

Analemma Society Annual Report (March 2023 to March 2024) DRAFT

Analemma Society
PO Box 196
Great Falls, VA 22066

Analemma Society (AS) is a 501 (c) 3 educational non-profit dedicated to teaching the public science through astronomy. Analemma Society is registered with the Commonwealth of Virginia and maintains its annual registration with the state as well as filing income tax forms with the U.S. Internal Revenue Service. We are authorized by the state of Virginia to fundraise and operate the Observatory at Turner Farm under the auspice of the Fairfax County Park Authority (FCPA) to further our educational aims.

In 2023, Analemma Society provided opportunity for more than 8,300 visitors — twice as many visitors to Observatory Park at Turner Farm as 2022 providing 38 Friday night public observing sessions, and instructing 67 FCPA Parktakes classes about dozens of astronomical subjects.

Over the course of the year, Analemma Society held more than a dozen special observing events at Observatory Park for the Fairfax County Public Library and scouting groups learning about the night sky and space. In addition, Analemma Society supports outreach events to inform the public about activities at the park and in November 2023 received the FCPA Harold Strickland Partnership Award from the Fairfax County Park Authority.

AS and FCPA staff presented Parktakes events at the Roll Top Observatory including Astronomy Festivals and the Perseids Meteor Shower with support from Gerald Kassalow, Alan Figgatt, Jeff Kretsch, Bill Burton, Bob Kellogg, Calvin Powell, Dan Ward and new volunteers. Volunteers include but are not limited to:

Alan Figgatt, Jeff Kretsch, Alex Nguyen, James Nguyen, Bill Burton, Cal Powell, Blake Spendley, Cally O'Brien, Christopher Spain, Dan Ward, Doug Wood, Andrew Hayes, Dennis Caffi, Eric Tone, Eve Kassalow, Greeta Mjavanadze, George Bradshaw, Jeff Fernandez, John Lagozzino, John Sojka, Jonathan Cross, Kaushik Nagarkar, Kevin Wenks, Christina Wenks, Mary Blessing, Nathan Offenbacher, Pamela Strauss, Robert Kellogg, Shawn Dilles, Shobha Subramanian, Stephan Klene, Steven Swantek, Thomas Trostel, Victor Ibarra-Martinez, Daniel Vrolijk, Gerald Kassalow, Steven Powell, and Donna Lulchuk.

Analemma Society members Alan Figgatt, Bill Burton, Gerald Kassalow, Calvin Powell, Bob Kellogg, Mary Blessing, Dan Ward and Jeff Kretsch provided and supported the Fairfax County Parktakes program with courses on meteors, telescopes, the moon, and family centered courses among other topics.

During the past 5 years, Analemma Society has worked with more than 18,000 visitors at Observatory Park. Analemma Society volunteers donate more than 1,800 volunteer

hours per year, fundraise for telescope purchases and maintain scientific equipment, as well as provide education and programs and festivals that teach science, technology, engineering and math through astronomy at Observatory Park in Great Falls, Virginia.

In March 20, 2022, Charles Olin retired after many years of forming and building Analemma Society and overseeing activities at Observatory Park. With Olin's passing in March 2023, Vice President Paul Reistrup assumed the position of President of the Analemma Society. At the Annual Analemma Society Meeting on May 3, 2023, the following officers and directors were elected:

Officers

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|-------------------------|------------------------|
| President: | Dr Jeffrey L. Kretsch |
| Vice President | Paul Reistrup |
| Corresponding Secretary | Don Fowler |
| Recording Secretary | Christina Tyler Wenks |
| Treasurer | Dr. Jeffrey L. Kretsch |

Directors

| | |
|--------------------|------------------|
| Robert Anderson | Jacqueline Olin |
| Alan Figgatt | Mary Blessing |
| Dr. Robert Kellogg | Dr. Douglas Wood |

Analemma Society participated in a number of different programs through the year:

Jeffrey Kretsch represented Analemma Society in a public comment meeting on Feb. 22, 2023, by the Great Falls Citizens Association to discuss the Dark Sky Ordinance that benefits Observatory Park.

On March 22, 2023, Mary Blessing and Jeffrey Kretsch participated in the Loudoun Country Regional Science Fair at Rock Ridge High School.

Due to popularity of the comet c/2022 E3 ZTF, conversation on public radio resulted in the public learning about Analemma Society endeavors at Observatory Park. Subsequently, visitor counts increased.

On March 8, 2023, Connection Newspapers of Northern Virginia featured Observatory Park on the full cover page and a full-page feature that discussed the unique history of the park and types of programs provided at the observatory. This resulted in other Washington, D.C., area media adding free Friday night viewings to their calendars, mentions on local NPR stations, and mentions when celestial events occurred, such as the Perseids and Geminid meteor showers.

In April 2023, Analemma Society research was published in the publication called "Weatherwise" published Jeffrey Kretsch's article, called "Years of Journals Provide Glimpse into Frequency of Rainbows and Halos," which may be found at <https://www.tandfonline.com/toc/vwws20/75/6>.

April-August 2023: Analemma Society member Jeff Kretsch monitored blue bird boxes at Observatory Park and provided results to the Virginia Bluebird Society. FCPA benefits from wildlife data, too.

Invited by Dark Sky Friends and STEM leaders, Christina Tyler Wenks represented Analemma Society and shared Observatory Park's learning opportunities and children's activities at an April 27 Earth Day/Take Your Child to Work Day in Gaithersburg, Maryland.

In May, Charles Olin's memorial service was hosted by Fairfax County Park Authority at the park. Olin's life story was shared in local media publications, which provided observatory history and AS mission. In November, FCPA featured a tribute to the vision and years of dedication of Analemma Society late founder Charles Olin, <https://www.fairfaxcounty.gov/parks/awards/ellydoyle>.

In April, Christina Wenks represented Analemma Society sharing lessons of the solar system at the Night Sky Event at Wolf Trap National Park for the Performing Arts.

In July, Christina Wenks represented AS providing night sky education and observatory information as nearly 7,000 entered the Holst Planets performance night at Wolf Trap National Park for the Performing Arts.

As the Town of Vienna revamped lighting ordinances in July, Christina Wenks represented AS, provided Observatory class and visitor data and spoke at a Vienna Town Council and Planning Commission hearing to share the impact of light pollution and how lighting-ordinance changes and education could lead Northern Virginia endeavors and support each statement with facts, data or proven experiences to illustrate the what, why and how and that light pollution has great costs and is reversible.

In July, Analemma Society proved children's activities and dark sky education at the Firefly Festival at Wolf Trap National Park for the Performing Arts with several hundred attendees. Christina Wenks provided children's activities, solar system lessons and dark sky education along with other organizations such as Audubon Society, Master Gardeners and Dark Sky Friends and more.

From October - December 2023: The Charles Olin Library that inspired AS and the creation of Observatory Park was shared at Great Falls Public Library. Christina Wenks arranged and installed the exhibit, featuring sundials and astronomy instruments resulted in significant public feedback, education about Analemma Society, resulting in an exhibit extension and an invitation from the county library to exhibit again in 2024.

AS formed an education alliance with DarkSky NOVA and Dark Sky Friends, nonprofits that generate outreach for dark sky education.

On Oct. 18, 2023, AS volunteers Christina Wenks and Eileen Kragie provided packages of science supporting dark-sky initiatives and testified before the Fairfax County Planning Commission, which unanimously approved the half-mile lighting ordinance around Observatory Park. Fairfax County Park Authority, Great Falls Citizens Association, DarkSky International, DarkSkyNOVA and George Mason University Observatory director Dr. Peter Plavchan supported the efforts, in spite of contentious neighbors who spoke at the hearing.

On Oct. 22, 2023, Analemma Society provided sundial and solar system activities and education during George Mason University's Space Day, which hosted 2,200 patrons and numerous scientists, astrophysicists and vendors. Volunteers Jeffrey Kretsch, Steven Powell, Gerald Kassalow, Christina Tyler Wenks, Eileen Kragie and Donna Lulchuk participated.

On Oct. 29, 2023, Analemma Society was represented at BatFest at Wolf Trap National Park for the Performing Arts with several hundred attendees. Jeff Kretsch shared the AS mission to share the value of dark sky for viewing stars and health of wildlife.

In front of a full banquet hall that included many elected officials, FCPA awarded Analemma Society volunteers with the Harold Strickland Award at a Nov. 17 ceremony in Fairfax. This award, featured in this video, <https://www.youtube.com/watch?v=Xp3VeBj4P-8>, is decades in the making with a growing number of patrons and programs.

On Nov. 21, 2023 After years of public hearings and advocating to representatives, the Fairfax County Board of Supervisors unanimously approved an ordinance creating a dark sky preserve around Observatory Park at Turner Farm. Volunteers Eileen Kragie, Christian Wenks and Jeff Kretsch did the work partnered with Dark Sky Friends, DarkSky NOVA, and the Great Falls Citizens Association.

In November 2023, the Charles and Jacqueline Olin Scholarship Fund was established to provide high-school volunteers money to pursue their STEM careers in college.

On Dec. 19, 2023, NASA's Astronomy Photo of the Day featured Steven Powell's California Nebula — <https://apod.nasa.gov/apod/astropix.html>.

In support of the partnership with Fairfax County Park Authority, Analemma Society's Christina Tyler Wenks produced the 294-page Urban Night Sky Place designation application to DarkSky (formerly International Dark Sky Association). In January 2024, FCPA submitted the application, which can be found here: <https://www.dropbox.com/scl/fi/m2m4yjc9q8vbb9m7zu78s/UNSP->

[ApplicationFairfaxCountyParkAuthorityObservatoryPark2024-FINALwPg-s.pdf?rlkey=weaju9e4mnlvaj12uiwvrch07&dl=0.](https://www.fairfaxcounty.gov/parks/observatory-park/2024-final-report.pdf?rlkey=weaju9e4mnlvaj12uiwvrch07&dl=0)

Observatory Park has been featured in the media dozens of times in 2023. A partial list of media coverage links be found on pages 77-90 of the UNSP document linked above.

Bob Kellogg contributes significant changes and updates to the analemma.org website. Jeffrey Kretsch maintains the AS Facebook page. Alan Figgatt maintains Twitter and Christina Wenks started an AS Instagram account in 2023. FCPA coverage and partnership multimedia contribution information can also be found at the UNSP link.

Over the year Alan Figgatt maintained the solar system model on the sidewalk, conducting planet walks for visitor and scouting events.

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|------------------------------------|-----------------|------------|-------------|--------|---------------------|--------|---------|--------|--------|--------|--------|--------|-------------|--|
| Visitors | Volunteer Hours | | Park Open | | Volunteer hour rate | | \$26.96 | | | | | | | |
| 2502 | 792.00 | | 130 | | | | | | | | | | | |
| | Jan | Feb | Mar | April | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Year Total | |
| Volunteer hours | 192.5 | 599.5 | 209.5 | 154 | 64.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1220 | |
| Attendees | 596 | 1906 | 344 | 389 | 368 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3603 | |
| Hours Park open | 43.50 | 86.50 | 27.50 | 45.50 | 5.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 208.50 | |
| Estimate of revenue | \$1,768.00 | \$5,628.00 | \$3,444.00 | \$0.00 | \$224.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$11,064.00 | |
| Utility Cost | | | | | | | | | | | | | | |
| Estimated Value of Volunteer Hours | | | \$21,352.32 | | | | | | | | | | | |

Over January and February 2024, Analemma Society members supported various Science Fair judging activities at Herndon High School.

Membership Drive: Analemma Society collected \$250 in dues and \$1,735 in donations over this period.

Springvale Road Pickup: Springvale Road runs along the western boundary of the park, and to maintain a pleasant appearance and environment AS has been doing road pickup under the Virginia Department of Transportation (VDOT) Adopt a Highway program. Jeff Kretsch and Tim Hackman have been doing the pickups on a quarterly basis and reporting results to VDOT.

AS holds monthly meetings the first Wednesday of every month both in person at Observatory Park and via teleconference at 12:30.

Acknowledgements:

AS consists of volunteers, among them Alan Figgatt has led the Friday night observing sessions, Mary Blessing has coordinated the Family Night program with schools and is helping develop an outreach program. Christina Wenks has helped with community and media outreach efforts, and Jeff Kretsch has handled VDOT Road pickup with help from

Tim Hackman, as well as general duties maintaining the non-profit status of AS. Bob Kellogg has provided webmaster services.

Respectfully Submitted,

Jeffrey L Kretsch
President
Analemma Society