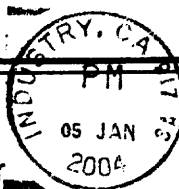




Newsletter of the Pomona Valley Amateur Astronomers

Amateur
astronomers
just get better
looking . . .



Volume 24 Number 1

nightwatch

January 2004

President's Message

Well, the New Year has arrived! As we say goodbye to 2003, I thought that I would like to write something about the year just passed.

In the year 2003 our club had a healthy growth spurt. We went from 60 some members to 80 some members. We went from being a club that almost takes in enough money to cover expenses to having a small surplus. Much of the credit for getting us on a firmer economic footing goes to our Treasurer, Ludd Trozpek. The office of treasurer is one of the most time consuming on the board. Since assuming this office about two and a half years ago he has found several ways to cut expenses without negatively affecting our members. And he successfully dealt with our number one budget crisis (the liability insurance requirement) by obtaining PVAA membership in the Astronomical League.

As for our membership growth, credit for that goes to many people. Most of all to those who have faithfully attended and supported our public star parties. Our Barnes and Noble and Ontario Public Library star parties were particularly well attended.

In 2003 we had our Mars Mount Wilson trip. Personally, I will never forget the images of Mars that I saw at the eyepiece that night. We had a number of great star parties. At the general meetings there were interesting speakers. I especially remember Tim Hogle, the JPL engineer who spoke to us on the Voyager program and Bill Vaskis's presentation on the radio observatories at Greenbank and Soccoro. Bill's was particularly impressive because (at the last minute) he had to give it without the use of the college's AV system and still managed to give an interesting and informative talk.

Our last gathering of the year was our Christmas

dinner at Jouni's in Upland. This year to spice up the event, we had a drawing for a pair of binoculars. And there were many other prizes. Everybody won something.

It is my hope that this year will be even better than last. Our first meeting of 2004 will be Friday, January 9th in Galileo Hall at 7:30 PM. Mike Saltto, a representative from Alpen Outdoor Corp., will be speaking to us on binoculars. Also, PVAA member Jeff Felton will give a presentation on some very unusual binoculars that he owns. And "What's Up?" will be presented by Lee Collins.

In March we have another Mount Wilson trip planned. There is a year of stimulating presentations and fun and exciting star parties ahead. I hope that you will be able to attend and participate in many of them.

Ron Hoekwater

Hello fellow astronomers,

I just received my renewal order from "Astronomy Magazine" and was preparing to submit it to Ludd (our treasurer) in order to save the \$10.00 on the regular subscription price. As most of you know, this is one of the many benefits that

PVAA Events Calendar

Month	Star Party	General Meeting	Board Meeting
January	24	9	15
February	21	6	26
March	20	5	25
April	17	2	29

come with being a paid member to PVAA. As most of you don't know, this renewal process is awkward and time consuming for our treasure to handle since these renewals come in at different times all year long. The reason that members don't know this is awkward and time consuming is because Ludd never complains and does this cheerfully. Never the less, I was looking for a way to make it a more convenient process for everyone. I discovered that a website named magsonthetnet.com will let you renew "Astronomy Magazine" at the same price that the club receives (\$29.95) per year. I found it a simple process and I received an email verifying my renewal. I am providing this information for you to use if you think it would be a more convenient way to handle your subscription renewal. If not, then just know that Ludd will continue to renew your subscription cheerfully and without complaint.

P.S. This website does not offer subscriptions for "Sky and Telescope". If anyone knows of a website that offers the same discount for other magazines we all may be interested in, please email me the information to: teampall@msn.com.

Happy Reading,

Larry Pall

March Mount Wilson 60-inch Telescope Trip

On Saturday, March 13, 2004 PVAA will be returning to Mount Wilson to observe with the 60-inch telescope. This is 10 days after the opposition of Jupiter. Saturn will be visible as well. And the moon will be visible in the morning. I have never seen the moon through the 60-inch but I have been told that it is a treat. If you missed the Mars Mount Wilson trip in September then this is your chance to see planets like you have never seen them (through an eyepiece) before.

The conditions on Mt. Wilson are generally not conducive to the observation of large or low surface brightness objects. The field of view at the 3-mirror-cassegrain focus is too narrow and the sky on Mt. Wilson is too bright. The 60-inch is, however, a superb instrument for the observation of small high surface brightness planetary nebulae, globular clusters, and some unusually colorful stars, such as Albireo, Campbell's star, and R Canes Venatici.

No one can guarantee that the seeing will be good on any particular night. But the seeing at Mount Wilson has a greater likelihood of being good than at most other places. And sometimes it is fabulous! If clouds or wind prevent us being able to observe on our reserved date there will be no refund. However we will be given another night on the scope.

If you would like to go on this Mount Wilson

trip please send a check made out to PVAA for \$60.00 (for club members) or \$75.00 for non-members to the club PO Box. Or you can pay at the general meeting.

Ron Hoekwater

In the Aftermath of Death Valley

It was planned that the last star party of 2003 would be at Mesquite Springs in Death Valley. This is one of the two best dark sky sites that I have ever observed from and I was eager for a return visit. On the day after Christmas just after noon, I set out from Ontario on what I expected (with one rest stop) to be approximately a five-hour drive. Two hours later, I was still a few miles from Glen Helen Regional Park (near Devore). The traffic was absolutely atrocious! Speeds on the 15 Freeway rarely topped 10 miles per hour. At this rate it would take at least four hours just to reach to Victorville. In Etiwanda I decided to turn around and head home.

I called Bob Akers, the only other person that I

PVAA 24 HR. Hotline.

Get the latest news on the star party, club meetings, special events and astronomy happenings.call **909/596-7274**

Visit our website at

<http://pages.pomona.edu/~aka04747/pvaa/>

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knew for sure was planning to be at the star party. After talking it over we decided that rather than risking the harrowing snarls on the 15 Freeway, we would wait until morning and then take the 10 Freeway out to Cottonwood Springs.

Other than the rather chilly nighttime temperature, conditions at Cottonwood Springs were excellent. I had expected that it would be only Bob and I, but happily we were joined by a relatively new member, Laura Jaoui. Having more stargazers around always adds to the star party experience.

Because Bob has agreed to write about the night at Cottonwood, I will say no more about it, except that a good time was had by all. Instead, I will skip ahead to Sunday morning.

The three of us headed out toward Indio for the traditional post star party breakfast at the Travel America Truck Stop. After a good meal and stimulating conversation, Bob needed to head home, as he had to work on Monday. Laura's family was on a trip and so she planned to spend some time exploring the Salton Sea area. Never having observed from the Salton Sea, I wondered how it was. As I was on vacation from work, I asked to tag along. Laura agreed and we each headed south on Highway 111.

Acting on the advice of a park ranger we decided to make our camp at the Mecca Beach Campground, which is on the northeastern shore of the Salton Sea. The surface of this, the largest lake in California is 250 feet below sea level. As the lake lacks an outlet, the water is salty, with about 10% greater salt content than the Pacific Ocean.

The campground was sparsely occupied. (Good for observing.) The camping fee is \$14.00 a night. The spaces are big and two vehicles are allowed per space, making it possible to save money by sharing a space. The campground has two large restrooms. At night the restrooms are lighted, but the lights weren't real bright and it wasn't a big problem. Some campers left lights on all night, but there were no bright lanterns. Car headlights from the highway were not a problem and there were no cars driving through campground after dark. (At some campgrounds we have had trouble with a steady stream of cars passing through the observing area all night long.) There are tracks on the other side of the highway and the trains have very bright headlights. However there were only a few trains and one can look away until they pass. The sky might be less light polluted than Cottonwood. The southern horizon is flat and there are no major obstructions on any horizon. The

camp host is friendly and helpful. The nighttime temperature was about 20 degrees warmer than at Cottonwood.

The sunset on the first evening at Mecca Beach was gorgeous. Clouds over the mountains to the west shone in dazzling red, orange, and gold. After the last of the evening twilight vanished from the sky, we got down to some serious observing. After looking at some of the more commonly observed objects (M1, M81, M82, the Veil Nebula, etc.) as it was well placed in the sky, I concentrated on the constellation Gemini. First, I turned the telescope on NGC 2392; a planetary nebula, which is sometimes called the Eskimo Nebula or Clown Face Nebula.

Next we looked at some objects in Gemini, which I had never seen before. NGC 2371 and 2372 are thought by some to be a sort of miniature M27 (the Dumbbell) or M76 (the Little Dumbbell). Others believe them to be two separate planetary nebulae, which happen to be so nearly along the same line-of-sight that they appear to be touching each other. It looked like two different planetary nebulae (not one) to me, but I am going to want to look at this object some more. The other object that I saw for the first time was IC443. This is a faint (I couldn't find a magnitude for it) supernova remnant, also in Gemini. With an Oxygen III filter, I could definitely see the brightest part of the nebula, but could not make out the fainter parts. It looks like a smaller, fainter Veil Nebula. The Chandra X-ray Observatory and the Very Large Array working together found a neutron star in IC443 about three years ago. Previously there had been some question as to whether the object was a supernova remnant or something else. I did only a little planetary observing, but the seeing seemed reasonably steady.

The Salton Sea is in a seismically active area. Whatever is going on below ground, the heat is being exploited by a number of geothermal power plants. There are active mud pots near some of the geothermal power production. Having studied geology Laura wanted to see this phenomenon. In the morning we went to see for ourselves, the Salton Sea mud pots. Many of them look like little volcanoes. You could see the warm mud slowly boiling up out of the mouth of the cone. The biggest ones were about 6 feet high. The smallest were only a few inches. From some, mud was slowly oozing down the side of the cone. It looked remarkably like brown lava. Others had blobs of mud flying up out of the "caldera" every several seconds. The mud is forced to the surface by the release of CO₂ and other gases from deep within the Earth. Seeing the mud pots was made much more enjoyable, as Laura possesses some knowl-

edge of what it was that we were seeing.

The Salton Sea is also a great area for birding. The Sony Bono Wildlife Refuge borders on the Salton Sea. We spent some time there and saw a very large flock of Canadian Snow Geese.

On our second evening at Mecca Beach the sky was gray and overcast. Because there was a threat of rain (and Laura's tent leaks) she decided to cut her trip short and return home. I sleep on the floor of my van. But with no break in the cloud cover, I believed it unlikely that I would be doing any observing that night. I decided to head home also.

After a night of stargazing and a day of sightseeing, I was left with a favorable impression of the Salton Sea as an observing site. It is likely that I will be returning in the future.

SALTON SEA MUDPOTS



Ron Hoekwater

December SP at Cottonwood Springs

As just about everyone has experienced the fact that traveling during the holidays can be brutal, the December star party was no exception. Ron Hoekwater and I had planned to strike out and go to Death Valley. However, traffic and/or accident(s) quickly altered that plan, and we decided instead to go to Cottonwood Springs campground, at Joshua Tree National Park. I arrived just at sunset, deployed my equipment, all the pe of a DNA's double helix?! No wonder this while visiting with Ron and new visitor/ schoolteacher, Laura. Ron had mentioned he would like to attempt to find

the interesting quasar 3C 273, located in Virgo. At an estimated 2.5 billion light years away, this object still shines with a visual magnitude of 12.8, which puts it within the grasp of some amateur's scopes. However, to shine even that brightly, this, the 273rd object in the 3rd of Cambridge's radio surveys, would reportedly be emitting between a thousand to ten thousand times the energy produced by our WHOLE galaxy, the Milky Way! Imagine staring through your eyepiece at a very faint beam of light that represents an object about the size of our solar system, which contains a black hole. Emanating from its center is an enormous jet of emissions (X-Ray, Microwave, Radio wave, etc.), stretching billions of miles out into space. Adding further intrigue, this same jet to purportedly be in the same general shaobject is high on Ron's list.

My meager desire was to spot the recent comet: Linear (C/2002 T7) or "T7". I had been unsuccessful on several occasions to find this illusive object. So what would be the recipe this time, which might result in success? First, I printed a time specific star charts with views as seen through my reflector's eyepiece (upside down and backwards), coupled them with the dark desert skies, ate a couple of carrots, mixed in some perseverance, added a pinch of luck and then stirred around my scope for 5 minutes and Viola! There it was, a "star" surrounded by a large coma and sporting a short but very broad tail. Located in Triangulum, not too far from M33 galaxy, this comet now shines at mag. 8.2. After finding it in the telescope, I was able, but with much more difficulty, to find it again using my 11x80 tripod mounted binoculars. I can safely say that although it appears near the zenith, it would be nearly impossible to find in the typical city backyard with binoculars, at least at this point in time (it will get better).

To combat the plummeting temperature (eventually dropped to 24 degrees F), I made a quick change into my heavy-duty winter wear and added one, 50 cent, heat chemical pack (highly recommended) to each of my four extremities...Ah, heavens above! Saturn, which is visible in the east almost immediately after darkness, gets into prime viewing at about 10pm. Saturn's current opposition is occurring

closer to earth anytime in the last or next 30 years or the next 30. Include the high ring tilt, and you can see why the views are spectacular. The Crepe or "C" ring is completely visible right now. Saturn's moon Titan as well as others was also plainly visible. This moon, sports a thick atmosphere mostly of Nitrogen. Owning a car on Titan would be a snap, because by some speculation, you would only need to stick a pan out during a storm- it might rain gasoline. Ron offered great views of the Crab Nebula (M1). The planetary NGC 2022 in Orion was great through Ron's 22-inch scope. Open cluster M46, which has another planetary (NGC 2438) superimposed over it. Sombrero Galaxy (M104) revisited, looked great. If you're interested in "interacting galaxies", you should check out the NGC 4490 and the smaller NGC 4485, located in Canes Venatici. Also known as the Cocoon Galaxy (not to be confused with Cocoon Nebula), this object is known to be an intense source of infrared radiation, following its "collision". After about 3AM, I shared the excitement that Sir William Herschel must have felt back in 1784, when he first viewed the old Globular Cluster M3. Other objects that I viewed were: M35, NGC 1528, NGC 884, 1342, 1748. Good ol' M101, M51, M63, M106, M94, and M84-86-87 rounded out the list. In addition to the celestial sights, I usually come away from most star parties with an interesting story or two, to savor for life. At about 2 AM, when the temperatures had dropped into the twenties, I noticed a strange orange glow fluctuating near the ground in the distance. Training my 11x80s binoculars on that area, I spotted the silhouette of a man in front of a curtain of flame, which was erupting from a distant fire pit. As the flaming backdrop would dead down, this courageous person, apparently trying to get warm, would splash another application and the inferno would start again. Looking not unlike a movie scene of a Voodoo doctor, I wondered if I might see a human torch after his third try- fortunately that did not occur. It definitely had "stupid video" potential.

A more peaceful (and safer) occurrence happened about an hour later. Enjoying the total silence of the December desert, while engrossed in M3's marvelous star field, I heard something directly over-

head. Not a jet, UFO, or Santa Claus, what could it be? First a solitary honk, then another, and still more- Geese, Ducks flying south! Feeling connected with nature, I wondered when these late night traveling ducks might land for a "7-11" pit stop. Invisible against a backdrop of thousands of stars, I listened to the random honking from these birds fade in the distance. Bundled up in my warm clothes, it seemed like those birds were honking out a message to each other, such as, "Billy, you can make it!", "I'm over here, Mac", "Only 600 miles to go, Sally". The message to me was clear- Nature is wonderfully mysterious!

Morning After



Bob Akers

December Happenings

35 PVAA members converged on Jouni's Café in Upland for our yearly holiday party on December 12th. We filled our private holiday decorated western-themed room – with some lucky folks sitting in the "chuck wagon seats." We enjoyed appetizers and Christmas music, then our main course. The door prize raffle was held as we finished up cheesecake for dessert. Everyone went home with a gift - mostly astronomy related along with a few food items to munch on when we finally became hungry again. Nellie Branch was the winner of the grand prize pair of binoculars though I did notice Bob was the one who carried them out to the car, so we'll have to ask who is really using them! Our thanks to Jacob Jouni and his staff for the good food and wonderful hospitality. I hope to see you all back next year – and to talk more of you into joining us for a great evening.

Claire Stover

2003 HOLIDAY DINNER PARTY

