# The Son's Tale
## Fall 2017

So, this newsletter will be a telling of my ***Odyssey to Oregon***. As most of you know, I've been planning my 2017 eclipse trip for nearly ten years. Many things conspired to make my trip impossible, or just monumentally difficult. My family and I have overcome many challenges to see this effort through…

Six years ago, my wife was diagnosed with stage-4 metastatic breast cancer. And while "stage-4" is a big problem, we were lucky; she caught it early, she had great bosses, wonderful friends, a supportive family, and she got the best care and the greatest oncologists around. She did battle with cancer, undergoing radiation and chemo, and now with lifelong monthly treatments, she is well into a five year remission. We wanted to make sure we didn't miss this opportunity to share a unique event.

Then, three years ago when I left my job at Kitt Peak, it looked like my days in astronomy and public outreach were over for a while. However, in my new position at the UA, I've continued to work in public outreach and education…but my focus now is water resources and conservation. In fact, my public education efforts in this new position have allowed me to expand my skill set, and I've found many links between astronomy and water on Earth. I've started my own astronomy business, Astronomy Adventures Arizona (yep, that's ***AAAZstars.com***), and while my daily schedule is packed with water education, my evenings have been left mostly available to share my astronomy passion with others.

Next, at the beginning of the year, the press had finally discovered the great solar eclipse of 2017 – particularly in Oregon. All the hype meant that as I looked for places to stay during my sojourn, I found that rooms were in short supply. Even if you found a place, prices were in the vicinity of $1,000 per night. Yikes! What had happened is that many foreign consortia and businesses had bought out entire facilities before the public could get them; there was literally no room at the inn. So, I "bit the bullet" and looked for a vacation rental. Even outside of the ***zone of totality***, prices were jacked up. In the end, 5 nights in Sun River, Oregon would cost me $3,000. But, that was a bargain for me, in my quest.

Then came the big challenge, and you all know the story. In mid-April I had a heart attack that required a two week hospital stay and quadruple bypass open-heart surgery. In fact, had my wife not done so well during her own ordeal five years earlier, it's very likely that I wouldn't be here writing this newsletter. It was her diligence, persistence, nagging, prescience, stubbornness, call it what you will; if she had not called the ambulance, I wouldn't even be here. Since then, I've worked hard to recover.

So, Helen and I and the dog, Ellie left Tucson on Monday, August 14 and began our trip to Oregon. When we arrived in Bend, we found that the entire state was on fire! The heavy smoke affected breathing, burned the throat, and brought tears to the eyes. Hotel management however was quick to point out that there were no plans for evacuation – the fires were many miles away, and the smoke was merely an inconvenience; the Sun, blood-reddened by smoke, would surely keep its appointment.

On Friday, August 18, we picked up my son, Nick and his girlfriend, Stacy at the Redmond airport; they would stay with us at our rental in Sun River, 30 miles outside the zone of totality. Traffic was everywhere, and so were the signs – "No Eclipse Parking", "Highway Detour", "No Vacancy", and on and on. There were news reports of day-long, 30-mile traffic jams, and of freeways turned into parking lots by stopped and stuck vehicles. On Saturday, Nick and I traveled two hours to visit the well-off-the-beaten-path rancher where I hoped to set up eclipse observations. We asked about parking out of the way in a flat area, just off one of his roads. I offered him and any guests, access to our 4-hour program and 2-minutes of totality. I offered to pay for the access, and assured him we would be no trouble, and gone by 12noon. He would have none of it. I believe his comment was, "Maybe for the next eclipse."

Upper left is the smoke-filled sky that greeted us upon our arrival in Bend, Oregon just three days before the eclipse. The smoke was so heavy it burned in your eyes and throat. The Sun itself was so dim and red, you could look right at it. We were very concerned.
On the right, you get a picture of Ellie imitating a Gila monster, although from this one view, it's difficult to tell which one is the true terror of the desert. Be afraid…be very afraid…

Nick and I were not deterred. The area I had chosen was remote, and there were satisfactory options just off of state roads near the ***eclipse centerline***. If we could negotiate the road closures, and the crowds, and, most importantly, if we left EARLY ENOUGH on the morning of August 21, we knew we could find an acceptable viewpoint. We were confident…but all the variables were troubling.

On Monday, August 21st, we left Sun River at 4am for the 2-hour trip to ***Mitchell, Oregon***. There were more cars on the road than typical, but no traffic jams; everyone was hurrying to their site of choice. We passed through Prineville, only 25 miles from "ground zero", with no troubles at 5am. We reached the critical intersection on Highway-26, one that was to be closed, but there wasn't a barricade in sight.


Here's the section of Oregon we concentrated on. The dark band is the "Band of Totality", and the blue line is the Centerline. Mitchell is pretty close to the center…but not close enough for us. Connecting Mitchell and Service Creek to the north is a small road, not seen on this map, and it goes right through the centerline. We drove north toward the blue line, until we found our spot. The cloud blocking Cascades did their job; smoke was a non-issue; and the sun climbed high into clear blue sky over an unblocked eastern horizon.

We pushed on, and by 6am we had made the final turn north and we were driving with purpose now, looking for a good place to pull off the road and set up. Finding the right spot, somewhere not yet taken and roomy enough for all of us, our truck, and our equipment took about an hour. But, by 7am, we had been invited to join a group that had room to spare in a flat grassy open space – and an interest in looking through our telescopes. The ranch we'd originally scoped out was within shouting distance, and that meant we were smack in the middle of ***eclipse central!***

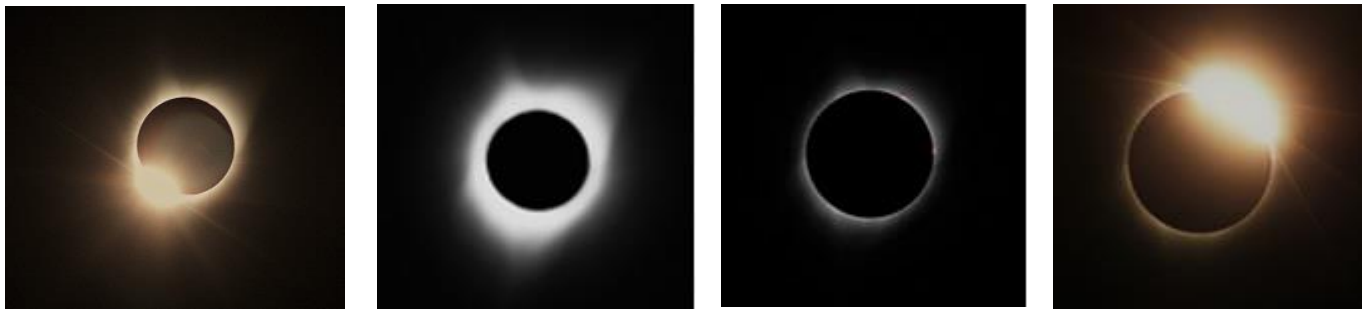
We really couldn't have asked for a better place to set up for our eclipse viewing. While there were hundreds of cars along the road, we had arrived early enough to snag a spot that was less than a quarter mile from the eclipse centerline. In the left photo, you can see the ranch, where we originally asked to set up. The cars near us, saw our equipment and asked us to set up next to them. They were a friendly and very interested group!
At right, Nick puts the finishing touches on our equipment – an 8" SCT, a Coronado PST, and my Canon T2i, while Stacy and Helen look on from our truck in the background.

We had done our homework, gotten to a beautiful site with time to spare, and set up all of our equipment by 8am. We shared some views of the Sun, and a few sunspots with neighbors while waiting for the show to begin. Just after 9am, the call went out – a small "bite" had been taken out of the Sun!

With the ***TOTAL eclipse*** scheduled for just after 10:20am, the ***PARTIAL phase*** began at about 9:07am. You can just make out the slight indentation in the image at far left. This progression took just over an hour. The last solar sliver at far right was taken at 10:18am.

The preliminaries were over, and the stage was set for the main event. This caused a flurry of activity in our own party. Pictures of the Sun during partial phases, are captured by using a nearly-opaque ***solar filter***. When the total eclipse begins, it's time for naked-eye viewing, and unfiltered lenses, so the scramble to switch lenses was on! Helen was our official timer. We knew we had about 2 minutes and 10 seconds of totality. Her job was to let us all know when we had to ***stop looking at the Sun!***

I had prepared for this event for nearly a decade. We had driven for 1500 miles for a two-minute spectacle, and I'd readied myself for this first-ever experience. And then, totality grabbed us by the throat. This phenomenon took my breath away; it was nearly a religious or supernatural experience.



This is a progression of the ***TOTAL eclipse*** beginning at 10:21am with the ***"Diamond Ring"*** on the far left. Second from left is the Sun's ***corona***, which can only be easily studied when it appears during a total solar eclipse. Second from right, you can see ***"Bailey's Beads"***, the tiny bright spots seemingly on the limb of the Moon, which are flares and prominences on the Sun. Finally at far right is the second "Diamond Ring", announcing the end of totality.

Nick was my designated photographer. We used my Canon T2i, and a couple of my own lenses. We talked about and planned out what images would be taken, what lenses and filters would be required, and how we would bracket the pictures we wanted in the short time we had. As it turned out, I chose a 300mm lens during totality – it's a bit small, but it's what I had. We'd long ago determined that we didn't want to be messing around with equipment, and missing the eclipse, so we simplified the entire process. If I got two or three good images, I'd be happy. I'm ecstatic with all of those above! Kudos to Nick – yeah, it was my camera, my stuff, my plan, and my trip. I'd love to claim the pictures as my own work; alas, credit goes to my kid. His shots captured an awesome event in spectacular fashion!

However, the end of the eclipse was not the end of our plan. Check again, the name of this newsletter. That is not a typo! You see, just after the end of totality, after Nick had taken the last Diamond Ring image, I took the camera for him. At that point, Nick took a knee, popped out his own diamond ring, and proposed to Stacy! She said, "Yes!" and made the entire day and trip a perfect "Son's Tale."


Nick told Helen and I of his super-secret proposal plans. He got a ring and kept it hidden on the flight, and in the truck the whole time. In between helping to buy a ring and planning our trip, Helen was able to secretly order these shirts. Everyone in our viewing party on the side of the road, was popping champagne for the eclipse. When they saw Nick's proposal, they all brought Solo Cups of bubbly over and shared it with the happy couple. Luckily Stacy said yes – I would hate to have left her stranded up in the Oregon woods!

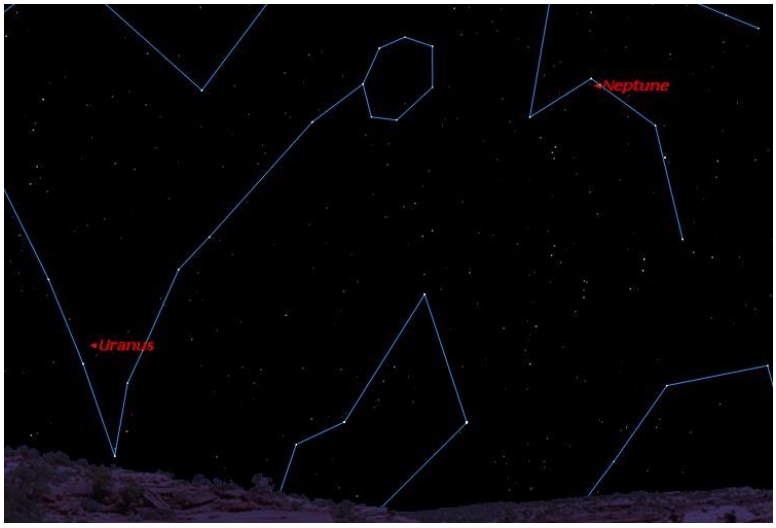
Okay, so let's end this happy account of the 2017 Total Solar Eclipse with a few "non-eclipse" updates. First, we did get the big girl, Fay, out to the Flying Leap Wine and Stars event on September 23rd. If you didn't get to take part, take heart…Flying Leap management wants me to plan for a spring 2018 event hosting 100 people! I'm making BIG plans, so watch for the announcement in the next newsletter.

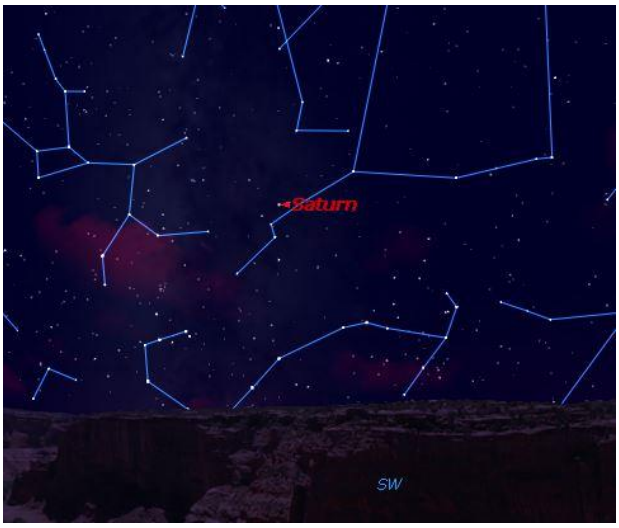
And don't forget my annual free public event! This year on Saturday October 28th, I'll be hosting my Halloween Open House Star Party. All the people in the neighborhood are invited – but all my readers are considered to be "in my neighborhood"! Be sure to stop by, have a warm drink, some snacks, and join us for some awesome views through Fay, or Naomi, or Sue, or…

Now that we're getting into the autumn sky, it's time to start looking for meteor showers. The Orionids are October's offering, and with more than 30 meteors per hour, it is excellent under dark skies…and this year the sky will be about as dark as it gets. The peak of this shower is on October 21, and that's only two days after the new moon, so the Orionid shower will have no bright moon to contend with.

Then, in November on the night of the 17th/18th, the always gaudy Leonid meteors peak only one day before new moon! Two of the best showers of the year, will have gorgeous dark skies to show off their sparklers. Be sure to take advantage of these two naked-eye events.

As for the planets right now, we're losing one of our "stars" from the stage. Jupiter is headed into the western sunset, leaving only Saturn for great planetary views. But, "only Saturn" is sort of like an oxymoron, right? Saturn is always spectacular, and with it Uranus and Neptune are rising in the early evening over the eastern horizon. They don't show much, but Uranus appears as a mint-green marble, while slightly smaller Neptune displays a more bluish hue.




In the left image above, by 8pm, Neptune in Aquarius and Uranus in Pisces are both up in the southeastern sky. Both are sharper as they rise a bit higher after 9pm. Saturn on the other hand should be snagged early. It's in Ophiuchus, just above Scorpio in the southwestern sky soon after sunset. Don't wait too long, by mid-November, Saturn too will hide in sunlight.

Enjoy Our Fall Night Skies,
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