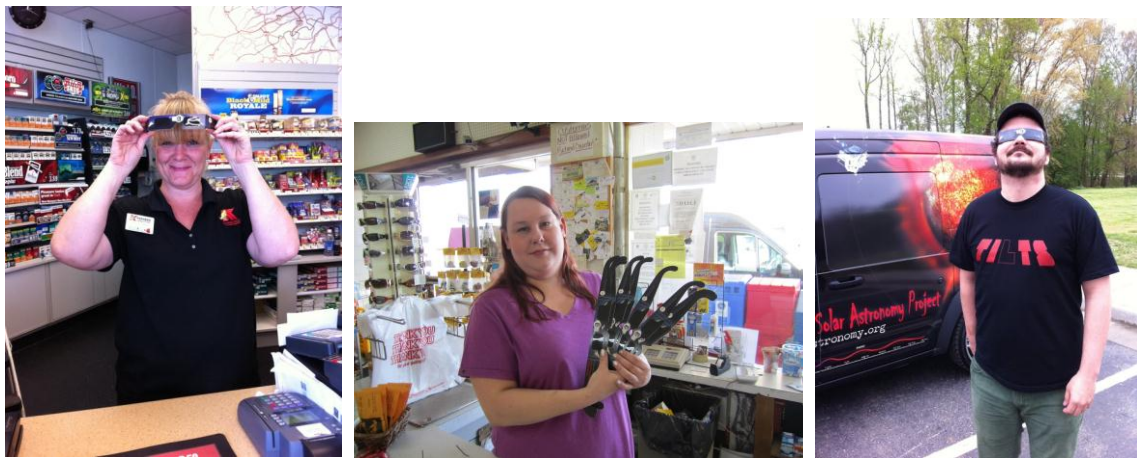


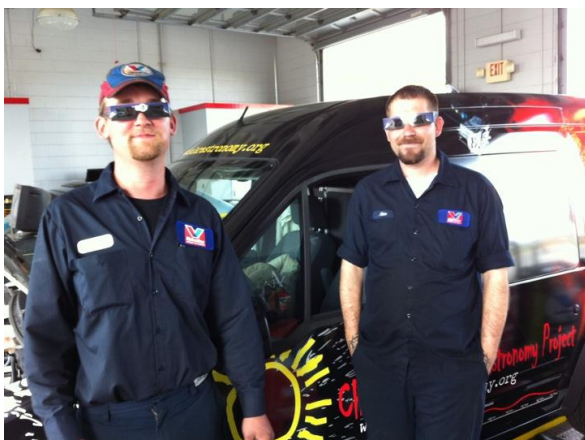
## It's a Family Affair for Astronomers at NEAF...

I just unpacked 3500+ pounds of astronomy equipment, t-shirts, new scopes, wife, luggage, etc.. from the Sun Specific Public Outreach Truck (SUNSPOT) and my head is filled with all the great memories from this year's Northeast Astronomy Forum and Northeast Astro Imaging conference, more commonly known as NEAIC and NEAF. This year's 20<sup>th</sup> anniversary show was the most incredible astronomy event I have ever had the privilege of attending. I wanted to try and share the experience with as many people as possible so indulge me while I try and put into words the great time had by all.

My wife Natalie and I departed Atlanta on Monday for the 12 hour drive to Suffern, NY. We planned a stop in Greenbelt to visit my favorite NASA Contractor and good friend Steele Hill. Steele has been an invaluable resource to my solar astronomy outreach program (Charlie Bates Solar Astronomy Project) over the last 4 years and I wanted to personally thank him for all the NASA goodies and encouragement. My position and training as a NASA/JPL Solar System Ambassador allows me to get resources and materials from them to give out through my program.



We drove the nerdmobile through GA, SC and NC stopping along the way to hand out solar glasses and spread the love of the Sun to as many people as possible. When we got to Kannapolis, NC we decided to stop for some much needed leg stretching. I noticed that the Sunspot had just rolled over 3000 miles so I figured I would stop and get an oil change and have the engine looked over to see how the little 4 cylinder was coping under the extreme load and long drive. Natalie took this opportunity to get a manicure. I love my wife and whatever she wants, she gets...plus she controls the purse strings now that we are in our 3<sup>rd</sup> year of marriage so I had to kiss up a lot to get permission to buy a new scope at NEAF...:)



I stopped at an oil change center and met Josh McIntyre and his friends. They were good 'ole southern boys like me and we "took a shine" to one another right away. We talked about the program and how I see over 50,000 students per year

around the southeast. Then these guys came up with the most incredible questions and statements about the solar system and the universe. I was very impressed at how much the “average Joe” on the street wondered about these things and was more than happy to chew the fat with these guys while they changed my oil. There was a strong storm brewing from the West which later I would find had a severe and tragic impact on several Southern states. We talked for about 45 minutes while Natalie had her color changed on her nails and then I graciously offered the guys some hats and glasses for their help and got back on the interstate. Josh even paid for my oil change as a donation to the program! Now that’s Southern hospitality. This trip was really starting to get inspirational. I knew that Charlie was watching out for us and that we were going to honor his name by spreading the love for community and the sharing of knowledge.

We drove on to the hotel recommended by Steele and bedded down for the night. SUNSPOT was doing OK out in the parking lot and we had already gone through the first half of our Hi Def Star Trek-the Original Series DVD’s on the multimedia receiver in the van. It was time to gather steam for our Goddard Space Flight Center tour the next morning.

### **WEDNESDAY**

There was this hulking mass of security guard speaking in a thick Northern accent asking me some questions which I could barely understand. I knew I wasn’t in the South anymore. We sort of looked at each other over and over again until it became apparent that we both had to slow down and speak phonetically to understand each other. It was pretty funny to listen to the back and forth. I am glad that Steele showed up when he did to act as a go between. We drove through Goddard and went into Steele’s office and met everyone right off the bat. He then proceeded to load me up on the coolest NASA solar related goodies that you have ever seen. I had so much stuff that I had to rearrange the already precariously positioned equipment in my van to accommodate it.



He then took us all over Goddard Space Flight Center. We saw the Hubble control room, the SOHO control room, the SDO area and the best of all was this enormous clean room where they were actually assembling and testing the James Webb Space Telescope. It was incredible and something I will never forget. Steele was the consummate professional and his staff and coworkers were top notch all the way.



I of course stopped off at the wonderful gift shop and bought everything they had in 3X or larger plus a few extra patches and a metal space shuttle model. I am a nerd, no doubt.

After what seemed like a couple hundred dollars in tolls to drive on the bumpiest, worst maintained roads in the country.....:) we finally arrived at the Crowne Plaza hotel in Suffern, NY, the home of NEAIC and NEAF. Guess who was there waiting on us?... Alan Traino in his super-duper SUV/trailer combo carrying a 140lb+, 5 billion year old former asteroid for the Meteorite Men. He welcomed us with his always present pearly white smile and proceeded to take charge of the situation and make everything perfect, as he is well known to do. Within an hour we had enjoyed a nice dinner in the hotel and were sleeping in a quite comfortable, newly renovated top of the line hotel (at least compared to last year's Holiday Inn).

#### THURSDAY

Thursday morning broke and I was up and at 'em and on my way to get the SUNSPOT detailed. A quick trip for my daily Venti Mocha lite Frappuccino and there I was at the Rainbow Hand Car Wash in some place called MahWah, New Jersey. ?.! Nice town but I must admit it was a little weird for me to be in such a different place than what I was used to.

A nice fella' on a motorcycle pointed out to me that my Van was awesome!.....and then he also pointed out that my front passenger side tire was flat. :(..... ugggghhhh. I was supposed to be at Rockland Community College in Suffern in 90 minutes and had no idea what to do. The cyclist pointed out that there was a Goodyear tire store about 30 feet in front of me if I would just look so off I was to get a new tire.



Now, the tires and rims on the SUNSPOT are highly customized with the Greg Piepol EM spectrum on the rims and VERY low profile tires all around. The guys at the store looked like a bunch of confused steel workers or longshoreman as I tried to explain what the van was all about. Finally after speeding up my southern twang a bit, they got the hint and put on my spare tire and told me to come back after the event and I would have a new tire.

I arrived at Rockland SUNY...on time.. and spoke to Professor S. at the school. We setup 3 scopes and my giveaway table and had ourselves a great time. There is a time lapse of the event on my site [www.solarastronomy.org](http://www.solarastronomy.org) if you are interested.



My Facebook page; [www.facebook.com/stephenramsdén](http://www.facebook.com/stephenramsdén) also has many, many, many photographs of the entire event. The students got to enjoy Hydrogen Alpha, Calcium K-Line and white light images of the Sun in all its fury. This is what it was all about and I was really glad to be doing something productive after all the preparation and driving to NY. The students and staff at Rockland Community College welcomed me as family and we all enjoyed the day.

That night the incredible Lord Traino took the wife and I to Mt. Fuji, the world's most hard to find Japanese Steak House. This place was located off a dirt road, on top of a mountain and was not on any maps. We drove through these enormous oriental red arches supporting a giant dragon or something and went into a different world. I felt like I was in the movie "The Last Samurai". The food, and the company, was extremely good. Alan liked all 3 dinners he ate! That guy is a bottomless pit. I didn't keep a close count but I am pretty sure he ate his entire weight in shrimp, steak and rice!

## **FRIDAY**

Friday morning I woke up early to a beautiful Sunrise complete with.....the Sun! I got my Starbucks, of course, and went around the hotel looking for something to do. The weather forecast for the weekend was dismal and I was trying to find a way not to waste this beautiful Sunlit day.

I happened upon Caroline Moore, the youngest girl to ever discover a supernova, over at the Northeast Astro Imaging Conference. After talking with her for a while, and adjusting my thick southern draw, I asked if maybe they would like for me to setup a couple of scopes outside for the imaging geeks to use throughout the day. I told her it would also be a great chance to highlight the Lunt scopes, Astro Physics Mach One mount and the Point Grey Research cameras that I

had brought up to show off. She thought it was a great idea and so did I. I looked for her dad, Bob Moore, to get permission but she assured me that SHE spoke for the family and that I should go coordinate with hotel management.



I eventually setup 5 solar scopes outside on the sidewalk next to this really cool looking giant space helmet that turned out to be an AstroDome. I assembled the Mach One, a Celestron CGE and CGEM and mounted up the full array of Coronado, Lunt and Explore Scientific scopes for three different wavelength views of the Sun. Next came out the iMac and MacBook Pro for a couple of imaging stations. Point Grey had asked me to show off their incredible Grasshopper and Chameleon cameras at the event and I was glad to oblige. These cameras provide an amazing high resolution full disk image through the big scopes.



About 75 imagers and I were treated to some extraordinary views of the Sun on White Light, Calcium K and H-Alpha. The Sun exploded in a long lightning bolt like flare around noon time and I got to enjoy this through the cameras and at the eyepieces. The doublestacked Lunt 100 was quite awesome at displaying this as was the Coronado 90mm double and the massive Lunt 152mm scope. We saw the white light faculae and spot regions through Scott Roberts outstanding 127mm APO and a Lunt Solar Wedge. I stayed there until the clouds came back in around 3:30PM and then sadly packed away my solar "forest" for the weekend...I thought. I was surprised to find so many other Air Traffic Controllers there for the event. The National Air Traffic Controllers Association (NATCA-[www.natca.org](http://www.natca.org)) provides all of the awesome solar viewing glasses to my program and supports the SUNSPOT with annual donations through the NATCA Charitable Foundation. They really shine when it comes to science outreach in the community and are at the forefront of helping to educate our youth to provide for a steady flow of the best and brightest to operate our national airspace system into the future of NEXGEN and beyond.



My good friend Menno and Rob from Robotics NL, the gang from Astrophysics, Sean Walker from Sky and Telescope, Al Nagler and even the famous Thierry Legault all came out along with all the attendees of the conference and enjoyed the views. I felt like a rock star with all these legends in one place, and there to see me! (and my scopes) That Thierry Legault turned out to be one of the nicest guys on Earth. He was so geeky yet so knowledgeable all at the same time. I tried to explain that I was a simple redneck hillbilly from Georgia but something must have been lost in the translation as he just keep shaking his head up and down and saying.."Yes, Yes, I see" in a sort of broken English. He was awesome. The PGR cameras were an awesome addition and the imaging stations were very popular.





About this time Greg Piepol and Gary Palmer came around for a glimpse through the scopes and a howdy do. That Gary Palmer is the most lovable character, hugs all around and nothing but excessive positive energy come from that man. Greg and Gary chatted with me for a few minutes and then they took off for some exciting adventure of their own before the big show started on Saturday.





Friday night the wife and I joined all the vendors at the Sky and Telescope reception at the Sheraton, MahWah. Talk about a family atmosphere. These guys are a tight knit bunch and they take care of their own. I was so privileged to be invited and to be welcomed in to their family. Thanks to Alan Traino I was in like Flynn and Natalie and I were treated as 20 year veterans instead of first time speakers.

### **SATURDAY**

Saturday morning was cold, wet and rainy. I showed up in the SUNSPOT at around 7:00AM to setup some sort of indoor display. I was so thankful that Steele Hill at NASA had loaded me up with goodies to give away as the day was obviously not going to be conducive to solar observing. I was surprised to find that my booth was right next to the Meteorite Men and that I was to actually drive the Nerd Mobile onto the floor as a main attraction. I was really pumped.



I pulled SUNSPOT onto the floor of the field house and opened up the doors. After gathering all the stuff that immediately fell out, I began to set up the booth. I brought along several banners, pictures and printed cards, posters, hats and shirts of my own just in case this happened but I was sure glad to have the extra 4 boxes of Goddard stuff. I arranged the stuff in a neat display, hung the banners and went to work.

I can't tell you how satisfying it was to have all the various vendors and attendees stop by and thank me for doing the outreach. I thought to myself, WOW! I am getting all this praise for doing what I love to do more than anything—Solar Astronomy! People took NASA and Charlie Bates stickers, posters, hats, shirts and souvenirs and some of them even left small donations for the program. I think I got one 5 minute period where I wasn't talking to someone about the program the entire morning. The SUNSPOT was parked right next to the tables and I had several iMacs set up showing videos shot through the PGR cameras by students in my program. I gave away student images and explained to the people how I set up imaging stations at my events and have the students take their own photos of the Sun through my observatory quality scopes. I even had 4 Lunt Solar scopes setup right there on the floor for people to check out.

It was soon time for me to go over to the main auditorium with Greg Piepol, Alan Friedman, and Gary Palmer to give our much advertised super solar lectures. I was slated for last going on at 3:30ish to close out the show. I sat and watched how these magical people entranced their audience with their own brand of appreciation for the hobby.



Greg's mastery of the etalon and scope construction was educational to all. Gary Palmer's unrivaled showmanship riveted the audience. Alan's absolutely incredible images and his soft spoken mastery of processing was a real site to behold. I, on the other hand didn't even take any notes and had no idea what I was going to talk about. I had a 25 minute time lapse movie of me setting up and doing several outreach events and showing some of my international outreach sponsorships playing in the background. I just started chatting about outreach and what it means to me and also about my friend Charlie Bates and how I was trying to honor his memory by helping others get involved in Science. Suddenly, this feeling of "this is right" came over me and my mouth just kept moving and these words just kept coming out. I felt like I was watching myself from the audience. To be honest, I can't remember a thing I said or what I talked about. I know it was something about my website [www.solarastronomy.org](http://www.solarastronomy.org) or my solar outreach program but I just don't remember any specifics.

The next thing I knew the audience was clapping and I was walking offstage. I guess this is how it is when you talk in front of a large crowd. I just didn't want to sound scripted so I hadn't prepared anything. I guess it was OK. A lot of folks came by the booth and were grabbing my hand and telling me how much they enjoyed it. Who knew it was this easy to just blab on about yourself for a while and then get all this attention? Oh yeah, I do specifically remember walking back to the booth and going by the Astrophysics "El Capitan" mount and right next to it the Lunt Solar Systems 230mm monster H-Alpha scope. Those sights are hard to shake from your memory. :)



Saturday night was spent with the Lunt Solar Systems gang at the Japanese steakhouse again. All I can remember is this satisfied feeling of friendship and fullness (from the steaks) and some guy who kept yelling that he wanted another Filet... I had a really good night's sleep in the hotel with my charming wife Natalie. She was really being a good sport at her first astro-event and I was very proud of her for putting up with all the hard work.



## SUNDAY

The show didn't open until 10:00AM on Sunday so I could "sleep in" until 6:45AM. I had a mountain of work to do disassembling the scopes from the inside booth and then carrying them and reassembling them outside on the field for the Solar Star Party. When I went to get my Frappuccino at 7:00AM it was clear and the Sun was rising. I took a cab to Starbucks and then to the college. I hurried inside and began rearranging the booth and taking the scopes apart. Of course Alan and friends were already there working on the show prep. That guy never sleeps.

I borrowed a large rolling cart and piled about \$75,000 worth of equipment onto it and then let the security guys help me get it outside. The skies were now overcast, of course. My heart sank as I thought of the work involved and the chance that this year's NEAF wouldn't have any viewing at all. There was one other crazy...err, I mean devoted couple out there with their scope setup. The field was soaking wet and the skies were dark and cloudy. I sat there for a minute or two wondering what I was doing with all this stuff out in a potential rainstorm when these three guys walked up with their iPhones out. "it's gonna clear up" one of them shouted at me. I of course didn't believe them and had to see for myself. The weather forecast was for Sunny skies in an hour or two and this stuff was supposed to blow through. I

decided that since I had spent several thousand dollars and drove over a thousand miles to get here that I was going to set up and set it up right.

I threw down a large tarp over a mud hole and put out the Astrophysics Mach One and the other mounts. I had at least 12 boxes of scopes and accessories to go through so there was not time to waste. I put the Explore Scientific/Lunt Solar Wedge setup and my new Lunt 80mm H-Alpha scope on an ADM dual system on my first mount. I then got out the mighty Lunt 152mm scope and plopped it down on the ever ready Mach One. The last mount got the Coronado double stacked 90mm scope and the Lunt 100mm double stacked scope side by side on another adjustable ADM dual system. Anthony Davoli makes a great product. Wish I could have had a spare 5 minutes to thank him and beg for another one. He He.

The skies parted right on time and people started rolling in from all directions. Ralph Marantino parked his 70mm CaK scope next to mine and we went to work. Brian Stephens from Lunt was out there the whole day helping me work the crowds along with my great friend and NEAF buddy Greg Williams. Barlow Bob and the Rockland Astronomy Club gang were everywhere on the field with all kinds of solar observing equipment.





The Sun did not disappoint! There was a massive detached prominence on the limb immediately upon my first glance at the Sun through the LS152. The base that was still connected to the Sun was at least 10 Earth diameters long and shaped like an upside down “A”. The 127mm APO showed a great defined area of dozens of small spots surrounding a couple larger ones. Each scope had its own personality and they each served up amazing views of our nearest star.

The NEAF SSP is a great opportunity in that it allows me to present the Sun in narrowband wavelengths to experienced astronomers and the general public, some of whom have never seen it before. These folks were mostly well versed in nighttime astronomy but very few of them had caught on to the greatest thing in modern astronomy-solar observing-and it was fantastic to hear all the “wows”. It reminded me so much of the middle school students that I see all year long back home. Except of course the students don’t come up and grab my scopes and try and tell me how to use the...:). Just kidding, but you know how these astro-geeks can be.



There were several families there together to see the Sun. The field was alive with “wows” and “holy cows!” from every direction. It is really amazing to me the reaction from a first time solar observer when they see an 80,000 mile long prominence or a crackling active region venting its plasma fury into the corona. The Sun’s chromosphere did not disappoint the viewers at the Solar Star Party this day my friends. It was awesome. The Shellyac Industries spectrograph was setup a few feet away and several people were enjoying it. I had to go take a look and was blown away at the strong absorption lines visible from the Sun. So much so that I had to go inside and buy the little handheld version. (Don’t tell my wife please).



I remember one young man with his dad, Ben who went out there and was sort of confused by all the hub-bub. He was trying as hard as he could to comply with dad’s instructions but he just couldn’t resist the urge to grab my \$600 Explore Scientific eyepiece on the LS152 and rotate it down to his level. It was too tall and he did the obvious thing-he brought it down to his height! I think his dad was mortified but it is all in a day’s work with my outreach program. At 60+ events per year I have seen just about everything at the scopes. I have seen runny noses rubbed on the eyepieces and horsing around and tripping over the mounts, etc... I went over and found the kid and his embarrassed dad and let them know that they were welcome to come back and try all they wanted and that the purpose of the whole thing was to get bright young kids just like his to be exposed to this high end technology and make it an everyday thing for them. That way they will grow up accustomed to solar astronomy and be happy little customers of all the fine vendors at NEAF.... just kidding but that is also a welcome byproduct of this massive outreach campaign that I have found myself running.



My purpose is twofold. First, I want to honor my late, great friend Charlie Bates' memory by simply showing as many people as I can that I am interested in them as individuals and that I want to share my fortunate life experiences in solar astronomy with them. Second, I want to try and rejuvenate the worldwide dream of planetary exploration that was so prevalent when I was growing up in Atlanta in the 60's and 70's. I can remember plain as day sitting in front of my giant black and white, magnifying glass, console TV with my parents, brothers and sister watching as Neil Armstrong actually stepped off the Apollo 11 lunar module ladder and started walking around on the moon!!! I find that this feeling is woefully absent among the students, and even worse-the adults, in my community and I want them to feel what it is like to wake up every day thirsting for knowledge of space like I have throughout my life.

Nothing unites a nation, or the world like a common dream of exploration and beating the overwhelming odds to achieve the impossible. In this day when we all seem to strive so hard to highlight the differences between us and find new ways to hate each other, I think that the common dream of exploring the solar system and the galaxy is the best way to put our minor issues into perspective and get on with our inevitable future as an interstellar race.. The effort has to start somewhere and since it seems that I will not, as I was convinced in my youth, be living on Mars with a warp 5 starship in the parking lot, I can still at least encourage our youth to pursue the dream and maybe make it happen in their lifetimes. It's a small part of the puzzle but I believe if everyone does their small part then the big overall project will eventually get done. I'm not gonna wait around for my government or other nations to handle the dream of space



travel for me, I'm gonna do everything I can to get these kids on the track of space exploration with every ounce of my being until either my health, or my finances run out. Wanna' join me?

Packing up on Sunday evening was extraordinarily fun. Everyone at NEAF was happy with the weekend's activities and sales. It is something to watch as the machine that is NEAF started to churn and people packed up their booths and scopes for the trip home. Vehicles were driving all around the inside of the field house and people were working hard in a choreographed dance of professional trade show experts. It was really awesome and there was this strange combination of noises that I hadn't heard before. Telescopes, boxes, tablecloths and trucks all came together to produce a background hum that I won't soon forget. Of course Alan and his army of volunteers were there every step of the way to keep everything going smoothly.

Somehow I managed to get all of the stuff I brought up along with all of the stuff I bought (*shhhh, the wife might hear*) back into the now moaning and groaning SUNSPOT Ford Transit and drove it out of the building. We had dinner with my friend Greg Williams at the famous Airmont Diner, hosted by the "*always glad to see ya's*" Dino. It started pouring down rain of course, confirming that the Gods of solar observing had struggled keeping the skies relatively clear as long as they could and now could not contain the gushing of life giving and telescope spoiling rainfall.

The drive home was long and grueling but I just kept posting my adventures on my facebook page and going over the last few days of incredible camaraderie and friendship. Come join me next year at NEAF and feel the family togetherness and the incredible experiences which have combined to make the Northeast Astronomy Forum the world's greatest gathering of astronomy enthusiasts.



Stephen Ramsden is the director and founder of the world's largest privately funded solar astronomy outreach program. The Charlie Bates Astronomy Project (a nonprofit 501c3) is hosted on his website [www.solarastronomy.org](http://www.solarastronomy.org). Stephen provides solar equipment reviews, outreach and astro imaging guidance and examples free to anyone who wants to get involved. Join us in supporting his program by making a tax deductible donation or sending your words of support to [sramsdn@solarastronomy.org](mailto:sramsdn@solarastronomy.org).

