

# "One of these kids will be the first to set foot on Mars, it's worth any sacrifice to help make that happen."

Stephen W. Ramsden CBSAP

The **Charlie Bates Solar Astronomy Project** is a nonprofit 501(c)(3) (public charity 170 (b) (1) (A) (vi)) founded and registered October 20<sup>th</sup>, 2008 in Atlanta, GA by Stephen W. Ramsden who has served as Director since it's inception. CBSAP is named in memoriam to a fellow veteran and victim of suicide.

**Nonprofit Tax ID (EIN)** 27-0261397

### **CBSAP Mission:**

- Take state of the art observational, imaging, and spectroscopic equipment directly to primary and secondary educational facilities around the world in order to increase awareness of our nearest star and its influence on space travel, climate change, terrestrial technologies, and aviation safety.
- Recognize each individual student as important to our species' future and encourage them to exceed societal expectations placed on them by religious, political, cultural, financial, or geographical restraints.
- Increase awareness of the hobby and profession of Astronomy worldwide, in order to direct our species' future towards interplanetary and interstellar space exploration.
- Showcase and provide hands on demonstrations of the best in modern astronomical equipment to audiences outside of the traditional "astronomy show" market, in hopes of greatly expanding the demographic of customers/enthusiasts.
- Encourage the free sharing of the vast wealth of knowledge currently existing in the Western astronomical hobbyist community.

### **Board of Directors:**

Stephen W. Ramsden Director
Jeremy Cummo Treasurer
Brian Paysinger Secretary

Natalie F. Anderson Registered Agent Attorney at Law, LLC

Floyd Green Financial Services Certified Accountant

735 Ponce De Leon Place NE Atlanta, GA 30306 404-543-7616

### **INTERNET PRESENCE:**

CBSAP runs several internet forums and social media pages in order to help facilitate coordination between our 23 country affiliates. We invite anyone and everyone to come and participate in solar astronomy outreach through our program. Our main pages are as follows:

www.solarastronomy.org



www.solarastronomy.org serves as the main landing page for all CBSAP needs. From this address, members can see our trademarked SPOD (Solar Picture Of the Day), access all of our other forums and sites, and review images and movies from over 350 recent STEM events.

Students and Faculty from all over the world may also access their own customized galleries of images and movies taken by students at their institutions. Each country affiliate has a link on this page as well, and you can see the latest solar information from NASA SOHO and NOAA.

This site receives 150,000-200,000 hits per month.

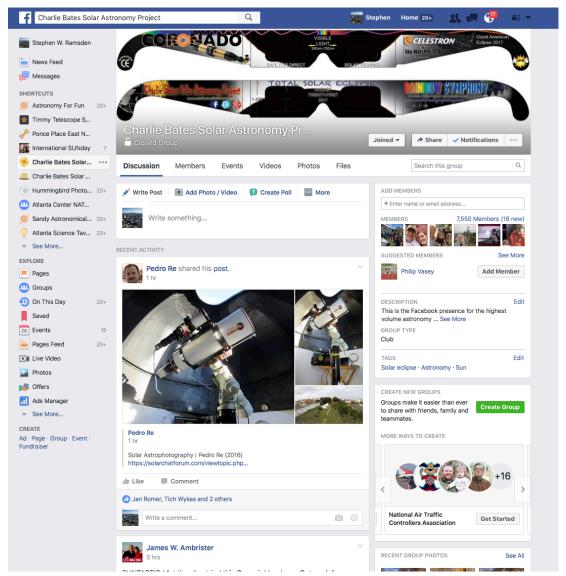


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OPICS	REPLIES	VIEWS	LAST POST	
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Todays Sun 24NOV2016 with DS Lunt 80 JSM  ® by Albuqshutterbug » Thu Nov 24, 2016 11:21 pm	9	87	by ffellah ☐ Sat Nov 26, 2016 10:02 pm	
Solar Astrophotography   Pedro Re (2016) by pedro » Sat Nov 26, 2016 10:01 pm	0	18	by pedro □ Sat Nov 26, 2016 10:01 pm	
Old Ha solar images taken between Aug et November with the C8 by christian viladrich » Thu Nov 10, 2016 1:41 pm	9	147	by oriolestation D Sat Nov 26, 2016 6:38 pm	
Lift-off prom from Sicily (November 13, 2016)  by by turi lo vecchio » Sun Nov 13, 2016 8:35 pm	8	105	by oriolestation  Sat Nov 26, 2016 6:34 pm	
E limb of Sun  ® by JohnW » Thu Nov 24, 2016 6:10 am	9	123	by MapleRidge ☐ Sat Nov 26, 2016 6:32 pm	
Sol from the 23rd of November 2016.  Ü by eroel » Thu Nov 24, 2016 3:12 pm	5	63	by MapleRidge ☐ Sat Nov 26, 2016 6:32 pm	
November 22nd in Ha  ### by MapleRidge * Wed Nov 23, 2016 3:47 am	13	174	by MapleRidge ☐ Sat Nov 26, 2016 6:29 pm	
Friday and a little Ha and End of the Day  by by Derek Klepp » Fri Nov 25, 2016 10:00 am	5	44	by MapleRidge ☐ Sat Nov 26, 2016 6:28 pm	
Sunspot 25NOV2016 Lunt 80 DS JSM by Albuqshutterbug » Sat Nov 26, 2016 6:28 pm	0	8	by Albuqshutterbug D Sat Nov 26, 2016 6:28 pm	
Thursday Sunrise  0 by Derek Klepp » Wed Nov 23, 2016 8:24 pm	7	65	by MapleRidge ☐ Sat Nov 26, 2016 6:27 pm	
The Sun 26 November 2016 white light by Bizibilder » Sat Nov 26, 2016 11:33 am	2	26	by yitansg D Sat Nov 26, 2016 3:00 pm	
Quick session 26/11/16 low sun  8 by DJD » Sat Nov 26, 2016 11:30 am	3	34	by yltansg D Sat Nov 26, 2016 2:58 pm	
One more shot from 21NOV2016 JSM  ### by Albuqshutterbug * Tue Nov 22, 2016 7:39 pm	9	72	by Carbon60 ☐ Fri Nov 25, 2016 8:07 pm	
## AR2612 on the 23rd WL by robert » Thu Nov 24, 2016 3:40 pm	5	69	by yltansg © Fri Nov 25, 2016 1:04 pm	
23rd November disk with new spot by robert » Wed Nov 23, 2016 2:48 pm	4	65	by marktownley Da Thu Nov 24, 2016 7:03 am	
Sunday Ha with a Magpie  B by Derek Klepp » Sun Nov 20, 2016 9:53 am	9	130	by edobosz 🖟 Wed Nov 23, 2016 7:57 pm	
Saturday Sun -19th November by marktownley » Sun Nov 20, 2016 8:14 pm	12	112	by edobosz ☑ Wed Nov 23, 2016 7:52 pm	
Beautiful Sun today (19th Nov) by Montana » Sat Nov 19, 2016 1:14 pm	15	220	by Albuqshutterbug ☐ Wed Nov 23, 2016 3:22 pm	
Colors Sun 21NOV2016 JSM			hv Alhuashutterhua R	

Solarchat! is the largest solar astronomy user forum on the internet, with just under 2500 members and 190,000 posts, in over 20,000 topics, covering anything from solar scope modifications to magnetometry, spectroscopy, solar imaging, and sketching. Solarchat! is usable in over 95 languages. Solarchat! users are vetted by Stephen Ramsden personally, and our only rule is maintain safe posts and leave egos at the other forums. Its sole purpose is to be an inviting environment where both new users and expert level imagers can come and shorten the learning curve dramatically, by consulting with the world's greatest solar imagers in a friendly environment where everyone is equal.

We do not have the many problems such as dealer complaints, unsafe posts, personal attacks, or copyright infringement that are found in other forums. Every single post is reviewed by Stephen Ramsden, keeping the forum at the highest level of integrity possible. We don't allow any discussion of religion or politics. We promote the safe use of solar viewing equipment in all cases, in hopes of promoting more STEM outreach around the world.

# **Charlie Bates Solar Astronomy Project Facebook Group:**

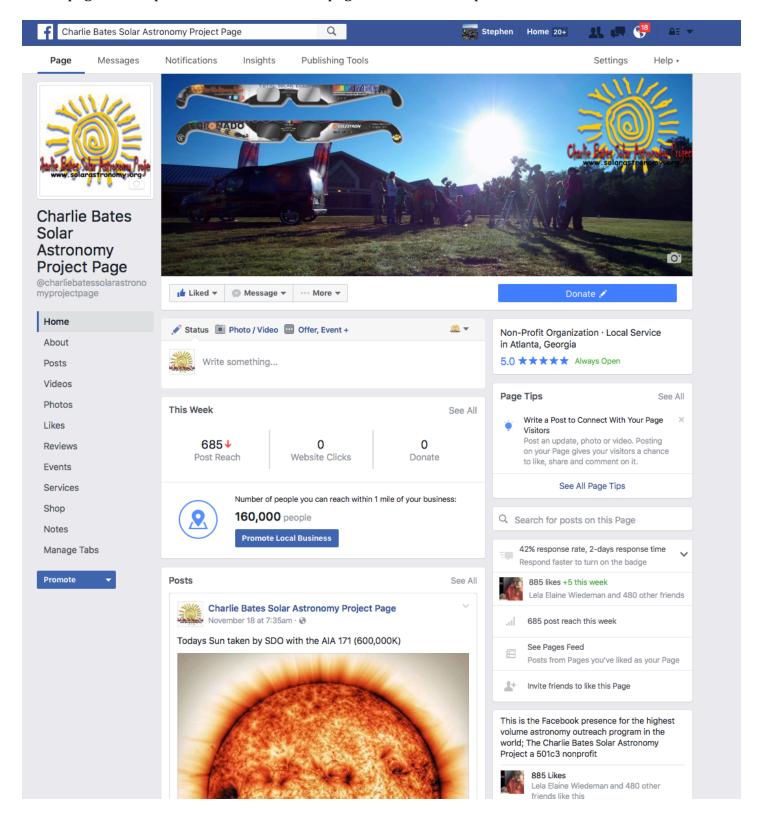


The CBSAP Facebook group broke new ground in 2008 as the only astronomy outreach presence on Facebook. Since then, hundreds of other groups have discovered the enormous reach and vast audience of modern Social Media. The CBSAP group is closely regulated with tight constraints placed on content, to avoid the many pitfalls brands have faced on Facebook in other groups and pages. Moderators have closely monitored activity on our group page since day one, making sure that posters stay on topic and that only valid solar astronomy enthusiasts and outreach providers are approved.

We currently have just under 8000 members in our Facebook group. Each member has been verified as both interested in our program and active in forwarding our goals. We at CBSAP have always preferred quality over quantity, so we do not have the tens of thousands of anonymous users with the ads, inappropriate material, or spoofing of accounts that accompany them. Every day someone from around the world posts new and informative pictures or reports how our program is being implemented in their community. We have found that this Facebook group is the most powerful social media tool we have at our disposal, and we promote our sponsors heavily through it. We conduct our once-per-year fundraiser through this portal.

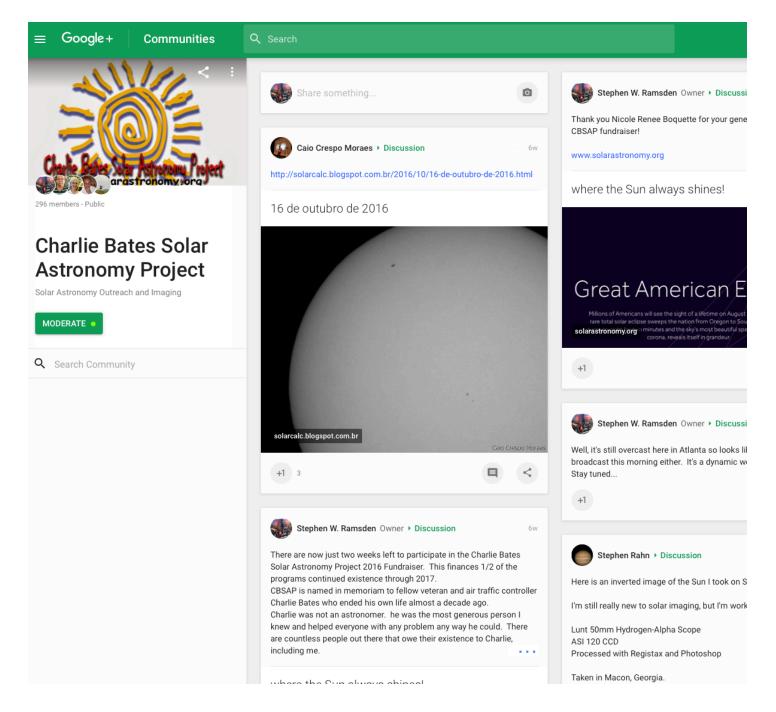
# **Charlie Bates Solar Astronomy Project Facebook Fan Page:**

Recently, after adding new corporate sponsors, we saw the need to have a totally open Facebook page in order to better interweave our social media activities with those of our sponsors' pages. The CBSAP Facebook page was published in 2016. We have just under 1000 likes so far. Posts from our other social media pages are duplicated to this Facebook page and link to our sponsors as needed.



# **Charlie Bates Solar Astronomy Project Google+ Group:**

Our outreach program was the first to have a presence on Google+. We have approximately 300 members who share posts about outreach, imaging, and sketching to our vetted audience. These posts are shared daily by our users. Unfortunately, the Google+ platform has suffered dwindling usage. Nonetheless, we have found it to be a more efficient and welcoming environment than Facebook, so we continue to use it to its fullest.



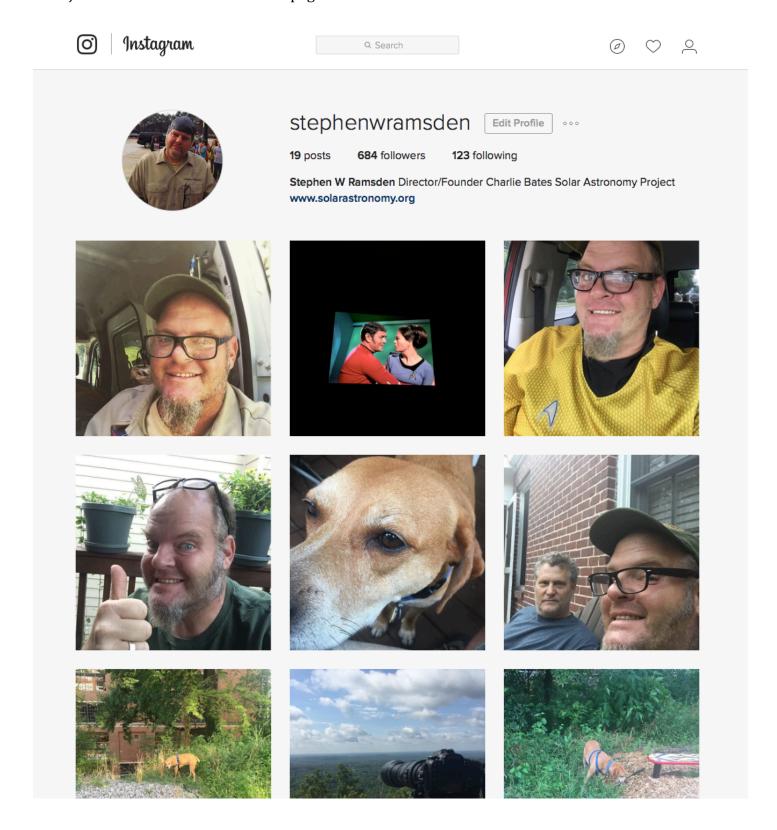
# **International SUNday Facebook page**

Our trademarked, and often copied, International SUNday is a once-per-year global event celebrating the Summer Solstice. This event is the largest, totally free, astronomy event on Earth, with thousands of people participating in hundreds of events on four continents. We continually promote this introductory day to Solar Astronomy STEM via our Facebook page. We have 1400+ page likes on the International SUNday Facebook page.



# **CBSAP on Instagram**

We have a fan page on Instagram that allows users to connect with the Director of the program, allowing a "behind the scenes" view to many of our followers. Instagram provides a method for promoting slices of a person's daily life, without the comments and replies that can be problematic on other portals. We have just under 700 followers on this page.



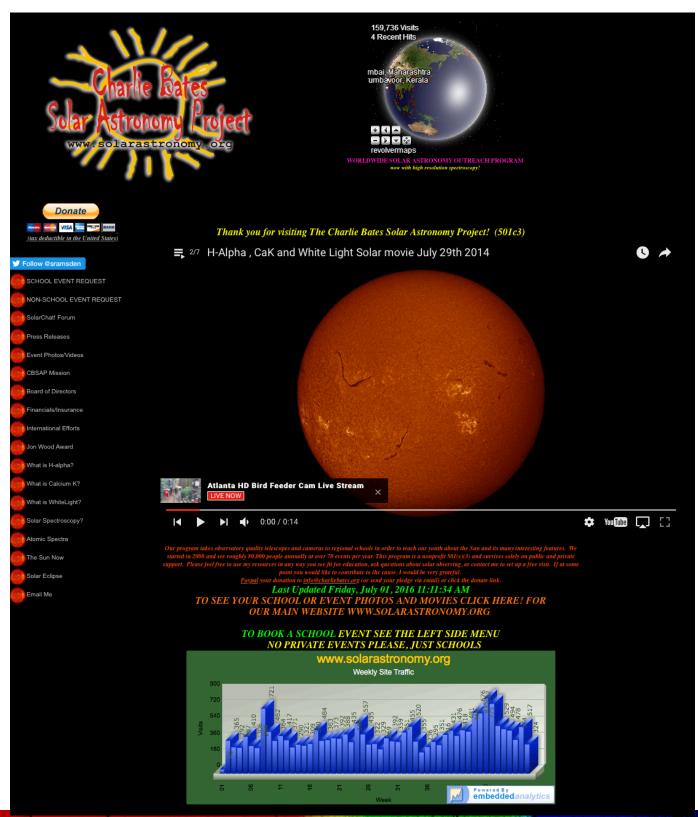
# **CBSAP Twitter page**



Our CBSAP Twitter page is linked to all other accounts. The Twitter page is used to heavily promote CBSAP events and sponsors. We currently have about 12,000 tweets being followed by just under 650 solar astronomy enthusiasts, with our number of followers growing weekly.

### www.charliebates.org

We maintain this website for educators and administrators to access both our insurance and federal, state, and local licenses. We also publish all of our financial documents and tax returns on this website, to maintain complete transparency with our donors and sponsors. The website also has links to elementary and middle school lesson plans, curriculum for Georgia educators, and school event request forms. We receive about 1000 hits per week, from all over the world, on this page.



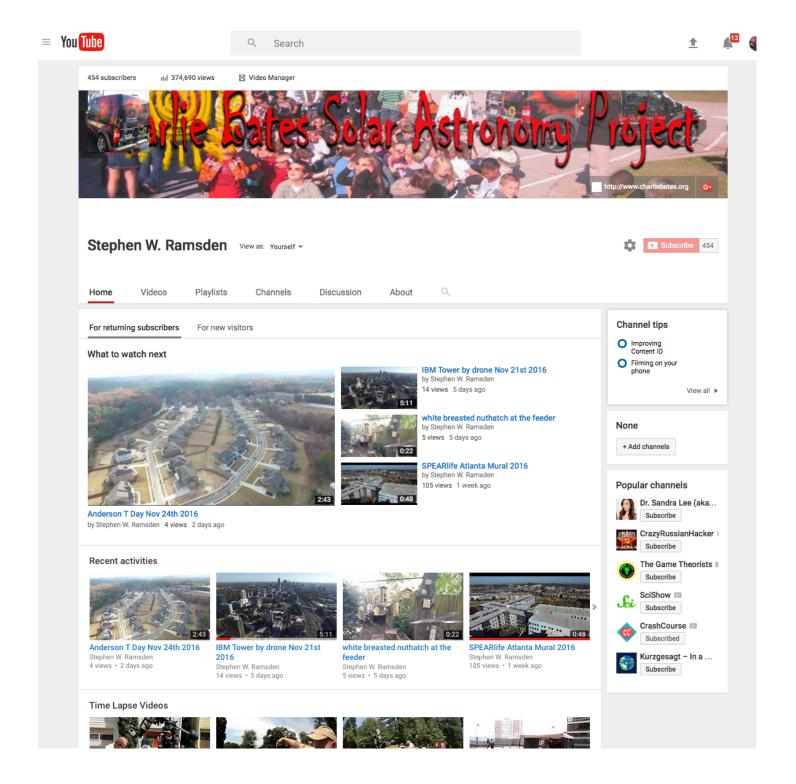
# **CBSAP Remote Live Internet STEM Program**



In 2012, we began doing live STEM lectures. These lectures include live viewing of the Sun, broadcast remotely to anyone on Earth with an internet connection. We have affiliates in 12 time zones, who can provide live solar telescope broadcasts, paired with our Director's interactive classroom visits from his home in Atlanta. This program is still in its infancy, but it is a remarkable way to expand the reach of our efforts as well as our sponsor's marketing. We routinely do public Google+ broadcasts of the Sun from Atlanta. Our Director's headquarters in Atlanta is equipped with studio equipment and fiber speed internet, running at 10 Gigabits per second, to accommodate many simultaneous users.

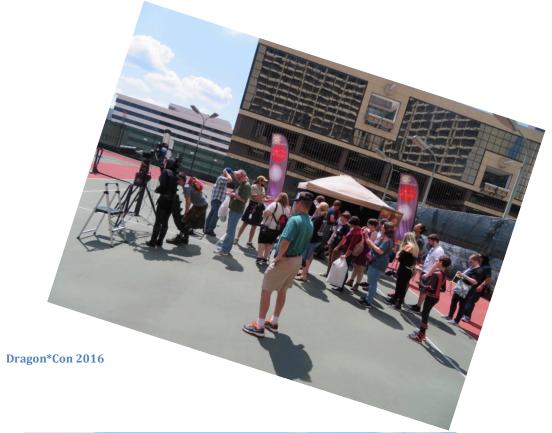
### **CBSAP YouTube channel**

Our YouTube channel is very busy with just under 375,000 views of over 2000 videos concerning STEM, equipment reviews, solar imaging tutorials, outreach events, and many other science related topics. CBSAP pioneered the use of YouTube in astronomy outreach, starting our YouTube channel in 2008. The CBSAP YouTube channel has successfully shared the science of the Sun for eight years running.



# **CBSAP Public Appearances**

Stephen W. Ramsden, Director of CBSAP, has appeared and headlined at hundreds of public events, from the IMAA in Brazil, to the Astrophotographer of the Year Awards in London, to the American National Physics Teachers Conference. Over the years, we have found that the most effective of these public events have been Dragon\*Con in Atlanta (75,000+ visitors yearly), and the Northeast Astronomy Forum (3000+ visitors yearly). We have streamlined our public appearances to best use our limited resources to their fullest, and to remain focused on our student-centric mission. We continue to only do these two public events, with an infrequent exception when needed. We focus our very limited funding on students and newcomers to astronomy. Stephen's latest NEAF lecture can be watched at this link: <a href="https://www.youtube.com/watch?v=7ZTmguQUZk8&t=22s">https://www.youtube.com/watch?v=7ZTmguQUZk8&t=22s</a>





**NEAF 2014** 

### **Global Outreach Numbers at 2016 STEM events:**

In 2016, we changed reporting systems from the NASA Night Sky Network to an in-house private reporting system. The new system is much easier to fill out and accepts foreign locations for events. We have had a bit of a problem convincing people to report what they are doing with the materials sent to them from our program. We estimate that approximately 1/3 to 1/2 of events are actually reported, with various reasons for non-reporting. We are constantly striving to get CBSAP Chapters and volunteers to CBSAP ALLTIME OUTREACH STARS! report their events, but so far, it has been an uphill battle.

These are the totals for 2016 from our internal event reporting system:

# 474 reported events

(estimated 700 events performed)

142,627 students logged in our system receiving hands on instruction (estimated 300,000 actual students)

Breakdown by country receiving materials

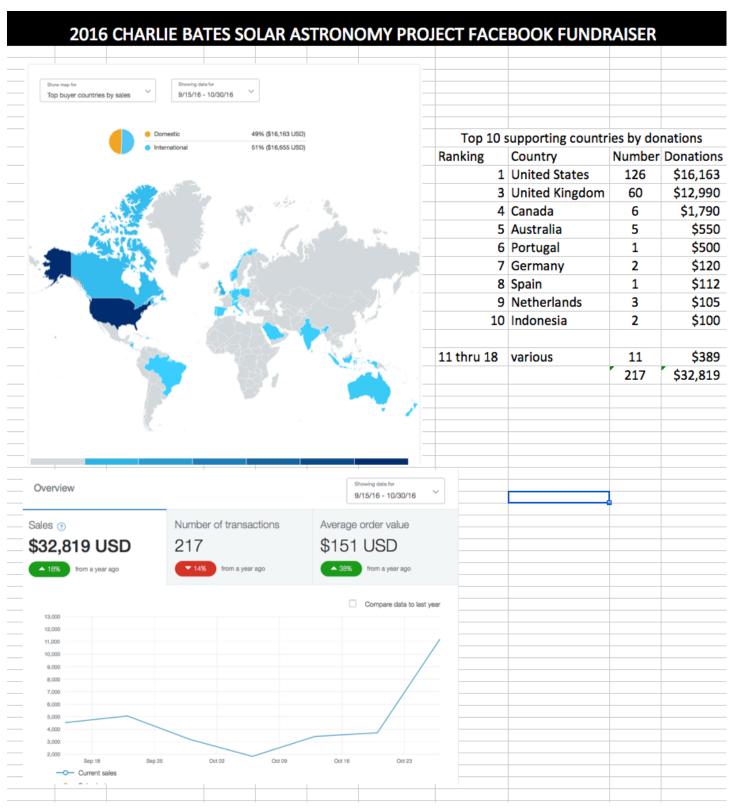
Country	Events	Studen
UNITED STATES	313	90802
BOSNIA	29	17727
NICARAGUA	28	2797
KOSOVO	26	5328
BRAZIL	23	4840
COLUMBIA	20	7020
UNITED KINGDOM	16	4560
CANADA	10	2545
DOMINICAN REPUBLIC	10	3705
AUSTRALIA	7	750
TUNISIA	6	1950
CROATIA	2	350
PAKISTAN	2	200
BELGIUM	1	3
SERBIA	1	50
ARGENTINA	0	0
BULGARIA	0	0
COSTA RICA	0	0
GUATEMALA	0	0
MEXICO	0	0
NETHERLANDS	0	0
PANAMA	0	0
PORTUGAL	0	0



Our total since 2008 of logged events is 2211 events in 23 countries, with 659,343 students receiving hands on instruction and materials concerning solar astronomy. With the difficulty in getting people to log their events, either with NASA Night Network or CBSAP's in-house system, we estimate that this is approximately 40% of actual numbers.

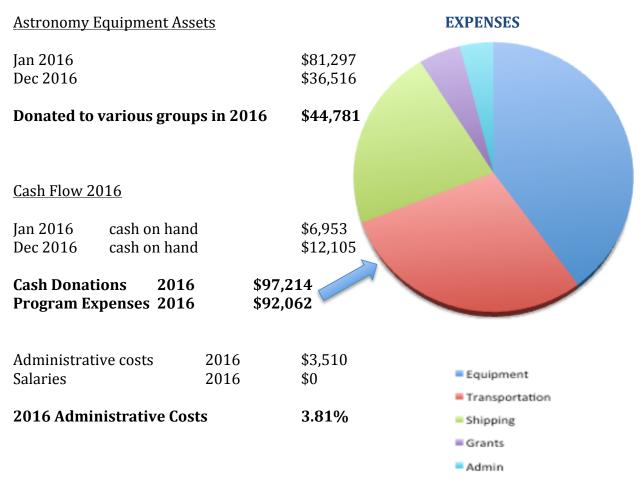
### **PRIVATE DONATIONS**

We did not reach our goal in this year's six-week fundraiser, for the first time in 3 years, but we did pretty good. This is the only solicitation for donations that we do yearly.



(\*\*\*Source country of donations based on Paypal account holder address records, Central American and Caribbean donations reflected in US amount)

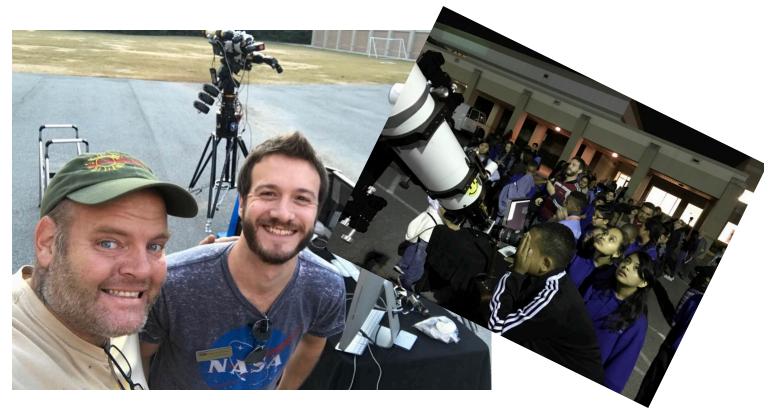
### **INCOME AND EXPENSES**



### **CURRENT SPONSORS**

- Approximately 300 private Facebook supporters of science
- Rainbow Symphony
- Meade Instruments
- Celestron
- Point Grey Research
- NATCA Charitable Foundation
- The Main Street Foundation
- Skywatcher USA
- Flint River Astronomy Club

### **CBSAP SUCCESS STORIES 2016**



### **BRAD ZICKEFOOSE**

"Hey Mr. Zickefoose!" is a common saying over at Louise Radloff Middle School in Gwinnett County, Georgia. Brad is a young teacher in his first decade of teaching, bringing science and music to young minds in this "Title I" school of predominantly poor, hardworking immigrants' children.

CBSAP met Brad a few years ago and was invited to do our free program for his students. When we arrived, it was clear that we were dealing with a special sort of person. Brad is the kind of teacher that everyone remembers fondly from childhood as the mentor who was the spark for their success in school and life. We knew this was a guy we wanted involved in our program.

This year, thanks to our great sponsors, we were able to fully outfit Brad's classes with a state of the art Skywatcher refractor, a Celestron Advanced VX mount, several hundred pairs of Rainbow Symphony Eclipse Glasses, a Point Grey Imaging system with a 24 inch iMac and ASTRO IIDC software, and Meade accessories and eyepieces, so Brad could actually teach his kids hands-on observational astronomy. This is accomplished in a self-paced environment where the students can really understand the mechanics involved in setting up the gear and viewing celestial objects.

Our gift to Brad's students allows them to get hands-on experience and brand recognition at an early age. When they become income earners and successful members of society, they will go out and purchase these things for themselves and their kids. Everyone wins, especially our society.

Click here for a video of a solar event at Radloff Middle School



### **CBSAP SUCCESS STORIES 2016**

# **ROGER AND LINDA KENNEDY**

The Kennedys are the most prolific outreach providers on the face of the Earth, hands down, no contest. CBSAP met Roger and Linda over Facebook and immediately knew that they really "got it." We wanted them to be a part of our program. The Kennedys are based in Albuquerque, New Mexico.

Roger and Linda have long careers in education, classical music performance, nuclear research, and the military. After raising their family and reaching retirement age, they knew that it was their duty to spread the opportunities for success that they had been given. The Kennedy's efforts with young people make the world a better, and more science oriented, place. We can't praise these folks enough, and our respect for them and their efforts is boundless.

Roger and Linda have set up their CBSAP-provided solar astronomy equipment almost 300 times per year, for the last several years, at schools, museums, community events, Native American reservations, commercial astronomy conferences, city science festivals, and basically anywhere that would have them. They create endless opportunities to teach about the awesome nature of nuclear fusion and its life-giving properties.

Roger and Linda have their own program called "Timmy Telescope" (timmytelescope.com) and are responsible for the little green dude pointing the way at their events. You have probably seen "Timmy" shared on countless group pages and copied by other programs.

CBSAP provides, through our great sponsors, mounts, glasses, solar scopes, night scopes, spectrographs, diffraction gratings, and anything else needed for the project. The Kennedys represent the epitome of our mission and our program.





Kosovo is a new and only partially recognized country carved out of the Serbian conflict of the late 1990's. The adult population and most of the infrastructure were decimated during this decade long war. Kosovo now has the youngest population in Europe, with over 70% of its citizens under the age of 30. The rebuilding efforts in Kosovo have been monumental, and the people's spirit of hope is second to none.

Education brings opportunity, especially in a place like Kosovo, which is experiencing high unemployment during its growing pains. Pranvera Hyseni is a young Kosovar university student who is focused on one thing in her life: the stars and how to get to there. We met Pranvera through Facebook and were immediately taken by her enthusiasm and non-stop work ethic in spreading astronomy among her peers and fellow students.

Pranvera's group of astronomy STEM providers, Astronomy Outreach of Kosovo (AOK), consists of both students and teachers. AOK has overcome enormous obstacles to create the most recognized and largest outreach group in Eastern Europe. We were amazed when our Director met Pranvera and discovered that she led the majority of AOK's events without a car!

CBSAP has supported AOK from their start, supplying multiple telescopes, mounts, solar glasses, instruction, training, cameras, computers, money, and any other supplies needed to continue their outreach. We are extremely proud that AOK is a Chapter of CBSAP.



### **CBSAP SUCCESS STORIES 2016**

### LARRY METCALF

Our Director, Stephen Ramsden, met Larry through a mutual friend, the late Tim Nix, who owned the only brick and mortar telescope store within 500 miles of Atlanta. Tim suggested that Larry contact Stephen about solar telescopes and thought the two would hit it off. Well, they did, and the rest is history.

Larry is a retired chemist who knew he wanted to do something to help the next generation in his community. He wanted to share the many opportunities that come with education. His charming personality and scientist-like demeanor made him a hit with the students and teachers alike in his home state of South Carolina and beyond.

Larry has attended numerous conferences representing CBSAP. We have helped him amass a fleet of mounts, telescopes, and imaging equipment that is second to none. Larry visits dozens of schools every year, teaching kids how awesome science is, and how much it can help their future!



### **CBSAP SUCCESS STORIES 2016**

### **KEVIN LEGORE**

Anyone in the astronomy industry already knows what an incredible asset Kevin is to the field. Our Director met Kevin at an astronomy convention way back when. The two immediately hit it off over their mutual love of science and music. Kevin started his own program, Focus Astronomy Outreach. He tirelessly shares day and night astronomy all over the West Coast, throughout the year, on top of his full-time job.

When it came time to help Kevin with his enormous program, CBSAP was all too happy to lend a hand. Kevin has handed out thousands of our solar-viewing glasses and is currently using two of our magnificent Coronado 90mm H-Alpha scopes in his program. Kevin and our Director were lucky enough to do a school outreach event together in Pasadena a couple of years ago, and it was wonderful to watch Kevin at work. CBSAP is proud to be a partner in Focus Astronomy Outreach.



### THE FUTURE OF CBSAP

CBSAP will continue as the world's highest integrity and largest volume astronomy outreach program. We are financially sound, have a great team of providers, and there is certainly no reduction in the need of our educational services of late.

In 2017, we will be attending NEAF, The American Physics Teachers Conference, Dragon\*Con, and of course, our hundreds of student outreach events all over the world.

We will be hosting several Great American Eclipse events in the U.S., and our Director, Stephen Ramsden, will be at a middle school in Rabun County, Georgia for the eclipse, as our resources are best spent showing the Sun to people who have never had access to a telescope.

We are extraordinarily grateful to our sponsors for making all of this possible. Without your philanthropy and vision for the future, our program would not exist.

