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# nightwatch

Newsletter of the Pomona Valley Amateur Astronomers

Amateur  
astronomers  
just get better  
looking . . .

visit our website at [www.pvaa.us](http://www.pvaa.us)

Volume 27 Number 9

*nightwatch*

September 2007

## President's Address

Election results are in. John Stover and Jim Bridgewater were elected board members. Ray Magdziarz and Lee Collins are in the second year of their two year terms as board members. Bob Akers was re-elected Vice President of Facilities and Joe Hillberg Vice President. Claire Stover was re-elected Secretary and Ludd Trozpek Treasurer. And yours truly was re-elected President. Thank you for your show of confidence. Although it is not an elected position, I would like to thank Dorene Hopkins, who will continue as our publicity person. I would also like to thank new board members, John Stover for taking on the Nightwatch editor job and Jim Bridgewater for handling the hotline. Jim has been bringing those very helpful star party maps to the meetings too. If you have a suggestion or would like to volunteer to help with something let your board know. We are all working to make Pomona Valley Amateur Astronomers a better club for the members.

*Ron Hoekwater*

Some of us have heard of or have attended RTMC, an astronomy event held yearly over Memorial Day weekend in the local mountains. We heard from one of its organizers, Club member Alex McConahay, that starting in September of 2008 in Pasadena, there will be another event this group will be putting on. It will be an indoor version of RTMC and, except for the dark sky nighttime observing, will contain many of the elements we have enjoyed from their Memorial Day event – lectures, displays, and great chances to see, compare, and purchase telescopes, eyepieces, and other astronomy toys. The range of vendors should include some not represented at the outdoor event due to the challenges of displaying merchandise outside and in the elements. We will keep an eye out for more details as the date approaches.

## Dr. Michelle Thaller to Speak

On September 28<sup>th</sup> Dr. Michelle Thaller will speak to PVAA. Her topic will be brown dwarfs. Brown dwarfs are objects more massive than gas giant planets, but less massive than stars.

Michelle is a research scientist at the California Institute of Technology who divides her time between astronomical research and public education. Originally from Wisconsin (and still a mid-westerner at heart), Michelle obtained her bachelor's degree from Harvard. Michelle obtained a Ph.D. from the Center for High Angular Resolution Astrophysics (CHARA) based at Georgia State University and the Mount Wilson Institute. In her research, Michelle has used both ground and space-based telescopes, including Kitt Peak National Observatory, Mount Stromlo and Siding Spring Observatories (in Australia), the International Ultraviolet Explorer, the Hubble Space Telescope, and ROSAT. She is currently working to support NASA's Spitzer Space Telescope. Michelle dedicates more than half her time to public education and outreach, and acts as one of the spokespeople for Spitzer and other Origins missions at the Jet Propulsion Laboratory. "Communicating the richness of science to the public has always been my first priority." Michelle has been featured in numerous television and radio broadcasts. She is also a syndicated science columnist, appearing bi-monthly in the Christian Science Monitor's internet edition.

Michelle has extensive teaching experience at many different academic levels. During the early '90s she taught astronomy for middle-school age students at the Johns Hopkins Center for Talented Youth, and was studied by their educational researchers as an example of an effective science teacher. Michelle taught both lecture classes and lab sections at Harvard and Georgia State University. Michelle is a frequent classroom guest in the Los Angeles area, and conducts regular teacher workshops.

### PVAA Events Calendar

| Month     | Star Party | General | Board |
|-----------|------------|---------|-------|
| September |            | 28      | 20    |
| October   | See Below  | 26      | 18    |
| November  | 10(KD)     | 16      | 8/29  |

### October Star Parties

In October PVAA will be having three star parties. The first, October 11 - 14, will be our normal monthly star party, only this year it will be at Borrego Springs. Yes, we will be attending "Nightfall," the RTMC autumn star party. Several of our members were at last year's event and highly recommended that we have our October star party there. More information is available at:

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

On October 22<sup>nd</sup> PVAA will hold a public star party outside the main branch of the Ontario Library at 215 East C St. The time will be 7:00 – 9:00 PM. We have generally had good turnouts for the library star parties.

And finally, we will be having our "Fun under the Sun" PVAA public solar star party from 10:00 AM until 2:00 PM on Saturday, October 27<sup>th</sup> outside of the Brackett Observatory on the campus of Pomona College. There will be quite an array of solar telescopes, so be sure to come out and bring your friends and family along too.

#### Site Legend

- (CC) Cow Canyon Saddle, near Mount Baldy Village
- (CS) Cottonwood Springs campground, Joshua Tree Natl. Pk
- (CW) Claremont Wilderness Park parking lot
- (KD) Kelso Dunes
- (MB) Mecca Beach Campground

### Seatons Say "Hi"

On July 13<sup>th</sup>, I went up to White Mountains for our star party. There I met the Stover family and Ron Hoekwater. On the 13<sup>th</sup>, John cooked potato soup for all of us. The seeing was good that night. On the 14<sup>th</sup>, I cooked a pot toast and rice - that night was cloudy. Ron had two flat tires on this trip.

From there, I went to John and Janice Seaton's at Grants Pass, Oregon. They are both fine and told me to say "Hi" to the PVAA. Their house is on a five acre lot and they have some deer that come and drink water from their birdbath. John and Janice keep in touch by reading our website.

*Joe Hillberg*

### Our August speaker

Morris "Mojo" Jones shared with us an inspirational message of the value and fun of practicing Sidewalk Astronomy as we learned of his efforts and those of his wife, Jane Houston Jones, to share their passion for the skies with the public.

Jane was unable to join us at our meeting as she was assisting NASA with a mission to observe and count the Aurigid meteors from an aircraft flying near NASA Ames in Mountain View in Northern California. Mojo wrote the software which would help them compile the data gathered by viewing the sky during the shower and recording both Aurigid and non-shower meteors via computer mouse clicks during the event. The goal of the observations is to validate the models used to predict shower activity during this rare event.

Back to the talk! Sidewalk Astronomy is a type of amateur observation first practiced by John Dobson in the 1960s. He had the desire to share the wonders of the night sky (and the daytime sky as well with the advent of inexpensive solar filters) with the general public using his amateur equipment, which in his case was also home built. While the best view of the night sky can be obtained from a dark sky site, these locations are increasingly far away from population centers and therefore far away from most of the public. If we only shared our hobby with people in these locations, we would probably be lucky to reach a few dozen people each year. Going where the people are, on the other hand, allows Sidewalk Astronomers to reach out to hundreds of people in a single night.

While the objects which can be seen on city streets are only a small fraction of the ones we can see from a dark sky site, the enthusiasm of the public when they see the craters on the moon, the Andromeda Galaxy, and the planet Jupiter and its moons cannot be underestimated. For many city dwellers this type of astronomy can give them their first close up glimpse of these objects, their first glimmer of understanding of the structure and size of the solar system and the universe, and some realization of the physics and the science behind their observations.

Mojo and his wife participate in two types of public outreach advocated by the Sidewalk Astronomer proponents. One occurs when they set up their equipment in a park near their home in urban Monrovia on a regular basis (most weekends without a full moon). They share the sky with whoever passes by using their 12 ½ and 14 ½-inch Dobsonian telescopes. They also participate in bringing astronomy to the National Parks – an ideal blend of darker skies with the numbers of people they are able to reach among the visitors to these Parks throughout the country. We saw pictures of star parties they attended in Brice Canyon, the Grand Canyon, and Yosemite. There is even a move afoot among some of the park rangers to encourage a return of darker skies to our National Parks so night sky viewing will be even better and more a part of the visitor's experience at these Parks.

We were then treated to the presentation Mojo gives during his Park visits. Since it is something seldom seen by city dwellers, the Milky Way is featured so guests will better understand what they are looking at in the sky when the presentation is over. It is estimated that ½ of the people born today will never see our own galaxy as they will never

### Cub Scout Star Party

On Tuesday August 21, PVAA members attended a Star Party with the cub scouts at Mountain View Park in Chino Hills. It was a beautiful evening with a three quarter moon. While the scouts had their meeting, we set up our telescopes and although it was not quite dark yet we did some observations of the moon and prepared for the scouts and their parents.

As we prepared, Claire spoke to the scouts about Astronomy. They seemed to know their fair share of Astronomical facts and they were certainly well behaved. Before they came over and looked through our scopes, the scout leaders lined up the troops and numbered the five scopes we had as stations for the young scouts to observe through. As with most public star parties the moon and Jupiter were almost all that were observable, but the scouts were overwhelmed with excitement and filled with lively chatter.

It is very rewarding to have people look through your telescope at these star parties, but it is even more satisfying when one young man's interest is sparked above the rest. There was one particular young scout at the party who not only enjoyed looking through our scopes, and had one of his own, but he also remembered us from previous star parties at the Ontario library and Borders book store. The work of the PVAA members at these star parties is instrumental in inspiring young people's interest in Astronomy and will ensure the love of the subject for generations to come. Who knows we may even be inspiring a future Carl Sagan!

*Bob Griffin*

### Get Your Nightwatch in Color

I know there are some of you astronomers who still resist the Internet. And if that's you, I encourage you to visit your local library and use one of the computers there to visit [www.pvaa.us](http://www.pvaa.us). There's lots of information on our site that we can't put in our newsletter and every day we find more sites to link to ... enough that you can get lost for many hours in your favorite hobby. We have also been collecting older Nightwatch issues. In many you can now view the pictures in color. I particularly like the sunset on page 6 of Volume 23 Number 8 also known as August 2003. If you're already online, I'd like to invite you to receive the Nightwatch by e-mail. The photos will be in color, the links will work without typing, you will get it at the same time I send it to the printer and you won't need to wait for the mailman to bring it! And lastly, thanks to all who contributed articles this month. If you too have a photo or article submission, send it to [nightwatch@pvaa.us](mailto:nightwatch@pvaa.us).

Editor

August continue to be under a dark enough sky for this to be possible. It sounds like astronomy clubs such as ours have their work cut out for them as they strive to share the night sky with the public. Mojo shared a model using everyday objects to help us convey the huge size of the universe. Our lone Milky Way galaxy contains as many stars as there are crystals of sugar in six 5-pound bags. The next mind blowing fact is that the average distance between the crystals is five miles – and the whole solar system model using this scale will reach all the way to our sun – almost 100 million miles of scattered sugar!

One picture I really enjoyed showed the positions of our solar system and the bright stars we are used to seeing in our night sky superimposed on a representation of our galaxy. It really brought home how our whole views of the night sky fits in a small, maybe 20% section of this one galaxy. The rest of our galaxy is part of the cloudy structure of the Milky Way, and of course, except for the very few other galaxies we can see with the naked eye, the rest of the vastness of the universe is hidden to those without optical aid – in other words, most of the attendees at the urban Sidewalk Astronomy sessions and at the National Park star parties.

Here are a couple of links to the activities of Mojo and Jane:

[www.whiteoaks.com](http://www.whiteoaks.com)

[www.otastro.org](http://www.otastro.org)

While our Club hasn't officially called any of our activities "Sidewalk Astronomy," I think several of our regular events qualify – like our quarterly programs in downtown Ontario at the public library, our telescopes set out during the day at Montclair Plaza in November of last year to observe the transit of Mercury, and our bookstore events held under the parking lot lights of the bookstore parking lot in Rancho Cucamonga. You can't get much more urban, and less dark sky, than that!

Thanks so much, Mojo, for your inspiring presentation, and best of luck to us all in our future outreach efforts to the general public.

*Claire Stover*

### Thanks to all,

We really want to "Thank" you and your staff for coming to our meeting last week. Our scouts ages range from 6 yrs to 11 yrs and each one was definitely impressed by what was seen with your telescopes. The chance to see Jupiter and it's moons has been envisioned permanently in our minds. We all (parents alike) took advantage of the opportunity you gave us and do sincerely appreciate your efforts for giving to the community. School studies are in jeopardy of constant cuts and your program makes it possible for our boys to explore and go beyond the books.

My son and I have learned tid bits each time we meet with you, and has sparked some interest in my son who no longer takes the night skies for granted.

Nikki and Jesse Monroe  
Cub Scout Pack 201, Chino

### General Meeting

I don't know if credit is due to Dorene and her monthly efforts to get us publicity with the local paper, the Daily Bulletin's article about our Club meeting this month accompanied by photo of a fellow looking through a large telescope, our Club website, or the promise of a very interesting topic from our speaker. I will give credit for the very well attended August meeting to all four factors. In addition to some members we hadn't seen in awhile, we were joined by six adults and three high school students who were new to our meetings. From the enthusiastic reception they gave our speaker, I hope to see many of them again at our upcoming meetings and public events.

I'd like to offer some advice to the newcomers as well. You are all welcome to join us at our star parties, both the Club events as well as those we put on at the request of local schools and libraries. While you may not yet own a telescope or know much about the night sky, there is no better way to learn than to come out with us. Soon, you'll find that you know the answers to a few of the public's questions and that you recognize some of the objects we are observing. As easy as that you've learned enough to teach others about the night sky and had fun doing it!

A couple of good opportunities are coming up during October for just this kind of experience. Monday, October 22<sup>nd</sup>, we will be putting on a public star party at the main branch of the Ontario Library, located near Euclid Ave in downtown Ontario. The following Saturday, October 27<sup>th</sup>, we will be participating in an unusual event – a solar star party - during the day on the Pomona college campus. While the price of the solar filters necessary to safely view our closest star have come down in price during the last few years, you will find it is still rarer that an amateur astronomer has a solar filter or telescope than the equipment to view objects at night. Take advantage of this chance to see our Sun and its features through a variety of equipment. Details and maps to both events can be found on our website [www.pvaa.us](http://www.pvaa.us).

Lee covered the area of the sky around Aquila, Capricorn and Sagittarius as well as the more rarely mentioned constellation of Scutum, which is Latin for shield. We learned the story of this star pattern which was originally named Sobieski's Shield in 1683 to commemorate the famous Polish king and warrior, John III Sobieski, who was credited with driving the Turks out of Poland. Neptune is also visible in this part of the sky as a 7<sup>th</sup> magnitude object. It was discovered in 1846 and is 17 times the mass of the Earth which is slightly heavier than its neighbor Uranus which weighs in at 14 Earth masses. Neptune has a slightly smaller volume than its twin, however, and is therefore denser. Its density is much less than that of our planet though, as Neptune's volume is equal to over 57 of our planets. It is composed mainly of hydrogen and helium with small amounts of methane which causes its blue color. In August 2011, Neptune will return to the point in its orbit around the sun where it was when it was first discovered – we on Earth will have been aware of this farthest planet in our solar system for a full Neptune year.

I am pleased to announce that Lee Collins, who brings us a regular What's Up feature at our General Meeting every month, will soon be producing a written version based on his presentation for publication in Nightwatch. I look forward to seeing Lee's interesting facts in this new format.

*Claire Stover*

### Mount Baldy Ranch Star Party

Our September star party was at the Mount Baldy Ranch RV Park, above Baldy Village. It was our second observing session from this site. It sure is an improvement over the old site at the Cow Canyon Saddle turnout. Not having a pair of bright headlights shining in your eyes every 20 minutes makes for a much more pleasant night of stargazing. Access to restrooms is nice too. It is very kind of Ron Curtis and the management of the RV Park to allow us to setup there.

When I arrived at the site Jim Bridgewater, Bill Connelly, and Ken Crowder were already there. Soon we were joined by Craig Matthews, who brought along a friend, and by Don Clark. Two brothers were attending their first PVAA star party. Unfortunately, with my terrible memory, I can't recall their names. Anyway, their enthusiasm at seeing the night sky through the various telescopes added to the high spirits at the star party. After dark, a few others arrived. I want to advise anyone who hasn't been to this site previously, to please try to get there before dark. I am told that there are some places where one could inadvertently drive into a ravine in the dark. And besides, it is much easier to find us in daylight.

We all had a great time visiting and looking through each other's telescopes. Sometime after midnight we packed up to head home. As I am usually the last to finish loading my gear, Bill and Ken stayed and kept me company until I finished. Then we three drove out together.

*Ron Hoekwater*

### PVAA Officers and Board

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