

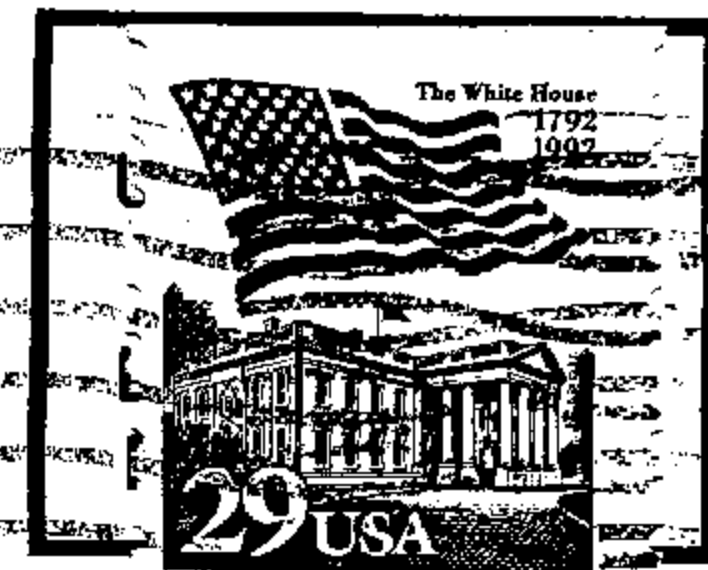
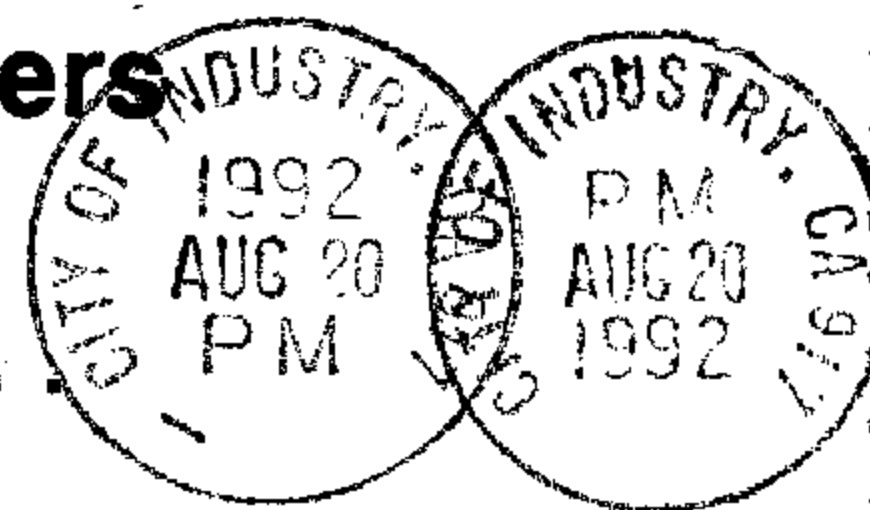
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nightwatch

The Newsletter of the Pomona Valley Amateur Astronomers

Amateur
astronomers
get better
looking . . .



S&T 9/93 Expires: 06/30/93
Ray Magdziarz

Volume 12, Number 9

nightwatch

September 1992

WHAT'S UP

Wonderful thing await us this month as we plan our observing. Look for very bright moonlight nights. While up in Bristlecone in August, the dust of Mt. Pinatubo attenuated the moon's light so much that the entire southern sky was washed with its light. The moon joins company with Antares, the great star cloud in Sagittarius, Saturn, the Pleiades and Mars. Quite a respectable company for a lonely little rock in the sky.

Venus began a long odyssey in the evening sky in August, one that will give us her companionship at twilight through spring of 1993. Starting out as a tiny, bright disk, she will grow and wane as the months roll on. Keep her in your field of view.

Mars is tiny and orange, adding a new star to the Hyades and rivaling Aldebaron. Mars nearly doubles in brightness in September and begins to be just large enough to study under quiet skies and steady seeing.

Jupiter has left us for a while but left us with another enigma. When is the other equatorial belt going to come back? More come autumn.

Saturn is the big gun this month. The planet is bright and well placed for viewing. In moments of steady seeing, even the smaller telescopes will show the disk of the planet peeking out from behind the slowly closing rings. Use your finder charts to locate Uranus, Neptune and Pluto before they too dwindle into the evening twilight.

--David Phelps

Election Results

The results are in and the new officers for 1992-1993 have been elected. Here are the results:

President Michael McFadden, Vice Pres. Tony Burillo,
Secretary Janice Seaton, Treasurer Jack Gardner, V.P. Facil. John Seaton

New board positions: Two year term: David Phelps Barry Thompson

One year term: David Chandler, Ray Magdziarz
Congradulations to the winners, and thanks to all that participated in the election. One comment, Billie Chandler decided to withdraw her name from the ballot her votes were not counted. Also there is a rumor floating around that the board may ask Ray Magdziarz to change his last name to Jones. (just kidding Ray...)

President Elect's Message

The elections are over, and a new board has been voted into place. At this time, I would like to express my gratitude to the outgoing board for the fine job they did in carrying the P.V.A.A. through another year. This of course, extends to the directors, and to the team of the Nightwatch. And there are others too. A special thanks to those club members who came forward to help with Mira, to those who contributed to the newsletter, and to those who participated in presentations at meetings or helped out at special events. Let's not forget the by-laws committee and their efforts. As we assess the year, it is easy to look back and see how the club progressed through the contributions of the talent and hard work of the membership.

The new term starts in September, and I am looking forward to the new year. Having served on the board for two years as treasurer, I have been involved in the business aspect of the club. Consequently, I feel that it will be fairly easy to "carry-on" in the tradition and

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Club Event Calendar

Month	Star Party	General Meeting	Board Meeting
August	1	—	—
August	29	14	6
September	26	11	3
October	24	9	1
November	21	13	5
December	26	11	3

spirit of the founding members. While there have been those in the past that have tried to "mold" the club into their personal ideals of what the P.V.A.A. should be, I feel that the club is much larger than any one member's vision or that of any small group of members. I was hesitant to run for president fearing that I would not be able to draw upon the long term experience of club leadership, but my enthusiasm and desire to help continue the traditions over took my apprehension. Extending the board to include a broader base of resourceful members also helped me to make my decision.

I came into the club during the term of Billie Chandler (it was Billie Darrah then). The club was meeting at Millikan Hall in what I think was a more "quaint" atmosphere. My Dad and I had heard about the P.V.A.A. from Jeff Shroeder after his presentation at the Mount S.A.C. planetarium. We attended our first meeting in February 1989, and I was overwhelmed how quickly we were welcomed into the group. I don't normally like clubs for several reasons, but this one was different. Billie described the club to the new members, and before she closed for the evening, we had joined. I remember buying Chandler's planisphere which was a much welcomed tool that I, of course, still use today. Harvard Pennington was the speaker, and his topic was the Messier marathon. This was a new and exciting prospect to us, so My Dad and I were quickly involved in the discussion. We found that "this was a real "hands-on" group of enthusiastic hobbyists", and I was anxious to be a part of it. I remember leaving the meeting so "pumped up" that I couldn't wait for the next one. The Messier marathon was the most fun that I had ever had doing astronomy. The point is, we need to remember our new members and spend more time looking at what they might enjoy at meetings and star parties. Think about what attracted you to the club and your first impressions.

A few months later I took over the Nightwatch from David Thompson when he was accepted at Caltech. I began to attend the board meetings occasionally so that I could learn more about the club. Well we have been through quite a bit since I joined. A few things have changed, but for the most part, the P.V.A.A. continues to roll along. I have ideas and plans I would like to propose to the membership through the board. Tony Burillo and I have had many discussions since we decided to run for office, and he has some very good ideas which we hope to implement. There are several issues which the board must consider and resolve as elected officers. I would like to take a few more lines to mention one.

Perhaps the most important issue with which the board must deal is that of finances. Being the treasurer for the last two years, I have seen the income and the expenses with the trend being to spend more than we take-in. Our major expenses are the printing and postage of the newsletter. If those were our only obligations, then we might get by on our dues collection. The annual science awards and hot line phone bill are fixed amounts that we can budget. But there are the unusual bills, too. This year we gave Mira a "make over" which wasn't cheap. We have been able to "float" \$115 to reserve an Odyssey 10 inch telescope at Coulter Optical. When a member buys the telescope, we take the \$115 and place another order, but that's money out of the treasury that we can't use unless we end the program. Our income derives primarily from membership dues, and that fluctuates unpredictable over the year's time. This year we will collect it all at once, but, to be honest, the membership level has been declining. Once a year we get a donation from R.T.M.C. for our volunteer work there, but that is not a guaranteed amount.

I think the answer is a money making event than is organized

and scheduled far in advance so that we can get the maximum effect out of the limited resources we have. If we could do this twice a year and be successful each time, then we could solve our budgetary problems easily. We would have a little "working capital" for growth. The alternative, of course, is to increase dues, which I personally oppose. I have raised the subject at a preliminary meeting of the new board, and I have asked for discussion the next time we meet. If you have any ideas, please get involved and make your thoughts known.

We have other ideas to discuss, but they can wait for another time. I would like to congratulate the new board on its election to office and remind everyone that the next board meeting is September 3rd at 7:30 sharp! (honest, I won't forget the key this time...) We meet at Millikan Hall (corner of Sixth Street and College). Everyone is welcome to attend and participate in the meeting. Hope to see you there. -Michael McFadden

--Mike McFadden

The Gossett Column

This month's column from John is actually called "Objects Of My Reflection" ed.

The original Objects of my Reflection came about as the result of a request for a monthly list of non-Messier objects adequate for a monthly 'non-Messier' marathon, if you will. I selected objects under magnitude 11, for the most part, which promised to provide either significant detail for the amateur observer, or could serve as a challenge for sharpening observing skills. The thirty objects per month were intended to include about half of each kind. In observing the objects myself, I came to the conclusion that most worthwhile objects had descriptions in the literature that were essentially useless -- either rhapsodic hyperbole, monotonous repetition, or elaborate, but emotionless, codes.

Well, if I don't like it, I guess I better come up with my own descriptions! I will only be describing those objects that I know I will enjoy observing many more times. My personal penchant is for globular clusters, and my least favorite type is the planetary, so with that disclaimer, I will proceed to inflict my thoroughly personal observations of some 'overlooked objects'.

NGC6302 is commonly referred to as the Bug Nebula, from its appearance on photographs. At low power (43x) in a thirteen inch telescope, it appears to be a smeared star with a little bit of a bluish tinge to it. At 100x, it becomes a thin rectangle. At 200x the brightest

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PVAA Officers and Directors

Officers:

David Chandler, President	(714) 988-5678
Billie Chandler, Vice President	.....	(714) 988-5678
Mike Winterer, Secretary	.....	(714) 859-7676
Mike McFadden, Treasurer	.....	(714) 392-0581
Shawn Griffith, V.P. Facilities	.....	(714) 980-8449

Directors:

Mike McFadden	.....	<i>nitewatch</i>	....	(714) 392-0581
Barry Thompson	.....	Programs	....	(714) 887-2696
Bob Oliver	.....	Merchandising	.	(714) 624-6820
Jack Gardner	.....	Membership	...	(714) 626-2665

part of the now ragged rectangle is off center, with streaks of light extending out farther to the west than to the east. The Bug Nebula can be found to the west of Shaula, the Scorpion's sting, half way across the bend in his tail.

NGC6603, in Sagittarius, was for many years listed as M24, but it is quite small and faint - eleventh magnitude - which does not match Messier's description of a large, bright patch of Milky Way. Instead, M24 is now thought to be the beautiful star cloud that forms the setting for NGC6603. This is a small cluster, a round cotton ball, that looks enough like a globular to make you double check your map. There is a thin sliver of black that knifes most of the way through the cluster from the south. To the east, there is a crescent of darkness one cluster diameter out. It is split by a stream of stars. The effect is extraordinary. It's like ripples of darkness expanding away from the cluster. I would not be surprised to learn that it is more real than imagined.

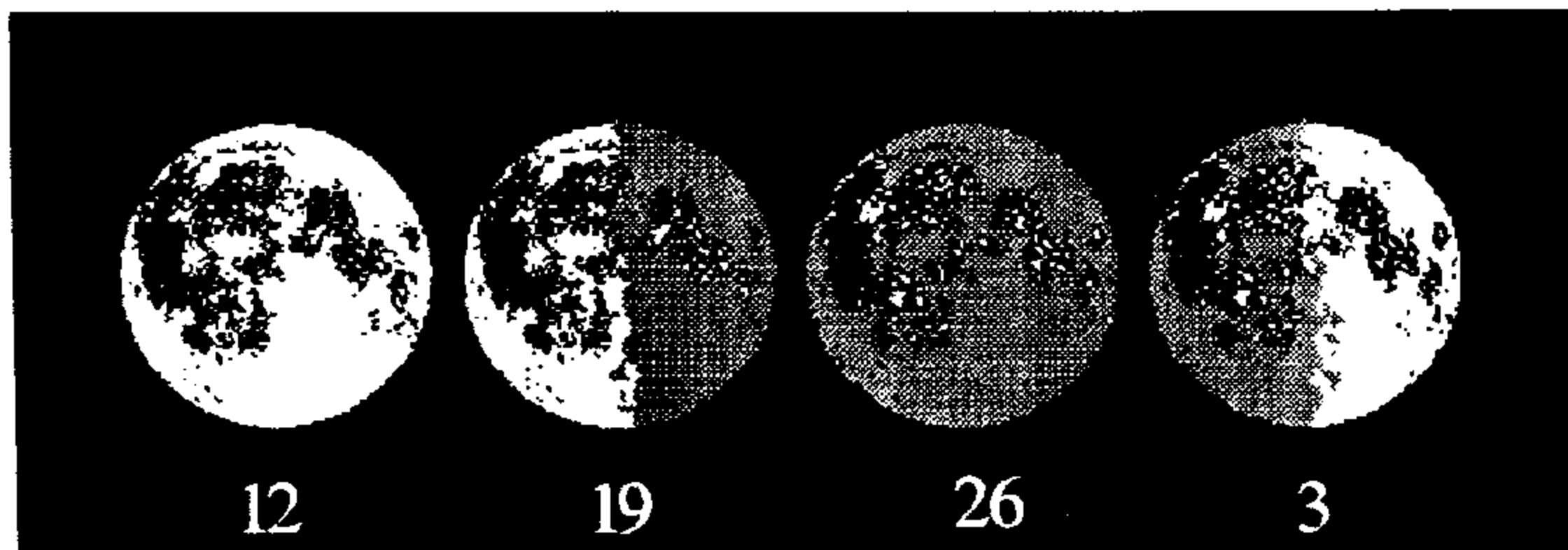
NGC6709 is a pleasing cluster in Aquila's Milky Way. Though not a dramatic cluster, it is easily distinguished from the Milky Way background. It consists of a rather thick half-circle of stars with a separate knot of stars outside the bend. There's a nice gold and white pair near the detached knot as well.

NGC6543, a planetary nebula in Draco, is fairly small. Indeed, you should use about 80 to 100x to search for it in order to distinguish it more readily from the field stars. Once you find it, try about 200x for a pale blue oval. It is not an exceptional object, but it is satisfying to find (I did warn you I'm not a planetary man!). At 42x, NGC6503 is a fairly small edge-on galaxy in Draco. Try 200x. It no longer looks like an ordinary edge-on, but rather more like a rectangle, with hardly any tapering towards the ends. There is a very bright star nearby. --John Gossett.

--John Gossett

The Five Day Moon

On Tuesday, September 1, hanging above the western horizon until 10:12 you will see a lovely crescent moon only five days old. Train your binoculars or your telescope on it, and let's see what there is to see. You will need a lunar chart to help you locate the features we will discuss here. If you don't have one, I suggest you try your local library's astronomy section. Already five days old, the moon has ten maria or seas for you to identify. Right on the limb going from south to north is Mare Australe. Then you will find Mare Smythii, Mare Marginis, and Mare Novum (the last two will only be seen under a favorable libration. Finally you come to Mare Humboldtianum.

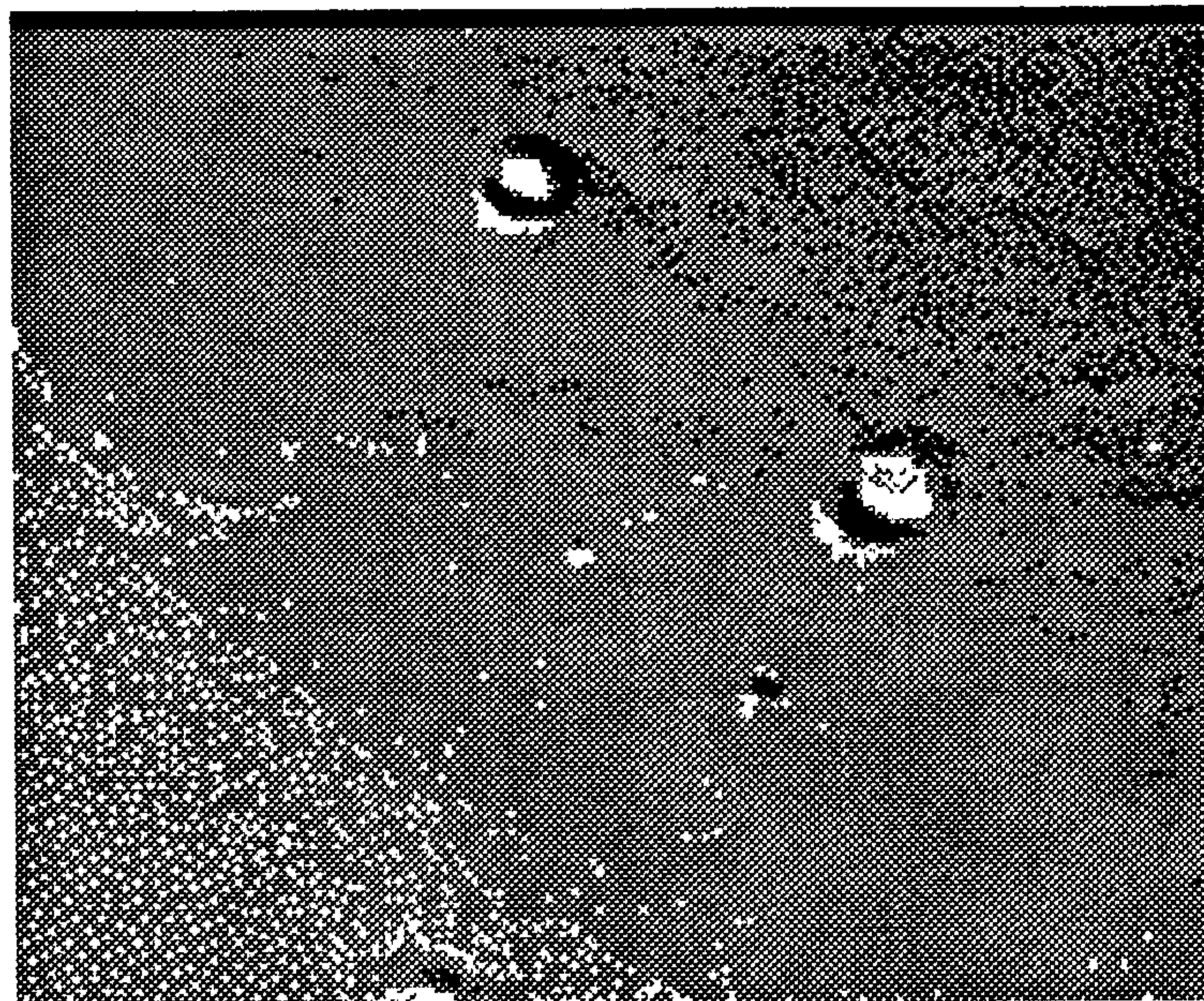


Although they are better seen under a moon that is only a day or two old, you should still be able to see these highly foreshortened seas for another few days. Moving east, in the classical sense, we find Mare Crisium and Mare Fecunditatis. Between them and the lunar edge can be found two much smaller seas, Mare Spumans and Mare Undarum. Lastly Mare Nectaris and Mare Tranquillitatis can be seen near the terminator.

Several mountain ranges can also be found on our five day old moon. Near the south pole and on the limb are the lofty Leibnitz mountains with peaks over 26,000 feet. Between Mare Fecunditatis and Mare Nectaris are the Pyrenees Mountains, and south of Mare Tranquillitatis on the western edge of Mare Serenitatis is the very rugged Taurus range.

Although this has been a quick overview of the five day old moon, I hope this gives you an idea of how lunar study can be an interesting and rewarding subject. As in all things I welcome your reports and drawings, and I will try to incorporate anything you send me into the NIGHTWATCH for everyone's benefit.

--David Phelps



CCD image of the craters Lambert and Pytheas in the southern part of Mare Imbrium. Notice the many rills as well as the lone peak. The image was taken one hour after lunar sunset, can you calculate the height of the peak from the shadow length?

PVAA 24 Hr. Hotline!
(714) 983-7308

for the latest discoveries, official "go/no-go" star party information, meetings, club news, and other events.

Pacific Standard Time/Pacific Daylight Time/Universal Time Conversion

	pm												am												
PST	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
PDT	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1
UT	20	21	22	23	24	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

UT Ahead One Day

Kennedy Meadows

As reported earlier, some of us took the August 1st star party weekend to explore a potential dark sky site. Our hopes were high after the nearly three and a half hour trip up highway 395, and speaking for the group, I will say that we were not disappointed. I kept hearing about the place from the time Jack Gardner and I went to the White Mountains with David Phelps et al to the more recent discussions with John Gossett. Everyone said it was wonderful, but no one had any details. So on July 4th, Jack and I drove up there to see what we could find.

We stopped at Ridgecrest and tried to contact the local club, but we failed to reach anyone on the holiday weekend. None of the locals were familiar with the place the Ridgecrest club had mentioned in their newsletter, so we pressed on to Kennedy Meadows. Up the mountain we went. At 7000 feet we felt good about being above the smog below. We passed several properties with houses and various other buildings scattered about here and there. After a quick trip to the campground for lunch, and a tour of the area, we came to settle on a spot where the Kern River flows through a large meadow. Hikers will be familiar with the Pacific Crest Trail that runs right down the center of the clearing. This was the place.

Then, back home, Tony Burillo and I decided to go up for the next star party weekend. Having survived the Big Bear earthquake in June (we were camped at Angeles Oaks, but that's another story...), we decided to try and top it. Others heard our plans, and before long, it was an expedition. Because it was generally a last minute decision to go, we could not get the word out to everyone. As it turned out, Jack Gardner, David and Billie Chandler, John Gossett and Dave Phelps went up Friday afternoon. Tony, his family, and I caravanned Friday evening. David Thompson arrived Saturday afternoon. A friend of Tony's from Riverside, Martin Carey, came in early Saturday morning.

The night drive up 395 was exciting as I anticipated the dark sky. All I could think about was the night of July 4th in Ridgecrest. Jack, my boys, and I had spent that day of the 4th in the mountains, and when we came down it was dark. We went through Ridgecrest on the way home to eat, and we were amazed at how dark the sky was in the city. We stopped so that the boys could see the local fireworks show, but Jack and I couldn't take our eyes off the sky. "Ah, to live here", we thought. Now that I was headed north again behind Tony and his family, I recalled that the sky became really dark just north of the federal prison. I kept telling Tony, over the "cb", stick his head out the window and "check out the sky", but he was always busy driving or something. Soon we had passed through the area and, we were off 395 going up the twenty six miles to the site. I must admit that when we got there, I couldn't find the area in the dark. But we reached the others and set up camp. The sky was beautiful. The Milky Way was so bright and well defined. Everyone was working the sky and enjoying the night. Soon a few clouds drifted in from the north, and before long, we had a partial cloud cover. It was after midnight, and everyone decided to shutdown and get some rest. I waited up a while though my telescope was still in the car. I wanted to absorb the starlight as long as I could. Apparently the clouds passed over, and it was clear again near three a.m.

The Saturday morning sun brought everyone up bright and cheerful. Somehow sleeping outdoors seems to open the windows to the soul. The clear mountain air and brilliant sky with the panoramic view of tree covered mountains was an invigorating way to start the

day. I fired up the Coleman for my hot water, and while waiting for my oatmeal I wandered next door to the Chandler's. There was Billie, in her open-air kitchen. She was making pancakes as big as the size of a tire and as thick as a mattress (with berries too!) I always knew she was a good cook, but way out here too! (And I thought it was Billie's telescope that David was after...) With breakfast over, everyone went off to start the day. Some of us went for a walk down to the Kern River (more like a stream) and went wading. The day was hot and windy as we waited for the night to approach. Soon the sun gave up and went to bed, and we went to work. Phelps trained the "horse" on the moon and gave us some spectacular views as we waited for Polaris to show. Once again the sky was exquisite though this time the clouds stayed away. We saw lightning around the horizon, but nothing to threaten us. Although I was involved in my own observing, I know that everyone got some unexpected pleasure from the dark sky. It was nice to be able to see complete asterisms once again, and the naked eye objects seemed to be painted on the black dome of the sky. The conditions were excellent. Both nights were calm and dry. Surprisingly it got down to 37 degrees on Friday night, though I don't know what time that was. Saturday it was no colder than a comfortable 45 degrees. With no wind and dry air, I would never have guessed these temperatures.

The crews packed up and were off early on Sunday. I took some time to look at the morning sun. Not many sun spots to mention, but those that were visible were remarkable as always. I helped Martin load his 20 inch telescope, and surveyed the site for that "missing eyepiece cover", but nothing to report. Soon I was packed and on my way back to civilization. With Beethoven to keep me company, I was quite content. I thought about the site, and I concluded that it was everything I had hoped it would be. Maybe it could have been closer to home, but 167 miles wasn't too bad. The twenty six mile drive off of 395 seemed to take forever, but the first quarter of it was a 7000 mile climb. The roads were excellent all the way to the site. There was about a quarter mile of dirt road once you reach the meadow, but it was good too. The horizons were very good for the mountains, and there was no problem with stray light from cars or other earthly nuisances. It got pretty hot on Saturday, and there was no shade in the meadow. Not being a campground, there was no water or toilet facilities. All in all, it was a good star party, and a fun time with friends as well. Mike McFadden

--Mike McFadden

Odds and Ends

The September meeting will be held in our regular meeting place which is Galileo Hall. Our speaker was to be Tom Cave, but due to a misunderstanding, he will not be available to us. The September program will be announced on the hot line. The star party will be held at Lightning Ridge again this month. Check the calendar on page one for the dates.

We are planning a trip to Palomar, including a tour of the Hale Observatory and a star party to follow. In order to be included on the tour, you must sign up, either in person, or by calling Mike McFadden.

Coulter Optical has informed us that our 10 inch Odyssey Compact will be ready for pick up on September 15th. If you are interested contact Jack Gardner or any of the other board members. Details on the telescope specifications can be discussed at that time. If you are thinking about it, and you would like to take a "test drive", come out to the next star party and ask around. I'm sure you will find one there.