

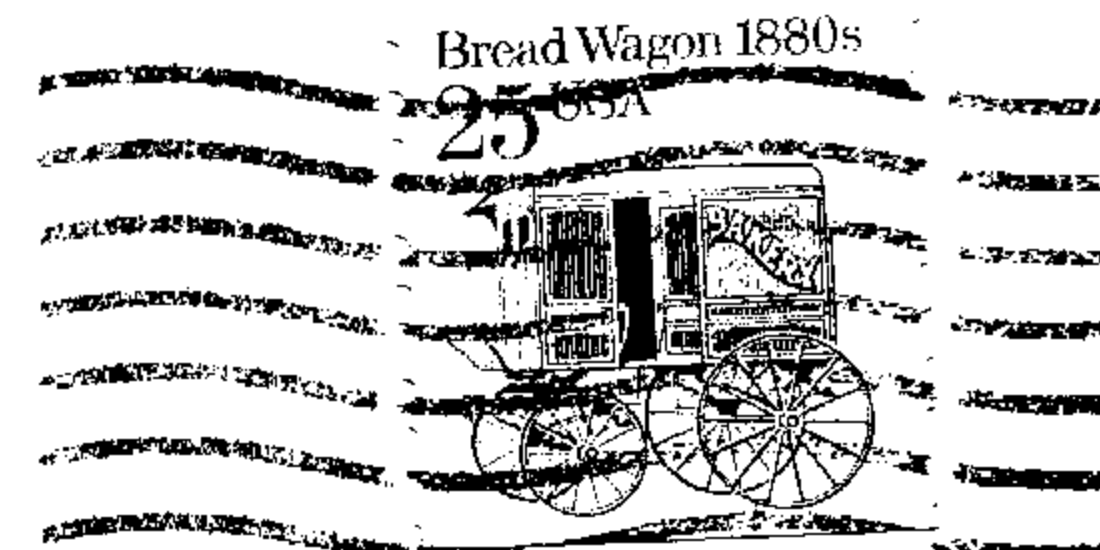
900-A North Golden Springs Road
Diamond Bar, CA 91765

nightwatch

The Newsletter of the Pomona Valley Amateur Astronomers

August, 1988

Amateur
astronomers
get better
looking . . .



Ray Magdziarz

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Volume 8, Number 8

nightwatch

August, 1988

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Membership	...	Harv Pennington	(714) 594-8319
Workshop	Dave Chandler	(714) 946-4814
Historian	Dorothy Woodside	(714) 593-9823

Calendar:

Meeting	7:30 p.m. August 19th, at Galileo Hall (New Location--See text for directions). Guests welcome. Bring a friend.
Program	Astronomy Laser Disk.
Star Party	Victorville, August 13th. Dress warm! Perseid trip to the Sierras (see text).
Board Meeting	..	7:30pm September 2nd, Millikan Hall. Ballots from Elections will be counted. All members are encouraged to attend.

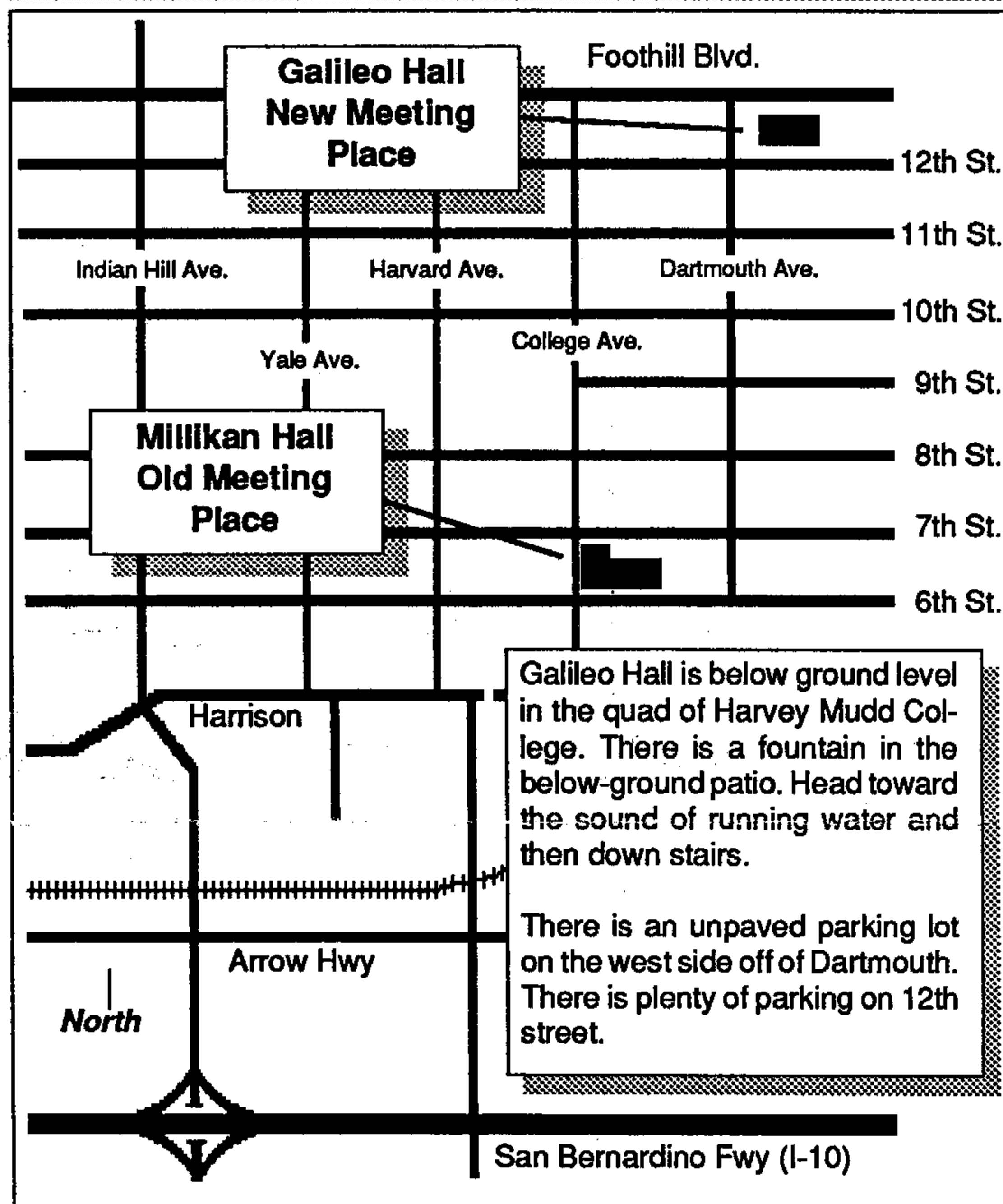
August Meeting -- New Location

This month we bid farewell to our old meeting place and make the move a couple of blocks north to Galileo Hall on the campus of Harvey Mudd College. Galileo Hall is much larger than our room in Millikan, to accommodate the growing attendance at our meetings. See the map in column two for directions.

In addition to being bigger, it is *very nice* with plush theater style seats, a large lobby and a complete compliment of audio-visual equipment. If at all possible, make plans to attend this meeting and give our new meeting place a *proper* inauguration—you won't be disappointed.

The program this month will be a look at the Astronomy Laser Disk, courtesy of Tony Cook. The disk contains just about everything you can imagine as far as astronomy is concerned, including the entire Palomar Sky Survey! In addition, there will be our regular ten minute presentations at the beginning of the meeting. Bring something to share for the show-and-tell segment--see you there!

Map to Galileo Hall



August Star Party

In addition to our regularly scheduled star party out at Victorville on Saturday, August 13th, there is an opportunity to see the Perseids from the high country in the Sierra Nevadas.

For those of you willing to make a five or six hour drive for some serious observing, club member Roger Brownson and others are planning a trip to Wegard Pass east of Big Pine in the Sierras. He says there is a paved road to 11,500 feet. The trip is being planned for Thursday night to Saturday morning. Call Roger for details if you would like to go—he can be reached at (714) 495-7073 after 6:30 p.m. or you can leave a message on his answering machine.

Star Party Report

Although I had anticipated another run of "bad omens" before the star party, none were manifested, and, I am pleased to report, everything went well and according to schedule.

At the last star party I acquired a 7mm Nagler—from Mike Peters—to go with the 11mm Nagler I purchased at the RTMC. Both were used, but the price was right. Other than the usual marks on the barrels, they appeared to be in perfect condition. I love the two Nags I own (a 4.8- and 9mm), and looked forward to giving the new additions some extensive tests. I also planned to do some extended observing of several globular clusters and M82 in preparation for some future sketches.

Well, things couldn't have gone more perfectly. I awoke to a fine clear sky, no car trouble and no ride cancellations. Charlie showed up with the B-17 and we were "cocked and loaded" in record time. We were also early for a change.

As we came over the pass, the usual summer-time pall of haze and smog blighted the horizon. However, I wasn't disparaged as there is usually considerable improvement as the night progresses.

For the desert, the weather was actually quite nice—not too hot. I had expected the usual compliment of bikers, but as the nose of the B-17 cleared the last rise we saw not a single biker—or anyone else—in sight at the site. We were indeed early.

As dusk approached, a trickle of partyers began arriving. Before the night was over, somewhere between fifty and sixty members and guests made it to the festivities. The only annoyances were an occasional night biker traversing the nearby road with lights blazing and the well-lit quarry on the hill to the south, which finally turned off the mercury vapors around 10:30 p.m..

Mars was definitely bigger and brighter, but atmospheric conditions did not permit a steady image, although some detail was visible. Around 11:30 I began testing the new eyepieces. I didn't expect any disappointments and experienced none. (Of course!) I took a shot at locating comet Temple 2, but without success. About 2 a.m. I managed to do some of the extended observing I had planned.

One of the late comers was a real dyed-in-the-wool astronomer—his car was equipped with red headlights! He was a guest of President Billie Darrah, and a member of the Idyll Gazers. Now that is what I called committed. I wonder how you would explain red headlights at a traffic check point? (Well, you see officer, I was going to a star party, and . . . ")

Mira was conspicuously absent, as there wasn't anyone available to provide a tow. However, Jeff Schroeder brought out the sky cannon—his 11-inch refractor, and entertained a number of partyers with some spectacular views of a number of objects. One of the objects Jeff zeroed in on—a quasar—caused quite a stir. Although it was only a tiny point of light among many other tiny points, a line formed to see it. (Psssst! Hey, buddy. Want to see a quasar?)

Speaking of Mira, it brings to mind a problem. We really need volunteers with vehicles capable of towing Mira—a towing corps, so to speak. For many years Dave Chandler towed Mira wherever and whenever we needed the telescope at a club function. Sean Griffin has provided the tow for the previous two star parties, but we need a pool of tow vehicles. Call Billie Darrah if you can help out with the towing of Mira.

Weather. The weather was great. No wind, no cold, no dew. I was literally in my shirt sleeves all night. The sky was fairly transparent, with most of the haze clearing by 9:30 or so, and the usual muck hanging around the horizon most of the night.

By 3 a.m. we were down to about thirty partyers. It remained at about that level until shortly before dawn. Before first light, Charlie and I packed up, bid those remaining adieu, and headed for our usual grand slam breakfast at Denny's.

See you at the August star party, the weather promises to be great and Mars should be spectacular as it will be higher, bigger and brighter. If Mars isn't your cup of tea, you could join me in making a sketch of M4 (see Dave Phelps' monthly column, *Deep Sky Objects for August* on page 3).

—H.C. Pennington

Meeting Report

After the usual announcements, Ivan Dryer related his experiences at Lowell Observatory. His talk was punctuated with slides taken during his tenure at the observatory. It was an especially interesting presentation as he had many anecdotes about the historic old place. Most interesting was his "ghost" story concerning Lowell's ghost which is purported to inhabit the attic of one of the old buildings. It was an entertaining evening.

Coming to a Parking Lot Near You

City Lights Star Show, September 17th. The last *City Lights Star Show* was so successful, we're doing it again. At the last public star show we raised over \$400.00 for the club's treasury, and that was with only a fair turnout and lousy weather.

This time we expect a much larger turnout, and very good weather. Mars will be the feature attraction, and, as last time, we need every telescope and volunteer we can get. We need parking attendants, "merchants" to hawk planispheres, books, raffle tickets and coffee.

It is through fund raising activities such as this that we are able to keep our membership fees low. Your help is needed to make this public star party a success.

Harv Pennington is coordinating the spaces and jobs. Call him at (714) 594-8319 (home) between 8- to 11 a.m. or at (714) 836-9700 between 1- and 11 p.m. (work) for information or to volunteer your services to this worthwhile club project.

Important Correction

Ballots must be postmarked no later than August 15 in order to be valid. It is important that you vote, even for those officers that are unopposed. It is your club and your voice is important. Let those that serve you know that you care. Please vote. Mail that ballot today.

Treasurer Steve Simon's address, on the ballot, contains a typographical error. The correct address is:

Steve Simon, PVAA Treasurer
4056 Williams Avenue
Claremont, California 91711

T. Elrad Finder



Camp Ronald McDonald

After reading the announcement in *nightwatch* and hearing the announcement at the last PVAA meeting, I decided that this was a good cause—especially since many of the children may not have another chance to view the starry nights. On my way up to Camp Ronald McDonald I had many preconceived ideas of what I might see. Deformed children, children in wheelchairs, etc. But I was surprised. Camp Ronald McDonald is just what it sounds like—a Good Time Camp for kids who have the misfortune to have cancer.

As my wife and I drove up, a few kids were walking about, and the others were having dinner. I soon found my contact, Steve, who directed me to a few nice spots to set up my scope. As we walked back to the car the children were beginning to leave the mess hall—about 70 to 90 of them in all. They were running, yelling, and doing just what kids their ages should be doing at summer camp—having a good time! If it were not for a few children, some with no hair and a couple that were missing a foot or an arm, everything looked as normal as any other camp I've ever seen. What really impressed me was a group of about six boys who got a really great joy out of running down a small hill, diving into a pile of dirt and really rolling around in it!! I couldn't help but think that this is probably the only time that they can do this, they may be over-protected at home.

After waiting around for a while, sunset finally arrived. I set up my telescope and pointed it at Saturn. Around 9:30 p.m. about fifty children came up and were eager to view the heavens. After a short introduction we got the show underway. With the help of my wife I showed the children some of the constellations, the Summer Triangle, and the best way to find their way around the sky.

What a joy it was to hear the *oohs* and *aahs* as the children viewed Saturn! Nothing was funnier than the little boy who wanted me to remove the picture of Saturn from in front of the scope!

After the children had wandered back to their cabins, some of the staff stayed to view Saturn and M-13. In conversation with a staff member, I couldn't help but state that these kids looked as normal healthy children do. She agreed, but told me the sobering fact that 50- to 60 percent of these kids have terminal cancer and that the whole point of the camp for these kids is to have a good time.

I'm just glad that my wife and I had the opportunity to share the starry heavens with a few of the kids.

R & M Diaz

Note: If you missed this opportunity to help a few youngsters learn about astronomy, there are two other opportunities. The other sessions of Camp Ronald McDonald at which we have been asked to put on an astronomy show for the kids are on August 20th and September 3rd.

John Libiez and Harv Pennington will be coordinating the trips and will have maps and directions as well as any other information you may need. Call John at (714) 591-1525 or Harv at (714) 594-8319 (home: 7-10 a.m. or 9 p.m. to 1 a.m.) or (714) 836-9700 (work: noon-8 p.m.).

Thank You.

Deep Sky Objects for August

Ahh... The warm gentle 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 *Alberio*. One of the finest double stars in the sky, *Alberio's* gold and blue components shine at a combined third 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-inch Newtonian, concentrate and intensify the colors. Be sure to see *Alberio* 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 M-29, NGC 6913. M-29 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 fourth 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 cover nearly 7.5 degrees of sky. It is, in fact, almost three degrees from its western boundary, NGC 6992, to its eastern boundary, NGC 6960. In all the Veil covers 30 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 three-inch 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 splendor fixed an image in my mind that remains to this day. It is well to note that it wasn't until last year that I noticed that *Vega* was a multiple star. Though 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*, 138 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 at 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's*, *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 M-57, 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. M-57 is a planetary nebula, the result left over when it's 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 six-inch 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 *nightwatch*.

Challenge of the Month: In his June, 1988 column in *Sky and Telescope* magazine, Walter Scott Houston asked for confirmation that the bar through M-4 was composed of a double line of stars. Send me your observations of M-4, either positive or negative, and I will see that they are forwarded to Scotty. Good Skies.

David M. Phelps

8409 Mars Dr.

Buena Park, CA 90620

Classifieds

A member of the Idyllgazers has a 10-inch f5.6 Dobsonian telescope for sale. It has a rotating tube and a Telrad finder. \$300. John Gossett said he makes frequent trips to Idyllwild and would be willing to pick up the scope. Call Butch at (714) 654-8420.

World War II Artillery Sight—large eyepiece (probably a military erfle by its description), double-line lighted crosshair, original leather case. \$150. Call Frank Perry at 624-4190.

Celestron C8 for sale. Tripod and wedge, clock drive, dual axis drive corrector, piggyback mount, five eyepieces, filters and more. Excellence condition. \$850. Call Rick at (714) 592-6707.

Astronomical Events

August 12th--Perseid Meteor Shower

This a very good year to get out and see the Perseids, not only does the shower peak on a Friday (2:00 a.m. PDT), but the moon is new that day. The radiant is in northern Perseus near the border with Cassiopeia. You can expect to see about 50 meteors per hour, averaging magnitude 2.27 (according to the Astronomical Calendar), which makes them good candidates for photography.

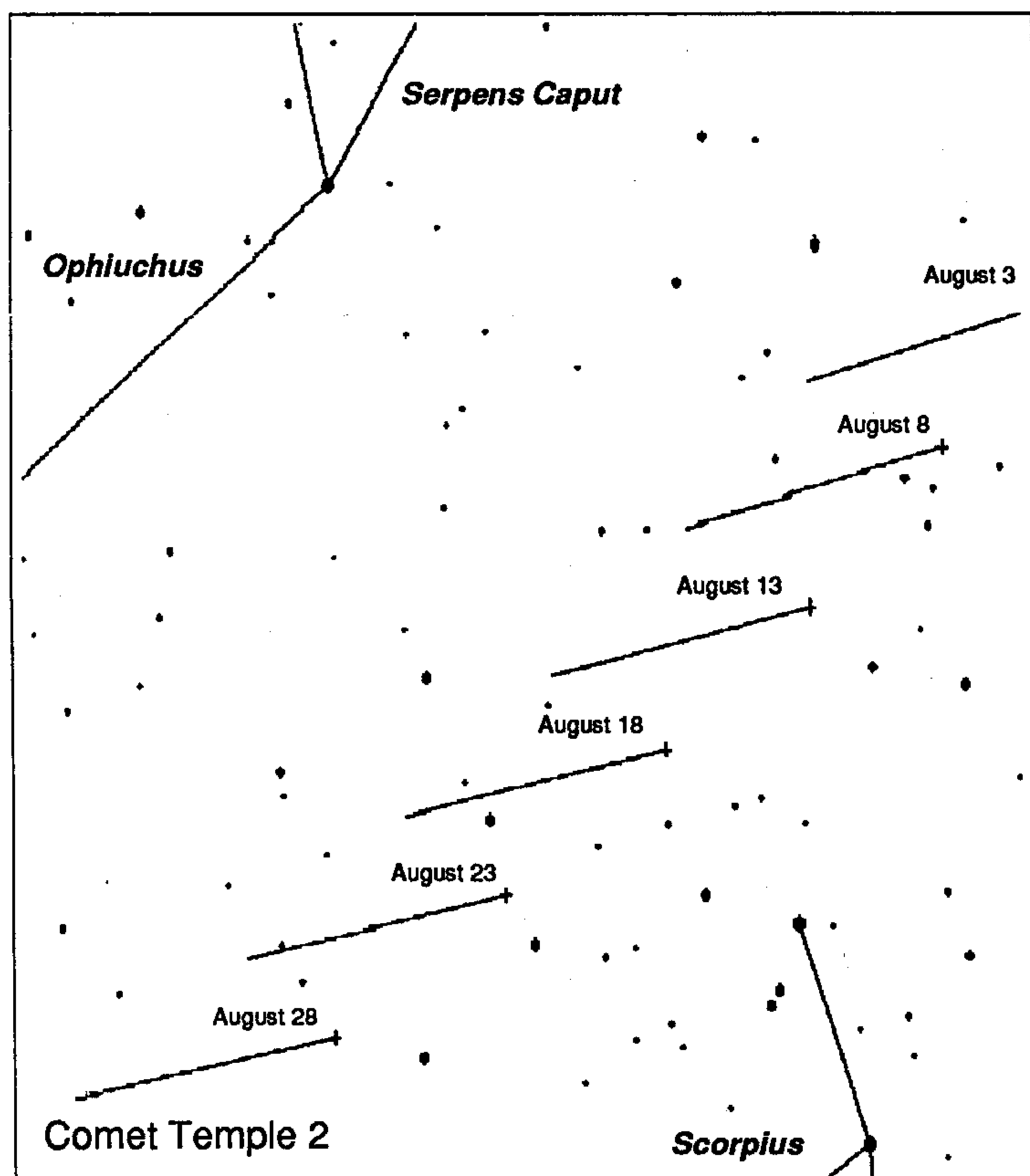
The Perseids tend to leave trains visible after the meteor has burned up, sometimes lasting over a minute, and many display terminal bursts. I remember several years ago seeing a couple of Perseids that went off like camera flashes at ten feet! Besides the regular star party out at Victorville on the 13th, there will be a group of people going up to the Sierra Nevadas to watch the meteors (see star party announcement).

August 27th--Partial Eclipse of the Moon

Unlike the partial eclipse earlier this year (March 3rd, 0.3%) which was hard to see, the early morning hours of the 27th will see the moon nearly 30% shadowed by the Earth. The umbral eclipse will begin at 3:08 a.m., mid-eclipse occurs at 4:05 a.m., and ends at 5:02 a.m. (all PDT).

COMET CORNER--Comet Temple 2 continues to brighten as it works its way just north of Libra and Scorpius. The ephemeris given below may have rather optimistic estimates of the comet's brightness. John Bortle's comet column in *Sky and Telescope* this month predicts Temple 2 to start August at magnitude 11 and brighten to 9.4 by month's end.

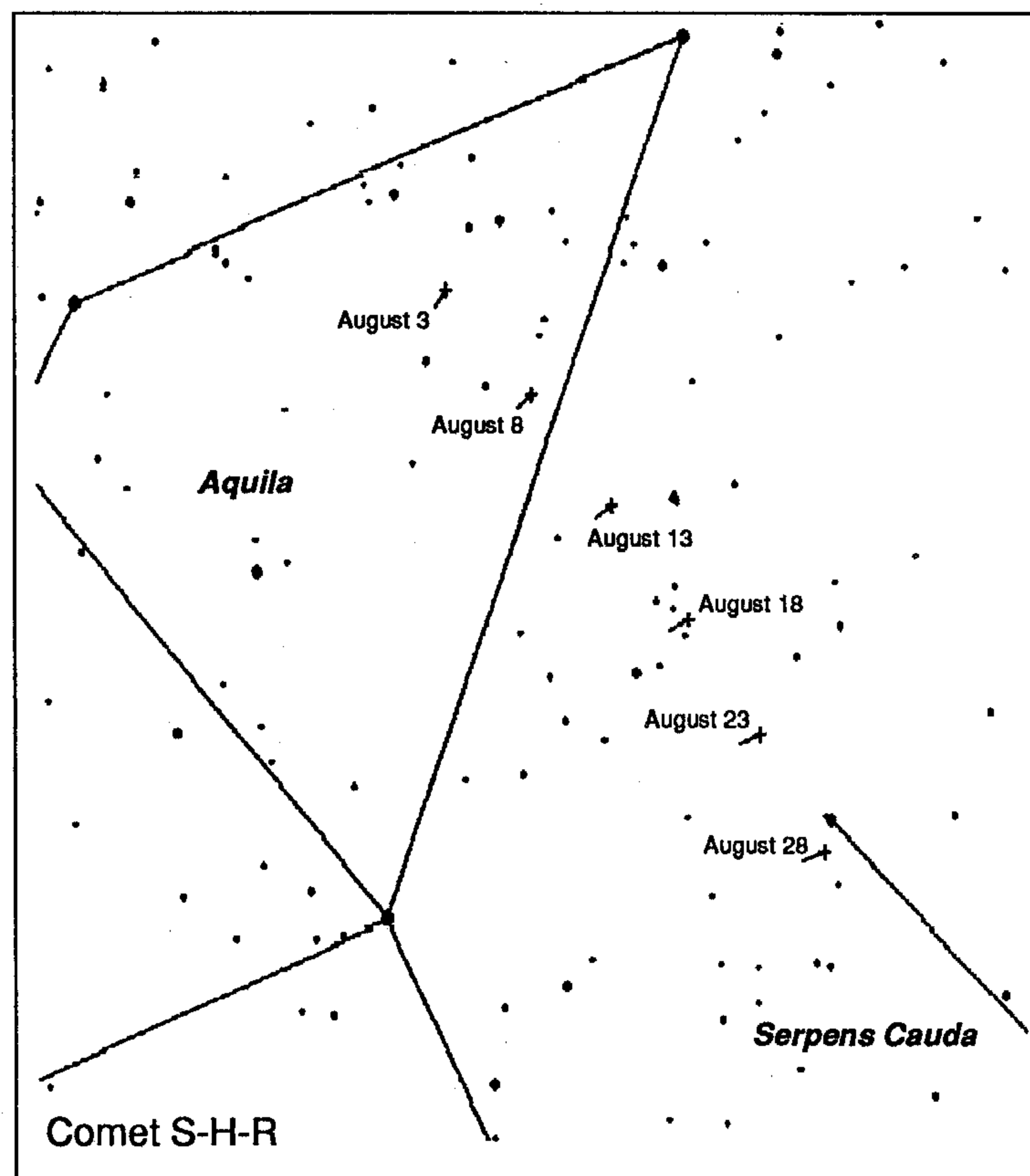
Comet Temple 2, 10:00 p.m. PDT					
Date	R.A.	Dec	Elong	MAG	
August 3	15 45.1	-11 53	105.1	7.7	
August 8	15 52.9	-13 45	102.7	7.6	
August 13	16 1.8	-15 38	100.4	7.5	
August 18	16 11.9	-17 29	98.3	7.4	
August 23	16 23.1	-19 18	96.5	7.4	
August 28	16 35.4	-21 4	94.8	7.4	



Charts from David Chandler's Deep Space Computer Program

There has been another comet discovered by the Shoemakers, along with Holt and Rodriguez. The new comet was discovered over a year before perihelion, but stays far out from the Sun and will not become spectacular (darn!). Perihelion occurs on June 10th, 1989 at almost 2.5 AU. Currently about 14th magnitude, this comet may get as bright as 11th magnitude

Comet Shoemaker-Holt-Rodriguez, 10:00 p.m. PDT					
Date	R.A.	Dec	Elong	MAG	
August 3	19 19.0	10 42	143.2	13.6	
August 8	19 13.4	9 25	140.6	13.5	
August 13	19 8.1	8 4	137.4	13.5	
August 18	19 3.1	6 40	133.6	13.5	
August 23	18 58.4	5 13	129.3	13.4	
August 28	18 54.2	3 46	124.8	13.4	



Editor's Note:

This will be my last issue of *nightwatch* because I am starting graduate school this September. I have enjoyed the past three years or so as Editor, helping to bring our newsletter from a one-page hand-typed format, through a couple of stages of computerization, to the format you are now reading. It has been a lot of work, but well worth the effort.

The PVAA now needs someone to take over as Editor of the newsletter. Ideally, you should have access to an IBM or compatible computer and a willingness to put in the time to make *nightwatch* look so good. If you think you would like to help our club in this vital way, please contact one of the officers (the phone numbers are on the front page).

Dave Thompson

