

Air and Space this Week

Item of the Week

National Parks' Dark Skies Programs

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Ulysses S. Grant signed the paperwork establishing the Yellowstone National Park 150 years ago this Tuesday, March 1. That makes this the perfect time to showcase the Dark Skies (or Night Skies) programs that many National Park Service Parks and Monuments now have. And National Parks, Monuments, and other Units are not the only places for Dark Skies programs!

NOTE: [International Dark Sky Week](#) for 2022 is April 22-30!

THE ESTABLISHMENT OF YELLOWSTONE NATIONAL PARK

The area that is now Yellowstone National Park had been settled by native peoples for thousands of years. By the late 1700s, trappers and others began to explore the upper reaches of the Missouri River and its tributaries, but they didn't really get to the Yellowstone area. Neither did Lewis and Clark on their famous expedition to explore the limits of the Louisiana Purchase in 1804-6. They had heard stories from the natives about the strangeness of the area, and they did get to the Yellowstone River, but they only traversed it as far as present-day Livingston, Montana. One of their party, John Colter, left the group on its way back east, and explored the Yellowstone area; so did a fur trapper named Daniel Potts. Potts wrote of the odd features of the Yellowstone area in a letter to a Philadelphia newspaper in the mid-1840s. Famed Mountain Man Jim Bridger also explored the upper reaches of the Yellowstone River and told tales of it, but the area he and Potts described seemed too weird to possibly be real.

The California gold rush inspired a lot of prospecting across the West, including the Yellowstone area, in the 1760s and 70s. Several expeditions systematically explored the area, and proved that Potts and Bridger weren't lying, if anything, their descriptions weren't weird enough. The Hayden Expedition of 1871 was the watershed; it was well-equipped to make a variety of scientific observations, and more importantly for the future Park, the Hayden team had photographer William Henry Jackson and artists Henry Elliot and the great Thomas Moran. Their work showed the eastern public the wonder that was Yellowstone. So great was the interest that Congress withdrew the area from settlement and exploitation, citing the Yosemite Act of 1864 as precedent, and sent a bill to President Grant to create the Yellowstone National

Park. He signed the bill on **March 1, 1872, 150 years ago this week**. It was our country's first National Park!

[Yes, it was. Hot Springs, Arkansas was established as a "national reservation" in 1832, but it did not become a National Park until 1921. Yosemite was established as a California State Park in 1864, but was not upgraded to National Park status until 1890. The language used in the Yellowstone act was modeled after the legislation making Yosemite a state park, and that may have been Congress' intent. However, the Yellowstone act covered an area in three separate Territories, and their fighting over its jurisdiction caused the Park to be federalized!]

NATIONAL PARK SERVICE DARK SKIES PROGRAMS

The National Parks and Monuments under the jurisdiction of the U.S. Park Service of the Department of Interior contain a wide variety recreational, wildlife, and historical places of great beauty. Many of them are also wonderful places for appreciating the beauty of a dark, clear night sky, increasingly-difficult to find these days, at least in the "lower 48," and they are providing programming to showcase the night sky. The NPS has also taken a lead role in the installation of sky-friendly lighting and establishing policies that protect darkness.

Utah has been particularly active with dark sky programming, playing off of their state's frequent clear, dark skies. Natural Bridges National Monument was the first International Dark Sky Park by the International Dark Sky Association (more on them below), back in 2007. Cedar Breaks NM followed suit in 2017. Bryce Canyon NP, and Dinosaur NM were so designated in 2019, and Zion NP a year later. Many others followed.

To date, 43 National Parks, Monuments, and other NPS units offer specific dark sky programming, worthy of your attention! Thirty-three of them have also been designated as IDSPs by the IDSA. I won't list them here specifically, but you can access the list, with links to each unit, at: <https://www.nps.gov/subjects/nightskies/stargaze.htm>.

Alas, those of you living in the DC area don't have an NPS unit near you with a Dark Skies program. But Colorado is another story, with six IDSP units: Black Canyon of the Gunnison NP, Dinosaur NM, Florissant NM, Great Sand Dunes NP, Mesa Verde NP, and Rocky Mountain NP.

Florissant National Monument is the closest to Colorado Springs. They received their [ISDP designation in 2021](#), and they have excellent programming with support, including "Star Parties," from the Colorado Springs Astronomical Society.

Great Sand Dunes National Park and Preserve is not too far away from the Springs, too. They have a number of dark sky and other educational programs, including one for Junior Ranger Night Explorers. They also have a [short video](#), "Half the Park is After Dark!" and tips on how best to enjoy a night-time experience there.

Program General Description

Dark Sky programmatic offerings vary somewhat from NPS unit to unit, but they generally include most/all of the following: Telescope viewing led by Rangers and/or local astronomy

groups, Nighttime photography opportunities, Ranger-led full Moon hikes, astronomy programs for young visitors, “spot the *International Space Station*” activities, and other special astronomy events (see calendar [here](#)). Some Units even have on-site observatories ([here](#)).

State and Local Dark Skies Programs

Dark sky programming is by no means limited to units of the National Park Service! Many state parks and smaller facilities also offer them. Individual towns can also get an ISDA designation; one with which I am personally familiar is Westcliffe, Colorado. Westcliffe and its neighbor Silver Cliff, were prolific silver mining areas “back in the day,” and the community has worked together to showcase their wonderful dark skies and beautiful mountain valley scenery by building an observatory and by the creation of their “[Planet Walk](#),” a 1:4B scale model of the Solar System, which will be dedicated next month (stay tuned).

Fortunately, there are WAY TOO MANY state and local facilities involved in dark sky programs for me to list here. Check out the parks etc. near you, and/or consult with a local astronomical society to find out more about programs near you.

I would be glad to share information you might send me about programs in your neighborhood with the A+StW distribution list! Drop me a note via return email about them.

INTERNATIONAL DARK SKY ASSOCIATION

The IDSA “works to protect the night skies for present and future generations” by a combination of education, conservation, promotion of dark sky-friendly lighting, and grassroots advocacy. They showcase advances in dark sky protection, such as the recent first IDSP designation of a [park in Latin America](#), and dark sky advocates, such as [this one](#) recently. They provide a lot of information on light pollution: its deleterious effects on wildlife and ecosystems, energy waste, and its ineffectiveness at preventing crime. Their senior management and [board of directors](#) are avid advocates for dark skies, and come to ISDA from the NPS, astronomy research and outreach careers, conservation organizations, and the lighting industry.

DARK SKIES MAKE ECONOMIC SENSE, TOO

Providing a rewarding park experience and promoting astronomical learning for all ages are both worthy goals, but the value of dark skies is not limited to those two things.

Dark sky programming promotes tourism; the experiences of the IDSPs proves it. A number of those parks are in remote areas, and any tourist dollar that is spent there will circulate a number of times in that community before leaving it, benefitting the local and regional economies. The benefits are not limited to parks; there a number of B&B-type places that specialize in astronomical tourism. I won’t promote individual ones, but an Internet search on “astronomy bed and breakfast” will return many hits.

Many lights on at night are incredibly wasteful of energy, and are poorly designed because they shine in all directions, rather than focus their light solely on where it's needed. Replacing such lighting with modern, energy-efficient, sky-friendly lighting can rack up large savings over time.

Dark skies in some locations even have a big effect on local real estate. The ISDA has designated to date 34 Dark Sky Communities like the above-mentioned Westcliffe.

"Astronomy-oriented Retirement Communities" are a "thing," too; as an Internet search on the quoted phrase will show.

REFERENCES

Yellowstone

National Park Service: <https://www.nps.gov/yell/learn/historyculture/park-history.htm>

NPS Brief History: <http://www.nps.gov/yell/planyourvisit/upload/Yell257.pdf>

Yellowstone National Park Act from the Library of Congress: <https://guides.loc.gov/act-establishing-yellowstone>

Yellowstone, the First National Park (also from the LoC):

<https://www.loc.gov/collections/national-parks-maps/articles-and-essays/yellowstone-the-first-national-park>

YNP is a UNESCO World Heritage Site: <https://whc.unesco.org/en/list/28>

Wikipedia: https://en.wikipedia.org/wiki/Yellowstone_National_Park

National Park Service Dark Skies Programs

NPS Night Skies: <https://www.nps.gov/subjects/nightskies/index.htm>

NPS Where to Stargaze [includes a list with links of all NPS units with Dark Sky programs]: <https://www.nps.gov/subjects/nightskies/stargaze.htm>

National Parks Traveler.org: <https://www.nationalparkstraveler.org/2022/02/your-search-national-park-systems-darkest-skies-leads-utah>

Other Dark Sky Information

ISDA Communities: <https://www.darksky.org/our-work/conservation/idsp/communities>

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