

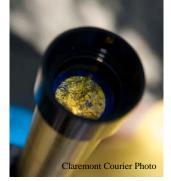
Newsletter of the Pomona Valley Amateur Astronomers

November 2009 nightwatch Volume 29 Number 11

President's Address

October was a big month for PVAA. It started with a presentation "The Power and Beauty of Mathematics" by Brian Greene, one of the architects of String Theory. Brian Greene was speaking as part of the Dr. Bruce J. Nelson Distinguished Speaker Series. We were able to take advantage of this last minute opportunity due to the courtesy of Harvey Mudd College and our originally planned speaker, Joann Eisberg, Joann kindly agreed to reschedule her presentation on spectroscopy to November 6th.

Later in the month we had our annual Solar public star party in Claremont. For the last two years we have scheduled the Solar star party to coincide with the Village Venture. This insures a big crowd for the We finished up telescopes. October with five public star parties in six days. Thanks to all of you who helped with these events.



I want to remind you all of the PVAA Holiday Party. This

year our Holiday Party will be held in the Banquet Room at Sizzlin Skillets on Foothill Boulevard in Upland on Friday, December 11th. This is our first year at Sizzlin Skillets after many years at Jounnie's. Unfortunately space is somewhat of an issue so we will have to limit attendance to the first 40 to sign up. As always there will be plenty of fun and a drawing with prizes for everyone.

Sometime in the next several months PVAA will be saying not good bye, but farewell to our most astronomically active family, the Stovers. Claire, John, and Lucy will be moving up to the Sacramento area. It would be impossible to list all of their contributions to PVAA here. A couple would be our great and up to date website and this newsletter. Claire has often caught and corrected my mistakes before they become disasters and John, Claire, and Lucy have contributed much to the success of the yearly holiday party. We will certainly miss them when they leave, but they promise to come back and visit often.

The Stovers will be leaving some very big PVAA shoes to fill, but I hope that some of you reading this will step up and fill them. If you are interested in playing a more active role in PVAA talk to me or one of the other board members about it.

Happy stargazing! See you at a meeting or star party soon.

Ron Hoekwater

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This would be my third total solar eclipse of the Sun with this travel agency. The Australia event was beautiful, happening a couple of hours before sunset. The Turkey eclipse was excellent, but it occurred about 1 PM and it was a lot longer. This one will in China and it's duration will be 5 minutes at a little past 9 AM local Chinese time on July 22, 2009.

My wife Irene and my daughter Susan accompanied me as did PVAA member Steven Simon and his wife Sarah. We left LAX July 12th at AM on an Air China 747. Irene and I were seated in the center section directly in front of the giant TV screen. I watched the enormous GPS map and information on altitude, speed, and temperature as we flew.

We arrived in Beijing on July 13, having lost the day crossing the international dateline. The airport terminal is the largest in the world. It was built in time for the Olympic games. The first thing we learned was, don't drink the water. Our hotel provided a bottle of water per person each day, and our bus had bottled water for all of us. The Chinese people only drink bottled water. In taking the bus to the hotel I noticed that there were many cranes building structures. There also were many high rise apartment buildings. Their freeways are smooth and their road signs are green with information in Chinese and English. Their information signs are brown just like here. In fact where signs on billboards or stores had Chinese characters, the numbers displayed were Arabic. We stopped at the site of the Olympic stadium, and saw the Bird Cage up close through the fog and smog.

The next day after an American breakfast we toured the Forbidden City, Tiananmen Square and the Summer Palace. All the meals were included in the trip, and lunch and dinner were Chinese. The meals were served on a large glass lazy susan, and the waitress would place a large bowl of rice and a traditional Chinese dish, then another Chinese dish until there were 13 dishes on the table. The final dish was watermelon. Generally, the table seated 8 diners, everyone had chopsticks, and I generally used a fork.

A funny thing happened to me while touring the summer palace. I got separated from our group. We were walking along the lake, our guide always held a flag over his head, so I knew where the group was if I saw the flag. There was a large stone arch. Actually it was a gate, and I stopped to photograph it. I stepped through the gate and looked for the flag ahead of me. But I did not see it. I walked as quickly as I could to catch up with the group. As I hurried along, I checked for any exit along the way that the group may have used. No luck. After about a mile of walking, I saw an exit and went toward it cautiously. I did not go past the ticket gate, and saw public transportation buses and cars in the parking lot. This was not where the tour bus was. I was lost in China, where I spoke no Chinese, and the natives spoke no English. There were a couple of souvenir stands in the area, and I asked to see the police. I was not understood, but they pointed to doorway in a nearby building. Park Complaint Center was the sign on the door, printed in English. I went in, and there were four people there, some in uniform. I told them I was lost, separated from my group. They did not understand me. After a few more tries, a man near a telephone made a call and handed me the phone, and I spoke with an English speaking Chinese lady, and I told her of my predicament and hung up. I wanted to stand in the doorway in case there was a search party looking for me. I wore a bright yellow floppy hat for easy identification. The only English word the man with the phone spoke to me was "sit".

and pointed to a chair. Beijing was hot and humid, and I was in an air conditioned room, at least that was comforting. After half an hour a uniformed man in the room took me outside to a golf cart, I sat down and away we went for about a mile, and there was the tour guide with the flag

The next day we took a bus to the Great Wall of China. Beijing is situated on a plain, and the bus was going to some high mountains. We arrived at the wall which was very impressive. I looked to my left and saw the wall going up the mountain with watch towers poking above the wall at regular intervals, as far as the eye could see. I looked to the right and saw the same. The wall follows the terrain along the crest of the mountains. I would say that it is 50 feet high and 20 feet wide. When the slope of the land was slight, it was like walking uphill. When it got steeper, there were stairs. The steps were not very deep, and not too high, so going up or down required great care. We walked up to one of the watchtowers, and we felt pooped out at the landing. Even this far from Beijing, there was significant smog. We also visited an ancient astronomical observatory. It was within walking distance from our hotel. The observatory did not have a telescope, but many instruments on the roof of the building about 40 feet above the ground. The instruments were built between 1673 and 1744. They were armilla, sextant, altazimuth, azimuth theodolite and a celestial globe. At the airport, there was a model of a beautiful armilla which was run by water, the original being made in the year 129 AD.

The next day we flew to Xian, the big draw here was the Qin Terra Cotta Warriors. They are nearly 8000 life sized pottery warriors and horses in battle attire and formation and have been buried for over 2,200 years. The amazing part is that there was a native uprising then and that they were all smashed. Since their discovery in the 1970s, the archeologists put them together. There are no two alike. We also toured a neolithic village over 6000 years old.

We next flew to Chengdu, the highlight being The Panda Research Center. We took a tram to see them, and it was surprise to see them so active. I was accustomed to seeing them in the San Diego Zoo, where the animals just lay around, or move slowly from place to place. Here it was different. They have acres of space, we saw them running, wrestling, bathing, and having an active good time. We also got a boat ride to see the largest Buddha in the world. It is over 200 feet high, and there was a trail for visitors to walk to the top. I'm glad that I was in a boat and could not climb to the top.

It was from Chengdu that we were going up to Mount Emei Shan at an altitude of around 10,000 feet. All of our days were sunny so far into the trip, but driving up the mountain, it got cloudy. As we gained altitude the weather became foggy. At the Golden Summit Hotel, it started to drizzle. The hotel was small as was our room. All this time our toilet facilities were modern western style. Not so at The Golden Summit Hotel. I was equipped with a squat toilet which was a ceramic slab on the floor with a large hole at one end and a valve on the wall that would release the flushing water. The bath tub was sunken into the floor and the wash stand was a normal sink. Sue had different facilities. Her bathroom was one large shower stall. The pit toilet, and the wash stand would all get wet.

The morning of the eclipse, we were up at 5 AM, and after breakfast it was time to go to the summit. The weather was light rain and fog and the cable car was several hundred feet higher up,

CHINA ADVENTURE CONT. so Irene and I were carried up in a bamboo chair by two men for each of us. It was dark and raining and these guys took us all the way without stopping. We were at the cable car entrance, but there were more stairs to go, but they were out of the rain. I had my camera bag and Irene had a small travel bag with all of my equipment. Everyone was rushing up the stairs. It was elbow to elbow, we got to the cable car, and went to the top. There was a doctor in our group, and he didn't like the way I looked. He took my pulse and had us go down the cable car to the lower level. There, I was seen by a Chinese doctor, measured my blood pressure, it was 70/40, he gave me nitroglycerine pills and a couple of cans of oxygen, and we then went down the mountain in a van. When we were halfway down, the driver had to put on his headlights because it got dark. The time was a little after 9 AM, and we were experiencing the total eclipse of the Sun. We did not miss anything because it was foggy at the mountain top. The van took us to a very modern hotel where we stayed the night. The next morning we took the tour bus back to our Chengdu hotel. Irene, Sue and I decided to not go to Tibet which is at a higher altitude than Mt. Emei Shan.

So now we fly to Beijing and home. But it is not so simple. At the Chengdu airport our flight was delayed because of rainstorms at Beijing. When we arrived at Beijing, we missed our connecting flight to LAX. So Irene and Sue arranged for us to leave the next day, and get a hotel for the night. We thought it would be near the airport. We had no idea how to get there. Finally we got out of the terminal, and looked around. We saw a crowd near a bus and went there. It would take us to the hotel. The doors to the luggage compartment did not work, so everyone's bags went into the passenger area. That is for at least 30 people. The first few seats were packed with luggage. The bus trip was a half hour long, and let us out at The Best Western Hotel about 10 PM. This was a fantastic modern hotel, and the airline was paying for it. We got to bed, all tired out from the stress. At 3AM the phone rang, the bus to the airport was leaving at 4 AM, and it is the only bus. We decided to sleep since our plane was to depart for San Francisco at 4 PM.

Around 1 PM we took 2 taxis (too much luggage for 1 taxi and 3 people) to the Beijing Airport. After checking in we went to the boarding area, but there was no airport visible out the window. All we saw was a driveway. At the appropriate time, we presented our tickets, and boarded a bus. It took us to the tarmac where our 747 was waiting. We had to climb up the stairs, with our carry on bags. It's a good thing this was near sea level. The flight to San Francisco was uneventful.

In San Francisco, we were all set for a one hour trip to LAX, but there was a problem with our plane, so we went to another gate, and there was a problem with that plane. It did not have room for all of the people. It was equipped with more business class seats, which took more room, so 47 people will be bumped. It took awhile for the airline to assign seats, and list them on the monitor. We were lucky, and were seated right next to the plane entrance. They were nice soft roomy seats. The flight attendant reclined the seat for us and put a white blanket on us. Then to complete the picture the attendant brought out the wine, at no charge, and took our picture. That was a pleasant surprise. Our son picked us up and took us home. That was the end of our CHINA ADVENTURE

Ray Magdziarz

Club Events Calendar

November 6, General Meeting

Joann Eisberg on Spectroscopy

November 11 – 15, Nightfall -

http://www.rtmcastronomyexpo.org/nightfall.htm

November 14, Star Party – Mecca Beach at Salton Sea

November 19, Board Meeting

December 9, - Oakmont Elementary, Claremont

December 11, – Holiday Party 6:30 – 9:30 PM

December 12, Star Party - Claremont Hills Wilderness Park

December 17, Board Meeting

January 9, Star Party – Mecca Beach

January 19, Main Branch, Ontario Library, 7 – 9 PM

January 21, Board Meeting

January 29, General Meeting

-Larry Kawano on "Astro Mythbusters"

February 13, Star Party – Death Valley

February 18, Board Meeting

February 23, Colony Branch Library Ontario 6 – 8 PM

February 26, General Meeting

March 13, Star Party

March 18, Board Meeting

March 26, General Meeting

April 10, Star Party

April 15, Board Meeting

April 20, 2010, - Main Branch, Ontario Library 7 - 9 PM

April 23, General Meeting

May 6, Board Meeting

May 12 - 16, RTMC

May 21, General Meeting

June 12, Saturday – Mt. Wilson 60" viewing

June 17, Board Meeting

June 25, 2010, General Meeting

Hello,

I wanted to send out a big thanks to Craig Matthews and Shawn. I called Craig at 1:00, September 25th and asked him about getting someone THAT night for our annual 3rd grade campout at Rolling Ridge. I really didn't think it was possible on such short notice, but worth a try. Craig said he would call around and let me know. I was thrilled when I received a call a few hours later informing me that Shawn would come out. Well, way beyond expectations, both Craig and Shawn show up right on time. We had on hand several telescopes, including the largest private telescope I had ever seen, and two astronomers! Unbelievable! We had great views of the moon, Jupiter and its moons, Night Owl Cluster, Bruin double star, and Venus in the morning because Shawn stayed with us all night!

It was a wonderful experience for all of the 3rd grade kids and parents. Thanks for making that night extra special.

Thanks again,

Joe Williams

What's Up - A Horny Sea Goat & A False Dawn

The Sea Goat is Capricornus (goat, literally "goat horn") because he's often (especially in Astrology) depicted as a fish tailed goat. This odd form is from Capricorn's association with the horny god Pan who often changed shape to escape pursuers. Today, this triangle of stars has been called a "sagging bikini bottom" which continues a lusty imagery. This Sea Goat triangle swims and jumps in an area near the South Galactic Pole which is full of dim stars and distant galaxies. It's often called "the sea." Near Capricornus is Aquarius (water carrier) pouring water down onto Pisces Austrinus (southern fish). Sometimes, Aquarius is bringing the Great Flood into this watery "sea" region. Nearby are Pisces (fishes), Cetus (sea monster), Eridanus (river), and a water bird, Grus (crane).

Capricornus and Aquarius are among the oldest known constellations despite being two of the dimmest in the Zodiac. Descriptions of the sea-goat and the water carrier go back 3,000 years or more. Perhaps this is because it's here the Sun reaches its southern most position in the sky. Capricorn is the solar location of the Winter Solstice (December 21-22, Summer Solstice in the south). It's marked by a global line at latitude 23.5 south called the Tropic of Capricorn. Here is the southern most latitude at which the Sun is directly overhead (its northern counterpart is the Tropic Of Cancer (23.5 N.) on June 21-22). Solstice means "sun stop," after which the sun seems to move in the opposite direction again. The global region between the two Tropic lines (centered on the Equator) is know as the Tropics or the Torrid Zone. I can remember that torrid sexy novel by Henry Miller called Tropic Of Cancer and its sequel Tropic of Capricorn.

Recently, December 21, 2012 has been declared the day the world will burn up in sweltering solar disaster. Irresponsible prophecies have appeared in T.V. programs, books, and websites citing Nostradamus and the Mayan Calendar as "scientific" sources. This coming incineration is blamed on an imagined alignment with the Sun's unknown "death star" companion. The gravity of this invisible dwarf star will cause the Sun to erupt into outbursts of flame. It all sounds like another attempt to blame global warming on something other than human produced carbon dioxide in the atmosphere.

On a cooler note, Aquarius is associated with rainy seasons and water even in India and China. Perhaps it's that "trickle" of stars seeming to pour from the "water jug" (shaped like a Mercedes Benz symbol) down onto Pisces Austrinus and the wading bird of Grus. Although what the song "The Age Of Aquarius" refers to is more of a mystery. Two planetary nebulae lie in Aquarius, Saturn Nebula (NGC 7009) and the closest known planetary, Helix Nebula (NGC 7293).

"The sea" area also contains several globular clusters M2, M72, M75, M30 and to the north the bright, M15.

Pisces Austrinus contains one of this area's few first magnitude stars Fomalhaut (fish's mouth). It's a sun-like star at a close 24 light years. Because of this closeness the orbiting Hubble Telescope has recently produced the only images of a planet revolving around another star. The planet is huge, but appears as a speck-like presence plowing open a pathway in the dusty disk that revolves around Fomalhaut.

Presently "the sea" contains our three gas giant planets. A

luminous Jupiter dazzles the night sky. And very close by is a much dimmer Uranus (a sky god, magnitude 5, discovered in 1781). William Herschel, its discoverer, originally came from Germany to England to be a professional musician. A lover of his adopted country, he wanted to name his new planet after England's "mad" king George III. But he was convinced by other astronomers to follow the in the tradition of Greek god names. However, he did name Uranus' moons after Shakespeare characters. Here also is blue Neptune (the sea god, magnitude 7, discovered in 1846). Three men, a German Johann Galle, a Frenchman Urbain Le Verrier, and an Englishman John C. Adams originally argued who first spotted. the remote giant. They later got together and became friends. A large moon was soon discovered and named after a sea god, Triton. Triton has sometimes been confused with Saturn's huge moon Titan and Uranus' biggest moon Titania (a fairy queen from A Midsummer Night's Dream).

This dark area of "the sea" is also a good location for viewing the Zodiacal Light or the False Dawn. Zodiacal Light appears as a glowing cone that stretches along the Zodiac (ecliptic line) like a faint fog-like ghost of the Milky Way. The light is brightest and widest closest to the Sun which means we can see it best soon after sunset and just before sunrise.

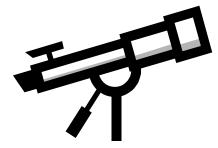
For hundred of years, astronomers thought that the Zodiacal Light was sunlight scattered high in the atmosphere long after sunset. But if light were scattered by air molecules high in the atmosphere, it would be a blue glow, not a white one.

About 300 years ago, astronomer J.D. Cassini speculated that a thinly spread cloud of dust out among the planets could reflect sunlight. Studies have proven Cassini right. Zodiacal Light is caused by a disc-shaped cloud of matter spread out around the Sun, matter left over from the time the planets were formed some five billion years ago. The matter consists of particles ranging in size from dust grains to tiny asteroids up to 3 feet across. This cloud of matter seems to be denser near the Sun and thins out beyond Mars.

In between the east and west Zodiacal Lights a faint glowing patch may appear directly overhead. This phantom of dim light is the Gegenschein (counterglow). So named in 1854 by the German astronomer Brorsen. The Gegenschein is caused by the reflection of sunlight from the same disc-shaped cloud of matter left over from the time the planets were formed. It is the direct reflection of the Sun as it lies opposite the Earth. I have never seen the illusive Gegenschein, but I know some who say they have.

These are but some of the weird wonders that can be seen in that deep, dark area near the South Galactic Pole known as "the sea."

Lee Collins



Huge Star Party at Cottonwood

Our October star party was gi-normous. The Stellarvue group of regular Cottonwood observers were there in force. What a great bunch. It is always a treat to be out at Cottonwood when Terry, Myrna, Jim, Big Ron (not me, another Big Ron) and all the rest are out there. There were also some with telescopes who just showed up by chance. And of course our own PVAA people were there. I don't think I have ever before seen so many scopes out at that campground.

I arrived a little late, just as it was becoming dark. I was immediately greeted by Jim Bridgewater and Ken Crowder. A bit later I met up with Craig Matthews and spent most of the night observing with him. There were so many people and scopes, I didn't get to visit with everybody or look through everyone's telescope.

I did meet up with an old friend, Brad, who I first met up at White Mountain. We had a great time hiking and looking at the sky. Brad is an electrical contractor and quite a clever guy. He has built himself a really neat scope. It is a Dob, but with stepper motors and connected to his laptop it tracks the sky. Every now and then we run into each other at some dark sky site.

The star party was great fun, but I had a concert to attend Sunday, so I left about 2:00 AM and headed home. If you happen to be out at Cottonwood from now until late next spring during the dark of the Moon, there is an excellent chance that you will be joined by some of the Stellarvue group. Be sure to say hello. They are really a fun group.

Our next star party is November 14th at Mecca Beach. Hope to see you there.

Ron Hoekwater

Village Venture - October 24, 2009

As you can see by the pictures, the "star" attraction for this years public solar party was visible again this year





Photos by Jim Bridgewater



LCROSS Impact Watch

New member Matt Wedel and others went to Mt. Baldy on October 13, 2009 to observe the LCROSS impact. You can read about his experience in his blog at:

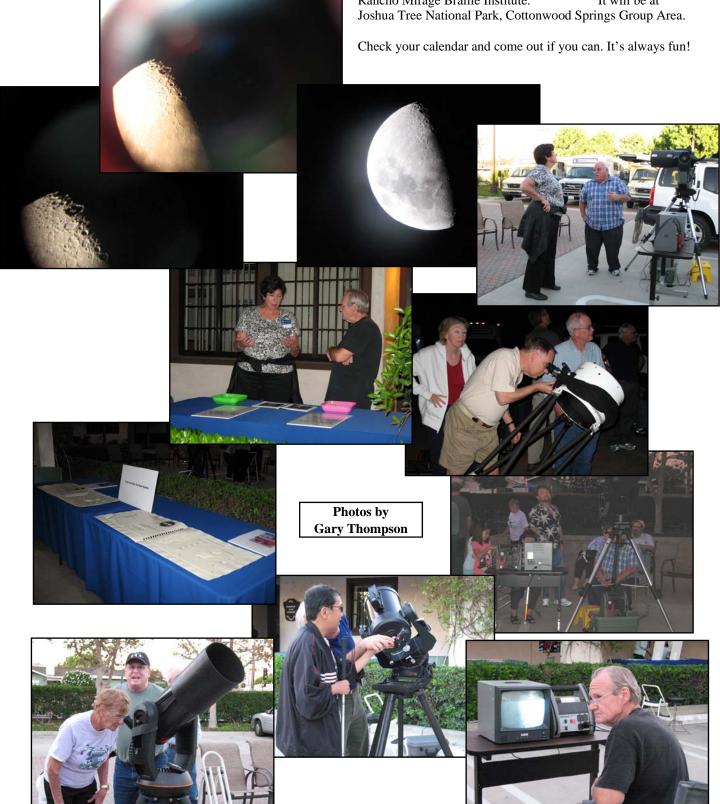


http://10minuteastronomy.wordpress.com/2009/10/13/observing-report-lcross-impact-watch

Project Bright Sky Update

On October 26th , Frank and other club members presented "A Night With the Moon and Jupiter" for the Orange County Braille Institute in Anaheim .

His next "Desert Adventure" will be on March 24 for the Rancho Mirage Braille Institute. It will be at Joshua Tree National Park, Cottonwood Springs Group Area.



Holiday Dinner Menu

Below is a copy of the menu for members who are unfamiliar with our new holiday dinner location







