



INTERNATIONAL DARK-SKY ASSOCIATION
MISSOURI CHAPTER

2019 Annual Report and 2020 Strategic Plan

Respectively submitted

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IDA Missouri
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January 31, 2020

501(c)3 Tax Exempt

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BOARD MEMBERS

1. Don Ficken, Chair
2. Jackie Beucher, Vice Chair
3. Chuck Simms, Secretary
4. Cook Feldman, Treasurer
5. Terrel Gallaway, Ph.D.
6. Vayu Gokhale, Ph.D.
7. Matthew Kantola **
8. Ron King
9. Bill Neubert
10. Fred Schovanez
11. Brett Seymoure, Ph.D.
12. Rick Yord

** Elected after 2019 on January 16, 2020

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SUMMARY OF 2019

A. Executive Summary

Our chapter launched in late 2018 with a relatively lean board of eight directors. All board members were amateur astronomers, six from St. Louis and two from Kansas City. Excluding board members who joined when the chapter launched, our membership numbered ten people. There were no designated “dark sky” places in the state, and we had no applications for such status. While few people we talked to had ever heard of the term “light pollution,” most were eager to share fond memories of seeing the Milky Way at some point in their lives.

With this foundation, our primary focus in 2019 was to build a state-wide chapter that would include members with expertise spanning more scientific disciplines than astronomy, develop a solid foundation for operations, create partnerships by which to leverage our way into public awareness, and to engage with a broad range of Missourians. One year later, we’re happy to have achieved all these goals.

We had hopes of sparking interest in Missouri-based parks and communities to apply for dark sky designations. Though our efforts fell short of our expectations for reasons beyond our control this year, we are confident that with patience and diligence, we will succeed in this goal.

B. People and Operations

In 2019 we focused on expanding our Board, recruiting more diverse expertise with expert knowledge and broadening our relationships throughout Missouri.

Board of Directors

As of January 16, 2020, our chapter had twelve directors as noted below. Refer to Exhibit A for specifics regarding Board Member election and term expiration dates.

1. Don Ficken, Amateur Astronomer, Kirkwood, MO (Chair)
2. Jackie Beucher, Amateur Astronomer, Overland Park, KS (Vice Chair)
3. Chuck Simms, Amateur Astronomer, Wentzville, MO (Secretary)
4. Cook Feldman, Amateur Astronomer, St. Louis, MO (Treasurer)
5. Ron King, Amateur Astronomer, Washington, MO (Director of Communications)
6. Dr. Terrel Gallaway, Professor of Economics, Missouri State University, Springfield, MO
7. Dr. Vayu Gokhale, Professor of Physics, Truman State University, Kirksville
8. Matthew Kantola, Interpretive Resource Specialist, Missouri State Parks – Grand Gulf, Thayer, MO **
9. Bill Neubert, Amateur Astronomer, Manchester, MO

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10. Fred Schovanez, Amateur Astronomer, Union, MO
11. Dr. Brett Seymoure, Washington University, St. Louis, MO
12. Rick Yord, Amateur Astronomer, Lee's Summit, MO

** Elected on January 16, 2020.

Per our operating agreement, board members serve for term of three years and cannot serve for more than two (2) consecutive full year terms of office without a break in service of at least one (1) year. Board terms are divided into three classes which are staggered to expire in different years to help ensure continuity of the Board.

Chapter Advisors

A "Chapter Advisor" program was created in 2019 to give our chapter access to light pollution "experts" from Missouri and to showcase our state-based talent. Additionally, the program allows our chapter to engage talent with a less demanding requirement than joining our Board or volunteering for a Committee. "Chapter Advisors" agree to respond to our questions related to their area of expertise and be recognized as such on our website.

The following is a current list of our "Chapter Advisors":

1. Dr. Chad Follis, Professor Horticulture, Mineral Area College
2. Dr. Terrel Gallaway, Professor of Economics, Missouri State University, Springfield, MO
3. Dr. Vayu Gokhale, Professor of Physics, Truman State University, Kirksville
4. Dr. David Mitchell, Professor of Economics, Missouri State University, Springfield, MO
5. Dr. Brett Seymoure, Washington University, St. Louis, MO

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Operating Zones

Missouri’s relatively large size makes it impractical to effectively serve the entire state from a single location.

In 2019, we divided Missouri into six operating zones to mirror the “regions” used by Missouri State Parks. The six operating zones allow more thoughtful recruiting of board members and volunteers and provides a foundation to more geographically deploy resources such as Sky Quality Meters.

The map shown on the right and table provided below illustrate our “zones” and people and assets by these zones.

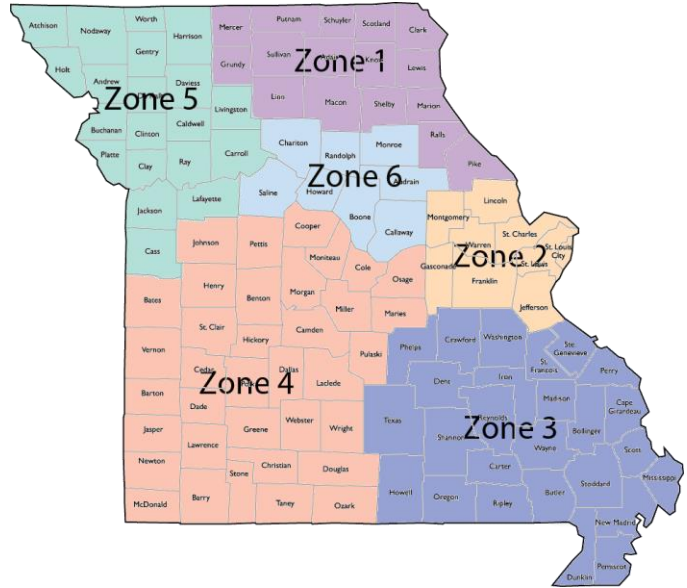


TABLE: PEOPLE AND ASSETS BY ZONE			
Zone	Board Members	Advisors	Sky Quality Meter
Zone 1 (Northeast Region)	<ul style="list-style-type: none"> Vayu Gokhale, Ph.D. 	<ul style="list-style-type: none"> Vayu Gokhale, Ph.D., Truman State University 	<ul style="list-style-type: none"> Magruder Hall, Kirksville TSO, Kirksville
Zone 2 (St. Louis Region)	<ul style="list-style-type: none"> Don Ficken Cook Feldman Ron King Bill Neubert Fred Schovanez Brett Seymoure, Ph.D. Chuck Simms 	<ul style="list-style-type: none"> Brett Seymoure, Ph.D. 	<ul style="list-style-type: none"> Brommelsiek Park, Defiance Jefferson College, Hillsboro
Zone 3 (Southeast Region)	<ul style="list-style-type: none"> Matthew Kantola 	<ul style="list-style-type: none"> Chad Follis, Ph.D., Mineral Area College 	<ul style="list-style-type: none"> City of Perryville Mineral Area College, Park Hills S&T Astronomical Society SEMO, Cape Girardeau
Zone 4 (Lakes Region)	<ul style="list-style-type: none"> Terrel Gallaway, Ph.D., Missouri State University 	<ul style="list-style-type: none"> Terrel Gallaway, Ph.D., Missouri State University David Mitchell, Ph.D., Missouri State University 	<ul style="list-style-type: none"> City of Ozark
Zone 5 (Kansas City Region)	<ul style="list-style-type: none"> Jackie Beucher Rick Yord 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None
Zone 6 (Central Region)	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> Laws Observatory, Columbia

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C. Financials

The Chapter ended 2019 with \$896.73 of cash in our checking account. Donations received of \$940.00 were offset by PayPal expenses and bank services charges. No other money was spent. See separate attachment for details financial reports and bank statements.

Description	12/31/2019
BALANCE SHEET	
ASSETS	
Cash in bank	\$896.73
TOTAL ASSETS	\$896.73
LIABILITIES & EQUITY	
Liabilities	0
Equity	\$896.73
LIABILITIES & EQUITY	\$896.73
INCOME STATEMENT	
REVENUE	
Donations	\$940.00
TOTAL REVENUE	\$940.00
EXPENSES	
Paypal Fees	\$14.27
Bank Service Charges	\$29.00
TOTAL EXPENSES	\$43.27
NET INCOME	\$896.73

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D. Membership

Our chapter launched in October 2018 with ten members before recruitment of board members. As of December 31, 2019, we had 39 members, representing a gain of 17 members over the start of the year.

TABLE: 2019 MEMBERSHIP												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019												
Count	23	24	25	28	29	35	36	38	38	39	42	39
2018												
Count									10	20	19	22

E. Communications

Email

Our chapter uses Mailchimp software for email communications to members and interested parties. Our email list grew to 111 contacts by year-end. In our last email communication sent on September 3, 2019, we had an open rate of 48.5%.

Social Media

Our chapter has social media accounts on Facebook, Twitter and Instagram under @DarkSkyMissouri. Chapter events are posted on Facebook “Events”.

Although we seldom post to our social media accounts, our Facebook grew to 142 members, Twitter to 22 followers and Instagram to 9 followers.

TABLE: 2019 SOCIAL MEDIA (@DarkSkyMissouri)												
Media	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020												
Date	1/12											
Facebook	142											
Twitter	22											
Instagram	9											
2019												
Date			3/26			6/23			9/19		11/24	
Facebook			24			81			125		132	
Twitter						14			20		22	
Instagram						9			9		7	

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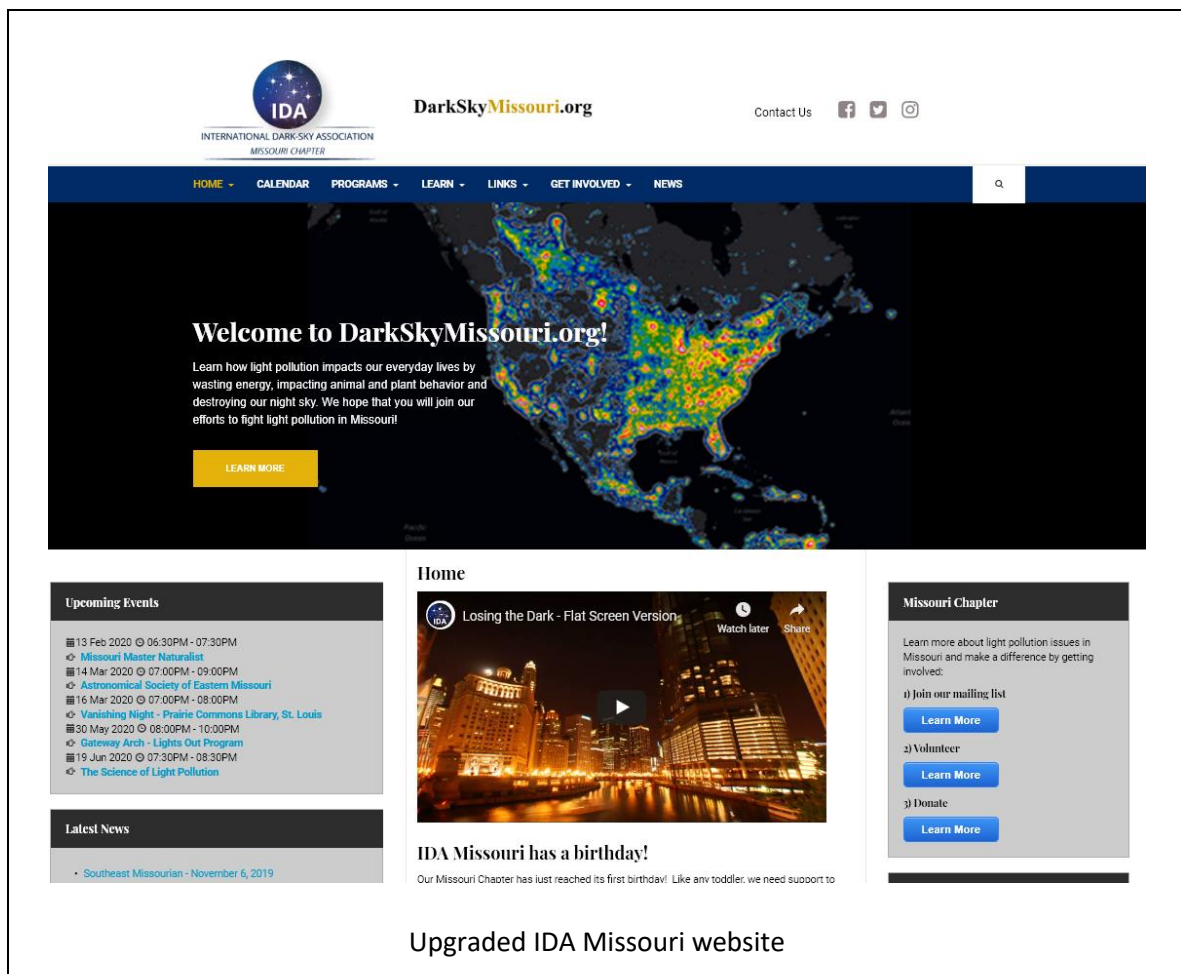
Outreach Displays

Our chapter printed business cards for distribution to the public and developed displays for use at outreach events. Funding was sourced primarily from grant money provided by Truman State University and secondarily by direct purchases by board members.

Website

Our chapter website located at <http://www.darkskymissouri.org> was live at chapter launch in late 2018 but relatively light on content.

In 2019, we upgraded our website in visual appeal and content. A new template was installed to make the website more visually appealing. Several features were added including a “calendar” section, a “programs” section and an “about” section.



Upgraded IDA Missouri website

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Media/Press

Our chapter was interviewed or mentioned at least 13 times in radio, TV and print media in 2019. Several were live interviews. Interviewers wanted to know about our chapter launch, SQM deployment program, light pollution and the best places to view the night sky in Missouri.

TABLE: 2019 MEDIA EVENTS			
Date	Media	Reporter	Comments
1/22/2019	Press Release	N/A	Announced launch of IDA Missouri
6/30/2019	St. Louis Public Radio	Eli Chen	Interview with Vayu Gokhale and Don Ficken on SQM Project
7/11/2019	News/Talk KRMA 1150 AM Radio	Reuben Purdue	Interview with Don Ficken on IDA Missouri
7/29/2019	Press Release	N/A	Announced SQM Program
8/12/2019	Springfield News Leader	Wes Johnson	Interview with Don Ficken on IDA Missouri
9/5/2019	KCUR 89.3 KC Public Radio	Gina Kaufmann	Interview with Don Ficken on IDA Missouri
9/13/2019	KWMU 90.7 STL Public Radio	Eli Chen	Interview with Don Ficken on IDA Missouri
9/18/2019	University of Mississippi Journalism	Aly Rezek	Interview with Don Ficken on IDA Missouri
10/28/2019	KOLR10 TV Springfield	Christopher Six	Interview with Don Ficken on City of Ozark SQM
11/2/2019	Perryville News	Justin Hop	Interview with Trish Erzfeld and Don Ficken on City of Perryville
11/5/2019	KFVS12 TV News, Springfield	Nathan Ellgren	Interview with Dr. Michael Cobb, SEMO on SQM
11/6/2019	Southeast Missourian Newspaper	Joshua Hartwig	Interview with Dr. Michael Cobb, SEMO on SQM
11/13/2019	KSGM 980 AM	Don Pritchard	Interview with Don Ficken on IDA Missouri

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F. Outreach

Our chapter conducted nine outreach events in 2019 with an estimated reach of over 6,600 people. Several of the events were exhibits at major regional events that drew large crowds resulting in significant walk-by traffic.

Below are highlights of some of the large larger events:

- 2019 Earth Day at Ft. Leavenworth where more than 1,500 educators and students learned about light pollution.
- 2019 Spirit of St. Louis Air Show spanned 2-1/2 days with more than 50,000 people in attendance. The Air Show included a ½ day STEM expo that raised awareness of light pollution concerns with educators.
- 2019 Girl Scouts Campout at Camp Cedarledge drew more than 4,000 girls from around the St. Louis metro area.
- 2019 Live Outside Festival is a full day festival attended by more than 5,000 people from the regional St. Louis area.
- 2019 SciFest at the Saint Louis Science Center, with more than 1,000 in attendance



2019 Airshow. 1000+ attendees

In addition to events specific to our chapter, IDA brochures and information is being made available at programs held by amateur astronomy clubs in western Kansas, Missouri and eastern Illinois.

TABLE: 2019 OUTREACH EVENTS				
Date	Audience/Location	Speaker	Length	Attendance
4/15/2019	Astronomical Society of Kansas City/UMKC	Jackie Beucher	30 m	50
5/2/2019	Earth Day/Ft. Leavenworth	Jackie Beucher	All day	1500
6/19/2019	Mid-States Regional Astronomy Conference/Kansas City	Jackie Beucher, Don Ficken	60 m	100
7/20/2019	SciFest/ Saint Louis Science Center	Team	All day	500+
9/6/2019-9/8/2019	2019 Spirit of St. Louis Air Show/Spirit of St. Louis Airport	Team	All day	1000+
9/21/2019	2019 Live Outside Festival/St. Vincent's Park	Team	All day	1000+
9/23/2019	Meramec Hills Master Naturalists, Ozark Rivers Audubon Society and STARS/ Rolla, MO	Don Ficken	60 m	60
10/05/2019	Girl Scout Day Camp – Camp Cedarledge	Don Ficken	All day	1,400
10/12/2019	SciFest/Saint Louis Science Center	Team	All day	1,000+
TOTAL				6,610

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G. Programs

Our chapter launched four different programs during 2019 to measure and raise awareness of light pollution in our state.

Program 1: SQM Sky Brightness Measurement Program

In June 2019, Dr. Vayu Gokhale from Truman State University in Kirksville joined our board and brought a program using Sky Quality Meters from Unihedron that he had been testing in the Kirksville area to measure sky brightness. The Truman State University program already had funding in place from the NASA-Missouri Space Grant Consortium to purchase at least twelve Sky Quality Meters.

Our chapter partnered with Truman State to expand the program across Missouri with thoughtful deployment across “operating zones” and attention to measuring sky brightness in both metro and rural areas. By October 2019, ten Sky-Quality Meters were deployed with plans to further expand the program.

In addition to the science of measuring sky brightness, the program also aimed to gauge community support for measuring light pollution as the site administrators are required to visit the Sky Quality Meter each month to download data, and send the data to Truman State University for analysis.

The next milestone of the program is April 2020 when Dr. Gokhale is due to submit a report on his findings.

The following SQM’s are currently deployed.

- i. SQM Connected Program – Ten SQMs are installed across our operating zones as follows with more applications pending.
 1. Truman State Observatory, Kirksville, MO – Zone 1 (Central Region)
 2. Magruder Hall, Truman State University, Kirksville, MO – Zone 1 (Central Region)
 3. Brommelsiek Parks, Defiance, MO – Zone 2 (St. Louis Region)
 4. Jefferson College, Hillsboro, MO – Zone 2 (St. Louis Region)
 5. City of Perryville, MO – Zone 3 (Southeast Region)
 6. Mineral Area College, Park Hills, MO – Zone 3 (Southeast Region)
 7. SEMO, Cape Girardeau, MO – Zone 3 (Southeast Region)
 8. S&T Astronomical Society, Rolla, MO – Zone 3 (Southeast Region)



SQM Installation at City of Ozark, MO

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9. City of Ozark, MO – Zone 4 (Lakes Region)
 10. Laws Observatory, Columbia, MO – Zone 6 (Central Region)
- ii. SQM Handheld Program – We have at least three handheld sky quality meters for 30-day loan. We had one application for this program from Springfield, MO public schools

Program 2: “Silent Skies/Lights Out” Program

Our chapter is partnering with the St. Louis Arts Chamber of Commerce, the St. Louis Audubon Society and the St. Louis Zoo to display artwork on endangered birds from around world and to “turn off” building lights in metro St. Louis to protect birds during spring migration.

Silent Skies

The “Silent Skies” portion of the program will display an international super-mural mosaic of 678 endangered species of birds in the world. The super-mural mosaic was developed by 160 members of Artists for Conservation from 15 countries. The mural will be displayed at the Gateway Arch, St. Louis Zoo and Missouri Botanical Garden during April 22 through mid-June, the estimated time when birds pass through St. Louis during spring migration.

To support the arts, we are assisting the St. Louis Arts Chamber of Commerce in arranging opportunities for artists to display artwork related to the night sky. An early outcome of this effort is the poster illustrated on this page (see image, right) that was developed by Tyler Nordgren, well known for producing art to promote National Parks.



Silent Skies/Lights Out Program Poster
CREDIT: Tyler Nordgren

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In a special event for experts who like to take photos of the night sky, arrangements are being finalized to give photographers access to the top of the Metropolitan Square Building in downtown St. Louis. The Metropolitan Square Building (see image, right) is the tallest building in St. Louis and offers a unique opportunity for photographers to take a photo of the Gateway Arch at night when the Gateway Arch lights are turned off.



Metropolitan Square Building
St. Louis, MO

Lights Out

The “Lights Out” portion of the program will encourage building managers to turn their “lights out” during the period of April 22 through mid-June 2020. The Gateway Arch, St. Louis Zoo, Missouri Botanical Gardens, Saint Louis Science Center and a growing number of businesses and institutions are planning to participate.

In addition to turning off lights, plans are to temporarily deploy Sky-Quality Meters at varying locations within the St. Louis metro area to measure the impact on sky brightness when the lights are turned off. Measurements will be taken at “zenith” to measure the change in sky brightness. Additionally, the team plans to measure the change in brightness of light on buildings to evaluate a “birds eye view”.

Both the “Silent Skies” and “Lights Out” programs offer opportunities for our chapter to raise awareness of the growing concern of light pollution. More information about the program “Silent Skies/Lights Out” St. Louis programs can be found at

<https://darkskymissouri.org/programs/lightsout>

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Program 3: Citizen Science Project

On January 23, 2020 and after months of work in 2019, our chapter announced a new Dark-Sky Citizen Science Program available to public libraries that will introduce programming for library patrons to learn about light pollution. We believe this program offers nationwide, if not worldwide, potential.



This Dark-Sky Citizen Science Program (see <http://darksky.scistarter.org>) brings together a collection of citizen science projects targeted for patrons of public libraries, but anyone can participate. The program includes six projects of which three relate to how light pollution impacts our view of the night sky and three relate to how light pollution impacts the diversity of life on Earth. The projects are designed for skill levels of ages eight or older with no prior experience needed. Internet is required to access the projects. Most of the projects make use of smartphone cameras which are generally available, and people love to use.



The program is made available at no cost through SciStarter (SciStarter.org), an online citizen science hub founded in 2014 to improve the citizen science experience. Optional tools can be purchased to make the programs even more engaging. Partners of the program include SciStarter, the NASA Space Education Consortium and Globe at Night.

Public libraries are a natural partner to promote the Dark-Sky Citizen Science Program. Today's libraries are increasingly innovative and offer a multitude of checkout items other than books including telescopes, binoculars, musical instruments, tools, and robotics. Libraries are located where people live and have become experts at marketing to engage their customers. This is a "win-win" for libraries and IDA with libraries getting new programming and IDA leveraging established library networks to raise awareness of issues related to light pollution.

In promoting the program beyond Missouri, SciStarter will be featuring the Dark-Sky Citizen Science Program in its upcoming Super Bowl-themed promotional campaign! Featured projects are promoted to the SciStarter community of more than 100,000 citizen scientists, through the SciStarter homepage, newsletter, blogs and through their partners' sites, including Discover Magazine, PBS Kids, the National Science Teachers Association and Science Connected Magazine among others!



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Other organizations can learn more about participating in the Dark-Sky Citizen Science Program by visiting :<https://darkskymissouri.org/programs/citizenscience>. A 45-minute recording of a webinar is available in which representatives of IDA Missouri, SciStarter, NASA Space Science Education Consortium and Globe at Night explain the program and how to get started.

Program 4: IDA Dark Sky Designations

Our chapter reached out to national and state parks located in Missouri with the goal of engaging them to apply for an IDA Dark Sky Designation. There is general interest but leadership changes in both the national and state parks located in Missouri have complicated any forward movement.

While there were no formal applications submitted for dark sky designation status, there were verbal expressions of interest by two Missouri communities to become “Dark Sky Communities. Both are installation sites for our SQM program. Here are the details:

1. Ozark, Missouri – In November 2019, a representative of the City of Ozark, Missouri, stopped by the IDA office in Tucson to inquire about becoming a “Dark Sky Community”.* In email correspondence, they stated that “...we have a strong, passionate, dedicated group of individuals ready and willing to move Ozark towards DS Community status. I’m looking forward to meeting you and working with you and your team. We’ll be touching bases soon.” No additional progress has been made since that email
2. Hillsboro, Missouri – An official of Hillsboro, MO showed interest in learning more about becoming Dark Sky Community.

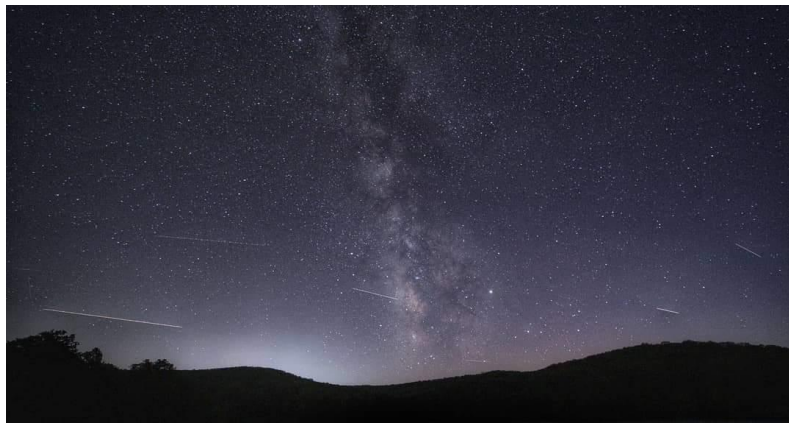


Photo of the Milky Way taken from Hermann, MO
CREDIT: Aaron Hardebeck, IDA Missouri

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2020 STRATEGIC PLAN

H. Executive Summary

We were generally pleased with our chapter's progress in 2019 but realize that we have considerable work ahead of us.

PEOPLE AND OPERATIONS – We need to build more diversity in our chapter leadership and volunteer base—age, gender, color. We need to find “champions” for every zone that will interact with their community on a regular basis.

PROGRAMS – We need to effectively implement programs already underway, and find new opportunities to accomplish our mission, recognizing that we must provide adequate resources for our plans.

OUTREACH – We need to deliver programs to the public throughout Missouri, not just in the major metro areas.

PARTNERSHIPS — We need to make more effective use of partnerships and the media to spread the word. The Missouri public appears interested in light pollution, but largely unaware of the negative impacts of light pollution on the night sky or life on Earth. They are receptive to actions needed for change, but we are reaching too few people.

COMMUNICATION – We need to more effectively communicate with our constituents through social media, email and our website. We must engage them and develop an ongoing relationship with them.

I. People and Operations Plan

Board of Directors

We are actively recruiting Board members with the goal of filling the vacancy for Zone 6, located in central Missouri, and deepening our people strength in all zones. While we welcome more amateur astronomers to our board, our emphasis will be on recruiting other areas of interest/expertise.

Additionally, the educators on our board have launched a committee to find ways to recruit younger people and bring more diversity to our base of volunteers. We have made several connections through organizations to that end, including a connection to a “Youth” group that is hosted by the Saint Louis Science Center.

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Chapter Advisors

We plan to continue expanding our list of “Chapter Advisors” with the goal of recruiting more talent for our chapter and developing champions across our operating zones.

Operating Zones

We need to recruit “champions” in each operating zone that focuses on communicating regularly with community leaders and building a “trusted relationship” that provides a foundation for change.

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J. Financial Plan

Below is a summary of the 2020 budget with a comparison to 2019 actual. See separate attachment for more details, including budget figures by quarter.

Description	2019 Actual	2020 Budget
BALANCE SHEET		
ASSETS		
Cash in bank	\$896.73	\$982.33
TOTAL ASSETS	\$896.73	\$982.33
LIABILITIES & EQUITY		
Liabilities	0	
Equity	\$896.73	\$982.33
LIABILITIES & EQUITY	\$896.73	\$982.33
INCOME STATEMENT		
REVENUE		
Donations	\$940.00	\$400.00
TOTAL REVENUE	\$940.00	\$400.00
EXPENSES		
Brochures	\$0.00	\$300.00
PayPal Fees	\$14.27	\$14.40
Bank Service Charges	\$29.00	\$0.00
TOTAL EXPENSES	\$43.27	\$314.40
NET INCOME	\$896.73	\$85.60
NOTES:		
1. Donations based on 2019 levels excluding onetime donation of \$500. All donations assumed to be via PayPal		
2. PayPal Fees based on first brochure/business card order of \$71.00		

K. Membership Plan

We did not set a specific membership growth target for 2020 but believe that our combination of communications and outreach programs will result in notable growth.

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L. Communications Plan

Email, Social Media, Outreach Materials, Website

We will continue to improve our communications in 2020 with members and the general public, using our various communication methods including email, social media and our website. We plan to make business cards widely available to board members and make additions to our signage and displays.

Media/Press

Our chapter has been working with a feature reporter from the St. Louis Post Dispatch on an article for the Travel section of the newspaper. Based on recent correspondence, the article is scheduled to run the week of April 19th to coincide with Dark Sky Week (April 19-26).

We expect additional media opportunities as our programs progress and the depth of our board expertise becomes more well known.

M. Outreach Plan

Our 2020 outreach has started strong with ten programs already booked and more expected.

TABLE: 2020 OUTREACH EVENTS				
Date	Audience/Location	Speaker	Length	Attendance
01/13/2020	Webster Groves Garden Club	Lynnda Green	60 m	48
01/13/2020	Urban Chestnut Grove – Astronomy on Tap	Brett Seymoure	15m	60
01/18/2020	SciFest/Saint Louis Science Center	Team	All day	1000+
01/21/2020	Great Rivers Missouri Master Naturalist *	Don Ficken	60 m	60
01/25/2020	St. Louis County Library – Daniel Boone Branch **	Don Ficken	60 m	21
01/27/2020	St. Louis County Library – Grant’s View Branch **	Don Ficken	60 m	51
02/13/2020	Missouri Master Naturalists, KC, MO	Jackie Beucher	60 m	40 Est
03/14/2020	Astronomical Society of Eastern Missouri	Bill Neubert	30m	30
03/16/2020	St. Louis County Library – Prairie Commons Branch **	Don Ficken	60 m	25 Est
05/04/2020	Earth Day/Ft. Leavenworth	Jackie Beucher	All day	1,500+
05/30/2020	Gateway Arch – Lights Out Program Talk	Don Ficken	30 m	30 Est

In recent weeks, we delivered programs on light pollution to St. Louis County Library. The programs were well attended and will encourage library officials to request more presentations.

We see opportunities to present light pollution programs throughout the state but must deepen our resources to deliver such talks.

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N. Program Plans

We plan to carryforward programs initiated in 2019 and add new programs in 2020.

Carryforward of 2019 Programs

SQM, Silent Skies/Lights Out, Citizen Science, Dark-Sky

We plan to continue forward with programs related SQM Sky Brightness, Silent Skies/Lights Out, Citizen Science and Dark-Sky Designations. These programs will demand significant resource commitments.

Launch of New Programs in 2020

Missouri Dark-Sky Destination Map

We have established a committee to explore producing a Missouri Dark-Sky Destination Map like the map recently issued by IDA Montana for their state. This map would be useful in hardcopy form for distribution at outreach events and a useful resource on our website to attract visitors. Early plans are to focus on national and state parks on this map.

A partnership with Missouri State Parks and other entities will be explored to see if the maps could be widely distributed.

Missouri Dark-Sky Photos

We plan to add a feature to our website to showcase widefield photos of the night sky taken in Missouri. The public loves to share the photos and view photos taken by others. We believe this will be attractive visitors to our website, including media.

Missouri Dark-Sky Workshop

We are in early stages of discussion but have an idea to gather our state experts for a one-day workshop to share expertise on light pollution and to discuss how Missouri could benefit from more thoughtful light pollution policies and programs. With experts in economics, biology, physics and amateur astronomy, we believe that an attractive workshop might be possible.

International Dark Sky Association Missouri Chapter

2019 Annual Report and 2020 Strategic Plan

EXHIBITS

Board Terms

Name	Name	Zone	Vote	Term Start	Term End
First Class	Don Ficken	2	11/26/2018	11/26/2018	11/30/2019
			9/24/2019	11/30/2019	11/30/2022
	Chuck Simms	2	11/26/2018	11/26/2018	11/30/2022
			9/24/2019	11/30/2019	11/30/2022
	Rick Yord	5	11/26/2018	11/26/2018	11/30/2022
			9/24/2019	11/30/2019	11/30/2022
	Terrel Gallaway, Ph.D.	4	11/25/2019	11/25/2019	11/30/2022
Second Class	Jackie Beucher	5	11/26/2018	11/26/2018	11/30/2020
	Bill Neubert	2	11/26/2018	11/26/2018	11/30/2020
	Fred Schovanez	2	11/26/2018	11/26/2018	11/30/2020
Third Class	Cook Feldman	2	11/26/2018	11/26/2018	11/30/2021
	Ron King	2	11/26/2018	11/26/2018	11/30/2021
	Vayujeet Gokhale, Ph.D.	1	6/28/2019	6/28/2019	11/30/2021
	Brett Seymoure, Ph.D.	2	12/4/2019	12/4/2019	11/30/2021
	Matthew Kantola	3	1/16/2019	1/16/2019	11/30/2021

NOTES:

Per our operating agreement with [International Dark Sky](#), IDA Missouri Board members serve for a term of three years and cannot serve for more than two (2) consecutive full year terms of office without a break in service of at least one (1) year. Board terms are divided into three classes which are staggered to expire in different years to help ensure continuity of the Board.

Financials

See separate attachment for 2019 financials and 2020 budget.