

The background of the entire page is a night sky filled with stars. In the lower third of the image, the dark silhouette of a mountain range is visible against the starry sky. The overall color palette is dark blue and black, with white and orange text.

Big Park/Village of Oak Creek, AZ

2020

*Annual International
Dark Sky Community Report*

Report submitted by Camille Cox, President,
Big Park Regional Coordinating Council, Inc.



Courthouse Butte and Lee Mountain, prominent redrock features near Big Park/Village of Oak Creek, Arizona. Photo by Mark Lawler.

The Big Park/Village of Oak Creek Dark Sky Committee, formed under the Big Park Regional Coordinating Council, Inc., is pleased to report our community's dark sky activities from October 2019 through September 2020. Big Park/Village of Oak Creek is an unincorporated community in rural Yavapai County, Arizona in the greater Sedona area, and was designated the 14th International Dark Sky Community in the world in February 2016. The community offers incomparable beauty and is an attractive place to visit or settle for many reasons. One reason is the magnificent dark night skies that swath our skies. The community values this natural resource and wants to preserve it for us and for future generations. When public star parties are hosted, many visitors exclaim that they cannot see the Milky Way from where they live, and they are awed at the beauty of our pristine, dark night sky.

Postings of these annual reports are maintained at <https://keepsedonabeautiful.org>, at the **Dark Sky** selection under the **Initiatives** tab.

EDUCATIONAL EVENTS

Coping with the COVID-19 Pandemic

Local astronomy clubs were unable to continue public events after emergency measures were instituted for the pandemic. Nearly all public venues and community centers halted access for public events such as star parties and group meetings.

Despite these limitations, the Sirius Lookers astronomy club has had occasional small star parties where they maintain social distancing, request wearing of masks, and sanitize telescopes and ladders after each guest. The Astronomers of Verde Valley club has gone to virtual events, including programs on the local Verde Valley cable TV channel and on YouTube, to educate the public about astronomy, dark skies, and what's visible in the sky.

February 15, 2020: Mingus Mountain Star Party

Sirius Lookers hosted this event at the 7818-foot summit of Mingus Mountain. Visitors came from Sedona, the Village of Oak Creek, and Prescott. Several telescopes, binoculars, and night vision devices were on hand, providing a great experience in high-elevation viewing.

July 16, 2020: "County Wide" TV Program – Astronomers of Verde Valley

Yavapai Broadcasting News Director Paul David interviewed Astronomers of Verde Valley's J.D. Maddy about dark sky communities and parks, and the value of shielded light fixtures. J.D. shared astrophotos of what can be seen in the July night sky.

September 10, 2020: Virtual Star Party – Astronomers of Verde Valley

Amateur astronomer and past club president J.D. Maddy recorded a tour of the night sky using his telescope. The program repeats twice weekly on local VerdeValleyTV (Cox Cable TV Channel 9), and is on YouTube at https://www.youtube.com/watch?v=TXN0ehQ_kbg.

September 26, 2020: Live Virtual Talk and Moon Viewing

Sirius Lookers and Astronomers of Verde Valley jointly promoted among members and fans a live talk about the life of astronomer Robert Burnham, author of the well-known *Burnham's Celestial Handbook*, and then live views of the Moon from Lowell Observatory's Giovale Open Deck Observatory. Lowell Observatory set up this event to celebrate National Astronomy Day and Observe the Moon Night.

Additionally, with our beautiful preserved dark skies, multiple local companies offer private and group star parties to visitors worldwide.



Comet NEOWISE, showing both gas tail (blue, above) and dust tail (white, below). Photo taken near the Village of Oak Creek on July 18, 2020. Courtesy of Robert Mueller.

OUTDOOR LIGHTING ISSUES

Dark sky advocates worked to convince the newly built Element Sedona Hotel, at 6601 State Route 179 in the Village of Oak Creek, to install compliant amber LED lighting in its parking lots. Hotel management declined to do so, and unfortunately the facility now has white-light LED fixtures that contribute far more to our local sky glow than is necessary.

Local advocates successfully convinced the Snap Fitness gym, at 7000 State Route 179 in the Village of Oak Creek, to turn off its outdoor sign after about 10 pm. Management was happy to comply with this request.

The Big Park/Village of Oak Creek Dark Sky Committee is working with Yavapai County to update the County's lighting ordinance to bring it up to current standards. The committee is working toward the goal of completion in 2021.

A monument sign communicating the Dark Sky Community designation of Big Park/Village of Oak Creek has been designed and approved. The sign will be purchased and installed at the conclusion of a community funding drive.



Full Moon over redrock country, July 4, 2020. Courtesy of Dennis Young.

SKY QUALITY MEASUREMENTS

The Big Park/Village of Oak Creek Dark Sky Committee takes Sky Quality Measurements to ensure that the area continues to protect its dark night skies and reduce light pollution. The measurements, in magnitudes per square arc second, were taken in three locations on April 22 and June 20, 2020. The readings were taken at the same locations as in previous years.

SKY QUALITY READING IN VILLAGE OF OAK CREEK, AZ, PERFORMED ON APRIL 22, 2020, NEW MOON									
Time	Location	Percent of Cloud Cover	First Sky Quality Reading	Second Sky Quality Reading	Third Sky Quality Reading	Fourth Sky Quality Reading	Fifth Sky Quality Reading	Sixth Sky Quality Reading	Average Sky Quality Reading
22:05	Jacks Canyon Road/SunCliff Dr.	0%	21.44	21.39	21.38	21.37	21.38	21.38	21.39
21:48	888 Saddlehorn Rd.	0%	21.50	21.39	21.33	21.32	21.33	21.34	21.37
21:58	Bell Rock Blvd./Red Butte Drive - North of Golf Club	0%	21.29	21.27	21.24	21.25	21.24	21.24	21.26

SKY QUALITY READING IN VILLAGE OF OAK CREEK, AZ, PERFORMED ON JUNE 20, 2020, NEW MOON									
Time	Location	Percent of Cloud Cover	First Sky Quality Reading	Second Sky Quality Reading	Third Sky Quality Reading	Fourth Sky Quality Reading	Fifth Sky Quality Reading	Sixth Sky Quality Reading	Average Sky Quality Reading
22:28	Jacks Canyon Road/SunCliff Dr.	0%	21.39	21.37	21.39	21.37	21.39	21.37	21.38
22:10	888 Saddlehorn Rd.	0%	21.52	21.49	21.45	21.44	21.44	21.47	21.47
22:20	Bell Rock Blvd./Red Butte Drive - North of Golf Club	0%	21.40	21.37	21.39	21.32	21.30	21.34	21.35

Report submitted by Camille Cox, President
Big Park Regional Coordinating Council, Inc.
P.O. Box 20248
Sedona, AZ 86341
928-284-4001