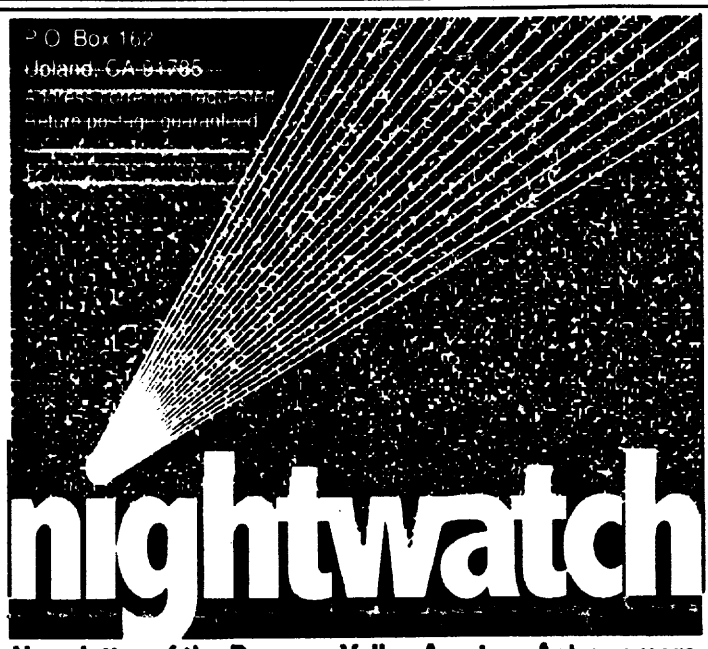


Newsletter of the Pomona Valley Amateur Astronomers

Amateur astronomers just get better looking . . .

CLAIRE STOVER

Volume 22 Number 3 *nightwatch* March 2002

## President's Message

February general meeting was a very important one due to presence of John Dobson. Those who expected to hear secrets of successful telescope making from the foremost authority on the field enjoyed an entertaining talk on Big Bang.

Since the general audiences were amateur astronomers, probably focusing on telescope making could be much better but John Dobson wanted to talk about Big Bang since it's his favorite topic. I had to squeeze my questions in my palm since it would be a hard thing to jump from anti matter to Pyrex and most important of all, I was wondering what he was going to say.

In brief he is not a supporter of the Big Bang. The firm belief of the rest of the scientific community does not impress him. I personally admired his strength and honesty since few people can defend their beliefs the way he does. He is not type of person to remain silent on the presence of professionals and blindly accept what they say. That made me think of myself and other graduate students who can't dare to ask questions in the class. John Dobson on the other hand had sent a letter to Fred Hoyle at one point. No wonder with such qualities he did not accept any boundaries and became a legend in the unforgiving world of telescope making.

One of the things caught my attention was how excited some of the audiences were and how easily they communicated with Dobson. They asked cosmological questions of him with a great ease that they will never ask to a professional.

But his talk was a bit of disappointment for me. Unfortunately I think he criticized the Big Bang without sufficient scientific knowledge and fixed on a single point "Everything can't come from nothing". He did not prove why all four pillars of Big Bang are wrong and I did not hear the word metric, which is a must when discussing such a topic.

He was not shy of using the scientific jargon, which was impressive for the audiences, but in reality they were not used properly. Take his definition for momentum for example. In all physics books momentum is a vector product of velocity and mass. Calling mass as weight, he added a gravitational acceleration term, which would guarantee him a -1 in any exam or lab report in Phys101.

Can we be blamed for leaving the stage to an emotional criticism of the Big Bang and not enlightening the audiences with the widely accepted versions of the story and the most recent developments?

Probably yes. But that was not the worst thing I have done in my life.

***Alper Ates***

## PVAA Events Calendar

| Month | Star Party | General Meeting | Board Meeting |
|---|---|---|---|
| March | 16 | 22 | 1 |
| April | 13 | 26 | 5 |
| May | 11 | 31 | 3 |
| June | 8 | 21 | 14 |

## February Meeting

Alper presented a quick What's Up then we proceeded rapidly to our main speaker for the evening, John Dobson. I think Dobson's talk made for a fun evening. With little recent scientific background myself, I frantically tried to recall my college chemistry and physics classes of long ago and to sort out his more philosophical explanations for the state of the universe from those which dealt more with science. I understood maybe half of his ideas and even less of the science he was proposing behind them, but had fun never-the-less with his entertaining style, thought provoking presentation, and his alternatives to convention. Even if his exact details aren't all right he does challenge us to think there are other views than the popular one. I am reminded of those who thought the Earth was flat and was at the center of the solar system as well as those who didn't make sure the brontosaurus fossil was given the correct head before it was classified. Much as we like to think science is factual and free of bias, it contains just as many political influences, badly written hypotheses, and research done based on what you can get grant money for as other fields. Views that challenge the conventional ones should not be ignored or dismissed out of hand - some of those young students from our audience might be sparked to discover something new or to learn to think outside the box after being inspired by John Dobson's "off the wall" theories

***Claire Stover***

## Hotline Prize

Bob Marvos won the hotline prize, inaugurating the new hotline phone number: 596-7274. The prize was a fabulous cornucopia of astronomical items including a Becvar *Skalnate Pleso Star Atlas*, Chandler Planisphere, and a book on astronomy by J. B. Sidgwick, noted British astronomy writer. There are other fabulous items as well. These items and others will be lavished on Bob at the March 22 meeting. Be there.

And be sure to dial the hotline at **596-7274** for the latest in club information and astronomical events. Bob Akers is doing a great job keeping the hotline fresh, interesting, and up to date.

***Ludd Trozpek***

## Speirghealach (Starry night)

Is it the turning of the seasons that brings the lift to the soles of your feet, or is it the thought of the nights spent under the stars with your fellow travelers in the PVAA? If either is the cause of your mood shift, then I will heighten your Bon homie faster than a pint of Irish with the following text. This is the time of year that one can get the best view of the Zodiacal light in the evening sky. Unfortunately the sky must be very dark to see it and therefore most close observing sites are not appropriate to the detection of this faint misty band of reflected light. The band of light can extend halfway up into the sky along the plane of the Zodiac, getting ever fainter as your eyes scan toward the zenith. The reason for this milky glow is the reflection of sunlight back toward the Earth from particles in space. The number of particles within the plane of the solar system as compared to above or below is the reason you can see the glow along the Zodiac. On the next star party, try and find the faint glow of the Zodiacal lights one to two hours after sunset.

An interesting and fun thing to see will occur between late April and late May. All 5 naked eye planets will be in the evening sky! Wow, this could be a bit of fun to point out to a

..PVAA 24 HR. Hotline.
Get the latest news on the star party, club meetings, special events and astronomy happenings.call
**909/596-7274**
***Visit or website at:***
***http://www.cyberg8t.com/patrick/PVAA.htm***

## PVAA Officers and Board

**Officers**

| | | |
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| President | Alper Ates | 909/626-0653 |
| Vice President | Joe Hillberg | 909/985-5617 |
| Secretary | Claire Stover | 909/988-9747 |
| Treasurer | Ludd Trozpek | 909/624-3679 |
| VP Facilities | Bob Akers | 909/593-2124 |

**Board**

| | |
|---|---|
| Ron Hoekwater | 909/391-1943 |
| Ray Magdziarz | 909/626-8303 |
| Bob Branch | 909/982-8015 |
| Jeff Felton | 909/946-1728 |

**Directors**

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| Nightwatch | Ray Magdziarz | 909/626-8303 |
| Membership | Ludd Trozpek | 909/624-3679 |
| Publicity | Dorene Hopkins | 909/983-5584 |
| Programs | Roy Schmidt | 909/9801867 |

neighbor or acquaintance unversed in the secrets of amateur astronomy. Mercury will set only about 45 minutes after the Sun so it will be very low on the western horizon at best. The next further up will be Venus...rather difficult to miss. About as far up above Venus as she was above Mercury is the God of War, Mars. Saturn will cast its yellowish glow near the star Aldebaran and last but certainly not least Jupiter will hold its place almost as the capital to the column of planets. Do this little show and tell and I bet your listener will be impressed.

I will suggest three objects to you with telescopes and a dark site. The first is a very nice double star that can be observed in even a small telescope. α Canes Venatici is a wonderful pair of stars of unequal brightness. The two stars are separated by about 20 seconds of arc and when viewed in a modest telescope, appear to be yellow in color. The name that the star was given in the not too distant past was Cor Coroli. This translates to '"The heart of Charles" though whether it was to give remembrance to Charles the second coming to the throne or Charles the first on his execution is a bit unsure.

The next stop on the way south is to find a generous grouping of galaxies in the constellation of Leo. Nearly midway between Regulus and Theta Leo is a prominent cluster of galaxies of which M 95 and M96 are the best. The French astronomer Mechain discovered these two objects in 1791. When Charles Messier observed the pair on March 24th, 1781 they were added to his famous catalog. M 96 is the brighter of the two and since it is a neighbor of M 95 is more massive. Both galaxies can be seen in small telescopes with differences becoming obvious in scopes with larger apertures.
The last object on our tour is in the far south. Don't worry, I wouldn't suggest looking if I couldn't see it quite easily with an average scope. NGC 3201 is a globular cluster in the constellation of Vela. The cluster is 18 minutes in diameter and shines with a combined magnitude of 6.7. Sounds easy to find doesn't it? Well it would be but that it is at a declination of –47 degrees and 10 minutes. At best the object will rise a scant 10 degrees above the horizon. Don't worry, this is enough to see it. I saw it from Yesterday's Ranch with a 13.1" telescope. The glow of the cluster shows some hints of resolution as it takes on a mottled look with a 20 mm eyepiece. I hope you try some of the above objects to spice your nightlife up a bit.

Slan go Foill ( Irish for , Goodbye for Now)

Below are a few facts about each object:

α Canes Venetici; Double Star; RA.12h 56'; Dec. +38Deg 19'; Magnitudes 2.9 & 5.4. Separation 19.4"

M 95 ( NGC 3351); Leo; Galaxy; RA 10h 44'; Dec. +11 Deg. 42'; Magnitude 9.7. Diameter 7.8' X 4.6'

M 96 ( NGC 3368); Leo; Galaxy; RA 10h 46.8'; Dec +11 Deg 49'; Magnitude 9.2. Diameter 6.9' X 4.6'

***Roy Schmidt***

## The Palomar Observatory Tour

On June 15th, 2002, the Pomona Valley Amateur Astronomers have a special treat planned. The California Institute of Technology has opened the doors of the famous 200-inch telescope for just our group. In order to make the event special and also to meet the requirements our most generous host. several small conditions are being placed upon our club, both as members and individuals.

1. The tour starts at 2:00 PM. If you are not at the west side of the 200 inch observatory dome by 1:55 PM you will be left behind. Once the tour starts the door will be closed and you will not get to do what you have traveled over 200 miles to do. I cannot emphasize too much that you must be on time.
2. The last 15 miles to the observatory is on winding and somewhat steep roads. Appropriate caution should be taken in driving this portion of the trip.
3. You need to make a name tag for yourself and wear it during the tour. The tag can be of any material and should be worn in a place that precludes guessing your identity.
4. The inside of the dome is kept at the night time temperature of the mountain. I assure you that this is quite chilly. Please bring a jacket.

I will add more detail about the trip and the activities the club has in mind at the next meeting.

Happy Touring! ***Roy Schmidt***

## AT GALILEO HALL

Thursday, April 11, 7:00 P.M.
"Cosmos 1——
The attempt to Fly the First Solar Sail Mission"
Louis D. Friedman, Executive Director
The Planetary Society

Sunday,April 14, 7:00 P.M.
"Reaching for The Stars——
XCOR's Civilian 1st Step to Space"
Lt. Col. Dick Rutan, ret.
XCOR Aerospace

# Public Viewing Set for April 20

The PVAA will host a public viewing of the planets on Saturday evening, April 20, in recognition of International Astronomy Day. Astronomy Day is set annually on the Saturday in April nearest the first quarter Moon. The event will take place at Cahuilla Park in Claremont, just north of Claremont High School on Scripps Drive west of Indian Hill Blvd from 7:00 p.m. to 10:00 p.m. when the park closes.

This April will be further special because five of the six inner planets will be visible in the western sky in the early evening. The sixth inner planet—the Earth—will of course also be visible that evening. Rounding out the naked-eye solar system objects, the Moon will be in the sky near the zenith as the Sun sets. PVAA will provide a half-dozen telescopes of different types to allow the public to see the satellites of Jupiter, the rings of Saturn, and the band features on each of these large planets.

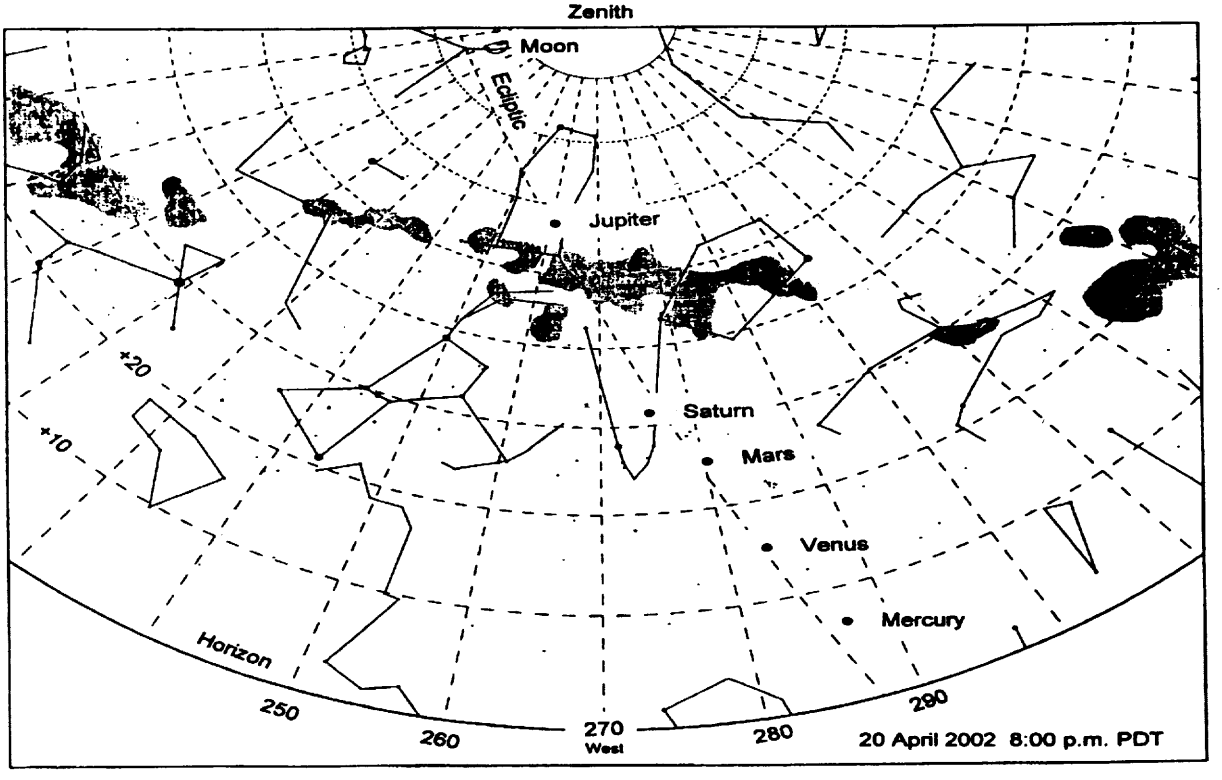
In one evening your kids will be able to see the Sun, Mercury, Venus, Earth, Mars, Jupiter, Saturn and its rings, the Moon, and the major moons of Jupiter and Saturn. Be sure to bring them out for an unforgettable experience.

The chart below shows the sky as it will appear after sunset on April 20 from Claremont. As the Sun sets, the Moon will be easily visible near the zenith, with Jupiter appearing soon after sundown and to the west in Gemini. As the sky darkens a little, look for Mercury a little north of west and only a "fist at arm's length" above the horizon. Be sure to catch it before it sets. Venus will be easily visible, brighter and higher, and Mercury will be halfway down to the horizon from it (at 8:00 p.m.) a little to the right. Saturn should be visible near the red star Aldebaran in Taurus, and Mars will be between Saturn and the Pleiades.

The PVAA members will be glad to show visitors the wonderful deep sky objects visible in the western sky. The giant nebula in Orion's sword will be easily visible through the smallest telescope or binoculars and some of the larger telescopes will show its ethereal green color along with the "star nursery" at its core. The trio of bright star clusters in the constellation Auriga will similarly be readily visible through any telescope. The telescopes will show dozens and dozens of sparkling siblings to the "Seven Sisters" that is the Pleiades. Kids will want to find the "Dog Star" in the southwest and to trace the outlines of the Dog constellation.

Join us at Cahuilla Park in Claremont any time between 7:00 p.m. and 10:00 p.m. on Saturday, April 20, 2002. If you come early, you stand a chance of seeing Mercury before it sets; if you come later, the star clusters and nebula will be easier to see. Don't miss this chance to see all six bright planets in one view!

***Ludd Trozpek***



## What's Up This Month?

From late March through all of April the planets in the western sky are putting on a show heading toward their multiple conjunctions in May. Mercury, Venus, Mars, Jupiter, and Saturn are all visible. Look up in the west for them. For Earth, which is always visible, look down. It will be possible in late April to encompass the six nearest planets plus the Moon in one view. The popular press will no doubt pick up on this gathering. We may read articles about the solar system becoming dangerously out of balance with all of these planets over on one side. Anyway, get an early look before the gravitational catastrophe that is sure to ensue...

Venus is just now ascending in the western sky at sunset. See how early in the twilight you can spot it.

The deep sky objects this month are four excellent edge-on galaxies. In Canes Venatici you may find NGC 4631. This mag 9.2 object is 16 x 3 arc minutes. It has a mag 12.4 elliptical companion on its north edge. In practically the same field, look for NGC 4656 at mag 10.5 and 20 x 3 arc minutes. NGC 4657 is superposed on the northeast end of this object and gives the combined object a hooked or "J" shape.

In Coma Berenices, look for the old favorite NGC 4565. This edge-on is very sharp at mag 9.6 and 14 x 2 arc minutes. It looks like a knife-edge in the sky. NGC 4565 is arguably the most famous edge on. Possibly a member of the Virgo Cluster (though it would be unreasonably large if at Virgo Cluster distances, its distance is listed in Burnham's as being some 20 million and not more than 30 million light years away. It's observed diameter is most likely 90,000 light years, or perhaps a little more. This is a good example where the distance of the galaxy is inferred and bounded by measurement of its size.

Over in Draco, look for NGC 5907, a fine mag 12.2 edge-on with a dust lane. It is 12 x 2 arc minutes and is near the tiny NGC 5866, E6-type elliptical which is also edge-on.

Be sure to get out and look sometime during the next month. Temperatures are warming up so it's no longer an exercise in survival to remain at the eyepiece. The club is planning two events in April that will be a little different from the recent past. The April 13 star party will be at Cow Canyon Saddle just 20 minutes north of Claremont a mile above Baldy Village on the Glendora Ridge Road. We encourage everyone to come up; it's not a long drive, you don't have to spend the night, and the seeing should be excellent.

On April 20, which is International Astronomy Day, we plan a public star party from 7 to 10 p.m. to give everyone--members, non-members, friends, and neighbors--a chance to look at the planets and moon in the western sky. Be sure to come to the meeting on March 22 and also check the hotline (phone 596-7274) for more details. We will have at least a half dozen scopes; bring yours and add to the excitement.

***Ludd Trozpek***

## Telescope for Sale

8 inch Meade LX 10 Schmidt Cassegrain f10, fork mount complete. Approximately 2 years old.
26mm 1 1/4 inch eyepiece.
9mm 1 1/4 inch eyepiece.
2 inch focusser with 1 1/4 inch adapter.
1 1/4 inch diagonal.
2 inch diagonal.
Focal reducer to approximately f6.
Electric right ascension and declination with paddle.
Equatoriel wedge.
Tripod.
Padded carrying bag for the optical tube assembly.

**$800, or best offer,** payment by cash , cashier's check, or postal money order. ( Original cost over $2300 )

Call John Jacobs (Dobsonian lover) at **(909) 593-5855** or cell phone **(909) 214-2505**