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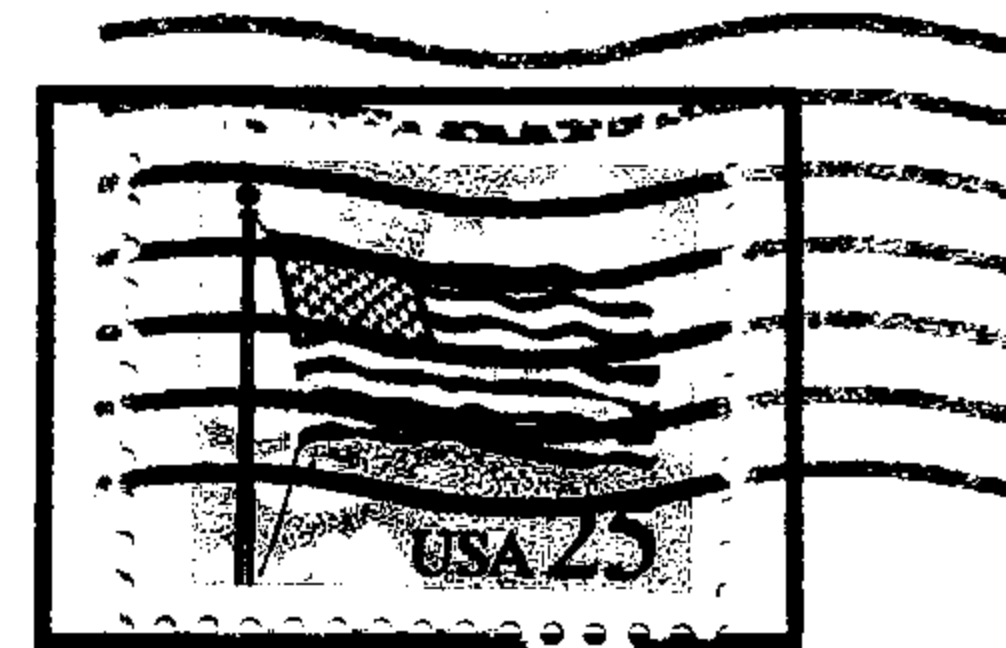
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Nightwatch is published monthly for the members of the PVAA. The deadline for submitting articles for publication is the general meeting before the next month's issue. Contact Janet Stevenson or Diana Howell for more information.

**P.O. Box 162  
 Upland, CA 91786**

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**Things are  
 looking up  
 in  
 Astronomy...**



# Nightwatch

The Newsletter of the  
 Pomona Valley Amateur Astronomers

Ray Magdziarz

040 5 91

**Volume 10, Number 8**

**P.V.A.A. Nightwatch**

**August 1990**

**August - September Calendar**

August 10	Board Meeting	7:30 p.m.	Millikan Hall - all members welcome
August 11	Star - B-Que	4:00 p.m.	Victorville - Barbeque and meteor watch!
August 17	Meeting	7:30 p.m.	Galileo Hall - James Barnett, "Digitizing Space"
August 18	Star Party	Dusk	Adelanto
Sept 7	Board Meeting	7:30 p.m.	Millikan Hall - all members welcome
Sept 15	Star Party	Dusk	Adelanto
Sept 21	Meeting	7:30 p.m.	

## **This Month's Speaker**

James Barnett of the Jet Propulsion Laboratory will be the guest speaker this month; he will describe digital image processing and how it is used in astronomy.

## **This Month's Star Party**

There are two star parties this month, the Star-B-Que and the "regular" star party. The second will be held at the Adelanto site on Saturday the 18th, two days before the new moon. See page four for more details on Star-B-Q.

## **Last Month's Meeting**

David Chandler provided us with a look at the PVAA's history and evolution, and vignettes of some of the members. This was, you may have noticed, a little different than the scheduled talk, but none the less interesting for that.

## **RTMC Report**

Diana Howell

The Riverside Telescope-Makers Conference has presented the PVAA with their share of the proceeds from this May's event. We were quite surprised and pleased to find that we had been given a total of \$700, which was \$200 in excess of the promised amount. I want to take this opportunity to again thank everyone who shared their time and energy that weekend.

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## **Membership Note**

PLEASE, if your membership has expired, renew today. The amount is \$10.00 for adults and \$5.00 for those under 16 and the address is:

Membership, PVAA  
PO Box 162  
Upland, CA 91786

## **Last Month's Star Party**

It was deep twilight when Pat Thomas, Jeff Schroeder, Karen Isa, and I arrived at the Adelanto site for the July star party. Shawn Griffin was there setting up Mira and a dozen or more other 'scopes were waiting for darkness. A handful of folks had followed the map and gone the full 2.8 miles down the dirt road to a dry lakebed. When no one else showed up they all headed back toward 395 and fortunately saw the later arrivals setting up at the closer observing site (we'll get the map fixed before the next star party). It looked like there were twice as many people and 'scopes at this month's gathering than were at the June star party. The sky was clear and, despite a gusty wind, it was warm enough for shorts.

Mira was kept busy dazzling observers with a succession of 'gee-whiz' views of the more spectacular objects -- the Whirlpool (M51), the Swan (M17), the Eagle (M16), the Trifid (M20), M13, etc. Mira was performing very well. Comet Levy was soon found and Mira swung onto it. The comet showed a dense nucleus and a very faint but wide tail. The angular width of the tail was estimated to be 30 or more degrees. If anyone made a photograph of the comet I would be interested in seeing if the tail shows.

We tried several filters when looking at M16, M17, and M20 with suprisingly good results. A Celestron LPR filter gave moderate increase in contrast but the best results came when using an unknown type filter. We think that it was an H-alpha filter but some expressed the opinion that it was an H-beta filter. Whatever it was, it worked. The detail in the Swan was outstanding.

A large number of bright (first mag?), slow meteors were seen during the night. These were probable delta-Aquarids or alpha-Capricornids which occur July 15 through August 25.

After a delicious piece of home-made (from scratch) cake -thanks again, Karen- the group I was with called it a night. The Pleiades were just clear of the horizon as we finished packing up so it must have been about 2 a.m. There were 10-12 vehicles still at the site when we pulled out. According to Bill Garcia there were a half-dozen vehicles around when he left at dawn. Hope to see you at the Star-B-Que on August 11 (Victorville) and the star party on the 18th.

Jim Satterfield

## **All the News that Fits ...**

### **July 1991 Solar Eclipse**

I have made arrangements to be in Baja California for the July 1991 solar eclipse. My problem with this is that my telescope is not portable and I have not performed any solar observations. I would like to meet with club members who will share their knowledge of solar observation and photography.

This eclipse is still almost a year away but I feel I need the time to buy, beg, or borrow the equipment needed to get the most out of this wonderful event.

If all those individuals interested in participating in a solar eclipse workshop will contact me I will set up a time and place where we can get together and share information.

Fred Demke  
(714) 626-1962

### **By Laws Amendments**

The Board of Directors is requesting the members disregard the proposed amendments to the By-Laws that were sent with the July Nightwatch. A motion was made by David Chandler to nullify the proposed changes. It was seconded by Karen Isa and unanimously passed.

There is a **mirror-grinding class** in the planning stages. It is currently set for October and will hold 6-8 avid telescope makers. Contact Pat Thomas or one of the officers if you're interested.

Do you have anything you want to sell, buy, trade, or say? Just get your news to Diana Howell or Janet Stevenson at or before the regular meeting and it will show up in the next month's newsletter.

## **The Planets this Month**

**Pluto** is being overtaken by the twilight; this is the last month to find it.

**Saturn** is east of the "teapot" of Sagittarius.

**Neptune** and **Uranus** are both east of the top of the "teapot" of Sagittarius and are at mag 7.9 and 5.6, respectively.

**Jupiter** rises a few hours before the sun; be sure to catch the occultation on the morning of 18 August (Saturday)!

**Mars** brightens this month to mag -0.4, and its apparent diameter changes from 9" to 11".

**Venus** also rises before the sun this month. Wake up early to see the close conjunction with Jupiter on 13 August (Monday).

**Mercury** appears low in the west after sunset the first half of this month.

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*PVAA 24-HOUR HOTLINE  
(714) 981-5340*

for up-to the minute news  
and information about star  
parties, comets, and meetings.

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### **Editors' Note**

The editors of Nightwatch sincerely apologise to the membership for any umbrage taken upon reading the editorial in the last issue. We did not intend to cause emotional distress.



## What's Up in the Sky for August

Ahh... The warm nights of summer. Shirt sleeve observing, the Milky Way cascading down the sky from Lacerta, through Cygnus and Aquila, to Scutum and Sagittarius, finally to join the southern constellations beyond the horizon.

Marking the head of the Swan, in the constellation of Cygnus, is the famous double star Beta Cygni or Albireo. One of the finest double stars in the sky, Albireo's gold and blue components shine at a combined 3rd magnitude, blue Beta Cygni B about two magnitudes fainter than golden A. Although visible even in binoculars, the larger telescopes, like Mira, the PVAA's 24" Newtonian, concentrate and intensify the colors. Be sure to see Albireo in one of the big telescopes at this month's star party.

As we move up the long axis of the Northern Cross we come to the star that marks the intersection of the two arms. This star is Sadr, or Gamma Cygni, marginally the second brightest star in the constellation next to brilliant Deneb. Less than two degrees south and west of Sadr right on the edge of the Great Rift lies the small open cluster M29, NGC 6913. M29 is not very impressive, superimposed as it is on the stars of the Milky Way, but you will find a nice hourglass or trapezoidal knot of a dozen stars swarming in your eyepiece.

In this day of nebular filters and superbright coatings, the owner of a six or eight inch telescope can see an object long held as very difficult. Near Gienah or Epsilon Cygni, which marks the left wingtip of the Swan, is 4th magnitude 52 Cygni. Superimposed on 52 Cygni is part of a structure that has at least two common names and six number designations. For our purposes, however, we will refer to it as NGC 6960-6992, the Veil Nebula. The Veil is a huge structure of loops, knots and filaments that covers nearly 7.5 degrees of sky. It is, in fact, almost 3 degrees from the western boundary, NGC 6992, to its eastern. In all, the Veil covers thirty times the area covered by the full moon. You should have little difficulty seeing the Veil. Scanning the area with a wide-field eyepiece and filter will help you to observe this grand supernova remnant.

In the constellation of Lyra the Lyre is the first

non-solar-system object I turned my new 3" refractor on more than thirty years ago. It is the blue-white giant Alpha Lyrae, Vega, the beautiful. Watching her sparkle in my eyepiece in all her splendour fixed an image in my mind that remains to this day. It is well to note that it wasn't until two years ago that I noticed that Vega was a multiple star. Though they are not physically bound, you can see 10th and 12th magnitude companions to Vega at less than one minute of arc separation. Try for them; you will be in good company looking at Vega, since 139 years ago it was the first star to be photographed.

Close to Vega is the interesting double-double system Epsilon Lyrae. Another star with a long history, Epsilon is a double in low power but each component splits into two under higher power. True multiple star systems revolve around a common center of gravity like the Earth-Moon and the Earth-Moon-Sun systems. In that context according to Burnham, Epsilon 1 and Epsilon 2 have a "year" a million years long.

At the base of the parallelogram that depicts the body of the Lyre are the stars Beta (Sheliak) and Gamma Lyrae. They are your lodestones for M57, the Ring Nebula, NGC 6720. On a line a little over a third of the way from Beta to Gamma you will find a smoke-ring of light floating against the background stardust of the summer Milky Way. M57 is a planetary nebula, the result left over when its parent star blew off most of its atmosphere and became a small white dwarf or neutron star in the process. An oval shape, the Ring is well over a minute of arc in diameter. You should be able to detect its ring shape in a 6" telescope, but even B-33 has never shown me its central star. If you choose to submit it, a well-done drawing or photograph of the ring will be sure to find its way into the Nightwatch.

### Challenge of the Month

In his June 1988 column in Sky and Telescope, Walter Scott Houston asked for confirmation that the bar through M4 was composed of a double line of stars. Send me your observations of M4, either positive or negative, and I will see that they are forwarded to Scotty.

Good Skies

Dave Phelps

