

NOVA

NEWSLETTER OF THE VANCOUVER CENTRE RASC
VOLUME 2017 ISSUE 5 SEPTEMBER/OCTOBER 2017



The 2017 Total Eclipse from Madras, OR

by Gordon Farrell

August 18

With a car crammed full of camping gear, camera equipment, eclipse glasses, and my telescope, we set out at 8am for Solartown, a campsite north of Madras, Oregon that was part of Oregon Solarfest, a gathering co-sponsored by NASA that was expecting to draw over 100,000 eclipse enthusiasts to the small town of 6000. Joining me on this adventure were Rosemarie and my brother, Greg. Google said it would be an 8-hour drive but the traffic north of the Deas tunnel was determined to add two hours to that estimate.

It was clear sailing once we crossed the border, heading east before we reached Seattle (to avoid

highway construction that could further delay our arrival) and driving through the dry, yellow hills and valleys east of the Cascades that appeared to go on forever.



As we crossed into Oregon, the familiar haze of smoke could be seen on the southern horizon. This was some cause for concern as we didn't want totality to be hidden behind a veil of smoke. As we continued south, the source of

the smoke appeared to be west of us. When we stopped at the Cow Canyon rest area by the highway, we found a small group of police and firefighters were there, using it as a base of operations. We crossed our fingers and carried on, hoping the smoke would be north of us before we arrived in Madras.

We reached our destination at around 7pm, finding ourselves at the end of a long line of traffic just south-east of Solartown.

There were staff from the event walking along the road, scanning ticket barcodes and handing out signs to hang from rear view mirrors with your licence plate information written on them (the

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Photo courtesy of Ed Carréon

SEPTEMBER 14

Brian Anderson of John Hopkins University: "An Overview of Messenger's Mercury Mission." Room B9201. See Meetup for details.

SFU

OCTOBER 12

James Edgar, past National President of RASC: "Synthesis of Elements in Stars." Room B9201. See Meetup for details.

SFU

NOVEMBER 9

Speaker to be announced. Room B9201. See Meetup for details.

SFU

Members' Gallery



Total Eclipse by Elena Popovici

The eclipse of August 21st as seen from main Solarfest site at the Jefferson County Fairgrounds in Madras, Oregon.

President's Message

"The heart of a volunteer is not measured in size, but by the depth of the commitment to make a difference in the lives of others." – DeAnn Hollis

Our summer months are annually filled with public star parties and public outreach events with July/August 2017

being no exception. The success of our events would be impossible without our amazing group of volunteers who give of their time and enthusiasm without seeking any acknowledgment or compensation. "Volunteers are seldom paid; not because they are worthless, but because they

are priceless." – Anonymous. While many volunteers receive countless "thank-you"s from the public-at-large, unfortunately, getting involved with public outreach can also mean having to put up with the occasional negatives. This summer, a few of our volunteers
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by Suzanna Nagy

About RASC

The RASC Vancouver Centre meets at 7:30 PM on the second Thursday of every month at SFU's Burnaby campus (see map on page 4). Guests are always welcome. In addition, the Centre has an observing site where star parties are regularly scheduled.

Membership is currently \$78.00 per year (\$45.00 for persons under 21 years of age; family memberships also available) and can be obtained online, at a meeting, or by writing

to the Treasurer at the address below. Annual membership includes the invaluable Observer's Handbook, six issues of the RASC Journal, and, of course, access to all of the club events and projects.

For more information regarding the Centre and its activities, please contact our P.R. Director.

NOVA, the newsletter of the Vancouver Centre, RASC, is published on odd-numbered months. Opinions expressed herein are not nec-

essarily those of the Vancouver Centre.

Material on any aspect of astronomy should be e-mailed to the editor or mailed to the address below.

Remember, you are always welcome to attend meetings of Council, held on the first Thursday of every month at 7:30pm in the Trotter Studio in the Chemistry wing of the Shrum Science Centre at SFU. Please contact a council member for directions.

2017 Vancouver Centre Officers

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Trustee Pomponia Martinez
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Library

The centre has a large library of books, magazines and old NOVAs for your enjoyment. Please take advantage of this club service and visit often to check out the new purchases. Suggestions for future library acquisitions are appreciated.

On the Internet

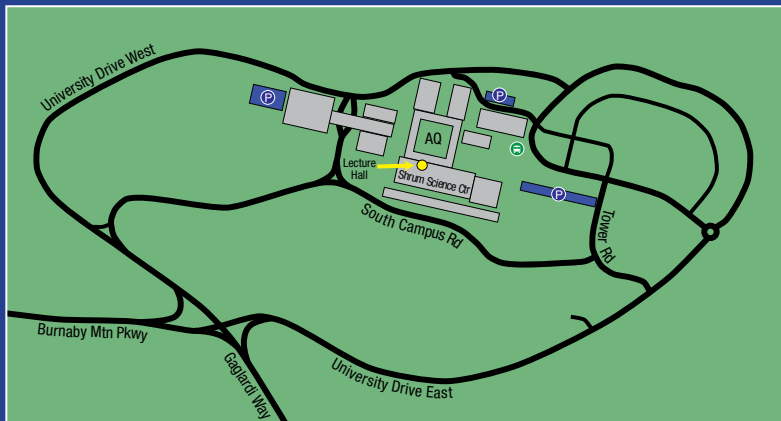
<http://rasc-vancouver.com> or
<http://www.rasc.ca/vancouver>
<http://astronomy.meetup.com/131/>
<http://www.facebook.com/RASC.Van>

 @RASC Vancouver

Mailing Address

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Burnaby, B.C.
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Map to Meeting Site



Our Sep-Nov meetings are in room B9201 of the Shrum Science Centre, about halfway down the south concourse of the Academic Quadrangle (AQ) as indicated by the arrow on the map.

Pay parking is available at several locations located around campus (indicated as "P" on the map).

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had to deal with being rudely heckled during a presentation, engaging with angry visitors over eclipse shades, and having a personal item stolen during an event. What a real

shame! Such experiences can quickly sour one's enthusiasm in volunteering so I would like to take this opportunity to extend my heartfelt thanks to all of RASC Van's wonderful volunteers. I know how busy each

and every one of you are, so please know that your volunteering efforts with us are very much appreciated. "Alone we can do so little; together we can do so much" – Helen Keller *

A Message from our Observing Chair

by Robert Conrad

Are you tired of looking at the same objects again and again (planets, moon, etc.)? Is your telescope collecting dust because it's hard to locate deep sky objects? Would you like to bring your observing to a stellar level? In April, Robert Conrad, our new observing director, revived the Vancouver RASC observing group and invites you to join by sending him an email at observing@rasc-vancouver.com. Some of the benefits of belonging to this group include:

- Hands on training on how to operate the SFU Trottier observatory

- Weekly observing sessions at the observatory or at dark sky locations
- One-one-one coaching on how to locate thousands of objects in the night sky
- Attend small interactive seminars delivered by Robert on a range of topics including fail-safe star-hopping, charting challenging objects and understanding the motions of the cosmos
- Learn to make your telescope dance by locating objects such as asteroids, nova, and supernovae
- Spectroscopy and imaging training from Howard Trottier

and an opportunity to collaborate on observatory research projects

- Updates on observable sky events happening during the week like asteroid/comet/deep sky conjunctions
- Access to observing guides and lists that Robert created that took hundreds of hours to create and will help with planning observing sessions
- Knowledge and expertise from other observing group members
- Learn how to quickly and efficiently find and star-hop to deep sky objects using a range of binoculars and telescopes *

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guy who checked us in stared at my plate for a minute, looking somewhat confused, before writing “Columbia” on it; I think we were among the first to arrive from BC). Eventually we made it to the front of the line and turned in to find a site. The field had been split up into rows of sites, each 20 feet square, and I had reserved two so we could spread out a bit. We found some not too far from one of the clusters of porta-potties (but not too close) and set up camp for the night. The field was maybe half full at that point but wouldn't remain that way for long.

August 19

The first order of business on Saturday was to get our bearings, get some food, and properly set up the campsite. We were in the middle of the tent sites with the food and water vendors to the south, showers to the east, RVs to the north and the highway to the west. Beyond the highway was the local airport with Mt Jefferson visible on the horizon. To the northwest was Mt Hood and both volcanoes glistened with snow. Mt Jefferson would be a useful landmark come Monday since the Moon's shadow would reach it about a minute prior to reaching us.

After a quick run to Safeway, we got to work on setting up some shelter from the hot Oregon sun.

We were nearly done putting together a lean-to made of a tarp and some metal poles when some movement to the north caught our attention. Camping equipment was being tossed high into the air north of the porta-potties as a dust devil wound its way through the field. As our new neighbours struggled to keep their tent from flying skyward, we frantically tried to get our tarp on the ground. As a grommet or two were ripped from our tarp, I saw the canopy from another neighbour lift up into the air right behind Rosemarie and come down on top of her before anyone could react. Luckily it didn't land on her with its full force and a visit

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Membership has its Privileges!

New members, did you know? The Vancouver Centre has several telescopes available for loan free of charge! We have telescopes ranging from 60mm to 10" in diameter. For more information see the Director of Telescopes after the members meeting. The loaner period is for one month, to be returned after the next meeting. Telescopes are not allowed to circulate outside of these meetings. You

can now reserve two different telescopes per year and use what is left at the end of the meeting anytime.

Your greatest opportunity as a member of the RASC is to take advantage of the company of other enthusiasts to increase your knowledge, enjoyment and skill in astronomy.

The best thing you can do to gain the most from your membership is to get ac-

tive! Take in the club meetings; engage other members with questions; come out to observing sessions (also known as “star parties”), and, by all means, volunteer to take part in our many public events.

For the usual observing sites and times, visit our website at <http://rasc-vancouver.com> or contact the Observing Chair at observing@rasc-vancouver.com.

Upcoming Events

September

18 - 24 – Science Literacy Week
19 – Science Literacy evening at Maple Ridge Public Library

October

20 – Science Bash at Richmond Brighthouse Library

December

14 – AGM

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to the first-aid tent for an ice pack helped the nasty bump on the back of her head. I asked the attendant if the dust devils were common. “Yeah, we get a lot of them,” he replied. Based on that information, we kept a watchful eye out for the rest of the weekend.

As the site continued to fill up, we met some of our new neighbours. The flying canopy was owned by a trio of programmers

from Los Gatos. Next to them was Selinda and her two sons from Seattle. Across the way were Noel from Whitehorse and Ed, a professional photographer from LA (who was kind enough to let me use some of his photos for this article), with his wife Ai-Hsien (originally from Richmond, no less) and their daughter Sabina. I also texted Elena and Adrian, fellow council members who had arrived at the main Solarfest camp and festival

site a few miles to the south of us earlier that day. We had intended to meet up with them at some point but the massive lineups for the shuttle buses between the sites made that a difficult prospect.

As the day came to a close, we made some dinner, nursed our wounds and hoped for a less eventful Sunday.

August 20

Early on Sunday, I bumped



Photo by Elena Popovici

into Harvey Dueck, another Vancouver RASCAL who had made the trip with his wife, a friend's daughter and Jennifer Kirkey, another RASC member who teaches at Douglas College. But our little group was getting restless and decided to head out for a day trip to a nearby state park, The Cove Palisades. I can't recommend this park enough, with its beautiful canyons, lake and marina that made for a welcome respite from the heat and the crowds back in Solartown (in fact we spent Tuesday night there after Solarfest had closed).

Returning to Solartown that evening was, as expected, a bit of a challenge. We had seen the line-ups on the roads when we had left earlier in the day but by late afternoon they had grown to epic proportions. This also marked the first appearance of the National Guard, who were there mostly to discourage queue-jumpers from causing trouble (and there were a few who were promptly pointed to the back of the line).

By Sunday night the site was completely full—all 5500 campsites had been spoken for. The strain on the infrastructure was beginning to show as the showers broke down that night. But that was a minor issue as our instant town was turning into a real community, from the tiki bar that had sprung up at one end of the site to the new-age clan with their Tibetan singing bowls at the other. As the sun set for the last time before the eclipse, a cheer went up from the crowd in anticipation of what tomorrow morning would bring.

An added touch came from the airport, which also happens to be the home of the Erickson Aircraft Collection, a museum of operational vintage aircraft. As the light faded, a half-dozen WWII-era planes did a fly-past.

As the camp retired for the night, how many of us would actually sleep?

August 21

I was up before dawn, but I was far from alone. There was activity all around, with some people

to cheers. As we ate our breakfast of traditional frybread from the Native Americans nestled among the many food vendors, the cirrus started to creep northward, which was a concern—it would be a shame to come all this way only to be skunked by clouds! The hot air balloon was also doing a brisk business, giving short up-and-down rides to the gathered throngs. The NBC satellite van was also busy filing live reports from the scene.

With an hour to go before first contact, we headed back to our site



breaking camp so they could make a quick run for home after the main event, including Selinda who had to be back in Seattle by Tuesday. One nearby camper even hit the road before dawn, I hope to find a more secluded vantage point.

With the Belt of Venus to the west and a band of cirrus to the south, the Sun finally rose, again

and began to set up. As had been the case for the entire weekend, drones were buzzing overhead, filming everything in sight. A video of our general area can be found at <https://youtu.be/YZAJ7Y3r9Js> (look for the trio of lime green tents—that's us!).

I set up my 5" SCT telescope with a white-light filter and my Canon

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5DmkIV with a 70-200mm lens and my old solar filter from my original 80mm 'scope (which just so happens to perfectly fit the lens hood on my camera). We also had more than enough solar glasses on hand, with some glasses from the Planetarium we picked up before we left, a few of the RASC card-style glasses, and the ones that came free in the July issue of *Sky-News*. Rosemarie used a pillowcase and some paper towels to set up an experiment to see the shadow bands that appear just before totality and my brother used some aluminum foil and a coat-hanger to make a pinhole projector for the partial phases. By this time, word had gotten around that I was the local astronomy geek and some of the neighbouring campers were asking me questions (No, you can't view Baily's beads safely through binoculars).

As expected, first contact at 9:06 was met with cheers from the

crowd. The thin cloud layer was getting thinner all the time, which was a relief. For the next hour and 13 minutes, we all watched as the Moon slowly crept in front of the Sun. The view through my scope was enhanced by a series of sun-spots (a surprise considering we're approaching solar minimum) that we could watch disappear one after the other.

All around us, the side-effects of the Moon's shadow slowly became more evident. First was the light, which slowly got dimmer. It wasn't really noticeable until it was half-way to totality and the light just didn't seem right. It wasn't especially dark, but it wasn't as bright as it should be on a clear(ish), sunny day.

The pinhole viewer was a hit with our neighbours as they were surprised you can project a tiny image of the Sun with such a simple device. People were even more surprised that you could do the same thing with your hand, folding your

index finger up to make a tiny hole that the Sun shines through.

As we got past the 80% mark, the temperature began to drop quite dramatically. Another interesting side-effect was on the shape of our shadows, which became sharp in one direction and smeared out in the other as the Sun became a thin sliver of light.

When we were within a few minutes of totality, the light began to drop quickly enough that you could sense it happening. People started to look towards Mt Jefferson, our early warning system, to see if it was still visible. It was looking a bit pink but was still there. I checked again moments later and it was gone. We were getting close!

After setting my camera to record the events in 4K video, I spent the last minute watching the action through my 'scope. The crescent of light got shorter and shorter and the assembled crowd

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Photo by Elena Popovici

Aug 21 Eclipse Event at Science World

by Suzanna Nagy

While many of you travelled south for the eclipse, there were a few of us RASC members that stayed in town. Science World had extended an invitation to RASC–Van to participate in a joint eclipse event and we accepted. The event was posted on social media by both RASC and Science World and interest suggested an attendance of

the “sea of humanity” that came together. Both RASC Council and the staff at Science World learned important lessons that day on the power of social media.

Fortunately, once the initial frenzy was over, the mood of the crowd became jovial. It was fun to see the many homemade eclipse viewers being shared. Eclipse shades were being passed between strangers and our volunteers manning the solar telescopes got hundreds of oohs/aahs and “thank you’s”. RASC volunteers were interviewed by the TV media

the line-ups at the solar scopes were only each a dozen long.

This was an event for me never before experienced. Not only for the eclipse but for witnessing thousands enjoying a celestial event together. There was a huge interest in the RASC and astronomy in general. Our entire box of 500 promotional materials was exhausted. Our Meetup membership exploded and we have seen a modest jump in membership in RASC–Van as well. Fingers crossed the public’s excitement continues with ongoing interest in all things astronomy related.

The next big astronomy event will be next year’s Mars close approach. For certain we will be planning viewing events and intend to be better prepared for the likelihood of large crowds again.

For me personally, my next eclipse event will be more intimate and personal. Apparently the eclipse on April 8, 2024 will path through Mazatlan Mexico. I intend to be there on the beach with a pair of eclipse shades in one hand and a margarita in the other.

Viva la Mexico 2024. ✨



Photos courtesy of Science World

500 - 600 people. To our amazement (and to be honest—a little fear), an estimated 10,000 people showed up.

Upon our arrival at Science World, there was already a line-up for eclipse shades of hundreds of people. RASC had nine volunteers, four solar telescopes, and one Sun Spotter as well as 300 eclipse shades. While we were still setting up the solar telescopes, line-ups already started at each scope. We tried to respect the line-up for eclipse shades but as soon as we started to distribute, we were mobbed. It was like we were feeding starving people. The eclipse shades were grabbed from our hands and all gone within seconds. In hindsight, Science World should have arranged security for crowd control but to be fair, we were not expecting

on site.

At 10:21 maximum, a cheer went up in the crowd, the temperature dropped, and the light visibly dimmed. Oddly, the crowd very quickly began to thin and by 11 am,



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got louder and louder. I watched as the crescent finally broke into fragments of light poking through the Moon's mountain ranges and those last points of light disappeared right on schedule at

through the narrow field of view, what was easily seen were the pink prominences peeking out from behind the Moon. There were three that were easily visible along the left side of the Sun in the flipped view of my telescope. But time

was short and I wasn't the only one present so I surrendered the view to Rosemarie, Greg, Ed and his family and Selinda and her older son.

Away from the eyepiece, I took in the

on the front of my camera and stopped the video recording. To see a version of that video, go to <https://youtu.be/3qjvz71VnZ4>.

Though the eclipse still wasn't over (fourth contact wouldn't be for another hour and 10 minutes), the end of the main event was the signal for many to depart. We said our goodbyes to Selinda and her brood as we basked in the afterglow of what had transpired. It was also around this time that we realized we had completely forgotten to check for the shadow bands! Still, this was a minor loss compared to what we did manage to see.

Once the eclipse was properly done (again, to cheers from the crowd), we packed up our observing aids and had to figure out what to do for the rest of the day. Leaving that day was never considered

10:19am. I took that as my queue to look up.

If you've seen pictures or watched video of a total eclipse, you've seen an impression of what totality is like but it just can't compare to seeing it with your own eyes. As I gazed upon this strange, black hole in the sky surrounded by a pale, triangular glow, my brain struggled to comprehend what I was looking at. This bizarre thing in the sky seemed huge by comparison to the Sun—some sort of optical illusion, of course. The disk of the Moon was impossibly black, with the thin haze making the rest of the sky look a bit brighter. I snapped out of my reverie for a moment to remove the filters from my 'scope and camera and start the timer on my phone.

The view through my telescope was phenomenal. While there wasn't much of the corona visible

view. To the east of the Sun was Mercury and Mars was to the west. Less noticeable (but obvious in my video) was Regulus, just below and to the left. Fainter ν -Leonis can also be seen between the two streams of the corona above the Sun.

But totality can't last forever and 10:21 was fast approaching. As my phone's timer went off, I called "time" and put the filter back on the front of my telescope just as the Baily's beads returned, signaling third contact. A roar from the crowd greeted the diamond ring and with that, the total eclipse was over. I slapped the filter back



as an option (a wise choice, as it turned out) but that left a fair amount of time to kill. We decided to wander around the site for a bit to see what was happening as a fair number of people made for the exit.

A bit late in the festivities, the

Photos courtesy of Ed Carréon





merchandise tent finally appeared that day, hocking various wares from t-shirts to mugs and everything else one could put an eclipse on. I bought some lapel pins and a t-shirt but couldn't bring myself to pick the "Eclipster" design despite Rosemarie's prodding (I work in Yaletown, so I've had more than my fill of hipsters). By that time, the post-eclipse Sun was getting hot, so we took shelter near the edge of the big canopy that protected the vendors.

One can only sit for so long, so we eventually got up and continued to wander the site. Curious about the traffic, we walked towards the highway to see how things were going. We found a miles-long parking lot, with traffic at a dead stop all the way to horizon in either direction. Turns out we had made the right decision!

We also came across a woman selling eclipse flags she had been making that weekend, bleaching the corona into black fabric with a flourish of drips and splatters around the edges (one of which came home with Rosemarie).

The rest of the afternoon was spent trying to comprehend what we had seen. Seeing totality in person tends to have an impact, and everyone reacts in their own way. It does make the immensity of space very real as you have a stark illustration of the scale of our solar system right in front of you—with the Moon being 400 times closer than the Sun and the latter being 400 times larger than the former—and the incredible coincidence of that geometry which allows us to experience what we saw earlier

that day. I can see how people become addicted, chasing the Moon's shadow around the world.

As this amazing day came to a close, the smoke from the many wildfires in Oregon began to blow in, making Mt Jefferson look a bit like Mt Doom. Ed's daughter Sabina serenaded a small but appreciative crowd with her violin as the blood red Sun set to more whoops from the remaining crowd. The next total eclipse will be in Chile and Argentina on July 2, 2019. Where will you be? ✨



The Missed Perseids

by J. Karl Miller

As is a tradition by now, our local centre of the Royal Astronomical Society of Canada helps out at Aldergrove Park near Abbotsford when the Perseid meteor shower peaks annually on August 12. The park administration sets up a tent for us and reserves some space nearby for us to set up telescopes. Some of our members, and sometimes invited speakers, give several talks regarding astronomical events (past, present, and future). It's a rain-or-shine occasion. If it rains, telescopes are not set up outside but may serve as exhibits inside the tent.

The Aldergrove Park administration promotes this event. This is the only time in the year at which overnight camping is allowed in the park. Over a thousand people usually attend.

Well, as the weather gods would have it, it turned cloudy just as the evening approached, and started raining towards 11pm. After the eleven days of wildfire smoke, which covered our area during all the preceding sunny days, and which was finally cleared out by wind from the south-west, this was a disappointment. Nonetheless, we are told by the park administration that about 1500 people showed up. During the evening, sev-

eral hundred of them came to visit our telescopes and tent.

Since we had hoped for some break in the clouds, we set up about half a dozen telescopes early in the evening. Well, there were no breaks, so we ended up looking at the details of distant trees, and also explained to a number of curious campers how different types of telescopes work and why they are a primary tool for the exploration of the universe. We packed up our telescopes just

before the rain started; the talks in the tent continued. Our activities ended just before midnight; had it been clear, we would have stayed all night for the public to have a look at interesting astronomical objects—the Perseid meteors especially, of course. Well, we hope that next year's Perseid meteor date will have a clear night sky.

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After the lengthy period of enforced astronomical in-



The original image shows almost no trace of the Fireworks Galaxy (compare to the processed image on the right)



Processed with Photoshop and Pixelmator

<https://en.wikipedia.org/wiki/Slooh>

I retrieved the Fireworks Galaxy image from Slooh.com on August 13th and did a bit of processing on it with Photoshop and Pixelmator. The original image is on the facing page with the processed version showed at left.

Patrick Wiggins, in Utah, discovered this supernova on May 14, 2017. Some type of stars go “supernova” at the end of their lives, when they have used up most of their internal “fuel.” A good description of supernovae is found here: <https://en.wikipedia.org/wiki/Supernova>

Even though we did not see the Perseids, I at least got something astronomical out of that day. ✨

activity, due to the smoke, to satisfy my wanting to do something about it, and before the event at Aldergrove Park started, I had set up a session to automatically take a picture of Fireworks Galaxy, in which a new supernova recently appeared. This galaxy is the home of ten recent supernovae in the last century; there may have been others of which we are unaware before then. This is an unusual frequency of such events in any given galaxy.

The remotely controlled Slooh.com telescope on which I reserved time to take

the image is one of several located on the Canary Islands. These telescopes are dedicated to the use of the astronomy community worldwide. Here is a description in Wikipedia:



Cropped and enlarged with the supernova indicated

RASC's National Star Party 2017: A Coast to Coast Event by Leigh Cummings

To help celebrate Canada's 150th birthday, our Vancouver Centre partook in the Royal Astronomical Society of Canada's National Star Party. On the night of Saturday, July 29th, the National Star Party was held all across Canada from the Maritimes to Vancouver Island and all points in between. Wherever the weather would not allow an outdoor event, centres found ways to hold an event indoors. We were fortunate that the local weather permitted an event under a clear, smoke-free sky at a relatively dark location.

In hopes of giving our members and the public the best possible viewing within reasonable driving distance, we chose Selvey Park in east Maple Ridge. Although I have frequently observed from this park for a number of years, it was the first time for some of our members. They were not disappointed. Although a few bands of clouds threatened to end the evening early, patience won out as it seemed the clouds kept moving on and giving us lots of clear views. After the Moon set we had a magnitude-5 sky and those of us with better eyes (not mine) were able to make out the Milky Way.

Our Observing Chair, Robert Conrad, put on a clinic about finding targets using the star-hopping method. Kyle Dally brought out the 16 inch club Dob and Ken Jackson was imaging with his Celestron. We had one of our youngest monthly meeting presenters, Ava, set up a telescope with her

dad. In all, we had lots of telescopes and volunteers to show off the night sky.

We had some families, who are neighbours to the park, pay a visit to see what was going on. I found it very rewarding to see one young boy, held up by his mother, look through the telescope at Saturn and hear him excitedly describe the rings that he could see. His mom and dad were also very excited to know he got to see such a sight first-hand. Who knows, could he be a future astronomer or astrophysicist?

We also had three visits by the International Space Station, shining very brightly as it made stately marches across the sky above us. Some of our observers also spotted some meteors streaking across the sky. I always seemed to be looking in the opposite direction each time but did get to observe the wide-eyed look of surprise on our visitor's faces.

As the night progressed into Sunday morning, the sky got darker, allowing us to look for fainter and more difficult targets. We started to pick out challenging double stars as well as more diffuse galaxies and nebulas. I also visited some old favourites like Albireo, M81 and M82 (in the eyepiece at the same time), and the Ring Nebula. Robert and Don hunted down a couple of asteroids by using their star-hopping skills combined with Robert's very detailed charts. Don was very excited to be putting the skills that he has been learning from Robert

to practice. Time seemed to fly and I was surprised when I looked at my watch and realized it was past 3 am. That was the time I had the park reserved until, so it was time to pack things up.

Strictly guessing, I would estimate we had somewhere between 30 to 45 visitors that night. I know this does not sound like an impressive turn-out, but we do have to keep in mind that this is in the middle of vacation time when many families are out of town. The weather forecast was also dicey for that weekend but then turned better than expected. I also think I could have done more to publicize the event locally which might have increased interest. On a more positive note, every visitor absolutely raved about viewing the sky through our telescopes and stated that they are looking forward to other events. This will lead to more "word of mouth" publicity in the future and put the bug in people's ears to keep an eye out for future events at Selvey park. I know I gave out all the RASC-Vancouver cards that I had with me and other volunteers did too. I look forward to bigger turn outs at future events at Selvey Park.

Robert Conrad, Don Duthie and I were the last to leave. Thanks to Don for giving my Mini a jump start or I would have had a long walk home. As it was, the Sun was rising in my eyes as I was backing my car into the carport when I got home. It was a wonderful night under the stars! ★

Oregon Eclipse Gallery

Images taken around the Solarfest sites in Madras, from sunsets and hot air balloons to the packed campsites and NASA lectures, to the personal experiences those attending wanted to capture and share.



Images by Gordon Farrell (top row), Ed Carreón (middle row) and Elena Popovici (bottom).



Total Eclipse by Gordon Farrell

The eclipse of August 21st as seen from Solartown in Madras, Oregon. The star Regulus can be seen to the lower left. Shot with a Canon 5DmkIV using an EF 70-200mm lens. The image was created from the first 15 seconds of a 4K video of totality shot in fully-automatic mode (so I can't say what ISO it is). Processed in After Effects, RegiStax and Photoshop.