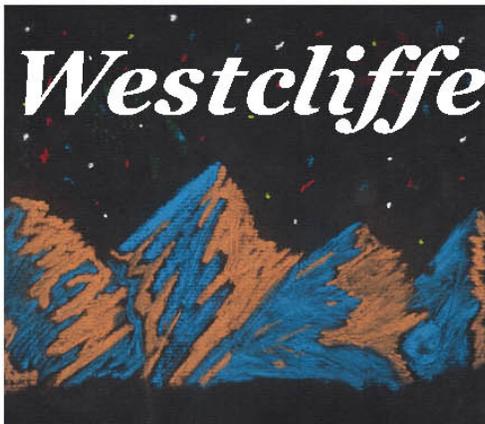




2016 Annual Report
March, 2015 – October, 2016
for the IDA International
Dark Sky Community Designation



Westcliffe & Silver Cliff,
Colorado, USA

Where the mountains meet the stars!



Submitted by Jim Bradburn,
President, Dark Skies, Inc.,
P.O. Box 634, Westcliffe, CO 81252



Committee Members:
Wilson Jarvis, Vice-President
Susan Frostman, Secretary/Treasurer
Robert Gemin, Board Member
Steve Linderer, Board Member &
Responsible for SQM Readings
Jim and Charlene Rohr, Board Members &
Responsible for Weekly Newspaper Column
Clint Smith, Board Member &
Star Guide Coordinator
Fred & Kathleen Stones, Board Members
Ed Stewart, Board Member &
Responsible for Annual Report Preparation

2011 student art contest winners (from the top):
Cloud Spitzfaden, Corey Lewenkamp,
Kristine Henrich, and Aspen Anderson



Dark Skies, Inc., Westcliffe & Silver Cliff, Colorado International Dark Sky Community Annual Report March, 2015 – October, 2016

When the towns were certified, our efforts received a major increase in public responses. Organizations charged with promoting the area’s tourist attractions wanted information to add to their print and web publications. More individuals came forward to join our group and commit to our projects. Our largest project was the design, construction, and operation of a public observatory on the western edge of Westcliffe. To make the observatory widely available required recruiting and training several dozen citizen “*Star Guides*” in astronomy and observatory operation. A 15-year effort came to fruition when we financially assisted the Town of Silver Cliff in changing out all their 50+ light polluting streetlights to dark sky friendly LED fixtures. Finally, we received national media coverage from multiple sources to widely promote the light pollution message.

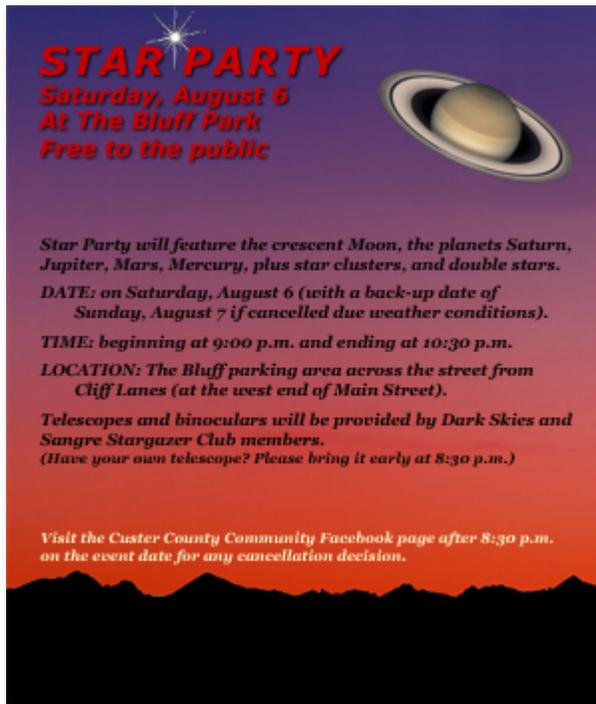
Summary of Activities

- Annual advertisement campaign in the local weekly newspaper, total: 24.
- Annual dark sky themed art contest at elementary school, seventh year.
- New, dark sky themed t-shirt design contest, first year.
- Continuous weekly astronomy column, *Celestial Exploring*, in the local weekly newspaper, total: 52.
- Newspaper articles involving the Dark Skies organization, total: 21.
- Newspaper *Letters to the Editor*, total: 4.
- Tourist publications: articles and calendars in print and Internet, total: 5.
- Publication of a Dark Skies’ web article on “how to” for community certification efforts and/or to start a light pollution group.
- On-site presentations of the “*how to*” web article to other groups: 2
- Public star parties hosted by Dark Skies members: 10, by Star Guides: 4.
- Financial assistance of \$10,000 to the town of Silver Cliff for the conversion of all 50+ streetlights to dark sky friendly, 3,000K LED fixtures.
- Construction of an observatory available to the public by reservation.
- Training by Dark Skies members of two dozen volunteer citizen “*Star Guides*” to host star parties at the *Smokey Jack Observatory*.
- *NY Times* and CNN’s *Great Big Story* division national media coverage.

Descriptions and Documentation in Chronological Order

Annually: advertisement campaign in *The Wet Mountain Tribune*

Our ad contract includes 15 small 4" x 4" black & white ads that feature dark sky education facts or event announcements, 3 half-page full color ads featuring the art from the annual elementary school contest, 5 medium 5" x 4" full color ads announcing star parties, and 1 small black & white ad in the annual *Builder's Guide* special edition for a total of 24. Sample advertisements:



STAR PARTY
 Saturday, August 6
 At The Bluff Park
 Free to the public

Star Party will feature the crescent Moon, the planets Saturn, Jupiter, Mars, Mercury, plus star clusters, and double stars.

DATE: on Saturday, August 6 (with a back-up date of Sunday, August 7 if cancelled due weather conditions).

TIME: beginning at 9:00 p.m. and ending at 10:30 p.m.

LOCATION: The Bluff parking area across the street from Cliff Lanes (at the west end of Main Street).

Telescopes and binoculars will be provided by Dark Skies and Sangre Stargazer Club members.
 (Have your own telescope? Please bring it early at 8:30 p.m.)

Visit the Custer County Community Facebook page after 8:30 p.m. on the event date for any cancellation decision.



Moon & Planet Viewing Party
 Featuring the Crescent Moon, Saturn, Mercury & Venus

DATE: on Thursday, June 13 (with a back-up date of Friday, June 14 if cancelled due weather conditions).

TIME: beginning at 9:00 p.m. and ending at 10:30 p.m.

LOCATION: The Bluff's event site across the street from Cliff Lanes at the west end of Main Street.

Telescopes will be provided by Dark Skies and Sangre Stargazer Club members.
 (Have your own telescope? Please bring it early at 8:30 p.m.)

Visit the Dark Skies website after 8:30 p.m. on the event date for the cancellation decision: <<http://www.wetmtdarkskies.org/>>.

May 28, 2015
 Wet Mtn Tribune

LIGHT POLLUTION
 WHY SHOULD CUSTER COUNTY CARE?



County Courthouse before with glaring wall packs that blinded passing motorists



County Courthouse after with shielded wall packs that direct lighting to the ground to provide safer entry

- Light pollution is threatening a precious natural resource — our starry night sky (National Park Trust)
- Our natural night sky helps make Custer County a uniquely desirable destination for tourists and potential residents
- Light pollution threatens the health and well-being of both humans and wildlife. (American Medical Association, Resolution 316)
- Excessive, inefficient, and mis-directed lighting wastes energy. (National Park Service)

How can you help?
 Please attend one of our meetings to share your ideas. Visit our website for more information:
 <<http://www.wetmtdarkskies.org/>>.



Westcliffe & Silver Cliff
 An International Dark Sky Community



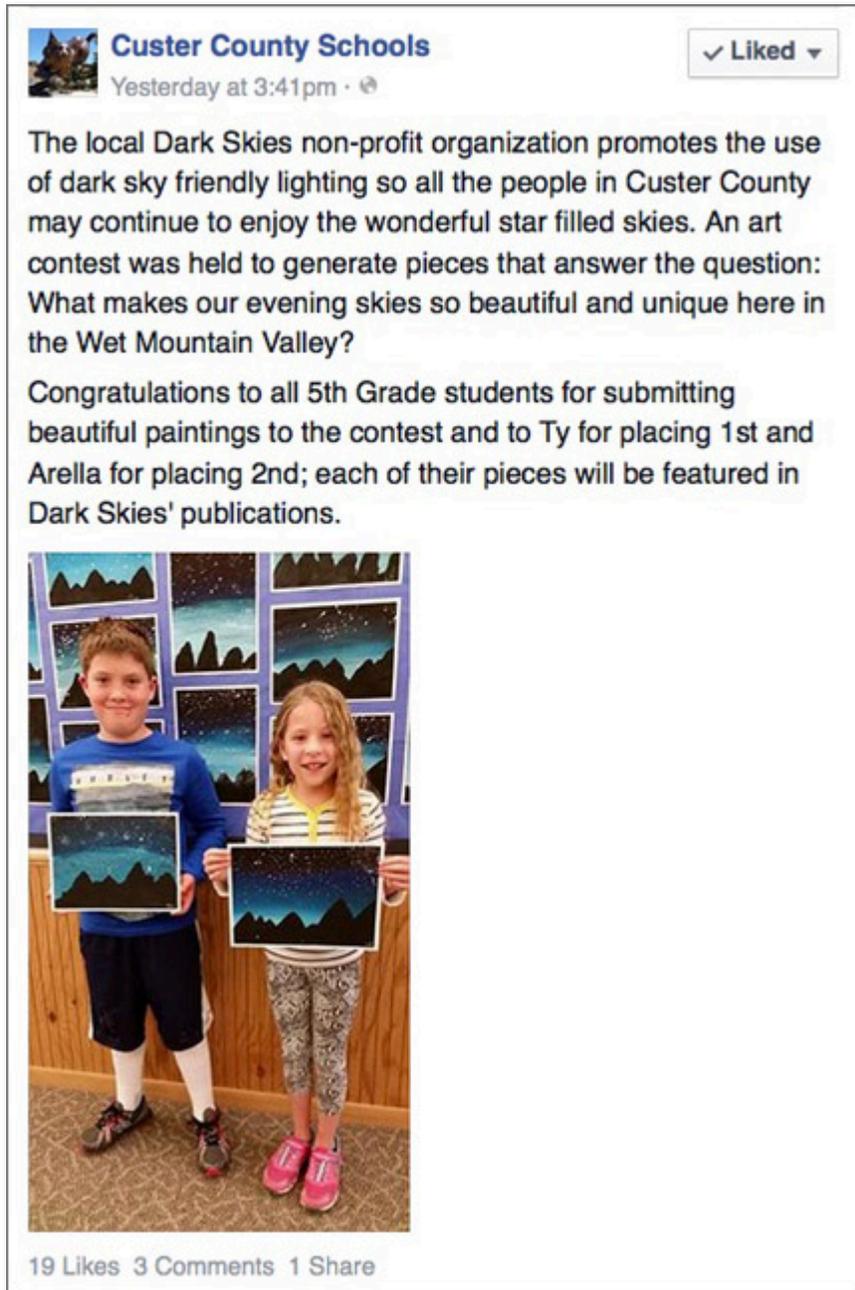
Light the ground,
 not the sky!

Dark Skies
 <www.wetmtdarkskies.org>

Annually: school art contest (winner’s art used in half-page ads)

A dark skies themed art contest at the local elementary school has been conducted since 2009. The art is then used in three half-page color ads during the year in *The Wet Mountain Tribune* and other publications, as needed. The image below comes from a posting to the Custer County Community Facebook page, a resource we use often to announce our public outreach events.

Visit: <https://www.facebook.com/groups/281203125286965/> and search on: *Dark Skies*.



Continuously: A weekly astronomy column, *Celestial Exploring*:

The weekly astronomy column, *Celestial Exploring*, by Dark Skies' members Jim and Charlene Rohr in *The Wet Mountain Tribune* has been a feature column for over a decade.



Westcliffe & Silver Cliff
First in Colorado to be Certified an
International Dark Sky Community

Celestial Exploring

the Best of Dr. John Boucek's Articles
Annotated by Charlene & Jim Rohr on behalf of Dark Skies, Inc.



THE KNEELING ONE

Our frequently touted constellation Hercules is very high in the night sky after dark and is an easy asterism to locate by virtue of the familiar four-star trapezoidal pattern forming the "Strong Man's" torso. The remaining stars are somewhat fainter yet they will appear with some searching on a dark night.

In art, Hercules is often depicted in the act of stringing his great bow as he appeared on a silver coin minted in Thebes about 430 B.C. On the famous "Shekel of Tyre," Hercules appears as the god of the Phoenicians, first issued around 126 B.C.

It was the most commonly used silver coin throughout the Judaeen world in the first century and was probably the coin referred to in the New Testament story of the "Thirty Pieces of Silver."

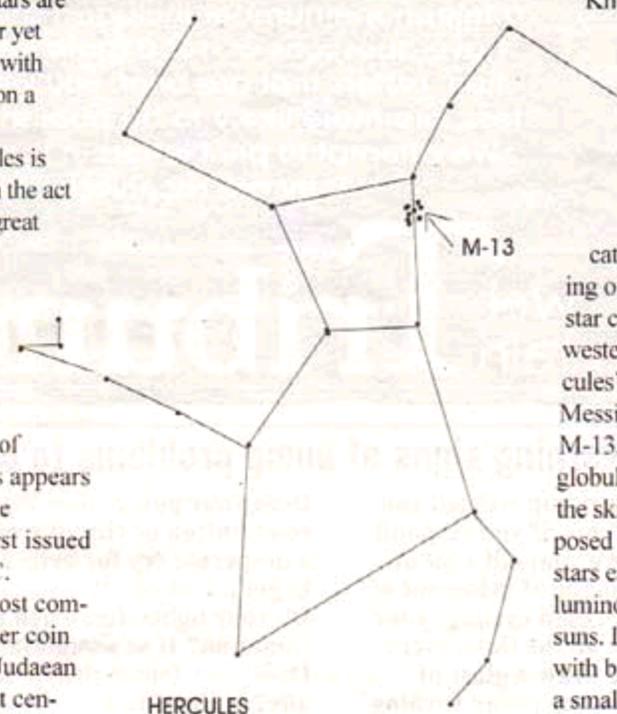
I could never see him down on one knee stringing his bow until turning the pattern upside down, and there, voila!!

This star pattern is one of the easiest to

be defined and named, and from ancient times was associated with the great gods or national heroes. In the days of Plato (about 140 B.C.) it was referred to as, "The Kneeling One", or the "Man on his Knees."

Charles Messier (1730 – 1817) was a French astronomer who published an astronomical catalogue consisting of 110 nebulae and star clusters. On the western side of Hercules' torso is one of Messier's discoveries, M-13, one of the finest globular star clusters in the skies. M-13 is composed of over 30,000 stars each having the luminosity of about 200 suns. It may be located with binoculars or even a small telescope. Both will provide a magnificent scene of this wondrous globular star cluster.

Want to know more about Charles Messier?
www.space.com/16686-charles-messier-biography.html



HERCULES

Westcliffe & Silver Cliff, CO

2016 Annual Report

4

March, 2015: Dark Sky Community certification announcements in the *Pueblo Chieftain* and *Sangre de Cristo Sentinel* newspapers plus local television video stories.

The Pueblo Chieftain WWW.CHIEFTAIN.COM/UPPERARK FRIDAY, MARCH 20, 2015 3B

Upper Ark Chieftain

Serving: Buena Vista / Canon City / Florence / Penrose / Salida / Silver Cliff / Westcliffe / Wetmore

WESTCLIFFE

Towns are shooting to the stars

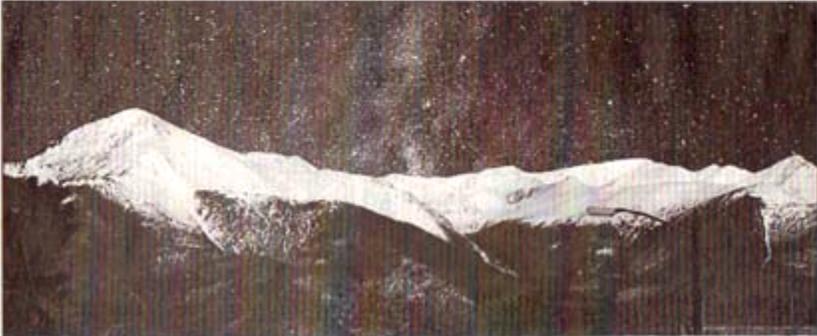
Dark skies designation could make them an astronomer's destination

BY TRACY HARMON
THE PUEBLO CHIEFTAIN

WESTCLIFFE — Keeping people in the dark and reaching for the stars has won The Cliffs the state's first international dark skies designation, only the ninth such honor bestowed in the world.

The towns of Westcliffe and Silver Cliff, affectionately known as The Cliffs, have earned Colorado's first International Dark Sky Community designation from the International Dark Sky Association.

It is an honor that, "We



“It was a huge effort and we are real pleased to be the first in Colorado and ninth in the world. It is a wonderful thing that will be quite good for the community both economically and in recognizing what we can do for other towns trying the same thing.”

JIM BRADBURN

Sangre de Cristo Sentinel Friday, March 13, 2015

Local Mountain News

Two Colorado Towns Come Together as Colorado's First International Dark Sky Community

Press Release
TUCSON, Arizona, and WESTCLIFFE / SILVER

bustling population center. At the 1880 Census, Silver Cliff was the third most populous municipality

plained. "It deserves protection so that far into the future, both residents and visitors can contin-

Video stories about the designation that ran on the Denver 9News NBC station on March 24, 2015, and also on May 5, 2015, on KOAA News5 Colorado Springs:
<http://www.koaa.com/story/28986022/dark-skies-become-important-asset-for-westcliffe-and-silver-cliff>.

March, 2015: Letters to the Editor, star party advertisement, and article in *The Wet Mountain Tribune*.

THURSDAY, MARCH 26, 2015

Letters

Some Great News for the Valley!

Jim –
Great news and congratulations to Westcliffe and Silver Cliff for the Dark Sky recognition. And for the upcoming Bike Race participation. Those are great activities and exciting to see.
We would like to learn more about the

planned observatory mentioned. What will be built? How will it be used? Who will run it? What are the funding sources? You may have done an article previously but we missed it and would love to learn more.
Scott, Beth and Anne Mosley
Minneapolis and Points West

Dark Skies & Sangre Stargazers
invite the public to attend our—

Star Party

Friday, March 27, 8 p.m.
at *The Bluff* (west end of Main Street)
Check the *Custer County Community* page
on Facebook after 7 p.m. for update.

Telescope viewing, weather permitting,
of the Moon, Venus, Jupiter & more.

<www.wetmtdarkskies.org>

View celestial objects on Friday with Dark Skies and Stargazers

Dark Skies announces a star party tomorrow, Friday, March 27.

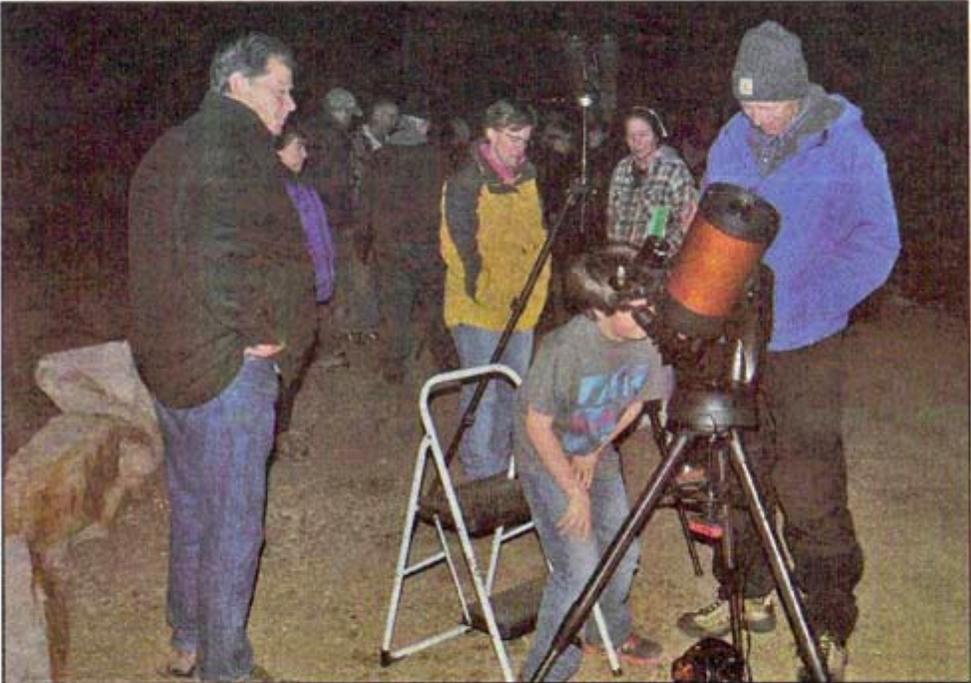
Members of Dark Skies and the Sangre Stargazers will have a number of telescopes and binoculars set up at The Bluff on the west end of Main Street beginning at 8 p.m.

This is the first public event sponsored by the local Dark Skies organization since it received notification earlier this month that Westcliffe and Silver Cliff have been recognized as a formally designated Dark Sky community by the international Dark Sky organization. We are one of only nine international communities to receive the designation.

The public is invited to view the crescent Moon, Venus, Jupiter, the Pleiads, and other celestial objects, weather permitting. Check the Facebook page, Custer County Community, after 7 p.m. on Friday for last minute update.

March, 2015: Star Party article in *The Wet Mountain Tribune*.

16 Wet Mountain **Tribune** THURSDAY, APRIL 2, 2015



Gazing Skyward

Close to 40 people showed up to view the stars at The Bluff in Westcliffe this past Friday, March 27. Locals celebrated the recent International Dark Skies certification by setting up telescopes to view the moon and Venus, while local Dark Skies president, Jim Bradburn, pointed out constellations. Here, Jacob Yoder peers through one telescope to look at the moon. Similar

April, 2015: Article about Dark Sky Community certification in *Summer in the Valley* special edition in *The Wet Mountain Tribune*.

This special edition is distributed in bulk to area businesses and other locations that tourists frequent to inform them of summer activities in the Wet Mountain Valley.

WET MOUNTAIN TRIBUNE - SUMMER IN THE VALLEY 2015 3

The Valley's "Dark Skies" recognized internationally

In March of this year, Silver Cliff and Westcliffe were designated Colorado's first International Dark Sky Community, becoming the ninth community in the world by the International Dark Sky Association (IDA). The towns are also the highest altitude communities admitted to date to the international listing.

The award was the result of the dedicated volunteer labors of local residents dating back to 1998, when they formed the 501(c)3 non-profit organization, Dark Skies of the Wet Mountain Valley. Smokey Jack, long time Valley resident, who died in 2004, was the initiating founder of the group. She is memorialized at one of Dark Skies' earlier installations of shielded lights at Custer County School parking lots.

Since its inception, Dark Skies has always looked beyond the goal of achieving international recognition. Dark Skies has been engaged in eliciting the support of the two towns in reducing light pollution, forming solutions to the threat of light pollution, successfully advocating new town ordinances for light management, and broadening the experience of residents in



A full moon sets over the Sangre de Cristo mountains. - Photo by Mike Eubanks

outdoor lighting in both towns. Their projects have improved lighting at a number of public sites: county public works facilities, school buildings, the courthouse. These achievements have resulted not only in the reduction of light

continue this summer and into the fall. Summer events, beginning at dusk at the Bluff, include the viewing of the close conjunction of Venus and Jupiter on Tuesday, June 30 or Wednesday, July 1, depending on cloud cover. On Monday July 6, Tuesday July 7 or Thursday July 9, the Air Stream Campers will be hosted at the Bluff for viewing the heavens. In the fall, moon viewing will be the focus of the dusk gathering at the Bluff on Thursday, October 1.

The near-total engagement of the communities with Dark Skies has been lauded by Dr. Bob Stencel, coordinator of the Colorado chapter of IDA. Applauding the successful venture the two towns have made, Dr. Stencel says this is "a transcendently valuable example to all communities in Colorado to follow this path of light pollution issues."

Further information, including how to make donations to ongoing Dark Skies activities and programs in the Valley, can be obtained at their website www.wetmtdarkskies.org or by contacting Bradburn at 719/947-5052. Summer residents and visitors have always been welcomed by the clear night

April, 2015 & 2016: Grant applications made to El Pomar Foundation.

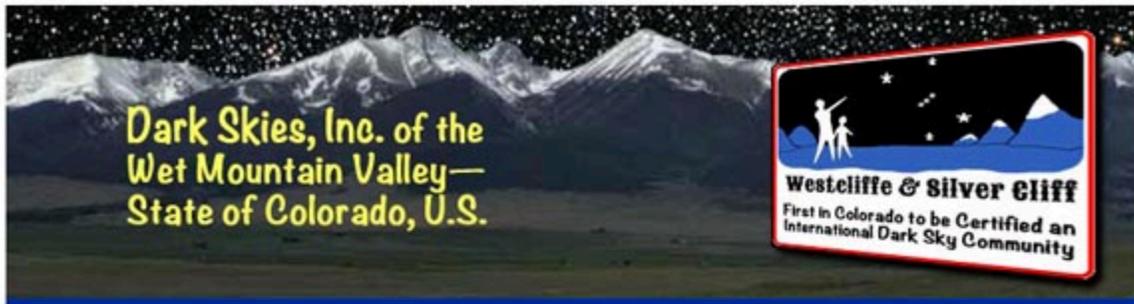
Twice the editor of the *Wet Mountain Tribune* has nominated Dark Skies for consideration. While not successful, we will continue to apply in the future. <https://www.elpomar.org/>



The screenshot shows the El Pomar Foundation website. The navigation bar includes: Grant Making, Penrose House, Programs, Fellowship, Contact Us, and About Us. The main content area is titled "General Grants Information" and includes a sidebar with "Grant Making" (General Information, Search our Grants, El Pomar's Funds, Final Reports, Contact Us) and a right sidebar with "Upcoming Board of Trustees Meetings" (October 2, 2016; December 20, 2016) and "A History of Grant Making". The main text describes the competitive grant process for various focus areas like arts, education, and health.

April, 2015: Publication of “how-to” web article.

This article describing how Dark Skies went about the successful campaign to become a certified Dark Sky Community was posted to our website and to the IDA website as a guide for individuals and groups to follow. Web address: <http://bit.ly/FormDarkSkyGroup>



Suggestions for Establishing a Local Dark Sky Group to Ultimately Earn Certification as an International Dark Sky Community

by Ed Stewart, Dark Skies, Inc.

Dark Skies, Inc., of the Wet Mountain Valley, in south, central Colorado, including the adjacent towns of Westcliffe and Silver Cliff in Custer County, was formed in 1999. In the ensuing 15 years, a long process of public education, fund raising, lobbying public officials, arranging for light shield installations, retro-fitting unshielded fixtures, developing an advertising campaign in the local newspaper, conducting a school art contest, and attending many meetings, including our own, led up to our application to the International Dark-Sky Association (IDA) for being certified as an *International Dark Sky Community*. We would like to share our journey in the hopes that it might serve as a roadmap to accomplishing the same goals for you.

First, you need to educate yourself in the many aspects of light pollution, crime vs. lighting, dark sky friendly lighting (shielded) fixture design, the economics of new technology (LED) lighting, arguments for and against, etc. There are many websites that have lots of information for these topics, here are some recommended ones:

Consumer Guide to Night Sky Friendly Lighting, NM Heritage Preservation Alliance:

<www.wetmtdarkskies.org/images/Lighting_Guide_NMHeritage.pdf>

Publications by Dark Skies: <www.wetmtdarkskies.org/pages/contact.htm>

Light Pollution Links: <www.wetmtdarkskies.org/pages/links.htm>

Education Resources: <www.darksksociety.org/index.cfm>

IDA Resources: <www.darksky.org>

Outdoor Lighting and Crime (2 parts): <asv.org.au/light-pollution>

Suggest reading the summaries as the main body of text is rather technical

Also: <www.illinoislighting.org/crime.html>

Do a *Google* search for any regional or state IDA group that can assist.

In broad terms, your biggest obstacles will be changing the mindset of the public, raising funds to retrofit unshielded fixtures, and encouraging the use of shielded, dark sky friendly fixtures in new installations. While at the same time, you should be careful not to be seen as “the light police.” The mindset is different for each of these groups:

- general population’s concerns over safety in their residential situations,
- commercial businesses’ economic and legal liability concerns, and
- city/county government officials’ economic, public safety, and electability concerns.

May, 2015: Letters to the Editor in The Wet Mountain Tribune

This letter states that Dark Skies will help financially to replace unshielded lighting fixtures for individuals and businesses.

THURSDAY, MAY 14, 2015

Wet Mountain Tribune

Letters

Dark Skies Will Help Shield Lights

Editor:

As most of you know, Westcliffe and Silver Cliff were recently certified as an International Dark Skies Community. This is quite the honor, as we became the ninth such site in the world, seventh in the USA, and first in Colorado. This recognition was not easily gained.

But our local Dark Skies group received broad support from both of the towns' mayors and trustees, from businesses, including the Chamber of Commerce, and from many community organizations. This support was made evident by the hundreds of letters and emails corroborating our efforts.

We all view this as an economic asset for our community. Often people come to the Wet Mountain Valley for the scenic views of the Sangre de Cristo Mountains. Now that our spectacular nightscape is recognized internationally, many additional folks are expected to come to see what they cannot see in their home towns, the Milky Way arching across

our dark sky. This expectation is founded on the experiences of other communities who have gained IDA certification.

However, there is still work to be done. Throughout the valley, there are still many lights that are unshielded. All unshielded fixtures waste about 60% of their energy spreading extraneous light and lighting the sky. Such light fixtures can be shielded without diminishing the amount of light necessary on the ground for security and clarity.

We would like to remind all valley residents that Dark Skies will pay for the shielding of private and public fixtures. The further darkening of the Wet Mountain Valley will only enhance what we are trying to preserve for future generations — the legacy of a dark nightscape. If you are interested, you can reach us at PO Box 634 or www.wetmtdarkskies.org

Thank you for your consideration.

With kind regards,
Jim Bradburn,
President of Dark Skies

May, 2015: Article in *The Wet Mountain Tribune*

This article is about Dark Skies beginning construction on the Smokey Jack Observatory.

THURSDAY, MAY 28, 2015

Wet Mountain **Tribune**



Dark Skies volunteers helped Beach Concrete pour a foundation for the observatory it is building on the Valley floor. *-Trib photo J.E. Ward*

Work now underway on the “Dark Skies” observatory

The local Dark Skies organization has begun construction on the new observatory. The observatory is located next to the First State Bank of Colorado in Westcliffe, overlooking the Bluff. On Tuesday, May 26, volunteers gathered to help as Beach Concrete Pumping poured the observatory’s foundation.

Local Dark Skies president, Jim Bradburn, stood with the volunteers.

“After the concrete is poured,” Bradburn told the Tribune, “we will wait for it to set and then grade the site and begin framing the walls and roof. We’re hoping to have most of it done in time for Ride the Rockies and the Bluegrass Festival. It will go up quickly.”

Since the Dark Sky International designation, Westcliffe has seen an increase in overnight visitors. The designation has created an increase in business for the Courtyard Inn, which so far has made 22 reservations for people who plan to come visit the Valley with telescopes in hand.

According to Mo Johnston, the Inn’s proprietor, some stargazers drove from Broomfield this past weekend to view the dark skies.

Unfortunately, thick, swollen rain clouds blotted out the stars, but the tourists were impressed by the area’s beauty and plan to return.

Johnston said the Inn is full every weekend from June to August, and many weekdays have already been reserved. “We are turning people away,” she said. “We just don’t have the space.”

The Inn has also gotten a lot of calls from people seeking area information based on the Dark Skies designation they read about or saw telecast in the news.

This bodes well for retail stores and restaurants in Silver Cliff and Westcliffe, who hope to draw in more spring, summer and fall tourist business.

“I love that people are visiting and that the observatory is going up,” Bradburn said. “The community has stepped up and all of the materials for this has been donated. We are real pleased.”

The next Dark Skies event is a star party for Jupiter and Venus on June 30 at dusk.

J.E. Ward and Cyn Williams

June, 2015: Star Party ad and article in *The Wet Mountain Tribune* that also updates progress on the Smokey Jack Observatory.

THURSDAY, JUNE 25, 2015

Wet Mountain **Tribune** 7

STAR PARTY

*Tuesday, June 30 (or July 1)
At The Bluff Park
Free to the public*



Star Party will feature the very close pairing (conjunction) of Venus and Jupiter, plus the planet Saturn, star clusters, double stars, and the Moon.

DATE: on Tuesday, June 30 (with a back-up date of Wednesday, July 1 if cancelled due weather conditions).

TIME: beginning at 9:00 p.m. and ending at 10:30 p.m.

LOCATION: The Bluff Park across the street from Cliff Lanes (at the west end of Main Street).

Telescopes and binoculars will be provided by Dark Skies and Sangre Stargazer Club members. (Have your own telescope? Please bring it early at 8:30 p.m.)

Visit the Custer County Community Facebook page after 8:30 p.m. on the event date for any cancellation notice.

www.wetmtndarkskies.org

Dark Skies to host June 30 viewing

Dark Skies has been given permission to build the "Smokey Jack Observatory" in honor of the organization's late founder at The Bluff Park on the west end of Main Street.

The observatory will be a 12-foot by 12-foot building with a roll-off metal roof on the southwest corner of the park. With the roof on, it will appear as a low rustic cabin. With the roof rolled off, it will expose the telescope and occupants to the full sky.

The telescope, which has been donated by current Dark Skies president Jim Bradburn, is a Celestron 14" Schmidt-Cassigrain reflector with a mount that can track the stars. Around the observatory will be a graded area for folks to set-up their own telescopes temporarily, especially during public star parties.

Due to the generosity of the local merchants Paul Wenke from Ace Hardware, Frank Oberlin from Critical Path Metal Works, and Kent Beach from Beach Ready Mix Concrete, all the construction materials have been donated in-kind. Plus, volunteers are doing the construction work.

The foundation, walls and their exterior siding have been completed, and the roof will soon be installed. Completion of the facility is expected by mid-summer. Its dedication is tentatively planned for a star event on October 1.

Some cash donations are still needed to outfit the facility with a computer, WiFi router, solar filters, eyepieces, etc. If you would like to help, please visit the Dark Skies' website at: wetmtndarkskies.org/donations.htm

Dark Skies and the Sangre Stargazers club will host a viewing of the conjunction (close pairing) of the planets Venus and Jupiter at The Bluff Park, next Tuesday, June 30 at 9 p.m. (back-up date is July 1) until 10:30 p.m. Scopes will be provided by the two groups. This event is free to the public.

With the unaided eyes, the planets will appear closer than the width of a full Moon. You'll be able to cover them both easily with the tip of your little finger at arm's length. However, they are only close in our line of sight as Venus is 106 million miles distance from Earth while Jupiter is currently 489 million miles from Earth on the other side of the Solar System. As a bonus, beautiful Saturn will be in fine position in the eastern sky along with a full Moon.

The Smokey Jack Observatory won't be ready but tours will be conducted. The Facebook group page Custer County Community will be used to post any cancellation notice by 8:30 p.m. on the day of the event.

July, 2015: Article in *The Wet Mountain Tribune*

This article updates progress on the Smokey Jack Observatory. At this point in time, the observatory was unnamed, so was referred to as the Dark Skies' observatory.

THURSDAY, JULY 2, 2015 Wet Mountain **Tribune** 7

Dark Skies' observatory expected to be completed next month

Since Westcliffe and Silver Cliff were approved as the world's ninth International Dark-Sky Association community earlier this year, the local Dark Skies organization has been working on building a public observatory.

"It will be finished mid-August," said Dark Skies president, Jim Bradburn. "Right now we are waiting on the roof. It should be put on next week."

Bradburn stated that once the roof is on, the telescope will be installed shortly after.

"Once it is finished," he said, "we will have a big party."

The observatory will be open to the public by appointment, and for scheduled sky-viewing events.

Bradburn expressed thanks for the volunteers who have worked on the observatory, and also thanked locals for donating materials.

"This is a nice community project," Bradburn said. "The community as a whole should be proud. This is your observatory."

— J.E. Ward



Mike Liebman, John Peleaux and Jim Bradburn show off the observatory at The Bluff on the western edge of Westcliffe which is expected to be finished mid-August.

— Trib photo by J.E. Ward

July, 2015: Article in *The Wet Mountain Tribune*

This article is about Dark Skies providing funding support of \$10,000 to the town of Silver Cliff for the conversion of their 50+ light polluting street lights to shielded 3,000K, LED fixtures. The town had signed a commitment letter to make this conversion in our original application. Thus that commitment has been successfully completed and closed a 15-year effort by Dark Skies, too.

Wet Mountain Tribune THURSDAY, JULY 9, 2015

Dark Skies provides funds for Silver Cliff street lights

Local Dark Skies awarded the town of Silver Cliff \$10,186 on Monday, July 6. The donation was to help the town purchase new street lights that are approved by the International Dark-Sky Association (IDA). The entire project is expected to cost the town approximately \$19,000, but the town board stated that the update will cut their street light bill in half.

Along with the contribution, Dark Skies president Jim Bradburn, passed along an award from IDA. The award congratulated the town, along with Westcliffe, for becoming the ninth IDA community in the world and the first in Colorado.

"It was a pleasure and privilege to work with you and your colleagues over the past year to make this process a success," Bradburn read from a letter sent by the IDA. "In the process, you've set a rather high bar for other dark skies communities and our program benefits as a result."

Work on replacing the street lights is expected to get underway soon.

— J.E. Ward



Silver Cliff Mayor Larry Weber, left, accepted the IDA award and \$10,000 donation from local Dark Skies president, Jim Bradburn.

— Trib photo by J.E. Ward

October, 2015: Letters in Sky & Telescope magazine.

Our web article gets national and international coverage in S&T's Letters column.

Letters

The Herschel Sprint

After some 15 attempts over 20 years, I've had my fill of Messier Marathons. Thanks to Mark Bratton (S&T: Apr. 2015, p. 34), the Herschel Sprint will be my replacement. Ideally I'll tackle it on April 9th next year, to match the lunar conditions Herschel faced in 1785. As Bratton points out, the transit-instrument constraint severely restricts the time I can spend on each object, but it might help recreate the excitement that the Herschel siblings felt on that historic night.

Paul Dawson
Olancho, California

Moon Over Stonehenge

Let's be honest: most astronomy-club logos are dull and unimaginative. When's the last time you saw one fit to grace the bumper of a lime green AMC Gremlin? So when I set out to help a group of 6th graders in San Anselmo, California, design their club's insignia, I was determined that it would be thrilling. It would inspire wonder and a sense of adventure.

Inspiration seemed close at hand. Only a few blocks away, in the town square, stands a statue not of a Civil War hero but of San Anselmo's most famous son, Yoda. What says "astronomy" better than a 3-foot-tall green space alien with pointy ears? Alas, the idea was a false start. Copyright issues aside, the power of Yoda's personality overwhelmed the insignia — making it look more like an advertisement for a comic-book convention than the emblem for a grade-school astronomy club.

Just when all seemed lost, I happened across an image that fired my imagination. While preparing for the Apollo 17 mission in 1972, astronaut-geologist Harrison "Jack" Schmitt asked renowned space artist Robert McCall to design a



mission patch depicting the Moon over Stonehenge. McCall's design was ultimately rejected, but Stonehenge symbolizes mystery and our quest to understand the universe. What could be better? With the help of a graphic artist, the design above soon emerged, and it was all I had hoped for. So, Dr. Schmitt, my 6th-grade students and I thank you for your idea!

Gordon Reade
Palo Alto, California

Jack Schmitt replies: Actually, I think that the San Anselmo 6th graders' design for their astronomy-club insignia is much better than Bob McCall's. It captures even more of the significance of Apollo and of Apollo 17, the most recent mission of human exploration to the Moon.

Taking the Measure of Light Pollution

Jan Hattenbach's "Surveying Skyglow" (S&T: May 2015, p. 34) advocates that we measure light pollution. Bravo! That's good old empirical science. Surveys will help map our world's light at night and prepare us for the next step: to match those surveys with the incidence of human disease. Light pollution — the misuse of light at night — is not just about sea turtles, migrating birds, or better astro photos. It's about us. Time is of the essence.

Bob Guzauskas
West Palm Beach, Florida

I belong to a group called Dark Skies, Inc., in the Wet Mountain Valley of south-central Colorado. We have a 15-year history of public education about nightscape preservation and have completed many projects



that retrofit unshielded lighting fixtures with shielded ones. In February 2014, we began taking quarterly sky-quality measurements (SQMs) at 10 locations within the boundaries of our adjoining two towns, Westcliffe and Silver Cliff. We knew our efforts had to be paying off but were very surprised when our annual average SQM reading came in at magnitude 21.2 per square arcsecond — not far from the 21.6 that corresponds to a naturally dark starry sky with a limiting visual magnitude of 6.4!

But the real value came last summer. One of our members noted that the International Dark-Sky Association has a program for certifying towns as an International Dark Sky Community. And we'd already accomplished most of the criteria, except for getting Westcliffe and Silver Cliff to pass lighting ordinances and collecting letters of support. Our ongoing education efforts really paid off for both situations: the town councils unanimously passed outdoor-lighting ordinances, citing the need to protect the dark-sky heritage and to stimulate astro-tourism. And our call for letters of support produced more than 115 letters, emails, and Facebook "likes" from our combined population of just 1,100.

In just three months, the IDA's board unanimously approved our application, and we became the ninth International Dark Sky Community. Since then we've been contacted by other groups wanting to know how we did it. So we've developed a website (<http://bit.ly/FormDarkSkyGroup>) that details not only our story but also the hard-learned lessons on changing mindsets, dealing with elected officials, educating the public, and more.

Ed Stewart
Westcliffe, Colorado

Naming Names on the Moon

I very much enjoyed Andrew Livingston's article on Giambattista Riccioli and the naming of lunar features (S&T: May 2015, p. 26). However, his point that astronomi-

November, 2015: Three articles in *The Wet Mountain Tribune* about the dedication ceremony of the Smokey Jack Observatory.

The Smokey Jack Observatory was dedicated on November 13, 2015, in a public ceremony attended by nearly 100 supporters of the project and Dark Skies.

Dark Skies to dedicate Smokey Jack Observatory next week

On the evening of Friday, Nov. 13, the local Dark Skies organization is holding a ceremony and star party to celebrate the International Dark-Sky designation of our community and to dedicate the new Smokey

Jack Observatory.

The event will be held in the Community Room of Cliff Lanes Entertainment Center and at The Bluff at the west end of Main Street in Westcliffe starting at 6:30 p.m.

The public is encouraged to come join the Dark Skies board of directors and members as they recognize the volunteers and contributors that have made the International Dark Sky Community and the Smokey Jack Observatory a reality.

Guest speaker, Amy Bilbeisi, Astronomer Park Ranger from Great Sand Dunes National Park, will give a brief presentation at the Community Room followed by time spent describing the night sky at the observatory. An informal star party will take place on The Bluff immediately following the dedication ceremony. Dark Skies volunteers will join Bilbeisi to explain the features of the night sky and to look through the observatory telescope at the Andromeda Galaxy.

The observatory is 12-feet by 12-feet with a retractable roof, and houses a 14-inch Schmidt-Cassegrain telescope with computer guided pointing and tracking. It is located on the southwest corner of The Bluff, just below the grassy level of the park used for festivals. Bring a flashlight, preferably red, to keep light pollution to a minimum.

The Smokey Jack Observatory was designed by Jim Bradburn and Charles Keyes and built by a dedicated and generous group of volunteers, led by John Peleaux. Wireless service to support telescope operation for the observatory is being provided by DD Wireless.

The observatory is named in honor of

Suzanne B. Jack, known to all as Smokey Jack, the first Dark Skies President. Smokey and Bill Jack owned and operated the Texas Creek Ranch. Smokey loved the beautiful night skies of the Wet Mountain Valley, and she wanted others to be able to admire the Milky Way. In 1998 Smokey Jack organized a small group of concerned citizens to "prevent light pollution through education." Under Smokey's able leadership, replacing one light at a time, Dark Skies solicited enough donations to change all 45 streetlights in the Town of Westcliffe to dark sky friendly fixtures by August of 2001. Smokey Jack died of cancer in 2004, but left behind a legacy of education about light pollution that continues to spread, protecting our pristine dark skies for future generations.

In recent years, the dark night skies over the towns have come to be recognized by locals as a natural resource worth preserving. The towns of Westcliffe and Silver Cliff have come together to protect a shared natural resource – their dark night skies. In the first effort of its kind, the towns worked side by side to ensure preservation of dark nights for the benefit of future residents. As a result of their efforts, the towns have earned Colorado's first International Dark Sky Community designation from the International Dark-Sky Association.

For more information, contact Dark Skies president Jim Bradburn at jim@ranchobendito.com

Dark Skies invites the public to attend a special celebration—

Dedication of the new Smokey Jack Observatory

Friday, November 13, 6:30 p.m.
at the Community Room, Cliff Lanes
(at the west end of Main Street)

Followed by a star party at the observatory.
Bring a flashlight, preferably with a red lens, to assist in walking to the SJO.

<www.wetmtdarkskies.org>

Ad run in same issue

THURSDAY, NOVEMBER 12, 2015

Wet Mountain Tribune

Dark Skies dedication is tomorrow in Westcliffe

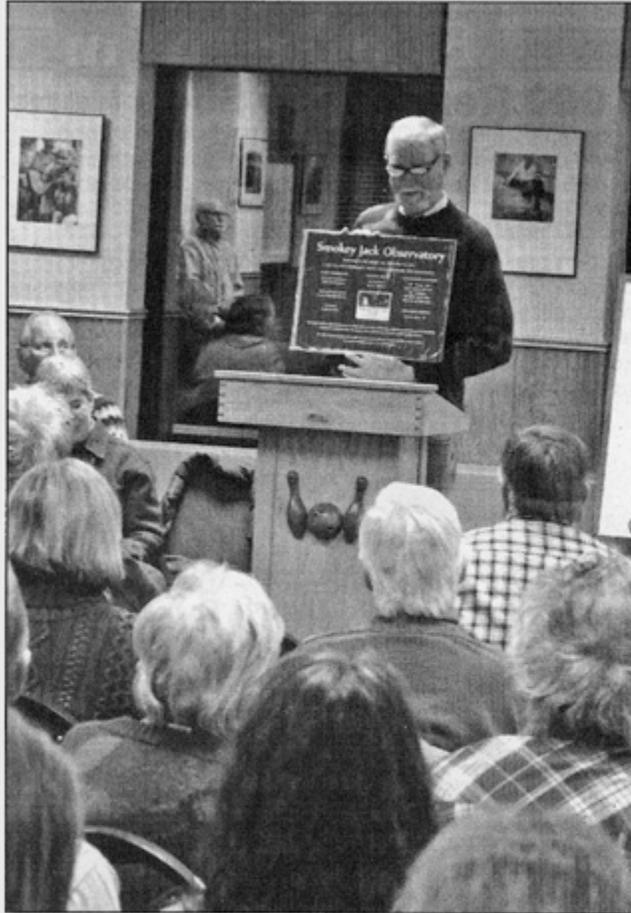
The dedication of the Smokey Jack Observatory and celebration of our community's designation as an International Dark-Sky community will be held this Friday, Nov. 13 at 6:30 p.m. The event will be held in the Community Room of Cliff Lanes Entertainment Center and at The Bluff at the west end of Main Street in Westcliffe.

A planned guest speaker, Amy Bilbeisi of the Great Sand Dunes National Monument, will no longer be attending, but the

rest of the event will continue as planned.

The observatory is named in honor of the founder and first Dark Skies president, the late Smokey Jack, whose work to prevent light pollution in the Wet Mountain Valley ultimately led to Westcliffe and Silver Cliff earning Colorado's first International Dark Sky Community designation, one of only eight in the world.

For more information, contact Dark Skies president Jim Bradburn at jim@ranchobendito.com.



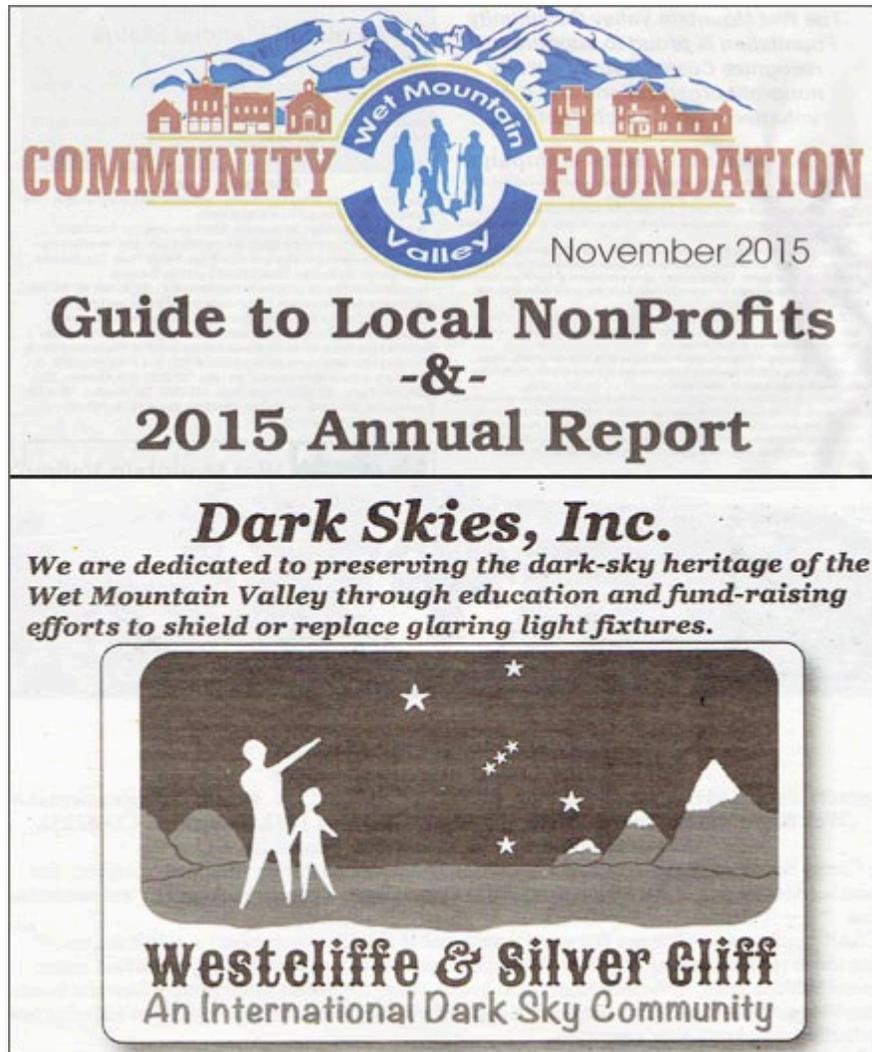
Dark Skies' Shining Star

Dark Skies President Jim Bradburn holds up the dedication plaque during formal ceremonies held Friday at Cliff Lanes and at the nearby Dark Skies observatory. A crowd of around 70 attended the event, which dedicates the new observatory to Dark Skies founding member Smokey Jack. Bradburn read a letter from the International Dark-Sky Association board director Diana Umpierre. In the letter, Umpierre awarded the Dark Skies of the Wet Mountain Valley the "Dark Sky Defender Award," congratulating them for their hard work. The local group achieved International Dark Sky status last year.

-Trib photo by J.E. Ward

November, 2015: Graphic insert for Dark Skies in the Wet Mountain Valley Community Foundation's (WMVCF) *Guide to Local Non-Profits*, a special edition publication to *The Wet Mountain Tribune*.

The WMVCF is an important means of financial support to many non-profit organizations in Custer County as they organize an annual inclusive fund drive, the *Spirit Campaign*. The allure of matching funds from the WMVCF encourages more of the public to donate and at a higher level than if each non-profit was dependent on running their own separate fund drives. The *Guide to Local Non-Profits* comes out several weeks prior to the announcement for the opening of the *Spirit Campaign*.



The graphic insert is divided into two main sections. The top section features the logo for the Wet Mountain Valley Community Foundation, which includes a mountain range, houses, and a central circular emblem with silhouettes of people. Below the logo, the text reads "COMMUNITY FOUNDATION" in large, bold letters, with "Wet Mountain Valley" in a smaller font inside the emblem. To the right of the emblem, it says "November 2015". Below this, the title "Guide to Local NonProfits -&- 2015 Annual Report" is displayed in a large, bold, serif font.

The bottom section is titled "Dark Skies, Inc." in a bold, italicized serif font. Below the title, a paragraph of text reads: "We are dedicated to preserving the dark-sky heritage of the Wet Mountain Valley through education and fund-raising efforts to shield or replace glaring light fixtures." Below this text is a rectangular illustration showing a dark night sky with several stars and a constellation. In the foreground, there are silhouettes of a person and a child looking up at the stars. The background shows a mountain range under a dark sky.

Below the illustration, the text "Westcliffe & Silver Cliff" is written in a large, bold, serif font, followed by "An International Dark Sky Community" in a smaller, regular serif font.

December, 2015: Local resident spots possible mistake with sign while touring in France.

They were unaware of the different categories of International Dark Sky Places, but shows the public pride in our area for our dark skies.

THURSDAY, DECEMBER 31, 2015

West Mountain **Tribune**

L e t t e r s

Library Gnome Makes Dark Skies Correction While in the Pyrenees

Hi Jim,
“Dark Skies and Library Gnomes.”

Looking at the subject line, you might ask what those two have in common. Please see the attached photo taken by Dave and Jody Heppie on their recent trip to France. They took along Iggy, one of our traveling library gnomes, and he had something to say about the misinformation on the sign. Here is the caption Dave provided for our online gnome photo album:

“Visiting the highest peak in the French Pyrenees, Iggy stopped into City Hall to inform them of the need to correct their sign, as Westcliffe now makes 9 international Dark Sky Reserves!”

By the way, if you want to see more of Iggy’s trip or any of the other chronicled gnome journeys, go to www.westcuster-library.org and scroll down to click on the gnome photo.

Enjoy!

Amy Moulton
Director
West Custer County Library



January, 2016: *The Wet Mountain Tribune* article announcing the results of the *Spirit Campaign* where Dark Skies almost doubled its previous average results.

Since 2009 when the *Spirit Campaign* first became available, Dark Skies averaged about \$6,500, including WMVCF matching funds, usually at a rate of 20%-25% of donations. After being designated a Dark Sky Community, our portion of the campaign was \$11,280. These results indicate the high level of support as compared to the other non-profit organizations as we came in sixth out of 64. <http://www.wmvcf.org/Spirit-Campaign.aspx>

2THURSDAY, JANUARY 28, 2016

Spirit Campaign to distribute \$320,000 to non-profits

More than \$320,000 will be distributed to 63 local non-profit organizations through the 12th annual Community Spirit Campaign, sponsored by the Wet Mountain Valley Community Foundation.

Checks to the non-profits will be distributed at an event to be held in Westcliffe on Friday, Feb. 12.

This year's receipts are a record high for the Spirit Campaign, and are about \$1,500 greater than last year's total.

Approximately 670 donors contributed nearly \$275,000 through the campaign, and an additional \$17,000 to the matching fund, which is used to match the various contributions. This year's match totaled about 25 cents on the dollar.

Other top recipients were the Wet Mountain Valley Fire Protection District (\$25,423), Custer Search and Rescue (\$20,256), and the San Isabel Land Protection Trust and Wet Mountain Broadcasting, each of which will receive more than \$17,000. Other key recipients include Dark Skies, the Community Sharing Center, Club America, the Westcliffe Center for Performing Arts, and the Custer County Library and the Friends of the Library.

This year's matching fund portion of the campaign totals just less than \$47,000, with the Community Foundation providing \$20,000 and the Denver-based Anschutz Foundation kicking in \$10,000

Individual contributions to the campaign ranged from \$10 to \$25,000. Donations came from local contributors, as well as from donors in several other states and foreign countries.

Since the campaign's inception, some \$3.5 million has been contributed to nearly every non-profit organization headquartered here or providing direct services to local residents and visitors.

Representatives of the non-profit organizations are invited to an event on Friday, Feb. 12, when the checks will be distributed. The event will be held from 1 to 3 p.m. at the Cliff Lanes community room in Westcliffe.

Seating is limited, and those wishing to attend should RSVP as soon as possible. They may do so by calling the Tribune office at 783-2361.

2015 Spirit Campaign Results

Non-Profit Name	Amount Donated	Match Amount	Total
Custer County 4H Foundation	\$ 1,795.00	\$ 215.02	\$2,010.02
All Aboard Westcliffe	\$ 3,700.00	\$ 881.83	\$4,581.83
American Legion Post 170 Boys State	\$ 335.00	\$ 70.95	\$405.95
Animal Advocates	\$ 755.00	\$ 100.96	\$855.96
CART (CJH Comm District)	\$ 1,020.00	\$ 109.44	\$1,129.44
Office of Emergency Mgmt (Cert)	\$ 230.00	\$ 45.58	\$275.58
Cross D Bar Recreation Foundation	\$ 3,000.00	\$ 774.01	\$3,774.01
Custer County 2020 dba Club America	\$ 9,040.00	\$ 1,822.28	\$10,862.28
Custer County Ambulance Corps	\$ 6,470.00	\$ 1,245.16	\$7,715.16
Custer County Cares About Cancer	\$ 850.00	\$ 212.85	\$1,062.85
Custer County Community Sharing Center	\$ 7,990.00	\$ 1,592.71	\$9,582.71
Custer County Conservancy District	\$ 130.00	\$ 29.67	\$159.67
Custer County Economic Development *** See Below	\$ 3,545.00	\$ 471.46	\$4,016.46
Custer County Geneoical and Historical Society	\$ 725.00	\$ 121.41	\$846.41
Custer County Medical Foundation	\$ 460.00	\$ 98.24	\$558.24
Custer County Schools	\$ 25.00	\$ 6.45	\$31.45
Custer County Search & Rescue	\$ 16,720.00	\$ 3,536.13	\$20,256.13
Custer County Senior Center	\$ 1,225.00	\$ 269.94	\$1,494.94
Custer County Sheriff's Department	\$ 2,370.00	\$ 394.77	\$2,764.77
Custer County Transitions	\$ 135.00	\$ 34.83	\$169.83
Dark Skies, Inc.	\$ 9,620.00	\$ 1,660.61	\$11,280.61
Dundee Memorial Park	\$ 3,160.00	\$ 604.47	\$3,764.47
Eagle Summit Ranch	\$ 880.00	\$ 205.85	\$1,085.85
Excellence in Education	\$ 7,444.55	\$ 1,265.28	\$8,709.83
FFA	\$ 825.00	\$ 106.79	\$931.79
Friends of the Beckwith Ranch	\$ 1,285.00	\$ 273.00	\$1,558.00
Friends of the West Custer County Library	\$ 6,710.00	\$ 1,329.51	\$8,039.51
Frontier Pathways	\$ 25.00	\$ 6.45	\$31.45
Totals:	\$274,803.02	\$46,963.00	\$321,766.82

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FFA	\$ 825.00	\$ 106.79	\$931.79

January, 2016: *The Wet Mountain Tribune* article describing the seeking of volunteer “*Star Guides*” to staff the Smokey Jack Observatory public star parties.

In order to offer a several dozen star party dates each month from May to October (the warmer months in our high mountain setting), Dark Skies recruited citizens to act as *Star Guides* to host the star parties. This required setting-up an online training program in astronomy followed by required attendance at presentations by Dark Skies members in how to conduct an interesting event, crowd control, and observatory operations plus an astronomy overview.

Wet Mountain Tribune, January 28, 2016

Dark Skies seeks volunteers for Smokey Jack Observatory

The new Smokey Jack Observatory, located at The Bluff Park in Westcliffe, has been completed and made fully operational. In order to make the observatory as fully available to the public as possible, the Wet Mountain Dark Skies organization is now seeking volunteers to be “star guides” to operate the observatory whenever an individual or a group would like to use the facility for a night of stargazing enjoyment. They will work in pairs, so couples or mutual friends are preferred.

It is important that the star guides be present at all times to assist in the use and operation of the telescope. Volunteers should be willing to spend an evening of approximately two hours at the observatory and be responsible for its operation. Although an understanding of things astronomical is welcome, it is not necessary. Training will be provided. Scheduled times will be rotated to utilize all volunteers fairly.

To this end, the duties and requirements of the volunteer star guides are as follows:

- 1) Must be an adult, 21 years of age or older.
- 2) Must be able to deactivate the alarm, and reactivate upon leaving.
- 3) Must be able to open the roof by operating a boat-type winch, and then close it before leaving.

4) Must change out eyepieces in the telescope, as needed.

5) Must be able to operate the computer system that automatically aims the telescope.

6) Must be able to access information from the computer system about the object being viewed and convey that to the guests in an interesting manner.

7) Must be able to park the telescope using the computer system and turn off the computer system.

A required set of three full training sessions will be held once there is a sense of the numbers wishing to volunteer. During the training, some understanding of basic astronomy will be provided (no rocket science) and some advice on how to make the viewing session interesting and fun.

To indicate interest in being a star guide, send your name(s), contact information, and best time and day of the week for the training sessions to:

- darksky@wetmtdarkskies.org preferred
- 303-480-9457, Bill Smith
- Dark Skies, P.O. Box 634, Westcliffe, CO 81252

Visit the Dark Skies website for more information about the SJO:

<http://www.wetmtdarkskies.org>

The hour long training session in astronomy and star party operation was recorded and placed on *YouTube* for those unable to attend or wanted to review the session.

<http://tinyurl.com/starguidetraining>



The image shows a screenshot of a YouTube video player. At the top left is the YouTube logo. A search bar contains the URL <http://tinyurl.com/starguidetraining>. The video frame shows a man with a beard and a dark t-shirt standing in a room, gesturing towards a telescope on a tripod. The video progress bar indicates 0:22 / 1:15:42. Below the video are icons for edit, delete, music, comments, info, and CC. There are buttons for 'Analytics' and 'Video Ma'. The video title is 'Star Guide Astronomy Training Session' by 'Ed Stewart', with a 'Channel settings' button. Below the title are 'Add to', 'Share', and 'More' options. The video was published on Mar 31, 2016, and the description is 'Astronomy training session for the Star Guides for the Smokey Jack Observatory, Westcliffe, CO.'

March, 2016: Article in the annual *Real Estate & Builder's Guide* special edition to *The Wet Mountain Tribune* that includes a description and photo of the Smokey Jack Observatory.

Each spring, The Wet Mountain Tribune publishes this guide directed at those interested in locating in the Wet Mountain Valley and/or constructing a new home here. Bundles of the guide are distributed to area merchants and other locations where visitors frequent. Being featured in an article with a photograph, plus one of our ads on another page, targets new comers to the importance of maintaining the dark skies.

Why folks fall in love with the Wet Mountain Valley:

Awesome views; great people; good schools; diversions galore: what's NOT to love?

When Valley residents are asked what brought them here, more often than not they refer to the scenic wonder of the area. They sometimes just look to the west and open their arms to the stunning Sangre de Cristos range. There may be no other place in Colorado where the end of the road is simultaneously the beginning of a life style daily immersed in natural beauty.

But take the conversation a bit deeper, and one finds that what keeps us here is what an appreciative community has been able to do to sustain life and living in this high mountain valley, so removed from the hustle and bustle of urban and suburban experience.

Not the least of these sustainable commitments are the ranching families of the valley floor, some of whom trace their roots to the adventurous German Colony of the 1870s, trekking here from Chicago, factory workers largely, with an image of new life in the west leading them on. Some of them made it through the harsh and unexpected winters, and their heritage thrives still.

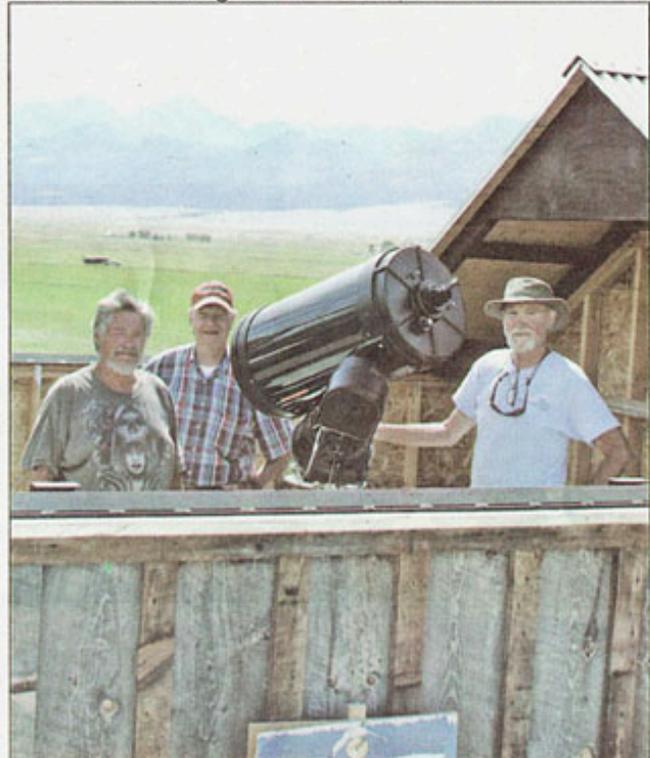
And there are newer ranchers and farmers as well, expanding the ranching economy of

through trapping and trading, ranching, mining, and railroading—and is honored not only by memory, but by one of the many resident volunteer groups that keep that history alive: the Custer County Historical and Genealogical Society.

Providing museum space, tours, re-enactments, school field trips and more, the Society's volunteer programs are fueled by both multi-generational family members and relative newcomers. Together they remind us all of how the land and countryside that continue to maintain us was shaped by those who preceded us.

All Aboard Westcliffe, another of the historically minded non-profits in Custer County, maintains awareness of the late 19th through near mid-20th century significance of steam driven railroading into the area. The downtown Railroad District preserves and displays that history in the original depot, a museum in a service structure next to rolling stock, and a reconstructed station open to the public.

Touching on these volunteer supported groups is a reminder of how the more than-70 non-profits in the county weave vitality and service into the quality of

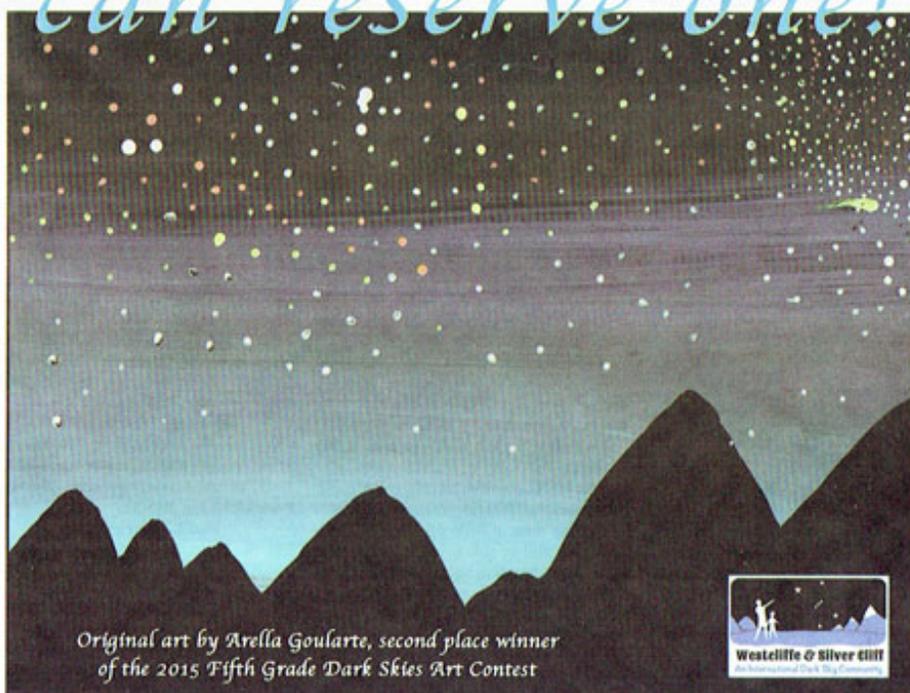


The local "Dark Skies" organization in 2015 obtained formal status for Custer County as an international Dark Sky community, just one of nine in the world. Here, volunteers William Smith, Wilson Jarvis, and Dark Skies president Jim Bradburn at the public observatory on The Bluff in Westcliffe.

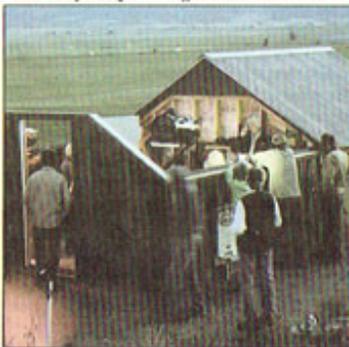
May, 2016: A half-page, full color ad and a *Letter to the Editor* in *The Wet Mountain Tribune* that announces the availability of the Smokey Jack Observatory for star parties by reservation.

2 Wet Mountain **Tribune** THURSDAY, MAY 5, 2016

Starry night...now you can reserve one!



The Smokey Jack Observatory is available, starting in May, for the public to reserve private star parties conducted by Star Guide volunteers. Visit: https://tinyurl.com/smokeyjack to reserve your special night under the stars.



*In the spring of 2015, we were certified as the ninth *International Dark Sky Community* in the world and the first one in Colorado. But the effort to preserve our beautiful night skies must continue to maintain it.*

This winning piece of art calls to mind the beautiful night sky viewed from many of the homes in the Wet Mountain Valley, but lost for much of the rest of the United States.

More at: www.wetmtdarkskies.org

Original art by Arella Goularte, second place winner of the 2015 Fifth Grade Dark Skies Art Contest



THURSDAY, MAY 5, 2016 Wet Mountain **Tribune**

L e t t e r s

Smokey Jack Observatory Now Available For Star Parties

Jim,

I've got some great news to share with the Trib readership: the Smokey Jack Observatory is now accepting reservations for private star parties conducted by Star Guide volunteers.

The first dates are May 12-15, with many others available through July 30. More months will be added after this trial period.

To make a reservation, visit the Dark Skies website at: wetmtdarkskies.org and click on the "Observatory" button. On the Observatory page is a link to the Reservations page along with the story behind the name and observatory location information.

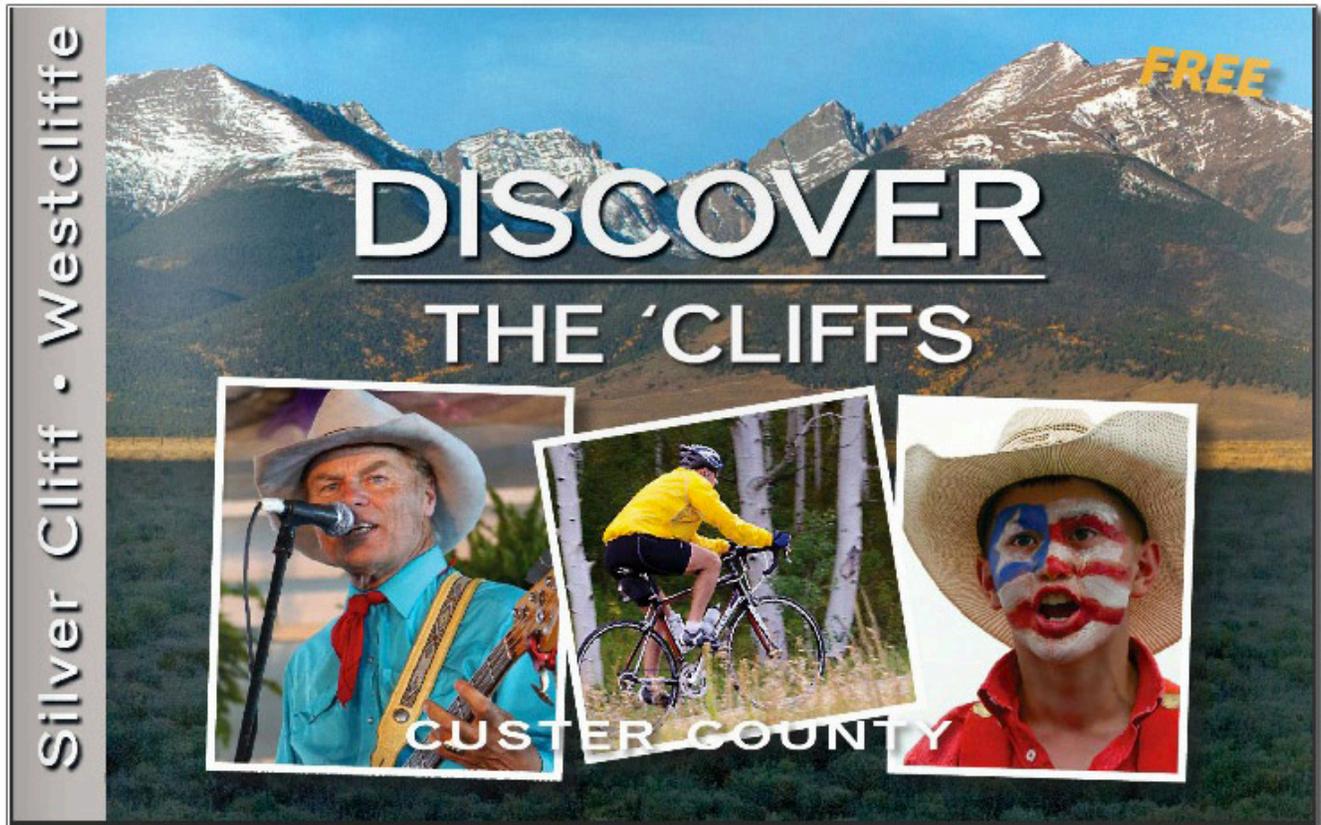
A big "thank you" to the dozens of volunteers that have put in many hours to become proficient in astronomy and telescope operation, and those Dark Skies members who trained them to make this a reality. Such a facility is very rare for a community of any size much less one as small as ours.

And, the first of Dark Skies sponsored public star parties will occur on the morning (yes, morning) of Monday, May 9, at 9:00 a.m. to 12:40 p.m. at the SJO for the viewing of the transit of Mercury across the Sun's disk. Note: never look directly at the Sun without proper solar filtration, especially with any kind of optical instrument.

Ed Stewart
Rural Custer County

June, 2016: Dark Skies was given a double-page spread in the summer visitor's publication, *Discover the 'Cliffs*, that is produced by the Custer County Chamber of Commerce.

The description is titled: *Big Sky Days – Colossal Nights* and included our 2016 public star party schedule. This publication is distributed to locations frequented by visitors to the area.



***Big Sky Days – Colossal Nights, pages 16-17* →**



BIG SKY DAYS – COLOSSAL NIGHTS

The 'Cliffs and the Wet Mountain Valley are known for their beautiful mountain vistas and big skies, but not much is known about our world-class dark night skies. Last year however, Silver Cliff and Westcliffe were recognized by the International Dark-Sky Association as the ninth Dark Sky Community in the world, seven of which are in the United States, the 'Cliffs being the first in Colorado and with an elevation of almost 7900 feet, the nearest to the heavens.

Since 1998, Dark Skies of the Wet Mountain Valley, a 501(c)3 non-profit, has been working to reduce local light pollution and create public awareness of a valuable and irreplaceable part of our Western heritage. Those who worked tirelessly to obtain this designation realized that our night sky is a precious natural resource to be preserved for residents and visitors alike - for many years to come. It's wonderful to think that we have the ability to enjoy and appreciate the same night sky that the original settlers of the area observed. Our clear night sky is as much a part of our heritage as the ranches and riparian areas which are preserved below them.

See our online events calendar: www.theCliffsCalendar.com

From The Bluff Park one can view the heavens from the newly dedicated Smokey Jack Observatory (SJO) with its 14" computer-automated telescope. Besides the public star parties, plans are underway to allow members of the public to reserve the SJO for private viewing sessions under the supervision of volunteer guides. Check the Dark Skies website: www.wetmtdarkskies.org.

Whether you are a serious astronomer or an avid stargazer, you'll have a special and unique opportunity when you come to the 'Cliffs and look up.

Stargazing schedule:

May 9, 9 a.m. Transit of Mercury

June 10, 9 p.m. – Star Party

July 8, 9 p.m. – Star Party

August 6, 8 p.m. – Star Party

August 27, 8 p.m. Conjunction of Venus and Jupiter

October 5, 7:00 p.m. – Star Party

If events are cancelled due to weather, the back-up date is the following night.

17

The text gives a wonderful description of the Dark Skies organization, our accomplishments, the Smokey Jack Observatory, and the star party schedule.

June, 2016: Dark Skies' 2016 public star party schedule is included in the Custer County Chamber of Commerce's and The 'Cliffs' website calendars, plus timely articles in *The Wet Mountain Tribune*.

Custer County Chamber of Commerce 1-877-793-3170 info@custercountyco.com Location Contact Us

CUSTER COUNTY CHAMBER OF COMMERCE

Events and Community Calendar

< July 2016 > All Calendars

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	26	27	28		Fri, July 8th, 9:00pm - 11:00pm	
1:00pm Sadd...	Roland Fiddle Camp					
2:00pm SHA...		7:00pm Roll...	7:00			
	3	4	5			
All Aboard W...	All Aboard W...	12:30pm WC...	12:3			
2:00pm SHA...	7:00am July ...		7:30			
	10:00am Fou...				9:00pm Dark ...	10:00am Hig...

Dark Skies - Star Party at the Smokey Jack Observatory
Main Street, Westcliffe, CO 81252, United States
- Smokey Jack Observatory at The Bluff Park

SILVER CLIFF & WESTCLIFFE Colorado

COMMUNITY CALENDAR
CLICK HERE FOR UPCOMING EVENTS

HOME ABOUT US ACTIVITIES C.A.R.T. CONTACT US THE CLIFFS VISITOR'S GUIDE

EVENT RESOURCES THE CLIFFS DARK SKY DESIGNATION

Dark Sky Designation

The bordering towns of Silver Cliff and Westcliffe in southern Colorado have come together to protect a shared natural resource – their dark night skies. In the first effort of its kind, the towns worked side by side to ensure preservation of dark nights for the benefit of future residents. As a result of their efforts, the towns have earned Colorado's first International Dark Sky Community designation from the International Dark-Sky Association.

"We're truly inspired by dedicated cooperation of Westcliffe and Silver Cliff to preserve their night skies, and hope it inspires similar successful collaborations," IDA Executive Director J. Scott Feierabend said.

June, 2016: *The Wet Mountain Tribune* article describing the June star party and the Dark Sky Community certification.

8 THURSDAY, JUNE 9, 2016 Wet Mountain **Tribune**

Jupiter, Mars, Saturn!

Dark Skies invites public to viewing event Friday, June 10, at The Bluff

This Friday evening, June 10, the local Dark Skies organization will be holding a star party open to the public.

Jupiter, Mars and Saturn will all be visible at late dusk, and there will be a five-day crescent moon to enjoy. As darkness falls, fainter objects such as galaxies, nebulae and star clusters will be viewed.

The event will be held at The Bluff at the west end of Main Street in Westcliffe starting at 9 p.m.

Dark Skies members will have telescopes for public viewing and will provide background information on the objects being viewed. Work is being performed on the telescope in the Smokey Jack Observatory and will not be available for this celestial event.

Those attending are encouraged to bring a flashlight (preferably with a red light option) and a jacket.

All Dark Sky Star parties are weather permitting. If June 10 does not provide good viewing of the night sky, there will be a second attempt on the evening of June 11.

In recent years, the dark night skies over the towns of Westcliffe and Silver Cliff have come to be recognized by locals as a natural resource worth preserving. The two towns have come together to protect a shared natural resource – their dark night skies.

In the first effort of its kind, the towns worked side by side to ensure preservation of dark nights for the benefit of future residents. As a result of their efforts, the towns have earned Colorado's first International Dark Sky Community designation from the International Dark-Sky Association.

Dark Skies was organized in 1998, when a group of citizens concerned about the protection of this resource formed Dark Skies, Inc., a 501(c)(3) nonprofit organization. In the years since it was founded, Dark Skies has drawn attention to the threat of light pollution, offered solutions and engaged residents in protecting the area's night skies. The results equally benefit those who appreciate astronomy and those interested in promoting regional eco- and astro-tourism.

For more information, contact vice-president Wilson Jarvis at: wilsonjarvis@pdq.net

June, 2016: Community certification outreach efforts by Dark Skies.

Also at this time, we were contacted by two communities seeking information about the process of getting certified. We referred them to our web article and offered follow-up advice. The Capital Area Astronomy Association in Michigan requested a presentation during their June meeting via Skype. The PowerPoint Presentation developed for the Rocky Mountain Star Stare (RMSS) invitation (see page 30) was successfully used by Dark Skies' board member Sam Frostman to fill this request.

The members of Dark Skies feel that assisting other groups in developing their certification efforts will go a long way in reducing light pollution and making the public aware of this issue.

June, 2016: Article in the annual *Summer in the Valley 2016* special edition in *The Wet Mountain Tribune* that describes the Dark Skies organization, Dark Sky Community certification, star party schedule, and the Smokey Jack Observatory.

This special edition is distributed in bulk to area businesses and other locations that tourists frequent to inform them of summer activities in the Wet Mountain Valley.

Thank your lucky stars for the Valley's "Dark Skies"

Visitors to Westcliffe like to look around – at our mountains, our wildlife, our attractions. But we hope they look up, as well.

Westcliffe is just one of nine locales in the entire world that has been designated an International Dark Sky Community, where night-time sky viewing is about as good as it gets.

In March of 2015, Silver Cliff and Westcliffe were designated Colorado's first International Dark Sky Community, becoming only the ninth community so recognized globally by the International Dark Sky Association (IDA). The towns are also the highest altitude communities admitted to the international listing.

The award was the result of the dedicated volunteer labors of local residents dating back to 1998, when they formed the 501(c)3 non-profit organization, Dark Skies of the Wet Mountain Valley. Smokey Jack, long time Valley resident, who died in 2004, was the founder of the group. She is now memorialized at the Dark Skies observatory, which is located on The Bluff on the western edge of Westcliffe.

The observatory will hold a series of public events this summer. It's also available for private events; for more information, visit the organization's website at wetmtdarkskies.org and click on the "observatory" link.

Here are some of the events scheduled for this summer:

- **June 10, Friday, 9 p.m.:**

Jupiter will be in the SW, and Mars and Saturn will be in the SE at late dusk. Plus there will be a 5-day

close, appearing only 0.06 degrees apart (at 4 p.m. MDT). Look for this impressive pairing in the western sky just after sunset as they will quickly set behind the mountains about 8:15 p.m. Plus Mercury will be about 6 degrees from the pair with Saturn in the SW.

- **October 5, Wednesday, 7 p.m.:**

Saturn will still be visible in the SW with a 4-day crescent Moon. As dusk gives way to full darkness, other fainter objects such as galaxies, star clusters, and nebulas will be viewed.

Since its inception, Dark Skies has been engaged in eliciting the support of the towns of Westcliffe and Silver Cliff to reduce light pollution, form solutions to the threat of light pollution, and to successfully advocate new town ordinances for light management while broadening the experience of residents in viewing the night skies in all their splendor from the Valley floor.

Jim Bradburn, current president of Dark Skies says, "I've seen the mindset of life-long locals come to the realization that the Valley's nightscape has real economic value and is worth preserving. That businesses and individuals

routinely contact us for guidance in dealing with their own lighting issues is most gratifying."

Dark Skies has been instrumental in raising tens of thousands of dollars to retrofit and replace outdoor lighting in both towns. Their projects have improved lighting at a number of public sites: county public works facilities, school buildings, the courthouse. These achievements have resulted not only in the reduction of light



Dark Skies volunteers, from left, William Smith, Wilson Jarvis and club president, Jim Bradburn, at the new Smokey Jack Memorial Observatory located along The Bluff in Westcliffe.

July, 2016: Dark Skies members were invited to the Rocky Mountain Star Stare (RMSS) to do a presentation on how we were successful in the Dark Sky Community certification process.



July, 2016: *The Wet Mountain Tribune* article and advertisement describing the public star party to be hosted by Dark Skies members.

THURSDAY, JULY 7, 2016 Wet Mountain **Tribune**

Dark Skies to host Star Party this Friday at The Bluff Park

The planets Saturn and Jupiter will be the focus of the Star Party scheduled for this Friday, July 8, at The Bluff Park in Westcliffe.

The event is being sponsored by the local Dark Skies organization, and will be held near the group's observatory, located on The Bluff near First State Bank of Colorado. (The annual High Mountain Hay Fever Bluegrass Festival will be going on at The Bluff at the same time.)

The Star Party will get underway at 9 p.m. and will run approximately until 10:30 p.m.

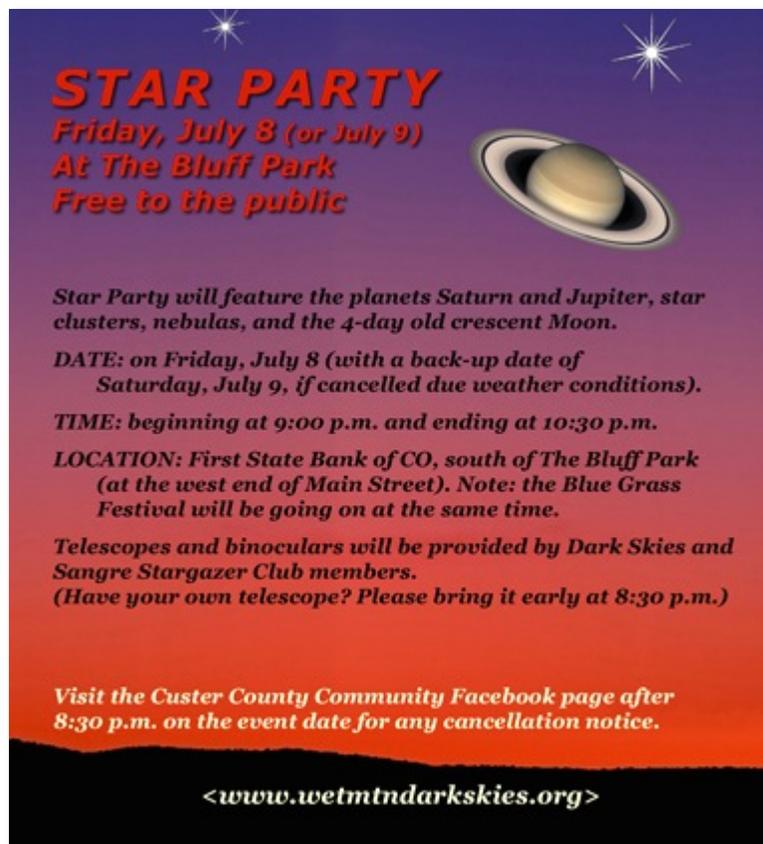
In the event of bad weather, the event will be moved to Saturday, July 9.

Sky-gazers will be able to see the imposing planets of Saturn and Jupiter, as well as star clusters, nebulas, and the four-day-old crescent moon.

Telescopes and binoculars will be provided by members of Dark Skies and the Sangre Stargazer Club. If attendees have telescopes, they're invited to bring those and set them up at 8:30 p.m.

For more information, visit the Dark Skies website at www.wetmtdarkskies.org.

Visitors to Westcliffe are reminded that the local Dark Skies group received International Dark Skies status last year; the Wet Mountain Valley is one of only nine places in the world to have that distinction.



STAR PARTY
Friday, July 8 (or July 9)
At The Bluff Park
Free to the public

Star Party will feature the planets Saturn and Jupiter, star clusters, nebulas, and the 4-day old crescent Moon.

DATE: on Friday, July 8 (with a back-up date of Saturday, July 9, if cancelled due weather conditions).

TIME: beginning at 9:00 p.m. and ending at 10:30 p.m.

LOCATION: First State Bank of CO, south of The Bluff Park (at the west end of Main Street). Note: the Blue Grass Festival will be going on at the same time.

Telescopes and binoculars will be provided by Dark Skies and Sangre Stargazer Club members. (Have your own telescope? Please bring it early at 8:30 p.m.)

Visit the Custer County Community Facebook page after 8:30 p.m. on the event date for any cancellation notice.

<www.wetmtdarkskies.org>

July, 2016: *The Wet Mountain Tribune* article describing the Dark Skies t-shirt design competition.

If we get sufficient interest in this competition, we will make it an annual event.



Winning entry by Ashlee Sack of Cañon City, Colorado.

August, 2016: Newspaper articles and advertisement for star party and t-shirt design contest in the *Wet Mountain Tribune*.

Party Under the Stars! Dark Skies' star party is this Saturday

Make an evening of it under the dark skies of the Wet Mountain Valley.

The local Dark Skies organization is holding a star party this Saturday, Aug. 6 at The Bluff park in Westcliffe. The event is open to the public and will get underway at 8 p.m.

Before the star party, Dark Skies and the Sangres Art Guild are sponsoring an exhibit and reception at the Third Street Gallery at 111 N. 3rd St. in Westcliffe to display entries in the Dark Skies T-Shirt Design Contest. All entries will be on display, including the winning design and our second place artwork. The reception runs from 4-6 p.m. and the public is invited.

For the star party, Jupiter and Saturn will be low in the southwest sky, along with a four-day crescent Moon. Mercury will also be at one of its best viewing positions of the year in the west. As dusk gives way to full darkness, other fainter objects such as galaxies, star clusters, and nebulas will be viewed.

Dark Skies members will have telescopes set up for public viewing in The Bluff parking lot on Adams Boulevard at the intersection with Main Street, and will provide background information on the objects being viewed. Work is being performed on the telescope in the Smokey Jack Observatory and it will not be available for this

celestial event. Bring a flashlight (preferably with a red light filter) and a jacket. All Dark Sky Star parties are based on weather permitting.

In recent years, the dark night skies over the towns have come to be recognized by locals as a natural resource worth preserving. The towns of Westcliffe and Silver Cliff have come together to protect a shared natural resource – their dark night skies. In the first effort of its kind, the towns worked side by side to ensure preservation of dark nights for the benefit of future residents. As a result of their efforts, the towns have earned Colorado's first International Dark Sky Community designation from the International Dark-Sky Association.

About Dark Skies, Inc.: In 1998, a group of citizens concerned about the protection of this resource formed Dark Skies, Inc., a 501(c)(3) nonprofit organization. In the years since it was founded, Dark Skies has drawn attention to the threat of light pollution, offered solutions and engaged residents in protecting the area's night skies. The results equally benefit those who appreciate astronomy and those interested in promoting regional eco- and astro-tourism.

For more information, contact Dark Skies' vice-president Wilson Jarvis at wilsonjarvis@pdq.net

Dark Skies and Art Guild to host gallery reception before Star Party

The Sangres Art Guild and Dark Skies of the Wet Mountain Valley invite the community to view the winning entry and other entries in the Dark Skies T-shirt Design Competition at a special reception this Saturday, Aug. 6.

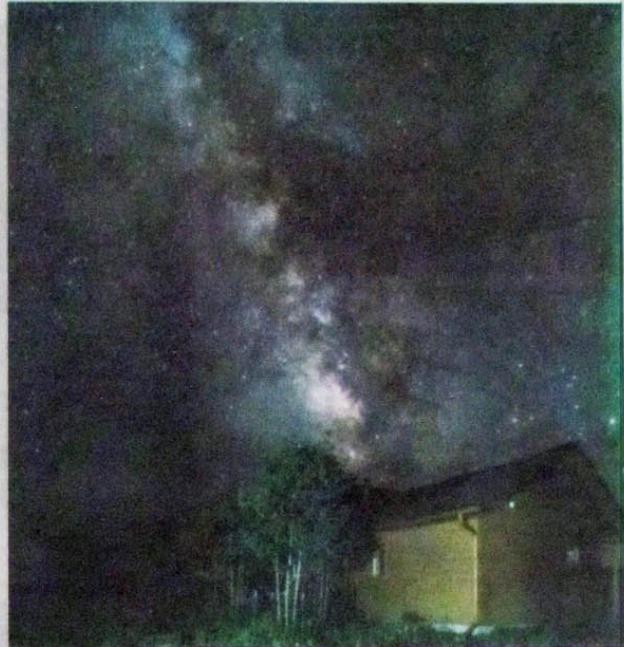
The free reception with refreshments will be held from 4 to 6 p.m. at the 3rd Street Gallery, 59000 N. Highway 69, just off Main Street in Westcliffe. Come learn more about Dark Skies and find out who won the design competition.

The T-shirt designs celebrate our dark mountain skies. The neighboring towns of

Westcliffe and Silver Cliff have earned the designation "International Dark Sky Community" – one of only nine in the world and the first in Colorado – thanks to the nonprofit Dark Skies of the Wet Mountain Valley.

Dark Skies also will host a star gazing party at 8 p.m. Saturday at The Bluff parking lot on Adams Boulevard. Members will have telescopes set up for public viewing.

The Art Guild's Summer Show continues through Aug. 13 at the 3rd Street Gallery. Gallery's hours are 11 a.m. to 4 p.m. Thursday through Monday. Gallery volunteers' artwork is featured in the upstairs gallery.



The Milky Way lights up the night sky this past weekend over a home south-east of Westcliffe.
-Photo courtesy of Christoph Stapka

STAR PARTY

Saturday, August 6
At The Bluff Park
Free to the public



Star Party will feature the crescent Moon, the planets Saturn, Jupiter, Mars, Mercury, plus star clusters, and double stars.

DATE: on Saturday, August 6 (with a back-up date of Sunday, August 7 if cancelled due weather conditions).

TIME: beginning at 8:00 p.m. and ending at 10:30 p.m.

LOCATION: The Bluff parking area across the street from Cliff Lanes (at the west end of Main Street).

Telescopes and binoculars will be provided by Dark Skies and Sangres Stargazer Club members.
(Have your own telescope? Please bring it early at 8:30 p.m.)

August, 2016: Awarding of the t-shirt design contest first place prize to Ashlee Sack in conjunction with the Sangres Art Guild.



August, 2016: Article in *New York Times* titled “Colorado Towns Work to Preserve a Diminishing Resource: Darkness.”

<http://www.nytimes.com/2016/08/13/us/colorado-dark-sky-project-stars-perseid.html>

Colorado Towns Work to Preserve a Diminishing Resource: Darkness - The New York Times

<http://www.nytimes.com/2016/08/13/us/> Search Download

[Colorado Towns Work to Preserve a Diminishing Resource: Darkness](http://www.nytimes.com/2016/08/13/us/colorado-dark-sky-project-stars-perseid.html)

<http://www.nytimes.com/2016/08/13/us/colorado-dark-sky-project-stars-perseid.html>



Members of the group Dark Skies Inc. watched for meteors in Westcliffe, Colo., on Thursday.
Nick Cote for The New York Times

WESTCLIFFE, Colo. — As people around the world stepped into their backyards or onto rooftops to peer up at the annual spectacle of the Perseid meteor shower early on Friday morning, few of them had a view like Wilson Jarvis and Steve Linderer.

At 2:30 a.m. as the light show was peaking, the two men sat on a grassy bluff here in the Wet Mountain Valley of southern [Colorado](#), swaddled in blankets against the chilly mountain air and looking up at the stars in the torrent of the Milky Way. Every few seconds, a tiny chunk of space ice cast off by Comet Swift-Tuttle would blaze through Earth’s atmosphere, silently streaking through the darkness.

Night skies like this one are disappearing across much of the world, nibbled away by the ever-expanding glow of city lights. American skies are no different. Four out of five Americans live in places where they can no longer see the Milky Way.

But here, the tiny neighboring ranching and railroad towns of Westcliffe (population 568) and Silver Cliff (population 587) have decided to tap into the dwindling natural resource of darkness. The old silver mines that once made Silver Cliff Colorado’s third-largest town are long closed, and many

August, 2016: Editorial in the *Wet Mountain Tribune* and reaction on Custer County Community Facebook page about *NY Times* article.

4

Forum

Celestial Alignment

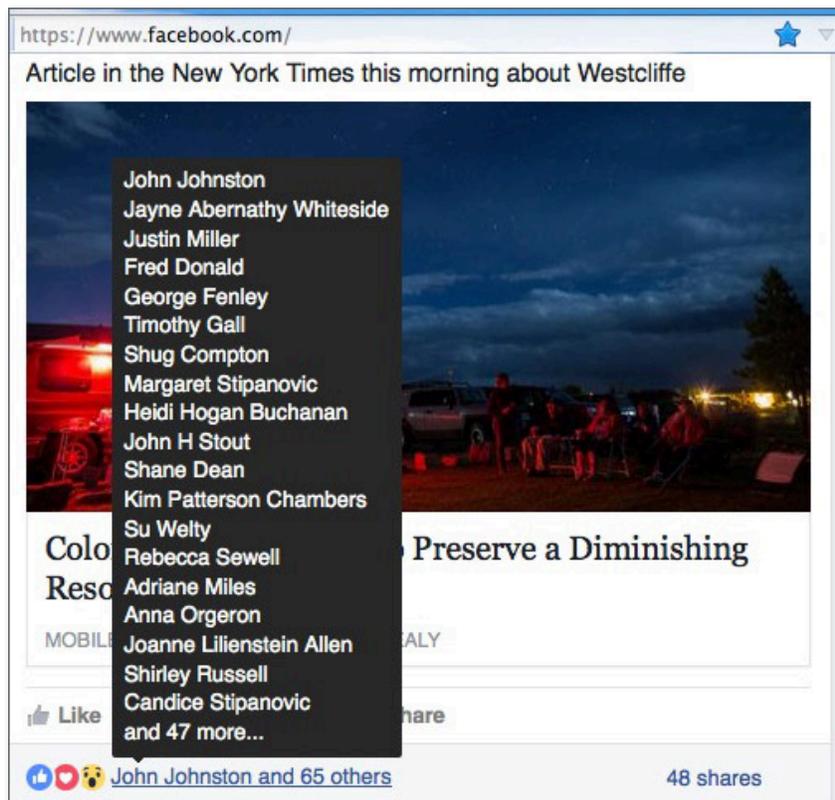
It was 15 months ago – in March 2015 – that the Wet Mountain Valley was given International Dark Skies status by the organization that oversees such things. We are one of nine communities in the world recognized for our incredible skylscapes, and for the efforts it took to preserve and promote these celestial viewing opportunities.

Since that time, the local Dark Skies organization has sponsored numerous star- and planet-viewing events; it has developed the Smokey Jack Observatory on The Bluff in Westcliffe (in honor of the late founder of the local Dark Skies group); and it has introduced our mind-blowing nighttime skies to countless residents and visitors.

This week, a reporter and photographer from The New York Times will be here to report on this whole phenomenon. (True dark skies are little more than a legend to residents of New York City, who are lucky if they spot the full moon.)

If a story about rural Custer County makes it to the pages of The Times, it will certainly bring a new level of recognition to the Wet Mountain Valley. (The Times has a daily circulation of around 1.4 million.)

The Times reporter working on the piece is Jack Healy, a resident of Denver and The Times' Rocky Mountain bureau chief. We join the local Dark Skies leadership with pride in showing off our beautiful Wet Mountain Valley, and our incredible world-renowned night skies.



August, 2016: Wet Mountain Tribune article about NY Times article and a story about the August 27 star party.

THURSDAY, AUGUST 18, 2016

Wet Mountain **Tribune**

3

New York Times, US News, shine spotlight on Custer County

It's been quite a notorious week for Custer County and our towns. The Valley has been touted in both an August 8 online article in "US News and World Report (NWP)," and an August 13 article in the "New York Times (NYT)," as a very desirable place to live or retire.

Of course we've quietly known that for some time, some of us for decades, and counting the generational descendants of pioneer Valley families, some of us for a century and a half.

Nonetheless, a certain measure of newly broadcast fame has come, conceivably, to over a million readers of these pieces in the last ten days.

Calling Custer County one of the ten "retirement haven hot spots" in the US, NWP's Emily Brandon bases her judgment on the highest median ages of US counties. The assumption seems to be that elders make wise choices in remaining in, or moving to, senior-hospitable areas.

Seniors here might or might not argue the point, but there is little doubt that seniors outside the county are looking anew at this corner of the country for a place to call home.

Sumter County, Florida is number one on this list, with a median age of 66.6. Custer County is a decade younger, placing us tenth on the list, at 56.5. Sumter County, population 118,891, is split by Interstate 75; the county seat is Bushnell, an apparently sleepy northwestern central inland town surrounded by multiple lakes. The photo accompanying the brief piece shows a couple of healthy looking guys playing shuffleboard in front of palm trees and empty plastic chairs.

The NYT article, by its Denver reporter, Jack Healy, accomplishes a kind of double coverage. He and NYT photographer Nick Cote feature both the Perseid meteor shower and the International Dark Skies designation

of our two towns. As one of nine places on the planet where darkness is a reality still cherished and protected, Silver Cliff and Westcliffe are rightfully receiving some positive press.

Several locals, including Westcliffe Mayor Christy Patterson, are quoted in the NYT article, with enthusiastic comments on the treasures of our night sky, and pride in the communities and their combined efforts to attain the rare distinction.

Patterson tells us, in response to our inquiry as to how we might take the measure of the economic impact of such coverage, that "our board is very business friendly, and anything like this that brings people into town and supporting our businesses, keeping the doors open and commerce thriving, is good news for Westcliffe."

Silver Cliff Mayor Steve Lasswell is of the same mind, noting that "we have 15 square miles in our town limits, and we see the benefits that could come to our community from growth in residents and our business base...We're putting things in place here to handle growth that doesn't adversely affect aspects of the community that bring us here and keep us here. When growth occurs it will be on a foundation of planning, and not just be helter-skelter. We will protect our skies, our views, our environment, and clean air."

In regards to an overall county perspective, Dale Mullen, who serves with the Council on Economic Development, says, "The New York Times article will generate interest, and business. Everyone who comes as a result of this will eventually lead to an increase in business and residents."

Custer County Commissioner Kit Shy, reflecting on this additional and free publicity for the county, notes that "Our population has doubled twice in 40 years, and it's hard to read it...there has been growth

would support what kind of resident growth; while aging, it might not be geriatric services that are needed, so much as catering to a different sort of populace. As I said, it's hard to put your finger directly on what we need, and where we'd be going."

In any event, Custer County gains attraction from studies and statistics that place us way up the charts on everything from health and wellbeing to income disparity, desirabil-

ity to uniqueness. We here who enjoy it all, will undoubtedly also have to come to terms with how we deal responsibly and sanely not only with notoriety, but inevitable growth.

The NYT article can be found by following the appropriate links at www.nytimes.com/2016/08/13.

The NWP piece is found at money.usnews.com.

— W.A. Ewing

With Venus, Jupiter conjunction, Dark Skies plans big Star Party

The local Dark Skies organization will be holding a Star Party on the evening of Saturday, August 27. The public is invited to watch the conjunction of Venus and Jupiter at the new Smokey Jack Observatory at The Bluff at the west end of Main Street in Westcliffe starting at 7 p.m.

A spectacular conjunction — or close pairing — of Venus and Jupiter will be visible low in the western sky at late dusk. The two bright planets will be extremely close, appearing only 0.06 degrees apart. Look for this impressive pairing in the western sky just after sunset as they will quickly set behind the mountains about 8:15 p.m. In addition, Mercury will appear close to the pair.

In recent years, the dark night skies over the towns have come to be recognized by locals as a natural resource worth preserving. The towns of Westcliffe and Silver Cliff have come together to protect a shared natural resource — their dark night skies. In the

first effort of its kind, the towns worked side by side to ensure preservation of dark nights for the benefit of future residents. As a result of their efforts, the towns have earned Colorado's first International Dark Sky Community certification from the International Dark-Sky Association.

About Dark Skies of the Wet Mountain Valley: In 1998, a group of citizens concerned about the protection of this natural resource formed Dark Skies Incorporated, a 501(c)3 nonprofit organization. In the years since it was founded, Dark Skies has drawn attention to the threat of light pollution, offering solutions and engaging local government, businesses and residents in protecting the area's night skies. The results equally benefit those who appreciate astronomy and those interested in promoting regional eco- and astro-tourism.

For more information, contact Dark Skies' vice-president Wilson Jarvis at wilsonjarvis@pdq.net.

A community-wide dinner was held before the star party. Afterwards, all were invited to attend the star party featuring the conjunction of Venus and Jupiter — half-page full color ad below.

Starry, starry night... for you to see!



Nightscape image by Christoph Stopka

Westcliffe & Silver Cliff
International Dark Sky Community

Star Party! Rare one-night event of Venus and Jupiter appearing so close as to be a single "star." The viewing will be at The Bluff Park, Saturday, August 27, 8:00 p.m. Come promptly as the planets will set behind the mountains by about 8:15 p.m. (can be viewed from anywhere there is a clear view of the western horizon). Dark Skies members will have telescopes set-up in the parking area on Adams Blvd. to provide close-up views of the event plus, as the sky darkens, other celestial objects like Saturn, Mars, star clusters, double stars, and nebulae.

In the spring of 2015, we were certified as the ninth International Dark Sky Community in the world and the first one in Colorado. But the effort to preserve our beautiful night skies must continue to maintain it.

This beautiful nightscape photograph by Christoph Stopka taken southeast of Westcliffe calls to mind the beautiful night sky viewed from many of the homes in the Wet Mountain Valley, but lost for much of the rest of the country.

More at: www.wetmtdarkskies.org

September, 2016: Article in *The Colorado Independent* newspaper titled “How a Colorado valley became the center of the Milky Way.”
<http://www.coloradoindependent.com/161131/dark-skies-light-pollution-westcliffe-silver-cliff>



How a Colorado valley became the center of the Milky Way

“We’re supposed to have night.”

Marianne Goodland

September 09, 2016

Environment/Energy

1 Comment

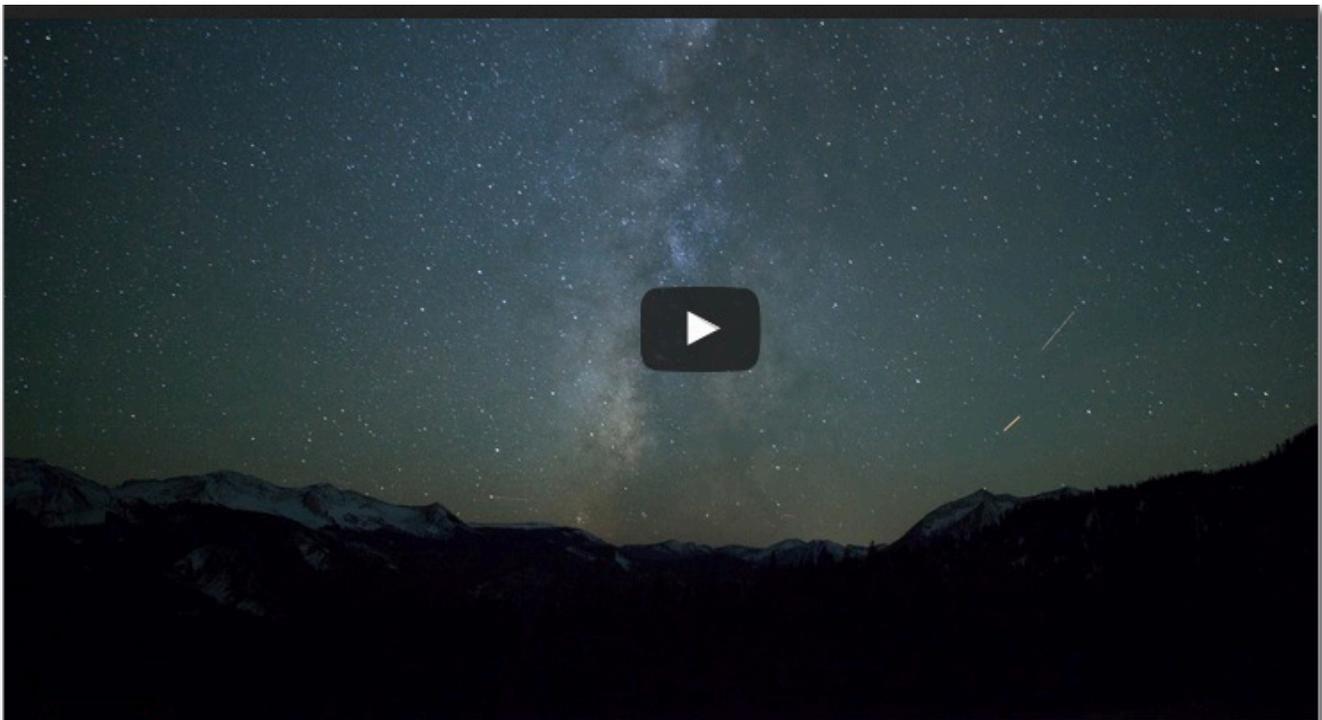


Just after sunset in the tiny town of Westcliffe, 147 miles south and west of Denver, two dozen people begin gathering in the Bluff, a park on the edge of town.

The hilly Bluff overlooks the Wet Mountain Valley, and just a bit farther, the Sangre de Cristo mountains. The park hosts all manner of activities, including a large bluegrass festival every year. But on this night, its

September, 2016: CNN's *Great Big Story* video documentary.

<http://www.greatbigstory.com/stories/how-two-towns-in-colorado-became-meccas-for-stargazing>



The Towns That Embraced Darkness to See Starlight

Light pollution is no joke. As our cities grow bigger and brighter, fewer Americans get to take in the breathtaking grandeur of the Milky Way. Sensing this, the residents of Westcliffe and Silver Cliff, two small towns in Colorado, purposefully dimmed their towns' lights. Their night skies are now among the darkest on the planet and have become a Mecca for stargazers.



Great Big Story producers, Sadie Bass and Andy Lampard, recording video at the SJO.

September, 2016: Creation of Email Newsletter, *The Starry Night Messenger*, to keep supporters informed of Dark Skies' activities. Using the *MailChimp* email service, all physical mailings and their cost will be eliminated.



Dark Skies, Inc. of the Wet Mountain Valley, CO

Westcliffe & Silver Cliff
First in Colorado to be Certified an International Dark Sky Community

The Starry Night Messenger

An update on the recent activities by Dark Skies.

September 7, 2016

[Make A Donation](#)

The New York Times

Colorado Towns Work to Preserve a Diminishing Resource: Darkness

By JACK HEALY AUG. 12, 2016



Members of the group Dark Skies Inc. watched for meteors in Westcliffe, Colo., on Thursday.

WESTCLIFFE, Colo. — As people around the world stepped into their backyards or onto rooftops to peer up at the annual spectacle of the Perseid meteor shower early on Friday morning, few of them had a view like Wilson Jarvis and Steve Linderer

Miscellaneous, 2016: Various Dark Skies lighting projects.

At Cliff Lanes, Dark Skies member, Bill Smith, designed and constructed this LED fixture that rides up and down with the flag to provide consistent illumination even at half staff. Dark Skies paid for the cost of a flag pole light at the courthouse and a Hubble shield at a flower shop.



September, 2016: Sky Quality Monitoring (SQM) Program readings continue to be taken each quarter from ten locations within the two towns of Westcliffe and Silver Cliff.

The extremely dark readings beginning February, 2014, demonstrate the successful efforts by Dark Skies in the 15 years from 2000 – 2015 prior to the certification effort and indicate that there has been no degradation of the conditions during our first annual review. In fact, the latest readings taken on September 9, 2016, are the best we've ever recorded with the combined average for the towns at 21.46!

SKY QUALITY MONITORING													
TOWNS OF WESTCLIFFE AND SILVER CLIFF, COLORADO													
READINGS ARE IN MAG/ARCSEC ² – READINGS ABOVE 20.00 = "DARK SKIES"													
DATE	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6	SITE 7	SITE 8	SITE 9	SITE 10	AVG WESTCLIFFE	AVG SILVER CLIFF	COMBINED AVG
**2/26/2014	21.28	21.11	20.93	21.03	21.04	21.10	21.29	21.31	21.14	21.22	21.07	21.22	21.15
05/20/14	21.54	21.28	21.13	21.12	21.13	21.32	21.47	21.56	21.35	21.37	21.22	21.43	21.33
07/23/14	21.53	21.31	21.13	21.23	21.18	21.30	21.52	21.57	21.39	21.42	21.27	21.45	21.36
*11/17/2014	21.19	20.79	20.39	20.34	20.62	20.83	21.05	21.22	20.74	21.02	20.62	21.02	20.82
**2/20/2015	21.42	21.24	20.90	20.88	20.98	21.09	21.18	21.32	21.11	21.30	21.03	21.25	21.14
***6/14/2015	21.57	21.37	21.24	21.32	21.22	21.42	21.54	21.59	21.43	21.45	21.33	21.50	21.42
08/12/15	21.62	21.43	21.19	21.42	21.29	21.45	21.52	21.61	21.44	21.51	21.37	21.53	21.45
10/10/15	21.46	21.24	21.16	21.25	21.09	21.15	21.19	21.36	21.13	21.32	21.19	21.28	21.24
01/28/16	21.43	21.19	20.99	21.24	20.97	21.15	21.24	21.40	21.15	21.36	21.14	21.28	21.21
05/03/16	21.58	21.29	21.12	21.35	21.16	21.26	21.20	21.63	21.30	21.48	21.28	21.39	21.34
09/09/16	21.60	21.38	21.32	21.43	21.33	21.44	21.51	21.66	21.45	21.52	21.41	21.52	21.46

*GROUND SNOW COVERED
 **JUPITER PRETTY BRIGHT OVERHEAD
 ***LOCATION FOR SITE 4 READING MOVED TO THE SMOKEY JACK OBSERVATORY