



United States Department of the Interior
NATIONAL PARK SERVICE
Grand Canyon National Park
P.O. Box 129
Grand Canyon, Arizona 86023



May 01, 2024

Astronomy Volunteers
2023 Grand Canyon Star Party—South Rim
c/o Mr. Jim Knoll of the
Tucson Amateur Astronomy Association

Dear Grand Canyon Star Party (South Rim) 2024 Participants:

Greetings! My name is Rader Lane. I am a park ranger and the Dark Skies Program Manager at Grand Canyon National Park for the National Park Service, which includes the coordination of the Grand Canyon Star Party. We are so eager to welcome you all back for what is shaping up to be a most excellent event! I am excited to see all the familiar faces and to welcome the new faces to this world-renowned celebration of Grand Canyon's dark skies. This year, we celebrate the 34th anniversary of Grand Canyon Star Party, and our fifth year as an International Dark-Sky Park.

I am also saddened that the founder of this special event, Dean Ketelsen, passed away in August of 2023. Dean started the current iteration of Grand Canyon Star Party in 1991, having conceived the idea the year before, during a honeymoon visit to the Canyon. Dean attended every year since '91 (and always liked to say he "attended the 0th event in 1990.") He is greatly missed by our community and beyond. But I am happy that he will be with us in spirit, watching down upon us from the stars. Let's do this one for Dean!

A little history: In 2016, we were certified a Provisional International Dark-Sky Park which gave the park three years to make 67% of our lighting dark-sky compliant. At the time, we had about 34% of our 5094 inventoried lights (!!) already compliant. We retrofitted the rest of that 67% over the last few years, which earned us our full International Dark-Sky Park status in 2019. Since then, we have had 5 years to make 90% of the lights dark-sky friendly, as mandated by the certification. I am happy to report we surpassed this milestone in January of 2024! So, the park is *even darker* than last year! And we are well on our way to achieving 100% compliance in the coming years!

On top of our retrofit efforts, we have greatly expanded our Dark Sky Outreach Program. We've purchased 11 new telescopes for the park, mostly 8" SCTs. We've introduced the [Astronomer in Residence Program](#). We have started a wildly successful [Astronomy VIP Program](#). We've ramped up the frequency of our night sky programming through the year—and we have much more planned. Grand Canyon Star Party is one of the main reasons we were able to achieve and maintain our International Dark-Sky Park status—it is our flagship event of the year. Because of its success as one of the most well-respected star parties in the United States, we were able to achieve International Dark-Sky Place of the Year in 2019. THANK YOU ALL for making

Grand Canyon National Park one of the largest, most complex, dark-sky parks in the world! I look forward to what we'll accomplish this year.

Directions for newcomers:

When you enter the park, **tell the fee collector at the gate that you are Astronomy Volunteers with the Grand Canyon Star Party.** Since that is the primary purpose of your visit, you shouldn't have to pay an entrance fee even if you choose to arrive a day or two ahead, same as any park employee. In case of doubt, show them your *Volunteer Service Agreement*.

The telescopes are set up in the parking lot directly behind the Grand Canyon Visitor Center. That entire parking lot is coned off to cars all week. **Astronomer parking will be just the other side of a narrow island, in the Commercial Bus Parking area. In the Commercial Bus lot, please park at the far end from where you enter that parking lot, past the coned-off spots, so that arriving buses can park closer to the restroom and canyon rim.** The coned-off spots in the Commercial Bus Lot are for overflow if we run out of room in the Telescope Lot, and for late arrivals when necessary.

When you enter from the main road (South Entrance Road) that runs past Lots 1-4 and the Grand Canyon Visitor Center, you'll turn into the **Commercial Bus Parking** (just past Lot 4 if coming from the South Entrance) where a sandwich board says "**Commercial Buses and Astronomers Only.**" You'll then make a left turn into the telescope lot just passed the dumpster. *Unload & set up, then loop around and park in the upper lot by 7:00 pm.*

Stop by the registration cart at the back of the Telescope Lot upon arrival to turn in your Volunteer Service Agreement and indicate which nights you expect to participate. You'll get a name tag, a 'Star Party Tonight!' placard for your car if needed, an invitation to the week's social events--and some volunteer "swag." The registration cart is open from about 5:15-7 pm nightly (c. 5 pm to 8 pm the first night).

General info—same every year:

Please attend a brief "popsicle party" at 7 pm each evening by the registration cart. These are so that new folks can introduce themselves, anyone can make an announcement, invitation or suggestion, and we all stay on the same page. Feel free to stay around for a second Otter Pop and some socializing!

Astronomy slide shows take place nightly in the theater of the Visitor Center at 8pm. Topics and speakers are generally different every night (*See below for a preview of speakers*).

Constellation Tours are offered nightly by astronomers or rangers at 9:00, 9:30 & 10:00 pm; spread the word! Speak to me, Chuck Schroll, or Jim Knoll know if you want to give any yourself and what nights you're available so we can develop a schedule.

By day, you're welcome to set up telescopes wherever you choose (pointed at the sun, Venus, Phantom Ranch or whatever you like), as long as you're not impeding pedestrian or automobile access. If you want to set up on the Hermit Road/Red Route, see me about getting a modified Scenic Drive Accessibility Permit.

Once again, you'll all be sworn in as official park volunteers, **which means you're covered by Workers Compensation if injured on the job** (Please look over the *Job Safety Analysis* to help you avoid any such injuries!) If injured:

- The North Country Grand Canyon Clinic hours are 8-6 daily at (928) 638-2551.
- A call to 911 can get you NPS Dispatch and ambulance service 24 hours/day.
- Let me know of any injury a.s.a.p. If you require medical care or want to be checked over by a doctor, we can fill out a CA-16 to go with you or be faxed after you, authorizing treatment under the Workers' Compensation program. We will follow up with additional paperwork the next day.

Any telescope left up overnight is at your own risk since we do not have staff to patrol the lot. It MUST be covered with a tarpaulin so it's not an advertisement to thieves, and any valuable and easily portable pieces MUST be taken with you. As usual, I'll get permission in case any telescope owner wants to sleep in their vehicle near the telescopes. You might also consider carpooling to leave an unoccupied vehicle by the scopes overnight, implying a human presence.

Please use red lighting on your tripods to help visitors find your telescopes in the dark. Glow in the dark tape at an eyepiece or tripod foot is also helpful.

The telescopes will be arranged around the perimeter of the lot again this year; I'll place a sandwich board on the telescope lot with a **map of the telescope layout** for those who arrive to set up early on opening Saturday. If need be, we can overflow or put latecomers into the commercial bus lot too, so about 3 bus spots there will be coned off after 5 pm.

In 2014, people were tripping over the curb when headed to the Commercial Bus/astronomer parking lot and restrooms, despite the glow tape that seemed to solve this problem the previous year. **Please do not place any lights near that curb which may draw the eye away from the glow tape.**

On opening day, Jim Knoll and I will be around off and on setting things up, in case you have questions. **Jim's cell number is (520) 241-3113** and mine is **(928) 300-4244**.

Marilyn Unruh will serve as **TAAA social coordinator** this year, but anyone is welcome to organize a group outing or adventure. The Popsicle Parties should facilitate this.

On Monday, Wednesday, and the final Saturday I'll need a couple of volunteers to help count visitors as they arrive from different directions.

New items for 2024:

Visitor Center hours will be limited this year. As of now, the hours of operation are 8 am – 3 pm, 7 days per week. We really need assistance from solar astronomers (or anybody really) to help advertise for the event in the afternoons around the visitor center. If you do solar during the day, consider setting up in front of the visitor center so you can help promote the event.

We are returning to the visitor center theater for the special talks. We will setup an overflow projector setup that will simulcast the presentation outside if folks don't get a seat inside the theater.

We're continuing having astronomers record their visitor contact numbers in addition to their volunteer hours. I know it's challenging to keep track of how many times an eyeball approached your telescope's eye piece, but your best approximation is probably still better than my own extrapolation would be. (Many astronomers bring a handheld clicker-counter for this purpose.) If you REALLY have no idea and don't want to guess, please turn in your hours form anyway so we'll at least know how many telescopes were set up each night and how many volunteer hours were logged. In 2019 we had about 85% compliance. Let's break 90% this year! *These statistics are incredibly important to ensure that GCSP continues unflinchingly into the future!*

Bright Angel Bicycles Cafe will likely remain open later for the duration of Grand Canyon Star Party. This café is found in the Grand Canyon Visitor Center Plaza, a short 2-minute walk from the Telescope Lot, and will be selling drinks and snacks until around 10 pm. We are working with them to ensure their services will not add any light pollution to the area.

Speakers 2024:

We have another amazing lineup of **special guest speakers** this year:

Saturday June 01, we welcome **Autumn Gillard**, tribal liaison for the Paiute Indian Tribe of Utah, who will give a talk titled *The Amazing Nuwuvi Universe*.

Sunday, June 02, **Dr. Jennifer Wiseman**, senior project scientist from NASA, will present her work on the Hubble Space Telescope.

Monday, June 03, **Dean Regas**, Outreach Astronomer, podcast host of "Looking Up," and former co-host of PBS's *Star Gazers* program, will return to give his program *Tour of the Universe: You Are Here*.

Tuesday, June 04, we welcome **Vanessa Gressieux**, Program Coordinator for the UA Mt. Lemmon SkyCenter, who will present a talk on the history of observatories in Arizona.

Wednesday, June 05, Hopi artist **Gerald Dawavendewa** will present his talk about Hopi cosmology as told through his artwork.

Thursday, June 06, a **Lowell Observatory astronomer** will present a talk on their current research at Lowell.

Friday June 07, we welcome **Lauren Camp**, poet laureate of New Mexico and Grand Canyon Astronomer in Residence alumna, who will speak about her new poetry book on dark skies, *In Old Sky*.

Saturday, June 08, **Michael Rymer**, Program Associate from DarkSky International, will present a talk on DarkSky International's work in protecting dark skies worldwide.

Laser Safety:

Please consider using only **5mW laser pointers**. Unless your lines tend to get quite long, please consider purchasing a 5mW if you do use a laser pointer—or at least stick to a reasonably low wattage, especially early in the week when there is no moon. We are celebrating the park’s natural dark night sky, not a display of dueling laser pointers, and I don’t want to risk jeopardizing the freedom to use them at all at park astronomy programs.

Also DO NOT USE A LASER TO POINT OUT OBJECTS CLOSE TO THE HORIZON. In previous years this was an issue, with some visitors choosing to leave the Star Party because of safety concerns, and astronomers fearing for their vision when a laser hit one of their telescopes. Note the following guidelines in the Job Hazard Analysis:

- Use only class I, II, or IIIa/3R lasers. **Always use lowest level that’s sufficiently visible to participants.**
- **Never point at any person, animal, airplane, vehicle, building, or reflective object.**
- **Avoid low angles close to the horizon.**
- Practice limited use of green lasers at star gazing events and give laser operator plenty of space for use.
- Hold firmly. Never let visitors handle lasers.
- Do not allow visitors to use their own lasers while on the telescope field.
- When not in use, lasers must be stored in a protective container.

Paperwork:

With this letter you will receive **three other items to read:** the 2024 revisions of the **Astronomy Volunteer Job Description** and **Job Safety Analysis**, plus the usual **Firearms in Parks** language.

There are also two forms to print out and bring with you: the **Volunteer Services Agreement** and the **Volunteer Hours and Daytime Contacts** form. You might also want to print out this letter, for the phone numbers and directions.

The **Volunteer Service Agreement** will be for each of you individually, and you’ll turn it in at the gray registration cart upon arrival. Please fill in all parts EXCEPT the ‘Under Age 18’ box (unless you ARE filling it out for a minor) and the ‘Termination of Agreement’ box at the end. PLEASE ENSURE THESE ARE FILLED OUT COMPLETELY.

Please fill out your **Volunteer Hours and Daytime Contacts form** as the week goes on. **Turn it in to me or Jim before you leave the park—or very shortly after.** Those numbers help assure the continuation of the Grand Canyon Star Party from year to year, and support making dark night skies a priority in this park. This is an integral part of your volunteership with Grand Canyon National Park. Last year we had 85% of volunteers turn them in. Again, let’s break 90% this year!

The Usual Reminders:

Safety comes first, and we request your assistance in watching out for the safety of visitors as well as yourselves. The National Park Service does not recommend that anyone hike to the river

and back in one day, or hike in the inner canyon between 10:00 a.m. and 4:00 p.m. during summer. Please support that message and let us know if you see ways to improve safety in the dark. **Watch for visitors lying down on the pavement** and tell them it's not permitted for safety reasons. And when it comes time to pick up your telescope (after 11 pm on clear nights), **use the lowest vehicle lights you can get by with SAFELY** but don't let astronomer complaints lead you to risk driving blind. Asking someone to walk in front of your vehicle may be something to consider if oblivious pedestrians and prone stargazers are a concern.

No vehicles may park in the Telescope Lot (except while dropping off and picking up telescopes), or anywhere else that involves impeding traffic or crushing vegetation. Telescopes set up by day should also not block pedestrian access to any area.

No generators are allowed on the Telescope Lot in order to maintain natural quiet.

Personal and/or company banners and signs are prohibited, with the exception of the usual Star Party banner and signs. Also, while on duty as official park volunteers (that is, while operating a telescope or giving a slide show) please avoid political or potentially offensive statements on clothing—or by mouth!

Thanks and welcome:

The Grand Canyon Star Party is always a pleasure for me as well as for thousands of visitors from around the world. **Thank you all** for making it possible—for the 34th time! And a special **welcome** to those who are joining us for the *first* time; I hope it won't be the last.

I wish you all a safe trip here, and a very enjoyable stay at YOUR national park. Feel free to call or e-mail if you have questions about the park, or suggestions for making the Grand Canyon Star Party better than ever. See you soon!

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