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Flagstaff Dark Skies Coalition PO BOX 1892 Flagstaff AZ 86002 flagstaffdarkskies.org info@flagstaffdarkskies.org

Dark Matters Newsletter of the Flagstaff Dark Skies Coalition

Flagstaff Dark Skies Coalition in 2022: Successes, Wins and Challenges

The Coalition has gained major traction in 2022 as a newly independent nonprofit organization that created both a Full Board and an Executive Board of Directors, attracted new members, developed new partnerships, collaborations and news media attention and offered unique events in 2022.

Collaborations: The Coalition also maintained its presence in Northern Arizona through a continued collaboration with KAFF Radio and the "Dark Sky Moment," program and with Flagstaff Business News through a monthly column, "Flagstaff Dark Skies Champion." In addition, it built a larger membership base and maintained its connection to Coalition members through the quarterly Dark Matters e-newsletter and monthly FDSC meetings with special guests.

It also achieved its goal of enhancing and increasing collaborations with organizations such as the City of Flagstaff, Discover Flagstaff, Creative Flagstaff and the Flagstaff Festival of Science. In addition, it is now a member of the International Science Festivals Alliance.

Events: FDSC stepped up Dark Sky Themed Events in 2022

The Flagstaff Star Party

- Three nights of free public telescope viewing
- Three evenings of Twilight Talks.
- More than 3000 folks turned out for this event.





"This has been the Best Star Party ever!" – William Seven, FDSC member/volunteer



Flagstaff Dark Skies Hosted Famed Egyptologist Dr. Zahi Hawass for: An Evening of Awareness, Appreciation & Awe

"a dinner and lecture under the stars tourism experience" at Arizona Nordic Village - *NEW Program*

NightVisions: Cultural Interpretations of the Night Sky (extended collaboration)

- Celebration of the Night
- Night Photography Workshop with Stan Honda
- NightVisions Satellite Art Exhibits (three participating retail galleries)
- Dark Skies Lecture Series NEW Program featuring:

Bryan Bates, Coconino Community College Science Instructor Emeritus Padraig Houlihan, Coconino Astronomical Society member Ryan Anderson, USGS Astrogeology Science Center, physical scientist

FDSC Membership

FDSC closed out 2022 with 60 members, the largest in the organization's history. This represents an over 70% increase in 2023. Not to rest on our laurels, FDSC targets having 100 members by the end of 2023. And the number of members who volunteered to help with FDSC activities reached a high of 12 individuals. Thank you, one and all!

Continued Partnerships

Coconino Astronomical Society Lowell Observatory USGS U.S. Naval Observatory Arizona Handmade Artist's Gallery Phoenix Gallery Northern Arizona University

Challenges, Opportunities, Focus Areas Volunteers

As identified in the Strategic Planning Document, there is a "limited number of volunteers who are of similar age and background," and a small core group of volunteers who continue to do much of the work. The FDSC Executive Board may want to make recruiting for on-the-ground and behind-the-scenes volunteers a top priority for 2023. As with most events, there will be deadline pressures and shifting, urgent demands. For healthy morale and a successful year for all involved, it is critical that volunteers and consultants in leadership positions maintain an encouraging, optimistic and problem- solving attitude, especially through challenging and frustrating moments.

What's Ahead in 2023. FDSC Goals for the Upcoming Year

- Membership to 100.
- Maintain Events: Star Party, Sips and Savors, etc.
- Hire an ED.
- Hire an Event Coordinator for the Star Party
- Increase the number of FDSC members active in the Coalition's programs.

The Flagstaff Dark Skies Coalition has an immediate opening for a quarter-time Executive Director

The Executive Director is responsible to the Board of Directors to work with the FDSC Executive Committee on management of the non-profit organization, including fundraising/development, human resources, strategic planning, program delivery, finance, communications, and community engagement.

The Executive Director cultivates FDSC's mission and vision through personal leadership and advances the mission through outstanding programmatic and advocacy efforts at the local, state, and sometimes national level. The Executive Director publicly represents the organization to government agencies, partners, community, and the media.

The Executive Director assists in the creation of annual budgets and program planning, and with delivering budget and project updates to the Board of Directors throughout the year. The Executive

Director will manage grant applications, contracts, and reporting requirements. The Executive Director will seek out and cultivate relationships with potential sponsors for FDSC events and projects.

Candidate Profile

The Executive Director needs to be well organized, and capable of operating on their own; they need to be outgoing and able to form and nurture positive, constructive relationships with people and organizations.

Regular, personal interaction with the community is required, so the Executive Director must be located in the greater Flagstaff area.

Terms of Employment:

- Employment will be by annual contract, with monthly payments
- Compensation will be \$20,000 \$24,000 annually
- Remote work is required, as FDSC does not maintain office space or equipment

Light Pollution: New Analysis shows a Bigger Problem than Previously Thought

Analysis of observations by citizen scientists from 2011 to 2022 reveals that sky brightness as seen by the human eye has increased much faster than previously thought – about 5 times faster. Kyba et al write in an article published in the 20 Jan. Science, analyzed more than 50,000 observations of stars by citizen scientists around the world and found that the average sky glow increased by nearly 10% every year between 2011 and 2022. An earlier estimate using satellite measurements yielded a much smaller increase, about 2% per year. Why this big difference? The satellite sensor was not sensitive to blue light – the wavelengths that LED lights put out more light at these wavelengths than the high-pressure sodium lights they replaced.

This problem has be highlighted for years on the FDSC website – see the link "ALERT: What dark skies protection is missing by focusing on LED CCT..." on the FDSC home page. And the solution is simple in theory but difficult to apply in the real world due mainly to the lack of widespread knowledge of this fact.

But this message is one of the central lessons of the Flagstaff Solution which is the distillation of the lessons that Flagstaff has learned and applied in recent years to preserve the glorious dark skies that are still enjoyed here.

The FDSC believes that the increased attention being directed on the problem of light pollution that this new study has provided creates a timely opportunity for us to expand our efforts to share the Flagstaff Solution with anyone interested in improving the quality of their night skies by reducing unwanted and unneeded light pollution.

If you would like to play a more active role in furthering the FDSC mission, please contact Don Davis at drd002@gmail.com.

FDSC Membership Meetings

The monthly FDSC Membership Meetings are scheduled on the third Wednesday of each month via a Zoom link. Reminders are sent out via email a few days prior to each meeting.

The agenda is typically in two parts: First are reports from our President and others about business topics relating to the Coalition. This part is followed by a talk by experts on topics relating to dark sky preservation. These talks are recorded and stored on the FDSC Youtube site – we currently have eleven talks that are available.

Please check these out at: <u>https://www.youtube.com/channel/UCzrGY6bciNENIRFQv4DxIAQ</u> to learn more about topics ranging from impacts of satellite constellations on astronomy to the activities of the Fountain Hills dark sky preservation projects.

We are always looking for speakers so if you would like to propose someone or give a talk yourself, please contact Don Davis, Chair, Membership Committee at: <u>drd002@gmail.com</u>

Become a Member of the Coalition

Your membership supports the mission of the Flagstaff Dark Skies Coalition: To celebrate, promote and protect the glorious dark skies of Flagstaff and Northern Arizona, and by example, set the gold standard in night sky protection.

Our mission is to celebrate the wonders of the nocturnal ecosystem that all humanity inhabits, to promote awareness and participation, and to protect this natural resource for future generations as our common inheritance. We work to enhance public awareness about the night and advocate for public policies that reduce wasteful lighting. By celebrating the values found in natural darkness, we work to continue Flagstaff's 60+ years of worldwide leadership in night sky protection. http://www.flagstaffdarkskies.org/become-a-member-of-the-coalition/