

Introduction

I have been doing public outreach events for many years. These events include helping with public star parties, volunteering at two local observatories, the Little Thompson Observatory (www.starkids.org) in Berthoud, CO and the Sommers-Bausch Observatory, on the University of Colorado campus, and being a JPL Solar System Ambassador.

I received the Stellar Outreach Award on June 25, 2007.

Event 1

Date: 06/15/07
Start Time: 10:00 PM
End Time: 11:00 PM
Attendance: 70+
Activities:

This was the first night of the 2007 Rocky Mountain National Park public star nights. There were over 70 people in attendance, according to the ranger, but I think there was more.

I have my 8 inch up there, the sky was clear and the people really enjoyed themselves. I was one of about 12 other amateurs that helped with this event.

Besides answering their many questions, I showed those that looked thru my scope M13, M51 Alberio, Venus, Saturn, Jupiter, M4 and Polaris. I pointed out many constellations with my green laser pointer, saw the space shuttle and ISS pas low in the north and had a good time doing it.

NOTE: The first hour of this event was used for the Stellar Outreach Award, which gave me 50 hours. The second hour of this event, is the first hour of my Master Outreach Award.

Event 2

Date: 6/22/07
Start Time: 8:30 PM
End Time: 11:00 PM
Attendance: 50+
Activities:

The public star party at Rocky Mountain National Park. The crowds were down tonight for at 6PM, it was raining and threatening to really let loose. But by 7:30 PM, it was clearing and by 8:00 PM, it was very nice, but damp.

For those that did come out, there were about 14 telescopes setup, mine included. I showed the people who looked through my eyepiece the Moon, and some of the great detail that was seen, Venus and discussed a bit about Galelio and his findings, Saturn, Jupiter, M13, M51, M4, and the contrast to M13, Polaris, Albreio, M57 and Antares, Arcturus, Spice and Vega and what makes a star shine and why they are different colors.

Event 3

Date: 7/6/07
Start Time: 8:30 PM
End Time: 10:45 PM
Attendance: 150+
Activities:

I supported the Public Star Night at the Rocky Mountain National Park. Tonight, there was a huge crowd of people looking at the objects in the sky through about 10 different scopes, of which, mine was one. Showed the people the usual stuff.

One young boy was very interested in my green laser pointer. He was amazed with the bright green line of light I had to illustrate and identify items in the sky I wished the people to see.

Event 4

Date: 10/4/07
Start Time: 7:30 PM
End Time: 9:30 PM
Attendance: 80+
Activities:

I supported a star party for the Overland Middle School students and their families. This school is in Brighton, CO, and the star party was at a church near Hudson, CO. The sky was clear for the event, but very windy. The kids were amazed with all we showed them.

Event 5

Date: 10/20/07
Start Time: 7:45 PM
End Time: 8:30 PM
Attendance: 15
Activities:

I was asked to give a presentation at the Boulder Astronomy and Space Society club meeting. I gave a presentation on "How I Do What I Do". This presentation showed the club membership how I go about planning an observing outing, the resources I use and

how I log my observations. I also showed them pictures of the observing locations around our area that most people use but many of these club members have not been to.

Event 6

Date: 11/14/2007
Start Time: 6:00 PM
End Time: 8:00 PM
Attendance: 100 people
Activities:

Star party for parents and students at Altona Middle School, in Longmont, CO. We had 10 telescopes setup for the 100 or so people that came to this event. Of those 100, probably 30 looked through my scope. I showed them the usual objects that look nice through my 8 inch telescope, and also this time Comet 17P-Holmes. It was cold, but the people hung around the entire time. I thought the cold would have driven them to leave earlier than they did. Nice event and got a lot of questions about buying a telescope for Christmas. Good timing.

Event 7

Date: 12/6/2007
Start Time: 7:30 PM
End Time: 9:00 PM
Attendance: 20 people
Activities:

I gave my "How I Do What I Do" talk to the Northern Colorado astronomy club. There were a lot of interactive discussion which made the presentation more about what they wanted to hear.

Event 8

Date: 12/19/2007
Start Time: 6:30 PM
End Time: 8:30 PM
Attendance: 25 students and 3 adults
Activities:

I was the volunteer at the Little Thompson Observatory for a high school science class. I showed them a variety of objects through the telescope and gave them a short lecture on constellations. Also saw the ISS pass over during the event.

Event 9

Date: 2/20/08
Start Time: 6:00 PM MST
End Time: 9:30 PM MST
Attendance: 90+ people
Activities:

Myself and 3 other Longmont Astronomical Society volunteers setup our scopes at Community Park in Louisville, CO and invited the public to view the Total Lunar Eclipse. With high clouds threatening the event, we were able to see the moon enough (no craters visible) to see the earth's shadow creep across the moon's surface and detect the red hue the moon took on during totality.

The people just kept showing up. A group from the Louisville Cultural Center brought coffee and hot chocolate for everyone and I feared the kids were going to spill their drink on my pretty scope ;-). I had to "hold" their drink for them while they looked through the eyepiece.

When the moon came out of totality, the sky cleared a lot and I was able to show the people who remained Saturn and Mars. With the high clouds, the event went on and everyone learned a lot about how eclipses work.

Event 10

Date: 3/10/2008
Start Time: 1:00 PM
End Time: 2:00 PM
Attendance: 30 people
Activities:

I gave a talk about the solar system to the first graders at Carbon Valley Academy, in Erie, CO. I had some of the latest pictures from spacecraft of the 9 planets, showed them comets and some pictures outside the solar system. I showed them the relative sizes of planets and stars. I showed them the black hole animation.

Event 11

Date: 3/10/2008
Start Time: 7:00 PM
End Time: 9:30 PM
Attendance: 25 People
Activities:

I hosted a group at the Little Thompson Observatory. I did the warn room talk and showed them various objects at the telescope. This was an intro to Astronomy class from the Front Range Community College campus in Loveland, CO.

Event 12

Date: 4/8/2008
Start Time: 8:30 PM
End Time: 10:30 PM
Attendance: 18 students + 1 teacher
Activities:

I hosted this astronomy class from the Ft. Collins, CO Front Range Community College. They wanted to see object through the telescope, so I showed them a lot of stuff. Moon, Mars, Saturn, M42. Then many stars, contrasted their colors. Showed double stars. Open clusters. Some galaxies. Everyone enjoyed the sites.

Event 13

Date: 4/11/2008
Start Time: 7:30 PM
End Time: 9:30 PM
Attendance: 40+
Activities:

I hosted the Friday Night Open House event at the Sommers-Bausch Observatory on the University of Colorado campus. I lost count of the number of people that drifted through the observing deck. I showed them M42, Saturn and the Moon. There was too much Moon for most other objects. The late stragglers got to see M66, which was almost washed out by the Moon and M81, which was nice.

Event 14

Date: 4/12/2008
Start Time: 11:00 AM
End Time: 5:00 PM
Attendance: 300+
Activities:

I brought my 8 inch scope to the University of Colorado's Astronomy Day activities. I setup on what is called the observation deck of the Sommers-Bausch Observatory. I used my Baader white light solar filter to show people the featureless Sun. They were still amazed. I lost count of the families of people who came through this event, but even with the partly cloudy skies early, there were always a lot of people. Other friends had a H-Alpha scope and more white light scopes. We even had scopes trained on the nearby mountain tops and spotted hikers at the top of the mountain.



Event 15

Date: 4/15/2008
Start Time: 7:00 PM
End Time: 10:00 PM
Attendance: 12 people
Activities:

I hosted a group at the Little Thompson Observatory. This was an astronomy class from the Longmont FRCC. I gave the normal warm room talk to them and then with this smaller group, showed them lots of stuff at the eyepiece. Even saw the Hortesien Lava Domes on the moon last night, which I pointed out to the students and teacher.

Event 16

Date: 4/22/2008
Start Time: 7:00 PM
End Time: 9:30 PM
Attendance: 30 People
Activities:

We were invited to a church in Longmont, Colorado where a troop of cub and boy scouts, along with their parents, were working on their Astronomy merit badge. I talked through all the definitions that they needed to know for the badge and others introduced telescopes and how they work. It was not an ideal location for astronomy for there were street lights all over the place lighting up the field we were on and no way to shut them off. I also forgot my Telrad so finding objects in my scope was sweep the area. But I did show them Saturn, which was easy to find and M3.

Event 17

Date: 4/24/2008
Start Time: 9:00 AM
End Time: 12:00 PM
Attendance:
Activities:

I helped with the annual Ball Aerospace Take Your Sons and Daughters to work day. I worked a booth where I introduced telescopes and explained why it was necessary to have a telescope in space.



Event 18

Date: 5/11/08
Start Time: 7:30 PM
End Time: 9:30 PM
Attendance: 60 kids + 25 parents
Activities:

This was a star party for 12-14 year old kids in a science camp sponsored by the Broomfield Public Library. 3 of us showed up with scopes and showed the kids object through the eyepiece. I spent most of the evening showing the Moon through my telescope. Then Polaris.

Event 19

Date: 6/13/08
Start Time: 8:30 PM
End Time: 11:00 PM
Attendance: 80+
Activities:

This was the first night of the 2008 Rocky Mountain National Park star party series. There were about 80 people who braved the cold to have a look at the Moon, M13, M4, Alberio, Polaris and Saturn through my telescope.

Event 20

Date: 7/11/08
Start Time: 8:00 PM
End Time: 10:30 PM
Attendance: 80+
Activities:

This was the Rocky Mountain National Park star party event for park visitors. It was pretty cloudy but got to show the people who stood in my line the moon through the clouds and in the southeastern sky, it cleared nicely to reveal Jupiter. Got a brief opportunity to show Antares and Altair for star colors, but most of the night was spent on Jupiter, which was spectacular.

Event 21

Date: 7/25/08
Start Time: 8:00 PM
End Time: 11:00 PM
Attendance: 60+
Activities:

This was the Rocky Mountain National Park star party event for park visitors. It was mostly cloudy but got some glimpses of Jupiter once in a while for the visitors. We stood around discussing space events with the visitors for most of the early evening. By about 9 PM, it started to break a bit where brighter stars like Antares, Arcturus and Vega poked thru the high clouds which I showed the visitors and discussed why stars shine and why different colors. Then about 10 PM the sky started to open up and I showed the people M13, M11, M57, Alberio, Alpha Delphi, Polaris and Mizar. That is about all the sky was to offer. The ranger remarked that this was the largest crowd he had seen at 11 PM in all his years of doing this event.

Event 22

Date: 7/29/08
Start Time: 7:00 AM
End Time: 8:00 AM
Attendance: 11 People
Activities:

I gave a talk to the monthly Westminster Optimists Club. I talked about amateur astronomy, light pollution, the Phoenix Mars mission, and then how this fits into the larger Mars picture of landing men on Mars.

Event 23

Date: 08/08/08
Start Time: 8:00 PM
End Time: 10:00 PM
Attendance: 40+
Activities:

This was the Rocky Mountain National Park star party event for park visitors. It was mostly cloudy but got some glimpses of Jupiter and the Moon once in a while for the visitors. We were optimistic that the sky would get better, but packed it in at 10 PM when it was staying about the same.

Event 24

Date: 08/22/08
Start Time: 7:30 PM
End Time: 10:00 PM
Attendance: 70+ People
Activities:

This was the final night of the Rocky Mountain National Park Summer Star parties for the park visitors. We had a good number of people turn out and I showed them all my favorite objects as I did all summer long.

Event 25

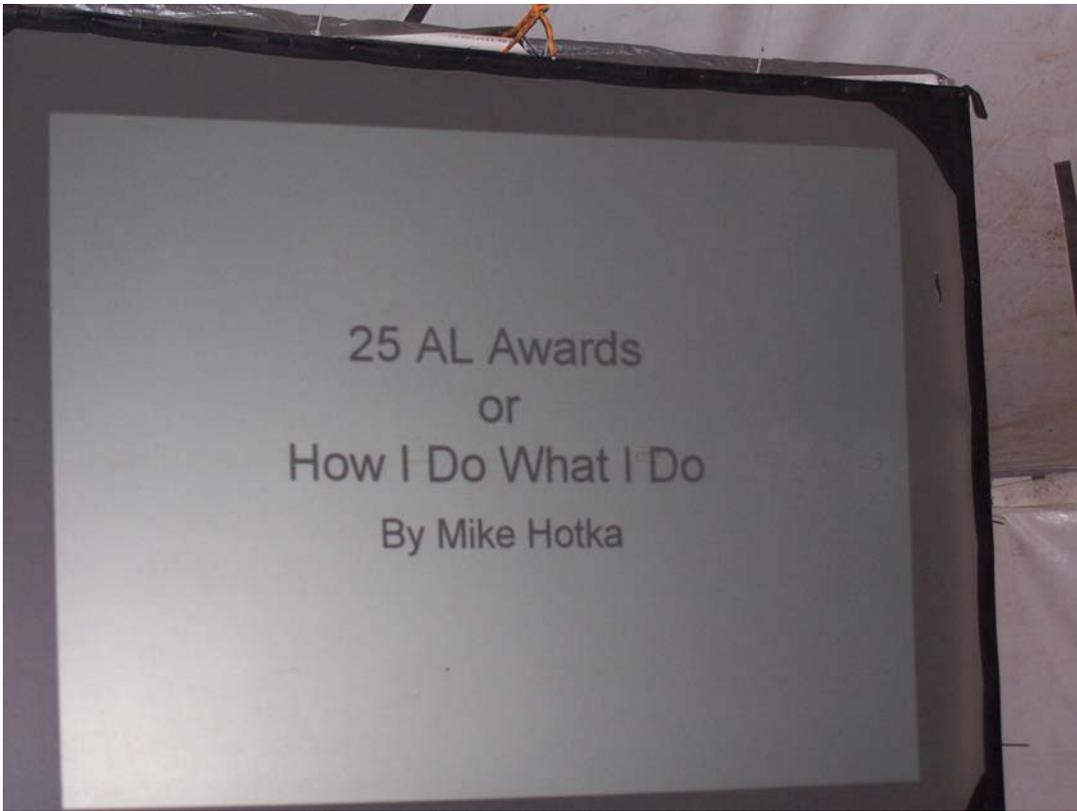
Date: 08/24/08
Start Time: 7:30 PM
End Time: 10:00 PM
Attendance: 2 people
Activities:

A father and son visited the Little Thompson Observatory. What started out to be a overcast night broke into a clear sky. Since they had visited the observatory before, but it was raining that night, I didn't give them the entire talk about the star wall, but concentrated on certain aspects of astronomy they were interested in. Then when it was dark enough, we viewed Jupiter through the thin clouds and then noticed it was breaking up overhead, so I showed them all my favorites in this area. Then it was clear around Antares, so I showed them my favorites in this area. Then Jupiter was clear, which they liked the best. Then the entire sky cleared up, so I showed them more globular clusters, open clusters, and M31, M32 and M110. They saw a nice cross section of the universe.

Event 26

Date: 10/3/08
Start Time: 6:30 PM
End Time: 8:00 PM
Attendance: 30 People
Activities:

I gave a presentation at the Okie-Tex Star Party about how I observe and all the tricks I do to find objects in the nighttime sky. The talk was well received.



Event 27

Date: 10/14/08
Start Time: 6:00 PM
End Time: 10:00 PM
Attendance: 100+
Activities:

I was invited to an evening meeting at Trail Ridge Middle School in Longmont, CO for a group of students, teachers and parents that have a program for getting the kids excited about Math and Engineering. I gave a talk about an introduction to Amateur Astronomy, followed by a talk via overhead projector of how to navigate by the stars. I helped them build simple sextants and then we went outside with my telescope and I showed them the Moon, Jupiter and Alberio. There was a huge line at my scope, which was the only one present, until I decided to leave at 10 PM.

Event 28

Date: 10/16/08
Start Time: 7:30 PM
End Time: 9:30 PM
Attendance: 30 people
Activities:

I helped host a group at the Little Thompson Observatory from the local Front Range Community College's astronomy class. I ran the telescope and showed the two groups (we split the class into 2 groups) Jupiter, M57, M13, Alberio and the Moon.

Event 29

Date: 10/31/08
Start Time: 6:00 PM
End Time: 7:00 PM
Attendance: 50+ People
Activities:

I setup my scope out in front of my house and while the trick-or-treaters were getting candy from my wife to treat their stomachs, I was treating their eye to view of the Moon and Jupiter with my 8" f/6 scope.

Event 30

Date: 11/04/08
Start Time: 7:00 PM
End Time: 9:00 PM

Attendance: 14 People
Activities:

I hosted an Astronomy Class from Front Range Community College at the Little Thompson Observatory. I showed them lots of deep sky stuff through the telescope and a shortened version of my warm room talk. The instructor wanted to spend more time on the Moon. Go figure.

Event 31

Date: 11/10/08
Start Time: 7:00 PM
End Time: 9:00 PM
Attendance: 15 People
Activities:

I hosted a group of scouts at the Little Thompson Observatory. There was a thick overcast but was able to show them the Moon, Jupiter's disk and Deneb through the clouds.

Event 32

Date: 11/17/08
Start Time: 5:00 PM
End Time: 8:00 PM
Attendance: 200+
Activities:

I helped with the Westminster campus of Front Range Community College dedicate their new university observatory. Several of my friends brought scopes and I decided just to bring my green laser pointer and give constellation tours of the sky to those waiting in the lines to view at the eyepiece. This is the first time I just roamed the crowd, interacting with the guests and it was really fun.

Event 33

Date: 12/1/08
Start Time: 18:30
End Time: 21:30
Attendance: 27 people
Activities:

I hosted two astronomy classes from two Greeley, CO high schools. There were about 23 students and 4 adults. I started out the evening by showing them constellations while the remainder of the group was arriving. I did a warm room talk and then took them all up to

the telescope and showed them M57, Alberio, M15, M31, M38, Capella, Betelgeuse and Rigel. It was an impressive evening for the kids.

Event 34

Date: 1/20/09
Start Time: 7:00 AM
End Time: 8:00 AM
Attendance: 10 people
Activities:

I gave a talk on amateur astronomy to the Westminster Optimist Club.

Event 35

Date: 1/30/09
Start Time: 5:30 PM
End Time: 8:00 PM
Attendance: 100+
Activities:

I brought my telescope, along with 6 other friends and we put on a star party for the Carrie Martin Elementary school's Science Fair. The parents and students were inside looking at the exhibits and we were party of this event. I spent all evening showing the people the Moon and Venus through my scope. It was a great view of both which were well situated in the southwestern sky and had many WOWs from anyone who looked through my scope.

Event 36

Date: 2/12/09
Start Time: 5:30 PM
End Time: 7:00 PM
Attendance: 50+
Activities:

Myself and two other friends setup out telescopes for an Astronomy Night at Garfield Elementary School in Loveland, CO. The sky started out promising but held true to the weather forecasts and before long, only Venus was in a clear part of the sky. So we all showed the people who attended this event Venus, which was a small crescent shape. At 7:00 PM, Venus had disappeared behind clouds.

Event 37

Date: 2/17/09

Start Time: 7:00 PM
End Time: 8:30 PM
Attendance: 12 Scouts + 8 Adults
Activities:

I hosted a Cub Scout group at the Little Thompson Observatory. It was cloudy tonight so there was no viewing through the telescope.

Event 38

Date: 3/3/09
Start Time: 7:00 PM
End Time: 9:30 PM
Attendance: 21 students + 1 teacher
Activities:

I hosted a group of astronomy students from Loveland High School and Loveland's Front Range Community College (FRCC). Since there was such a large group, I ran the telescope this night. I showed them the thin crescent of Venus, the Moon, M42, M46, Betelgeus, Rigel, Capella and Saturn. Shortly after this, the high school students left and the FRCC students stayed and they had a worksheet that I helped them fill out. We looked at M67, M81, Comet Lulin, double stars and the Moon again for certain craters. Then we went out front with my green laser pointer and I help them fill in the blanks for the 10 brightest stars in the sky and 6 bright constellations.

Event 39

Date: 3/7/09
Start Time: 2:00 PM
End Time: 3:00 PM
Attendance: 6 people
Activities:

I gave my presentation about amateur astronomy to a group at the Broomfield Library in preparation for an International Year of Astronomy event later this month.

Event 40

Date: 3/28/09
Start Time: 6:30 PM
End Time: 9:30 PM
Attendance: 60 people
Activities:

I helped support the Broomfield Library's International Year of Astronomy event 2009. I gave a presentation on amateur astronomy and then had my telescope setup on the front parking lot with two other astro buddies and we showed the guests many things in the sky. I concentrated on the Moon and Saturn with my scope.

Event 41

Date: 4/14/2009
Start Time: 8:00 AM
End Time: 12:00 PM
Attendance: 100+ people
Activities:

I supported the Take Your Sons and Daughters to Work Day at my company, Ball Aerospace. I manned a booth that talked about the next Shuttle mission to service the Hubble, why it was needed, that all the instruments on Hubble will be Ball built instruments and the dangers of spaceflight and particular the orbit to service the telescope. It was a good event and there were lots of parents and kids.

Event 42

Date: 7/10/09
Start Time: 13:00
End Time: 17:00
Attendance: 70+ people
Activities:

I setup my telescope in the Upper Beaver Meadows area and let the campers view the Sun all afternoon.

Event 43

Date: 7/10/09
Start Time: 19:30
End Time: 23:00
Attendance: 100+ people
Activities:

I supported the rangers at Rocky Mountain National Park with the Friday Night Star Night for the campers in the park.