphere and star atlas to locate several constellations. This program provides the methodology for the observing requirements of the Astronomical League's Constellation Observing Program (Northern and Southern).

PLEASE NOTE: due to equipment limitations there is a limit of 20 students for this workshop.

Learn how to Record Observations and Sketch Objects Workshop

Place: TIMPA; *Date:* Thursday, April 16, 2026; *Time:* 6:00 PM until completed

Synopsis: This is workshop in the Practical Hands-on Astronomy Workshop series. Students will learn how to record observations and how to sketch objects. They will be taught proper recording techniques, what information to record, what sort of forms to use, etc. In addition, students will be taught techniques for sketching objects. They will view, using a telescope, several different types of objects and perform recording activities and sketch different objects.

PLEASE NOTE: due to equipment limitations there is a limit of 20 students for this workshop.

Star Hopping Workshop

Place: TIMPA; *Date:* Thursday, March 19, 2026; *Time:* 6:00 PM until completed

Synopsis: This is another workshop in the Practical Astronomy Workshop series. It will teach star hopping. The students will be taught proper star hopping technique and equipment usage. They will use the supplied equipment to locate at least two targets (maybe more if time permits). By the end of the workshop the student will know what equipment to use and how to use it in order to locate targets using star hopping.

PLEASE NOTE: due to equipment limitations there is a limit of 20 students for this workshop.

SmartScope Class & Events

So, I Bought a SeeStar!: Basic Skills for the ZWO SeeStar S30 and S50

Open for Enrollment - Stephen Ferris, Instructor

Place: TIMPA *Date:* Thursday, May 7, 2026 *Time:* 7:00pm until completed

Synopsis: ZWO SeeStars are a hot item for Amateur Astronomers both new and experienced. They combine good optics, a lot of automation and a user-friendly interface with entry level prices. This workshop will cover the basic use of both the SeeStar S50 and the SeeStar S30. It is open to both current SeeStar owners and those who are considering buying a SeeStar. If you have a SeeStar of either design, please bring it with you, fully charged. The instructor will walk you through basic procedures for using your equipment. Don't forget to bring your phone or the tablet that you use to control it!

This training is ZWO SeeStar specific. If you are interested in a workshop for another kind of SmartScope, please contact Stephen at the email address or number below.

If you are interested in joining us, please contact the instructor, Stephen Ferris: email, Text: 520-661-5355

SmartScopes and Snacks!

Pot Luck and Meet and Greet for All SmartScope Users at TIMPA!

Place: TIMPA *Date:* Saturday, May 9, 2026 *Time:* 7:00 PM until whenever

This TIMPA event is open to all SmartScope users of all levels of experience, plus anyone who might be interested in getting a SmartScope. We'll get started with a pot luck dinner social around 7:00 pm. (The sun sets late. Expect warm temperatures.) Bring some images and techniques to share with the group! We would love to hear about any use of any SmartScopes that you might have. Then, if weather permits, we'll do some viewing after it gets dark until whenever.

I will provide water, sodas, basic paper plates and plastic utensils. You are not at all required to bring food, but if you do, we expect about 10-12 people. I will notify everyone if we get more!

Please RSVP to Stephen Ferris, TIMPA Director, at email Text: 520-661-5355 by May 1.

If SmartScopes are at all of interest to you (or even if they are not), we would love to have you come out and join us!

Finally, some poetry!

The Eternal Astronomer - Author Unknown

When I lay down for eternal rest,
I want to have been an astronomer.

Not for what my eyes have seen,
or my mind has fathomed,
but what it has made of my human heart.

It is not the sum of my skills
that make me a better person,
but what I can share, with whom, and how.

As patience is a virtue and knowledge is power,
So the astronomer is made, above all
the most liberal and eternal of beings.

Image by Gerd Altmann from Pixabay

Submitted by Matthew Ota
He found it on the newsgroup, sci.astro.amateur, back in the 1980s.
Maybe one of our members will recognize its origins.

TAAA Ladies' Night Out

by Susan O'Connor

Ladies' Night Out is a social interest group for women members of the club. The group meets once a month at a local restaurant for fellowship and conversation.

Thursday, March 19, 6:30pm

Bottega Michelangelo

420 W Magee Rd
(N side of Magee just W of Oracle)

Preview the menu at https://www.bottegamichelangelo.com/menus

RSVP Susan 520-780-0136

Observing Sites

TIMPA

by TIMPA Planning Group

TIMPA (Tucson International Modelplex Park Association) is TAAA's dark sky site west of the Tucson Mountains.

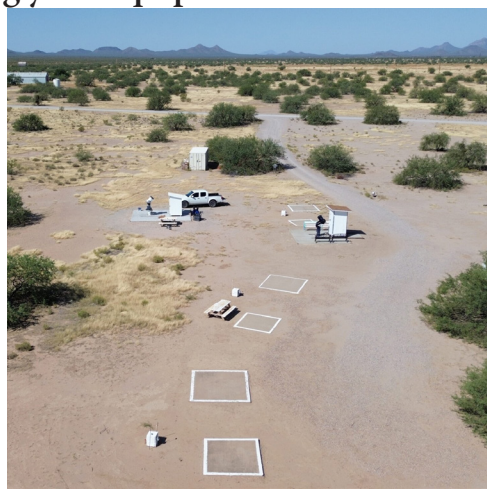
Location: The TIMPA observing site is located a few miles beyond the Desert Museum (3250 N. Reservation Road, Tucson, AZ 85743).

TIMPA Star Party Dates this month

Lunar Eclipse! March 2-3.
Gate open from 8PM until dawn. Arrive and leave when you please.

March 13-14
March 20-21

The TIMPA Planning Group will be offering assistance with telescope usage and observing during the monthly TIMPA Star Parties. You are invited to bring your equipment and questions to TIMPA on Star Party dates for assistance. Be sure to register using the link below.



The TIMPA site is only partially improved. There are no inside buildings provided other than restrooms. TAAA provides very limited 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 rodent 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.

Reservations for the TIMPA Site are made on the TAAA website at TIMPA DARK SITE RESERVATIONS. Please fill out the form completely and be sure to indicate the date you desire to visit TIMPA.

Questions? Contact the TIMPA Director: Stephen Ferris

Observing Sites' Upcoming Star Party Dates

TIMPA	New Moon	CAC
March 13-14; 20-21	March 18	March 20-21
April 10-11; 17-18	April 17	April 17-18
May 8-9; 15-16	May 16	May 15-16
June 5-6; 12-13	June 14	June 12-13

Chiricahua Astronomy Complex

by Jim Knoll

Upcoming CAC Weekend Dates (Friday - Saturday)

March 20-21 (New Moon March 18)

Chiricahua Astronomy Complex (CAC) is the club's eastern dark sky (Bortle 2) observing site, located in Cochise County approximately 100 miles southeast of the center of Tucson. We have many large telescopes including 40-inch, 25-inch and 18-inch Dobsonians, a 9-inch folded refractor, our new 32-inch Cassegrain, and quite a few Schmidt-Cassegrain telescopes (SCTs) of various sizes. The telescopes are configured for either visual observing or imaging.

You can be trained to operate most of these telescopes. To request training, please complete the request form here. We also have ten sleeping rooms with heat and air conditioning, a Learning Center/Classroom, seven RV sites with electricity, and a large tent camping area.

If you would like to observe, you must make a reservation on the CAC Web page at CAC Reservations.

CAC Director: Jim Knoll CAC on the Web

by Bernie Stinger

March 2026 Star Party Volunteer List

Thank you for volunteering your time and talents for our extremely important outreach mission. **Below is the current status of the Public/School Star Party list for March 2026.**

Please let me know by email if you are interested in volunteering for any of the events listed below. First come – first served. I will let you know in return if you are on it or that it was already filled. Some events go fast!.

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) and Night Sky Network (NSN) (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 these events and get a notification when I update each event but this is only for PUBLIC star parties listed on Facebook.

The requests have been updated as of February 24th. **The first section, in RED, is a list of events where we still need volunteers.** If you can help out please contact me at:
astronomy-events@tucsonastronomy.org
Thank you,
Bernie Stinger

March Events still in need of Volunteers

Friday – March 27 –FAR SOUTH –GREEN VALLEY
Pima County Conservation Lands and Resources (CLR) – Canoa Ranch
5375 S I-19 Frontage Road
Age/Grade Level: All Ages
Participants: 75-100
1 – 2 Additional Scopes Needed
Setup Time: 6:30 – 7pm. Start Time: 7:30pm
End Time: 9:30 pm.

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Friday – March 27 – FAR SOUTH – SAHUARITA – SOLAR VIEWING
Sahuarita Middle School
350 W Sahuarita Rd
Age/Grade Level: 8th grade
Participants: Hundreds
4 Solar Scopes Needed (White Light / H-alpha)
Setup Time: 7—7:30am Start Time: 8 am
End Time: 12:15pm

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March Events Filled—No Volunteers Needed

Sunday – March 1 -- WEST TUCSON – SOLAR
University of Arizona, Lunar & Planetary Lab
The ART of Planetary Science
1629 E University Blvd
Age/Grade Level: All Ages
Participants: 50 – 75
0 Solar Scopes needed (White Light / H-alpha)
Setup Time: 1:30 pm. Start Time: 2:00 pm.
End Time: 4:00 pm.

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Thursday – March 5 -- NORTH TUCSON/ MARANA
Leman Academy of Excellence – North Campus
7720 N Silverbell Rd.
Age/Grade Level: K – 8th Grade
Participants: 100+
0 Scopes Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 8:00 pm.

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Friday – March 6 -- SOUTHWEST TUCSON
Cholla High School
2001 W Starr Pass Blvd
Age/Grade Level: High School Students
Participants: 75
0 Scopes Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 8:30 pm.

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Tuesday – March 10 -- WEST TUCSON
Cooper Center for Environmental Learning
5403 W Trails End Rd
Age/Grade Level: Grade 5
Participants: 70
0 Scopes Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 8:30 pm.

Thursday – March 5 -- WEST TUCSON
Cooper Center for Environmental Learning
5403 W Trails End Rd
Age/Grade Level: Grade 5
Participants: 50
0 Scopes Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 8:30 pm.

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Saturday – March 7 -- FAR WEST TUCSON
Pima County Conservation Lands and Resources (CLR) – Juan Santa Cruz Picnic Area
2000 N Kinney Road
Age/Grade Level: All Ages
Participants: 75-100
0 Scopes Needed
Setup Time: 6 – 6:30 pm Start Time: 7:00pm
End Time: 9:00 pm.

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Tuesday – March 10 -- ORO VALLEY
Leman Academy of Excellence – Oro Valley
12255 N La Cañada Dr
Age/Grade Level: K – 8th Grade
Participants: 75 – 100
0 Scopes Needed
Setup Time: 6:30 pm. Start Time: 7:00 pm.
End Time: 8:30 pm.

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Saturday – March 14 -- (UofA TUCSON)
Tucson Festival of Books (TFOB)
On the Mall at the UofA
Age Group: All Ages
Estimated # Participants: 100's to 1000/day
0 Scopes Needed
Setup Time: Morning: 8:30 am
Start Time: 9:00 am **End Time**: 1:00 pm
Setup Time: Afternoon: 12:30 pm
Start Time:1:00 pm **End Time**: 5:00 pm

Sunday – March 15 -- (UofA TUCSON)
Tucson Festival of Books (TFOB)
On the Mall at the UofA
Age Group: All Ages
Estimated # Participants: 100's to 1000/day
0 Scopes Needed
Setup Time: Morning: 8:30 am
Start Time: 9:00 am **End Time**: 1:00 pm
Setup Time: Afternoon: 12:30 pm
Start Time:1:00 pm **End Time**: 5:00 pm

Thursday – March 26 -- NORTH TUCSON
Nanini Library
7300 N Shannon Rd
Age Group: All ages
Estimated # Participants: 50
0 Scopes needed
Setup Time: 6:00pm Start Time: 6:30 pm
End Time: 8:00 pm

Friday – March 20 -- Chiricahua Mountains
Chiricahua National Monument
12856 E Rhyolite Creek Rd, Willcox, AZ
Age/Grade Level: All Ages
Participants: 75
0 Scopes Needed
Setup Time: 6:30 – 7 pm
Start Time: 7:30 pm End Time: 9:30 pm.

Thursday – March 26 -- WEST TUCSON
Cooper Center for Environmental Learning
5403 W Trails End Rd
Age/Grade Level: Grade 5
Participants: 70
0 Scopes Needed
Setup Time: 7:00 pm. Start Time: 7:30 pm
End Time: 9:00 pm.

Friday – March 27 -- EAST TUCSON
Saguaro National Park –EAST –Learning Center
12661 E Broadway Blvd.
Age Group: All Ages
Estimated # Participants: 150+
0 Scopes needed
Setup Time: 6:30 – 7pm Start Time: 7:30pm
End Time: 9:30 pm

Special Interest Groups

Radio Astronomy SIG (RASIG)

by Sandy Nichols

The next RASIG meeting will be **Wednesday, March 18th** at 7:00 pm AZT via ZOOM.

Radio astronomy does not require cloudless skies. Discover another way to observe when the weather makes visual astronomy impossible.

Topics: We will view a presentation by Sandy Nichols titled "Observing Radio Jupiter."

Email Sandy Nichols for the ZOOM link or any other information. RASIG on the Web

Starry Messengers Special Interest Group

Opening Minds to the Universe

The Starry Messengers group contributes to the TAAA outreach program by providing age-appropriate hands-on activities at school star parties and community events. We differ from the TAAA Star Party outreach program in that most of our activities can be performed indoors, and most don't require telescopes or clear skies.

Our March 9th meeting will be held at 7pm by Zoom. An email will be emailed to all TAAA members near the date of the meeting. We will use our March Zoom meeting as a training session to learn about our exhibit at the Tucson Festival of Books (TFOB), Science City, and our booth exhibit. If you've volunteered for our TFOB exhibit, you should plan to attend this meeting. Our big event in March is the TFOB which takes place over the weekend of March 14/15 on the University of Arizona campus. Our theme this year is Extremophiles and the Possibility of Life Beyond the Earth. Volunteer time slots are filled at this point, but I could still use help around noon on March 13 (Friday) when I'll be loading in our materials. We also don't have a volunteer dedicated to taking photos on Sunday (cell phone pictures are okay). If you can help either on Friday with the load in, or Sunday as a photographer, please contact me (see contacts below).

Opportunities to volunteer for hands-on, non-telescope events are listed below. Most events are already covered by volunteers, but two events were recently added. To sign up for either of these events, use this link. Please note this sign-up is only for our hands-on activities. If you're bringing a telescope to an event, sign up by emailing Bernie Stinger.

If you've thought about getting involved in this type of non-telescope astronomy outreach, it's recommended that you sign up for an event that already has an experienced volunteer who can show you how to present the activity.

- 3/5/2026 (Thu) 5:30 PM - 7:00 PM Cragin Elementary, Exploring the Solar System, Volunteers: Susan O'Connor, Yan Zhang
- 3/5/2026 (Thu) 5:00 PM - 7:00 PM Copper Creek Elementary, Space Rocks, Volunteers: Kay Lehman, Pete Hermes
- 3/7/2026 (Sat) 11:00 AM - 1:30 PM Reid Park DeMeester Performance Center, Space Rocks, Volunteers: Tom Sarko, Yan Zhang
- 4/8/2026 (Wed) 5:30 PM - 7:30 PM St Mark's United Methodist, Space Rocks, Volunteers: Terri Lappin, Tom Sarko
- **4/8/2026** (Wed) 4:00 PM - 8:00 PM Pueblo High School (I-19/Ajo Way), Life in the Universe, 150 expected. Volunteers: **OPEN, need two volunteers**
- **4/10/2026** (Fri) 5:00 PM - 7:30 PM Leman Academy East (Golf Links/Houghton), Black Hole Survival Toolkit, 200 expected. Volunteers: **OPEN, need two volunteer**s
- 4/23/2026 (Thu) 5:30 PM - 7:00 PM Donaldson Elementary, Space Rocks, Volunteers: Pete Hermes, Susan O'Connor
- 5/8/2026 (Fri) 5:00 PM - 8:00 PM NW Pima Community College, Space Rocks, Volunteers: Tom Sarko, Vance Tanner

Questions about the Starry Messengers SIG and our hands-on outreach toolkits can be directed to Terri Lappin (email or 520-977-1290).

Astronomy Fundamentals SIG

by Connor Justice

Come join us for a presentation on the fundamentals of amateur astronomy. Learn your way around the night sky to add to your observing enjoyment. Meetings are on the second Thursday of each month.

The next AFSIG meeting is **Thursday, March 12, 6:30pm to 8:30pm.**
Topics to be determined. Contact Connor Justice for Zoom link and more information.

Access videos of previous meetings in the TAAA YouTube Channel AFSIG on the Web

Astro-Imaging SIG

by Gregg Ruppel

The next AISIG meeting will be **Monday, March 16, at 7:00 pm** via ZOOM.

Topics: **Beginners' Corner** - Ask A Question
Getting Started with NINA - Alan Rockowitz
If you are considering NINA to capture the night sky, this discussion will help get you on your way.
Image Sharing, Q/A

In addition, we are pleased to announce a special AISIG Meeting for ALL TAAA members: *Tips and Tricks for Using a Smart Scope*, Monday, March 30, 2026, 7 pm via Zoom.

Thinking about a smart scope? Looking for ways to get the most out of one that you have? Then join us for a panel discussion about the ins and outs of three leading smart scope brands, Dwarf, SeeStar and Unistellar, led by three experienced smart scope imagers: Teresa Bippert-Plymate, Rik Hill, and Matt Penn. We will reserve plenty of time for questions, so come prepared with yours! Please note that this session is not intended for basic training on smart scopes. For that, see the separate program on page 7 of this bulletin.

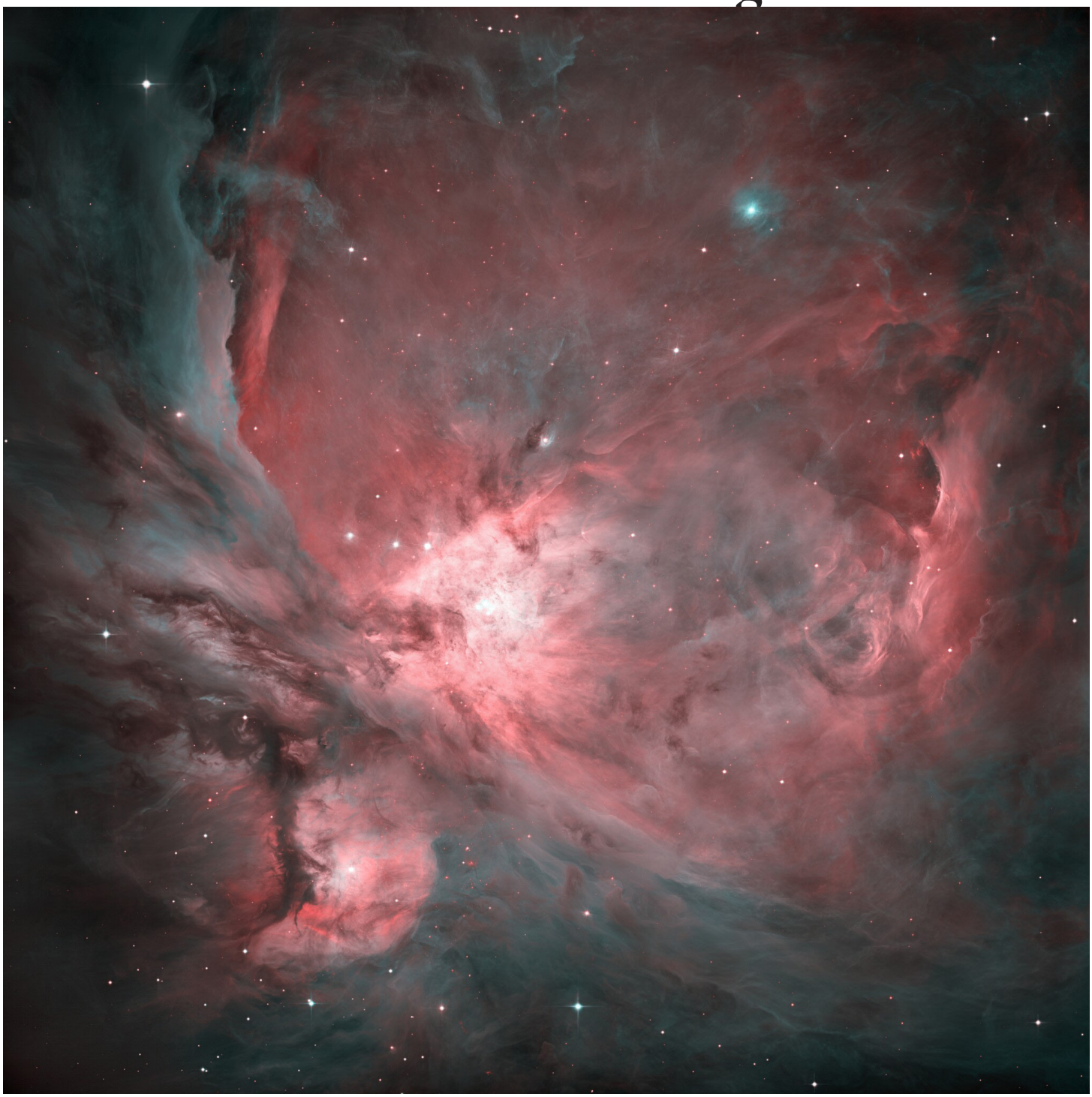
We will post Zoom details on the Forum before the meeting.

Email Gregg Ruppel for the ZOOM link or any other information. 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, click here.

View previous AISIG meetings on the TAAA YouTube Channel.

We offer a mentoring program for beginning astro-imagers. For details, see the AISIG Web Pages.

Member Astro-Images



Craig Harding

M42

Hubble data red, green and blue channels.

Montes Appenies

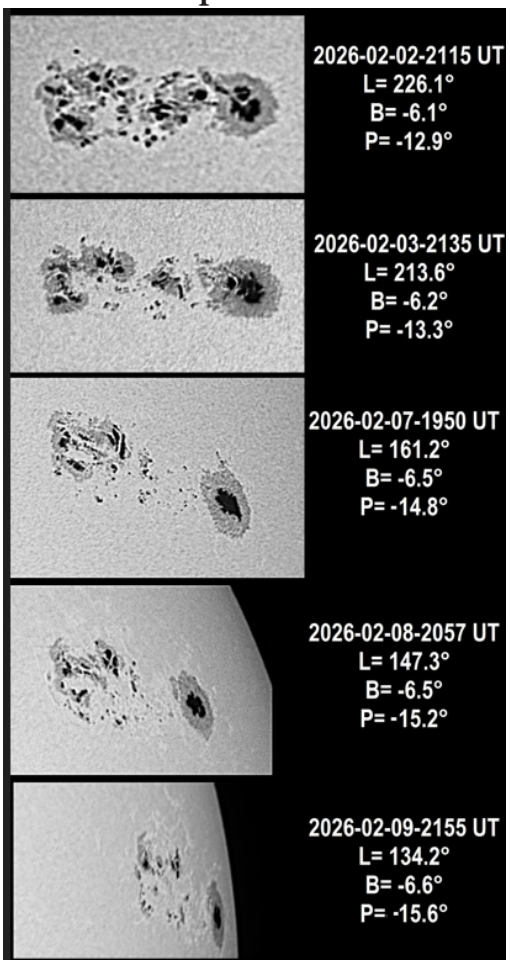
Rik Hill

Here we see the grand Montes Apenninus running diagonally across the left side of the image. On the right side is the flat expanse of Mare Serenitatis. Left of center of the image is the young crater Conon (21km dia.) less than a billion years (b.y.) old. You can tell it is young by the sharpness of the rim not yet degraded by smaller impacts that take place over time. Two smaller but similar craters can be seen to the right of Conon. The northernmost one is Aratus (10km) about the same age as Conon, and the below it is Galen (9km) significantly older at 3.2-3.9 b.y. nearly as old as the montes themselves. Immediately north of Conon is the sunlit peak Mons Bradley (4200m high) with Rima Bradley being the large rille north and parallel to the mountains. There's another short sinuous rima to the left and below Conon perpendicular to the montes that is appropriately enough called Rima Conon. This is a challenge to spot visually.

Above Aratus deep in shadow is Rima Hadley known as "Hadley Rille" where Apollo 15 touched down in August, 1971. Moving up (right) the Montes Apenninus there's a particularly bright chisel shaped peak just past the "Hadley Rille" site. This is Mons Hadley a lofty 4800m peak. But this peak is dwarfed by the even taller mountain left of Conon and near the left edge of this image marked by two bright points like eyes staring back at us. This is Mons Huygens at the remarkable height of 5400m or 16,400 feet, one of the highest points on the moon. The whole of Montes Apenninus must be a spectacular sight from our next feature.

On the shore of Mare Serenitatis south of the mountains can be seen the deep fan of rilles, Rimae Sulpicius Gallus. The 12km namesake crater, Sulpicius Gallus, is on the south end of these rimae. Due north of this well out in the Mare is a diffuse white spot with a tiny crater in the middle. This is Linne, the subject of a lot of excitement in the mid-19th century when this crater originally mapped as 8-10 km was reported in 1866 to just be a small white spot. It was intensely observed for a number of years and eventually found to be a smaller crater (2.4km) than that originally supposed and today you can observe or record it with a good 8" aperture as you see here. So the elusive hope for verifiable observable change on the moon in the pre-spacecraft age died.

Sunspot AR4366



Medusa Nebula

RASA 8” f/2, Optolong L-Para filter, 5.5 hours exposure.

Tom Eby

M42 Astro-Tech AT60ed f/6, Nikon D810a, CEM60ec mount, PhD2 bump guided 10 sec ZWO 174mm mini guidecam 162mm guidescope

B33 and NGC 2024
RASA8 and AM5 Astrobin

Allen Force

C 405 - RASA8 with the ASI294MC with an L-para fiter, 17 frames, 60s each, 17 minutes of integration time.

Flaming Star and M38

Askar FRA300, 2600MC PRO using both an IDAS NBZ filter (about 5 hours), and a UV/IR Cut filter for RGB stars (40 minutes).

Jeff Rothstein

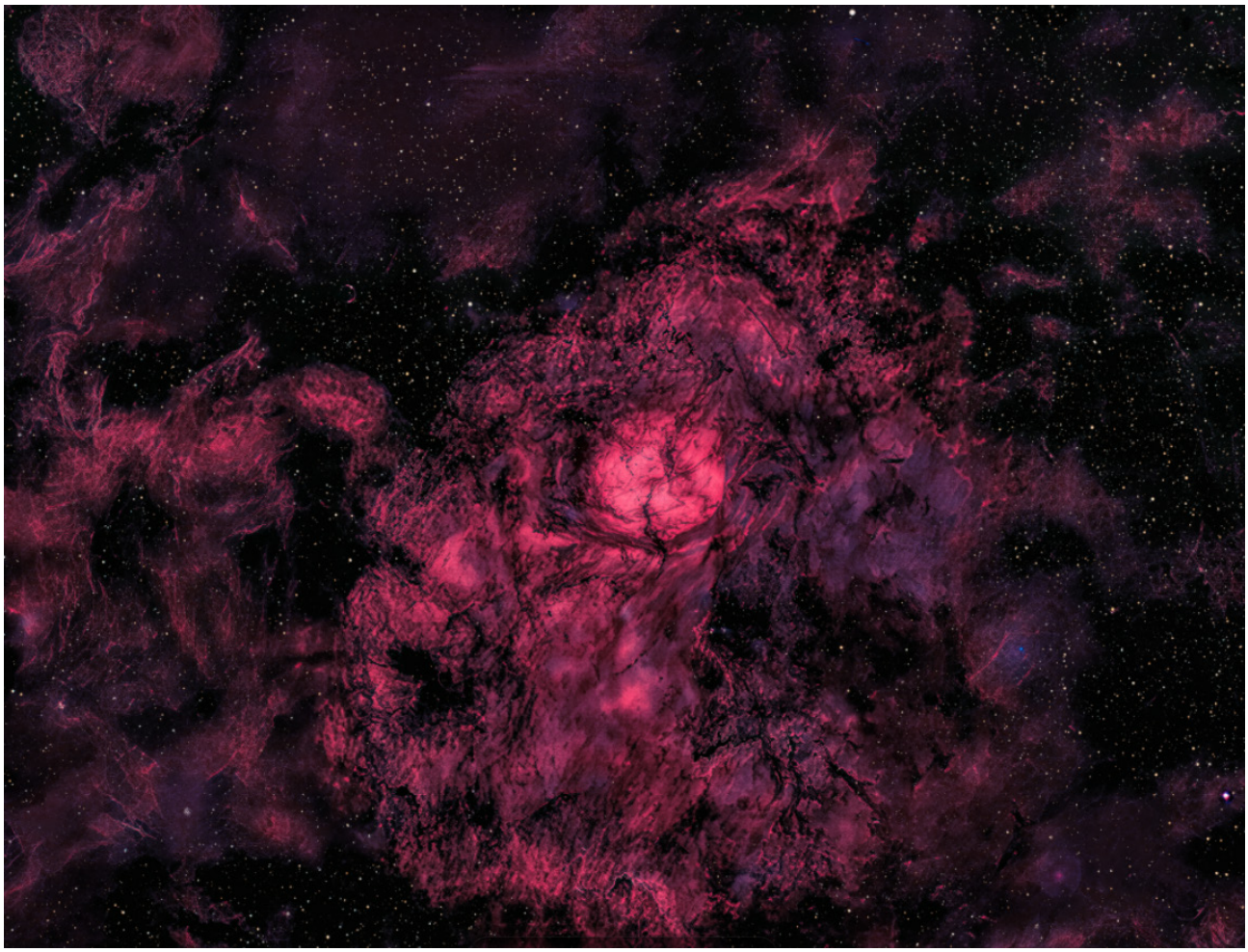
Ed Jacoby

Astrobin

M42 - Askar SQA85 f4.8 Astrograph, 49 x 60 second images.

Sh2-124

Astrobin



Alex Woronow

Unnamed Object Astrobin

NGC 1499

Askar SQA 55 , 2600MC Pro, Optolong LPara2 filter for Ha/OIII and the Askar D2 for SII/OIII. RGB stars captured with the Antlia Triband RGB Ultra filter.

David Stearn

NGC 281

SHO data set from Telescope Live.

NGC 2467 Exposure: 12 hrs **Mike Mulcahy** Takahashi FSQ 106N, ZWO ASI6200MM **ALV2** - Unclassified Object

by Doug Smith

Observing Programs - What's Up in March and April 2026

Many of the Astronomical League observing programs can be done from our backyards. The following objects are visible in March and April for the common observing programs.

Constellation Hunter Program – The following constellations are well placed for observing in March and April:

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

Messier Observing Program - The following Messier Objects are well placed for observation during March and April (listed in ascending RA):

M42, M43, M1, M35, M36, M37, M38, M41, M46, M47, M48, M79, M45

Lunar and Binocular Observing Program

Here is a list of dates for lunar phases in March and April:

New Moon: March 19, April 17
40 Hours waxing: March 21, April 19
72 hours waxing: March 22, April 20
4 days old: March 23, April 21
7 days old: March 25, April 24
10 days old: March 28, April 26
Full (14 days old): March 3, April 2
Gibbous: March 11, April 9
72 hours waning: March 16, April 14
40 hours waning: March 17, April 15

Solar System Observing Program

The following is a list of planets that can be observed during March and April:

Mercury goes from being an evening object to an early morning object during the first week of March. For the remainder of March and April, it's visible about one hour before sunrise.

Venus is an early evening object during the entire period of March and April. It sets a little later each day (greatest elongation is in June). It also gets brighter each day.

Mars is lost in the morning twilight, rising less than an hour before sunrise.

Jupiter is well placed for evening observation. On March 1 it sets around 3:30 AM. On April 30 it sets around midnight.

Saturn is visible in the early evening sky during the first two weeks of March, setting about 90 minutes after sunset. At the end of March it emerges from behind the Sun and becomes an early morning object. By the end of April it rises about 90 minutes before sunrise.

Uranus is still visible in the early evening sky during March and April. It sets around midnight on March 1 and around 8:30 PM on April 30.

Neptune is visible in the early evening sky during the first two weeks of March, setting about 90 minutes after sunset. At the end of March it emerges from behind the Sun and becomes an early morning object. By the end of April it rises about 90 minutes before sunrise.

Special Event: Total Lunar Eclipse - March 3, 2026

Penumbra eclipse begins at 8:43 UT
Umbral eclipse begins at 9:50 UT
Mid eclipse is at 11:34 UT
Umbral eclipse ends at 13:18 UT
Eclipse ends at 14:25 UT

Urban Observing Program

The following **deep sky objects** are well placed for observing during March and April:

M45, Hyades, NGC 1647, NGC 1807, NGC 1817, M38, M36, M42, NGC 1981, M37, M35, NGC 2169

The following **Double Stars** are well placed for observation during March and April:

Trapezium, Gamma Leonis, Beta Monocerotis

TAAA Astronomy Equipment For Sale

TAAA has an assortment of astronomy-related equipment for sale. This equipment is available for members only at this time. We have suggested prices for all equipment and telescopes but prices are negotiable!

All the listed telescopes come with eyepieces, finders and other accessories.


Dobsonians – We have 2 large dobs
Homemade 13" and 12" Skywatcher

Celestron 6 w/ NexStar
This is a great starter scope!

Meade 5" ETX Maksutov with AutoStar
I have 2 of these

Celestron 11 with NexStar

Meade 10" LX200 w/ AutoStar

Celestron 8s with NexStar
We have two C8's.

TAAA Astronomy Equipment For Sale (continued)

Celestron 5”
Omni XLT

We have numerous **tripods**. Celestron, Meade and others. Heavy duty, light duty, etc. If interested please inquire. Flexible on price

Small camera tripods - $10

Several full aperture **white light solar filters**. Most are ‘film type’. We have one ‘glass type’. Various sizes. All checked out okay. If interested please inquire for available sizes and prices.

EYEPIECE CLEARANCE SALE!!!
50+ eyepieces and filters for sale at rock bottom prices! Mostly 1.25”. Inquire for availability and pricing

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We also have an assortment of other items available at this time including: Finders (various sizes), Finder rings, 7x50 Binoculars, focusers, some eyepieces, some eyepiece filters, telescope rings of various sizes, mirror blanks of many sizes, a 6 inch Newtonian mirror set mounted in mirror cells, several large mirrors and much more.

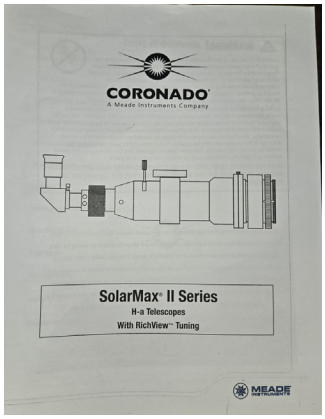
To make inquiries about what is available or to express a desire to purchase one of the items please contact: Douglas Smith at alcor@tucsonastronomy.org or call 520-396-3233

Member Equipment for Sale

- All advertisements are for member-owned equipment. Members may not place ads for non-members.
- Advertisements are for one month. If you would like to run the ad for a longer period you must resubmit the ad each month.
- If you would like to show the item as sold in a following issue, you must send the sold notice to the editor.
- Each member may submit up to two ads per month.
- There are no formal ad restrictions. Please keep them relatively brief. A small photo or two may be submitted. The editor has total discretion as to the formatting of the ads.

Buyers: The TAAA does not assume responsibility for the products sold or offered. It is the responsibility of individuals who posted the ad to reply to your message and confirm the legitimacy. There are risks which you assume when dealing with people who might be acting under false pretenses; all these risks are borne by you. The TAAA does not control the products offered by and to members. But please, let's all be honest with each other!

Solar Telescope For Sale



SolarMax II 90
Double Stack

Comes with:

- Precision RichView Tuning System
- <.5A Bandwidth
- 15mm Blocking Filter
- 800mm Focal Length, 90mm f/8.8 Refractor
- Includes Cemax Eyepieces, Travel Case, Sol Ranger Finder
- Clamshell mounting ring
- Original manual

Price: $3,500 (or best reasonable offer)
Local pickup ONLY

Contact: Joe Giannino 520-908-3393 or email

2005-ish Discovery 12.5" Truss Tube Dobsonian

Full motorized GOTO and tracking
ServoCAT Gen 2
Argo Navis
Stalk to hold Argo Navis and hand paddle
Mirror re-coated in 2016 by Ostahowski
Light Shroud

Lots of minor fixes and mods
Mechanically pretty good (but 20 years old)
Optically great!
Cosmetically a little rough

$1,200 Pick up in Tanque Verde
David Rossetter: Email 845-430-5191

DEPARTMENT OF ASTRONOMY AND STEWARD OBSERVATORY

Public Evening Lecture Series Spring 2026

Monday, March 16
Towards Atmospheric Characterization of TRAPPIST-1e: Our Best Chance at Habitable Exoplanet Characterization with JWST
Dr. Sukrit Ranjan
Lunar & Planetary Laboratory

Monday, March 30 (rescheduled)
Hot Dust Around the Star kappa Tucanae A
Dr. Thomas Stuber
Steward Observatory

Lectures are in-person or Watch via ZOOM.

Location: Steward Observatory N210; Parking 2nd Street or Cherry Ave Garage
Open at 7:00PM, Lectures begin at 7:30PM; Telescope viewing 8:30PM Weather Permitting

More Information

COLLEGE OF SCIENCE
LUNAR & PLANETARY LABORATORY

The Art of Planetary Science 2026: Space Through Our Lens

When: February 27 to March 1
Where: University of Arizona, Kuiper Space Sciences, 1629 E. University Blvd., Tucson, AZ

The Art of Planetary Science is an annual art exhibition run by the University of Arizona's Lunar and Planetary Laboratory that celebrates the beauty and elegance of science. The show presents a multi-faceted view of science and scientists, and we hope it can inspire in others the same passion it inspires in us. Attendance to this event is free!

TAPS weekend includes special events including telescopes, an Apollo Era special exhibition, designated speaker Alfred McEwen, an astro chiasm cabaret show, and live music.

Web Page

Skyward

By Dr. David H. Levy

March 2025

Pathetic Jupiter

Why would I want to write something insulting about Jupiter? After all, Jupiter was the first thing I looked at through a telescope. Only last month I wrote how, when I began searching for comets, I was looking for an activity that did not involve me dealing with other people. I had a few friends as a youngster. Now in my ripe age of 77, I have many good friends, of whom the current editor of Desert Skies is one of my closest. But I still enjoy, more than anything, the idyllic solitude of looking through my telescope, field after field of sky, for a new elusive comet. A related part of that same solitude is looking at the planet Jupiter, which I consider to be a faithful and lifelong friend.

Jupiter and I have been friends since I first looked at it, with Mom and Dad, on 1 September 1960. Since then, the planet has never failed to give me an emotional, pathetic look. And thus, I introduce that word pathetic. Applied to a person, pathetic could mean a loser. I am pathetic. I do not want to see myself as a loser, but as someone who deals intensely in emotions. Applied to Jupiter, I do not intend for it to be considered a loser of a planet, but rather as a planet that yields always an emotional response in the observer.

Jupiter is pathetic, but not a loser, not insulting. I use the word as a derivative of pathos, an idea from Greco-Roman philosophy. The concept survived all the way into Shakespeare's Julius Caesar, where Brutus exemplifies the stoic, logical personality that is brought to fame at the very end, in Antony's celebrated obituary:

> This was the noblest Roman of them all.
> All the conspirators save only he,
> Did that they did in envy of great Caesar;
> He only, in a general honest thought
> And common good to all, made one of them.
> His life was gentle, and the elements
> So mix'd in him that Nature might stand up
> And say to all the world, "This was a man!" (JC.5.5.68-75.)

Pathos alludes to a person's emotions, and it ignites feelings related to those emotions. For my sense, Jupiter is pathetic because it fosters the emotions I felt when I first looked at it. That world is incredibly turbulent; a brief look at the Voyager images from decades ago shows us the roiling of the little clouds as they circle the Great Red Spot. More important to me, those of us who were alive in 1994 remember the profound effect that the daily addition of big black spots the size of Earth had on that weeping world, as though some cosmic force was pounding the daylights out of the solar system's biggest planet.

Thaxted

According to NASA, my favorite government agency, there is a special musical allusion to this mighty comet's breakup and collision. It is called Thaxted, and on the occasion of NASA's last SL9 press conference late in July, as a way of celebration, they played the Thaxted section of Gustav Holst's The Planets, from its Jupiter movement. Holst adapted it in 1921. He loved living in that small English town. In my opinion the Thaxted portion of The Planets, from near the center of

the Jupiter movement, is one of the most stunning pieces of music ever written, equivalent to Mozart's Jupiter symphony or Beethoven's Fifth.

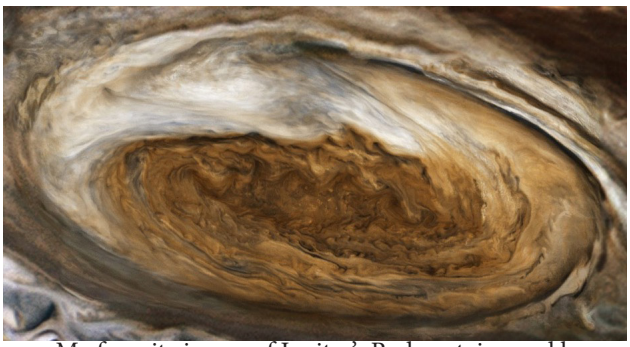
The NASA presentation included many images of comet fragments, impacts, and people. Gustav Holst lived in Thaxted from 1917 to 1925. Holtz wrote the piece as the middle section of the "Jupiter" movement of The Planets. He adapted Thaxted to fit the words of the hymn "I vow to thee, my country":

I vow to thee, my country, all earthly things above,
Entire and whole and perfect, the service of my love;
The love that asks no questions, the love that stands the test,
That lays upon the altar the dearest and the best;
The love that never falters, the love that pays the price,
The love that makes undaunted the final sacrifice.

And there's another country, I've heard of long ago,
Most dear to them that love her, most great to them that know;
We may not count her armies, we may not see her King;
Her fortress is a faithful heart, her pride is suffering;
And soul by soul and silently her shining bounds increase,[11]
And her ways are ways of gentleness, and all her paths are peace.

Before returning to pathetic Jupiter, one additional thought about Thaxted and its related hymn; its final line is from Proverbs 3:17. It belongs to a song, "Eitz Chayim", I sing at our synagogue every year on the Day of Atonement:

"Her ways are ways of pleasantness,
And all her paths are peace."



My favorite image of Jupiter's Red spot, imaged by Voyager I in 1979. NASA photo.

These words help connect the emotional pathos I feel towards Jupiter with the memorable black spots that graced that world. The dark soot-like spots lasted for months and they dissipated only gradually. As much as my earlier observations of Jupiter stayed in my memory and emotions, watching the comet's impact spots were electrifying; the emotional, pathetic impact on me was unbelievable. These impacts taught us an important lesson. Over the course of cosmic time, Jupiter has been battered by comets and asteroids over and over again, and each time a pathetic or emotional observer might detect a planetary tear coming from the eye of Jupiter.

During this particular winter, on each clear night I watch as Jupiter comes up earlier and earlier and I wave at my old friend that has never failed to greet me on a million starlight nights since my teenage years, its fabulous Red Spot is smaller and fainter than it was on that September evening 66 years ago, and it is a lot smaller than the S-L 9 impact spots. But Jupiter never fails to arouse my deepest emotions. Jupiter's pathos is a part of me, and it always will remain a central part of my life.

Dr. David H. Levy is a long-time member and former President of the TAAA. He is a well-known astronomy writer and discoverer of comets. He writes this monthly "Skyward" column for the Vail Voice and generously allows us to publish it here.