

NOVAC

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President's Column

Brenda Clements Jones

I was just looking back through a few previous newsletters and saw in the minutes of the Annual Meeting of this past January that Brent Archinal had assured us that Comet Hale-Bopp would be a bright, life altering event. Well Brent, you certainly were correct about the brightness of this comet! Every time I look out (when we don't have clouds) to see Comet Hale-Bopp, particularly from the light polluted skies of Arlington, I'm astounded at how very brilliant and beautiful it is! NOVAC has been very busy the past many weeks with activities surrounding this comet and I want to thank the many, many people who have been ready, willing and able to help. The generosity of so many folks with their precious time is greatly appreciated!

Members of NOVAC will be asked to vote on an important issue at the May meeting. Please take time to read Brent Archinal and Bill Burton's articles concerning the Astronomical League in this issue. In July 1992, NOVAC's membership voted to join the AL in order to obtain liability insurance for the club. At that time it was the only source of insurance for the club that could be found. After receiving notice from the Astronomical League of a dues increase several months ago, we were able to find liability insurance through another source with better coverage at nearly the same pre-

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Review of the Orion 80 mm Refractor

Ralph Kantrowitz

As you may recall, I wrote an article a while back recounting tests of a 4-inch APO stopped down to 80 mm. I decided not to buy the Brandon 80 mm APO then, but I still wanted a lighter, smaller 'scope than my four inch Astro-Physics (AP) Wide-field. After seeing the review of the Orion 80 mm ShortTube in Sky & Telescope, I decided that it was cheap enough to use as a low-power travel 'scope / telephoto lens. The following paragraphs summarize my tests of this small refractor.

Feb. 15, 1997 9:30 P.M.: The skies were relatively clear (4.5-5 magnitude) with heavy mercury vapor light pollution. Wind gusts were high enough to often tilt the light-block/wind-break I had set out along my balcony fence. The scope performed about as expected, but was slightly better corrected for chromatic aberration than I thought it would be. I tested

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for the largest possible aperture at which chromatic aberration would be reasonable by using aperture stops made from plastic canister covers. (I had set up my 4-inch AP Wide-field a couple of feet away as a control standard.) I used enhanced aluminum mirror diagonals on both scopes.

At full 80 mm aperture, all four components of the Trapezium were visible at 100x. At the same aperture, the half-moon was fine except for a blue halo at the limb. I found that stopping the image down with the supplied aperture stop in the objective cap (42 mm) essentially removed chromatic aberration. I viewed Rigel at various apertures at 120x using an 8 mm Brandon and a Dakin barlow. At 80 mm, I glimpsed Rigel's companion in the scattered light outside the diffraction rings but usually lost it in comatic flares. I noted no improvement at 74 mm. At 42 mm, the diffraction image was beautiful, but I couldn't see Rigel's companion. At 58 mm, chromatic aberration and comatic flaring were finally reduced enough to make Rigel's companion visible. (In the 4-inch APO at the same time, Rigel's companion was easily visible at 96x.) The 58 mm aperture also greatly reduced chromatic halo at the moon's limb. I thought that the Sky & Telescope review was slightly too optimistic about the optical quality, however, it wasn't a bad deal for the price.

As to the accessories, the 25 mm Kellner was a good eyepiece, while the 10 mm had very little eye-relief and was of lesser quality. The 45-degree diagonal caused slight vignetting but was generally of good quality. The 6x30 finder-scope was of good quality with decent eye-relief, although there is some loss of field. The tripod mounting block was trashy; made from molded plastic, it cracked only a few hours after receipt. (I made a custom tripod block for my equatorial mounts using hose clamps and wood, with 1/4-20 mounting holes tapped into steel mending plates.) The focuser tube ends in a threaded T-ring coupler for photography. I was barely able to focus my SLR with this setup and needed an extension tube to reach prime focus on objects nearer than infinity.

(The daytime test photos I took showed some slight vignetting and curvature but were otherwise acceptable. The daytime photos of sunny tree branches at high magnifications showed purple fringes except where I used the 42 mm aperture stop. The images taken in shade or during cloudy spells were much better.)

February 16, 0530-0600 EST: I observed Hale-Bopp from a lake at the Kentlands in Gaithersburg, MD. I could see a definite 2-degree tail with the naked eye. Using the 80 mm at 16x and 57x, I observed a starry nucleus fanning slightly in the same direction as the tail. There was a noticeably darker area in the tail behind the coma and the tail gave the comet a U-shaped appearance. The rest of the tail was noticeably streaky, indicating multiple envelopes of material streaming off the nucleus. I observed Mars with a 7 mm Nagler alone (57x) and with a 2.4x Dakin barlow (137x). A red-

dish halo due to chromatic aberration diminished the clarity of the image, but the S. polar cap was very noticeable as well as some dark markings. A computer calculation of the central meridian (CM) gave a value of about 20 degrees; the vague shape of the markings observed were consistent with this CM.

Feb. 24, 1997, 1930 to 2030 E.S.T.: I shot test slides to compare the Orion 80 mm to the AP 4 inch. I used ASA 400 Ektachrome Elite film and mounted the 'scopes one-at-a-time on a Super Polaris mount with a polar axis drive. Because of light pollution and my being too lazy to guide in declination, I limited the exposure times to 3 minutes. See Mar. 1, below.

Feb. 27, 2-2:45 A.M.: I resolved Castor as two close but slightly unequal components with dark space between the diffraction patterns using the 7 mm Nagler and the Dakin Barlow. I also resolved the pair with the 10 mm Kellner and same Barlow at 96x, but with difficulty. Castor was resolved better at full aperture than at 58 mm. Mars (12.8" in diameter) appeared best with a #12 Yellow filter and Nagler, Dakin Barlow + Filter adapter (~175x). The polar cap was barely visible. I could not distinguish features on Syrtis Major that, at a CM of ~280, was near the center of the disk.

Mar 1: I got back the slides exposed on Feb. 27. I had misjudged the exposure times (the Orion scope needed only 0.55 the exposure time of the 4-inch f/6.5) however the results were good enough for the test. Vignetting in the corners was much more visible on slides taken with the 80 mm (the camera coupling had an internal diameter of 1.25 inch, the internal diameter of the drawtube was about 1.6 inches). On the 4-inch AP, I had used a 2-inch coupling to the same (standard) T-adaptor; that drawtube had an internal diameter of 2.7 inches. In 2- and 3-minute exposures on M31, a hazy star-like central mass and M32 were clearly visible; NGC205 appeared to be a faint puff. The sky background was much brighter in the 80 mm exposure because of the shorter focal length, despite the smaller aperture. M33 was just as a faint puff in a 2-minute exposure; it was clearer in the slide taken with the 4-inch (probably because of the larger size and darker sky background). The star images were round across the width of the slides taken with the 80 mm, but became oval toward the corners of the slides. (This problem didn't occur in the slides taken with the 4-inch AP.) The whole sword of Orion fit on a 35 mm slide. M42 had a fine shape and pink color in a 2-minute exposure. Vignetting was not as apparent on the 2-minute exposure due to the darker sky background. The entire belt of Orion also fit on a 35 mm slide. The flame nebula (see *Sky & Telescope*, March 1997) was a dim pink, but apparent (with both lobes and the dark lane) in a 2-minute exposure. These observations seem to fit in well with my earlier experience with the terrestrial shots. The important factors were edge-of-field vignetting due to a 1.2 inch coupling, edge-of-field curvature and relatively short exposure times. I think that the 80 mm Orion scope will probably not satisfy the con-

President's Column

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mium. NOVAC is now looking at the AL dues and wondering if we are getting our money's worth. Please read their articles, give it some serious thought and come prepared to vote.

One more thing before I sign off. Don't forget our picnic is June 7. We have the Panorama Shelter at Crockett Park rented from 2:30 'til well after dark. I hope all of you can come! Bring your family and friends and don't forget to invite long lost former members of NOVAC or members of other astronomy clubs. Bring along a picnic dinner. We'll probably eat around 6 (or whenever you might find convenient). I hope to see you then!

—Brenda

noisseur, but will be good as a cheap, lightweight telephoto lens and casual low-power scope.

March 12, 7:15 to 7:30 P.M.: I took comparison pictures of Comet Hale-Bopp under clear skies using Kodak Ektachrome 1600 slide film. I used exposures of 30-35 seconds with the Orion 80 mm; 45-50 seconds on the 4-inch APO.

March 15, 1997: The sky background was the same in slides taken with the two 'scopes. There was some vignetting in the corners of the slides, but the overall quality was good. The image of Hale-Bopp was about 8 mm long from head to the tip of the tail. The stars of Lacerta shined through the fainter section of the tail visible in the slides.

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Should NOVAC Stay in the Astronomical League? YES!

Brent Archinal

Several weeks ago, Brenda Jones asked if I would write the "pro" side of a pair of pro and con articles about the Astronomical League (AL). These articles were to be published in the NOVAC newsletter. The subject of the AL had arisen since they have apparently substantially increased their dues to member societies like NOVAC. Since that time I've spoken briefly with Bill Burton who was to write the "con" article. We found that both of us could see reasons for and against NOVAC maintaining membership in the AL. So we decided instead to both write articles discussing the issue generally. My comments follow, here.

However, I do have to say that, as you'll see below, I generally favor NOVAC staying in the AL. I'm not particularly opposed to leaving the AL, but I do feel that under NOVAC's current circumstances the benefits outweigh the disadvantages. I'd also like to point out that ironically, I was once, for another astronomy organization, clearly on the other side of the issue. When a member of the Columbus (Ohio) Astronomical Society in the early 1980's, I

strongly argued that the CAS should leave the AL. What's the difference? Why is AL membership good for NOVAC overall, when it might not be for another club or at least at another time?

First of all, let's look at the benefits the AL provides (the members of) its member societies. If you've been getting the *Reflector* newsletter of the AL, there is usually a detailed list of benefits included, e.g., on page 2 of the February issue. There is also a good article about the AL (and its 50th anniversary) in the May issue of *Sky & Telescope*, pp. 102-105, where its many activities are discussed. There is the *Reflector* newsletter itself, which I consider a very well done and useful publication on observational and amateur astronomy. Out of all the publications out there these days, I have surprised myself by noting that this is one of only a very few that I usually end up reading cover to cover. Aside from the material on observational astronomy, astronomy conventions, and other subjects, the main thing of interest (to NOVAC) is the coverage of what astronomy clubs

are doing and can do. As only two examples, through this newsletter the AL: a) informs clubs and individuals about what it can do about light pollution, providing information from (and on joining — hint, hint, hint!) the International Dark Sky Association, and b) started and continues to publicize and provide information on a U. S. National Astronomy Day. NOVAC has come to participate in this event, in the past assisting with programs at the National Air & Space Museum, Arlington Planetarium, and Crockett Park (including our rained out event last month!).

A second major benefit from the AL is the availability of various publications that benefit amateur astronomers. These include very well written publications on the Messier Objects, the Herschel Objects, the Sun, Eclipses, Meteors, Comets, and even how to organize an astronomy club. There are a lot of amateurs, perhaps even several in NOVAC, that have observed or continue to observe the Messier and

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Should NOVAC Stay in the Astronomical League? NO!

William C. Burton

In an accompanying article, Brent Archinal has presented a comprehensive and balanced discussion of the pros and cons of staying in the Astronomical League (AL). I would like to complement his discussion with a boiling-down of the issue to a few major points and questions to be raised. Perhaps between the two articles NOVAC members can arrive at an intelligent decision and make an informed vote at the May meeting. I will balance Brent's opinion by stating up front that I am leaning against staying in the AL.

1. Astronomical League membership costs a lot. For calendar year 1996, AL dues were \$400.25 out of \$2,322.22 total money spent by NOVAC, or 17% of our budget. The dues are projected to rise to about \$600 this year, or about 26% of the budget.
2. Most of the AL budget goes towards the newsletter, the *Reflector*. According to the February *Reflector*, that newsletter brings in revenue of about \$15,000 in advertising and other sources, but costs about \$40,000 to produce, out of a total budget of about \$50,000. So

monetarily speaking, the *Reflector*, issued four times a year, is the main benefit you receive with your membership. Do you read it, and is it worth it?

3. The AL hands out observing awards to amateur astronomers. These are outlined by Brent in his article, and they serve to honor people's efforts in an avocation that would otherwise go unrecognized. Observing awards are a nice way to mark milestones in one's amateur astronomer "career", and can be a significant factor in inspiring observers to "push the envelope" towards fainter and more difficult objects. NOVAC hands out its own awards from time to time and could do more—would these have the same meaning for people?
4. The AL spotlights and gives awards to young observers, which serves to encourage a new generation of astronomers. Could NOVAC perform a similar function on a local scale, perhaps via science fairs?
5. The AL and its newsletter the *Reflector* form a common node that every astronomy club in the county can link to, informing us of star par-

ties, conventions, astro club representatives, etc. Do we want to lose this connection, or is, for example, the September (resource) issue of *Sky and Telescope* good enough?

6. As Brent asks, do we have a better use for the money we spend on the Astronomical League? Or, should we not worry about that and put it into savings, for a time when we really need it?

As a partial answer to points #3, #4, and #6, I would like to propose that NOVAC start its own awards program for local science fairs, with ribbons and perhaps a nice book for first place. \$600 could easily fund this! National Capital Astronomers hands out science fair awards, and it's a great way to promote young interest in astronomy and related subjects. This year, a light-pollution project by a young woman from Manassas won first place in the Environmental Sciences category at the Fairfax County Science and Engineering fair, and we weren't there to see it!

Similarly, we could also have our own observ-

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From the Treasurer: Re Astronomical League Dues

Our 1996 Astronomical League dues were \$400.25 — club dues of \$20.00 plus 195 members at \$1.95 each.

Today (4/17) we have 229 active members (and we're still growing). The AL reduced the 1997 club dues to \$10.00 but increased the per member dues to \$3.00. Thus, our 1997 dues computed on today's membership would be \$697.00.

NOVAC does not report our "additional" members.

Our immediate past Secretary, Bill Jensen, obtained liability insurance for us last year. Our premium was \$368.00 compared to the AL's premium of \$325.00. Bill says we have better coverage now and an experienced agency who will well represent our interests should a problem arise.

We have 95 members who joined NOVAC since March 17, 1996 and have not received a copy of the *Reflector* because our ALCOR hasn't sent the updates to the AL.

By the way, the AL web page offers a subscription to the *Reflector* for \$4.00 a year.

Ken Pettijohn

Should NOVAC stay in the Astronomical League? YES!

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Herschel objects with these publications as guides.

A third significant service of the AL, from which NOVAC members have seen a lot of direct benefit, are the numerous observing award programs. Awards are available to members of AL societies who observe certain numbers of Messier objects (with telescopes and binoculars), Herschel objects, double stars, lunar features, and meteors. I'm not sure of the numbers, but I believe that dozens of NOVAC members have received these awards in the past few years. I remember well a number of NOVAC members receiving these awards at our general meetings. Brenda Jones even received one of the very early binocular Messier objects awards. I also fondly recall earning my own AL Messier award in the late 1970's through the OSU Astronomy Club. By that time I had in fact observed most of the Messier objects two or more times, but was specifically given the award after re-observing most of them again in single night in a Messier Marathon! I would like to think that the NOVAC members who have received such awards as the Messier, binocular Messier, binocular deep-sky, and perhaps even the Herschel 400, remember those awards well, and the enjoyable nights of observing spent earning them. I also have to say that I don't foresee NOVAC being able to replace these elaborate awards programs with something else should NOVAC leave the AL.

There are a number of other benefits available from the AL that I don't wish to go into here. For the purposes of NOVAC, I would indeed consider them of value probably to only a few individuals in the club or admittedly of value only to the national astronomy community as a whole. They include things such as national and regional conventions, a computer bulletin board (StarGate: 214-578-7618) and web page (<http://www.mcs.net/~bstevens/al>), eclipse trips, educational guides, and national awards (such as the "Outstanding Young Astronomer Award").

The AL also provides a book service, where a 10% discount is available on any astronomical or science books published in the U.S. This service is probably not much used by NOVAC members since *Astronomy* magazine has been providing a similar service, however, the AL service apparently covers any astronomy book in print as opposed to a limited selection from *Astronomy*.

Likewise, the AL has made the necessary agreements to provide liability insurance to local astronomy clubs. In the past, this service proved of great benefit to clubs such as NOVAC, and also the CAS group I was in. CAS had its own liability insurance but it was canceled and no agents in the area could be found to renew it at a reasonable price. Similarly, when NOVAC decided it needed liability insurance several years ago, no agents could be found that would sell us such insurance at a reasonable price. In both cases, the AL service came through and provided such insurance at what were very reasonable prices for the time.

So, what has changed? If there are all these benefits, why would NOVAC even consider leaving the AL, even after a price increase?

Well, the most obvious factor is that AL has apparently nearly doubled their dues structure. I'm not sure what the exact amounts are, but it's my understanding that if NOVAC stayed in the AL, per members dues to the AL would rise from order \$2.50 to \$5.00 or so (plus a flat fee). Yes, that's huge increase percentage wise. However, are the total dues all that bad? Are the benefits I've listed above truly worth less than \$5.00 per person per year (the cost of one meal at McDonald's)? The amazing thing to me is that the AL can do all that it is doing for such a price. I would certainly think that just printing and mailing the *Reflector* newsletter alone (4 issues per year) would cost more than this. However, through donations and essentially all-volunteer effort, the AL has obviously managed to keep its costs quite low.

(By the way, it should be pointed out that there are alternatives to NOVAC either just staying in or leaving the AL. We could only send in dues for members who want to stay in the AL, perhaps even having them cover the surcharge via increased dues. The AL doesn't like it when organizations do this, and it puts extra work on our treasurer or other officials, but it still could be done. Also, the AL does allow members to join individually as members at large (for \$20.00 per year), with no club affiliation assumed).

The second obvious reason that NOVAC would consider leaving the AL is that we have now obtained liability insurance locally, at a lower price than that available through the AL. So NOVAC no longer needs to remain a member of the AL in order to get liability insurance.

And aside from these reasons, are there any other "down sides" to AL? Yes, I can certainly think of some. The very fact that this is a vol-

unteer organization has not only the benefit of keeping costs low, but can and has resulted in very poor responsiveness of the organization. In the late 1970's I can recall sending a number of letters to the AL for information on eclipses and other events, and getting very little response. That was then a problem of not having enough people to do the work of the organization. From what I've seen since that time the situation has improved, but (like NOVAC!) it's still essentially an all-volunteer organization and occasionally things are forgotten and go by the wayside.

The bigger down side, from the standpoint of NOVAC, or indeed any astronomy club that may join or be a member of the AL, is on the financial side. With NOVAC's current membership, at say, \$5.00 dues to the AL per member, we're talking on the order of a \$500 to \$1000 payment a year to the AL. For a group such as ours that has only a few thousand dollar a year in total transactions, that's a lot of cash.

Ah, but here's the critical point. What is NOVAC planning on using that money for otherwise? It was this type of question I asked the Columbus Astronomical Society in the early 1980's. That organization was fairly strongly committed at that time to building an observatory and desperately needed cash to help the process along. With only several hundred dollars a year in income, with the recent poor responses we had had from the AL, and with the much smaller benefits program they had then, I couldn't see why the CAS was staying in the AL.

But for NOVAC, I see a different case. I know that there have been some discussions for years, as in all astronomy clubs, of getting one or more better observing sites or building an observatory. But there is (to my knowledge) no active plan to do so at the moment.

So, shouldn't NOVAC just as well spend the money, getting the benefits that we do get from the AL, and perhaps more importantly, helping out the AL in all their educational and other programs? I think the answer is yes. Maybe someday we'll provide our own observing awards programs, educational programs, an active fight against light pollution, and be working actively toward an observing site or observatory. But until that time comes, I'd recommend hanging on to the Astronomical League.

Should NOVAC stay in the Astronomical League? NO!

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ing certificates made, and perhaps supplement these with pins or books.

Well, I've said my piece. Please check out an issue of the *Reflector* if you have one—the benefits for membership to the AL are nicely outlined on the first column of the second page of that newsletter. And, come to the May meet-

ing prepared to discuss the issue of membership in the AL and make a decision!



Winter Star Party, 1997

Robert Bunge

The Winter Star Party (WSP) is held on West Summerland Key, a small island just south of Florida, during the new moon period in late January or early February of each year. Attendance is limited to about 650 people because of the size of the Girl Scout Camp at which the event is held. This year, they held a lottery to determine whom to invite: Cathy and I were lucky.

WSP offers three very attractive features: warm weather during the winter months; about 10 degrees of southern skies that can't be seen from Virginia; and perhaps the best seeing in the country, or at least the best at any of the larger star parties. (When astronomers refer to seeing, they are talking about how steady the air is. The Hubble Space Telescope has "perfect" seeing because it's above the Earth's atmosphere.) Because of smooth air coming off the Gulf of Mexico and a lack of temperature change after sunset, the steadiness of the air at WSP is remarkable. If a telescope has good optics, this good seeing allows you to see fainter stars and use higher magnifications than we normally do in the DC Metro area.

Cathy and I traveled to WSP by using a form of transportation that is totally unique to Washington D.C. — Amtrak's Autotrain. This service allowed us to load our Jeep onto the train in Lorton, VA, an hour's drive from our Bowie, MD home. After a 16-hour, 900-mile, overnight train ride, we met up with the Jeep in Sanford, FL, just a few miles north of Orlando and about an eight-hour drive from WSP. This allowed us to bring along our 20-inch dobsonian telescope and the camping gear that we'd be using during our stay at WSP.

West Summerland Key isn't a big island. The north side of the island is pretty much U.S. Route A1A, the road to Key West. The south side contains the Girl Scout Camp. WSP is the biggest event held on the island and presents some serious stress on the island's resources, including sewage, electricity, water, and trash disposal. The camp has two shower buildings, a caretaker's house and two small buildings, one that houses a galley. This year, food was available from the galley, catered by *Dip-an-Deli*, a restaurant on nearby Big Pine Key. While I heard some complaints, it was the best food I've ever had at any star party, and unique in its local fare.

We arrived on Monday about eight hours after the camp had opened; most of the best telescope and camping spots had been taken. While driving around looking for a usable location, I heard a familiar voice calling. It was Bill Burton of the Columbus (Ohio) Astronomical Society. Bill was set up with Ron Ravneburg, Wilkie Cirker, and Doug Askew, also from CAS and Bob Schmoke of Columbus, Indiana a friend from other star parties. They helped us

look for a location for our 20-inch and found one just a few yards from their spot and just a few more yards from the beach and the Gulf of Mexico. The price was nearby palm trees that would block different locations around the sky but still offered a good view to the south.

Ed Boutwell of Alabama had set up nearby. I knew Ed well from the Texas Star Party. Worried that my 20-inch would block his view to the south, I promised him a look at the southern objects through the 20-inch. Also nearby, I found George and Carol Friedman of NOVAC and their 18-inch dobsonian. It sure was nice to travel 1,300 miles to be surrounded by good friends! After setting up the 20-inch, we located a camping spot and set up camp.

Monday night featured a pretty dark sky and broken clouds. Our lessons in tropical weather were quick and brought back memories of observing from a Navy Aircraft Carrier cruising the Caribbean during the early eighties: if you don't like the sky conditions, just wait fifteen minutes. From clear skies to thick clouds and light rain back to clear skies. More than once, we were observing under a light rain! We spent most of this first night looking at the usual bright objects. It was a treat to see Orion very high in the sky while just wearing jeans and a T-shirt!

To the north of our location, there was a depressed area known as "valley of the dobs". Soon after sunset, it became apparent why the larger dobsonians were set up there. Strong, gusty winds came

in off the Gulf and shook the poor 20-inch like a weather vane. Between gusts, I discovered the fine seeing of WSP. A number of faint stars in the Orion nebula showed up where I've never any. Out-of-focus star images showed wonderful diffraction patterns (that also showed some figuring flaws in my mirror that I've never noticed before!). By 1 a.m., Mars had risen above some palm trees. Even though the red planet was only 12 arc-seconds in diameter, the steady seeing showed a wealth of detail at 400x.

Overall, the darkness of the skies was okay, perhaps a little darker than Crockett Park at the zenith. There was a good bit of sky glow to the northwest from Big Pine Key, and in the east from the city of Marathon. It was interesting that the weather was coming in from the southeast — completely different from what we generally experience in the Metro area, where the weather tends to arrive from the west or northwest.

After looking at Mars, I spent a few minutes sitting on the beach with a copy of the "Bright Star Atlas," learning the constellations south of Orion and Canis Major. Soon after, thick,

threatening clouds rumbled in. Tired from the trip, we went to bed.

I spent most of Tuesday exploring the vendor tables, wandering the telescope fields and finding old friends, while Cathy worked on her tan. In addition, I spent some of the afternoon building a telescope.

Doug Askew had done something I'd never seen before. Set up under a large tarp, he had brought his wood shop: router table, table saw, Workmate bench, and a good assortment of power tools. Just before the party, Doug had received an interesting set of optics — a 4-inch f/10 mirror that was figured off-axis to direct its light to a diagonal mirror that would be off to the side of the incoming light path. Not wanting to wait until after the star party to work on the scope, Doug had brought his shop along. I'm going to guess that a hundred people helped him work on the scope over the course of the week!

Since Doug volunteers at Perkins Observatory north of Columbus, he had taken the novel approach of building the scope with a transparent PVC tube. The idea is to allow children to see the inner workings of the scope during the daytime. For observing, he wraps the scope in a black cloth to block stray light from interfering with the light path. As the telescope neared completion, more and more people photographed it and helped out in one way or another. If pictures of this telescope are ever in the big magazines, the words "I helped to build that telescope" will be heard across the country at dozens of astronomy club meetings!

Tuesday night suffered from mostly cloudy skies. Concerned about unexpected rain showers, I didn't take the tarp off of the 20-inch. Instead, people from our local area all sat around in chairs with binoculars, leaned back and observed through holes in the clouds. Most of the conversation was like this: "Ahhh, M-44 looks nice tonight." In unison, everyone would rotate the chairs they were sitting in so as to get a view of the object in question. Sometimes we'd trade binoculars in order to exchange views. In all, it was a very, very peaceful way to pass the evening.

Soon after dark on Wednesday, George invited me over to his 18-inch to look at an object that another person had found. Soon, I realized that the "other person" was none other than Alan Goldstein, founder of the National Deep Sky Observers, a frequent writer for *ASTRONOMY* magazine and a long-time friend. Alan had flown down with his family and was hoping to find use of a telescope. While I had never observed with Alan, I knew that he had an outstanding knowledge of the sky and would be an excellent observing partner.

In no time, Alan and I were star hopping to

TO BE CONTINUED

June 7

NOVAC Picnic

It's looking up!



WANTED



PERSON TO BECOME PART OF THE SKY TOUR TEAM. NO EXPERIENCE NEEDED! LOOKING FOR SOMEONE TO GIVE A QUICK TOUR OF THE CONSTELLATIONS. JUST A COUPLE TIMES A YEAR, DURING OUR MONTHLY MEETINGS.

**CALL BRENDA JONES
PHONE: 703-527-7963
OR EMAIL**

STARRRS@COMPUSERVE.COM



NOVAC Member Appointed Meral Chair

Astronomical League President Barry Beaman has appointed E. E. "Sandy" Sanders, Jr., a NOVAC member, to be the new Chairman of the Mid East Region of the Astronomical League. Sandy, who went to the AL Convention in Rockford, IL last July, was tasked for this position after suggesting some ideas on how to get the region going; it has not been active in several years. (You see what happens when you speak up!)

Sandy's temporary chairmanship expires on 31 December 1997 and he is looking for a member club for that first regional bash. One club has already expressed interest-and it is NOT NOVAC!

Sandy believes that NOVAC's voice is highly respected within the League because of its size and the quality of its programs. "Most astronomy clubs are lucky to have one half-way decent observing site and we have three!"

Sandy has moved to Richmond but intends to retain his NOVAC membership in addition to joining the Richmond Astronomical Society.

Questar 3 1/2" for Sale

Questar 3 1/2" Duplex telescope, with broad band coatings; tested 0.88 arc-seconds resolution or better; complete with filter kit, solar filter, power drive, large field tripod, and 3 matched Brandon lenses: 12, 16, & 24 mm. Leather carrying case included. Mint condition. New, 4 thousand dollars. Will sell for \$3k. Leave message at 301 570-4727.

Site Locations

Here are the locations of our four observing sites as provided by NOVAC members:

- Savage: 39° 04.7' N; 77° 51.7' W
- Parsells: 39° 01' N, 77° 32' W
- Crockett: 38° 37' N; 77° 43' W
- Nichlason: 38° 44' N; 77° 21' W
- Big Meadows: 38°32'N, 78°26' W.

Time and Weather

Here are two handy phone numbers:

- Time: from the US Naval Observatory Master Clock, Voice: 202 762-1401
- Weather: from the National Weather Service: Local and Extended Forecast, Voice: 703 260-0307

Dinner Before the Meetings

Brent A. Archinal

We are continuing our "dinner before the meeting" tradition, before both the May 21 and June 18 regular meetings. Members and non-members alike are welcome to attend. All you have to do is have an interest in astronomy and food! The main reason we continue to have these dinners is to set aside a place for members and others to meet and talk - without having to do so at a crowded meeting, or in the dark at an observing site.

The place for dinner continues to be the *Santa Fe Cafe* in Rosslyn. You should plan to arrive at about 5:45 PM, in order to have time to make it to the regular meeting at the Arlington Planetarium at 7:30 PM. This is a nice Mexican restaurant with reasonable prices, although credit cards are not accepted. Smoking is apparently allowed in one part of

this (large) one room restaurant, but so far NOVAC members have not been smoking and the few others dining at that time have rarely smoked. If you do arrive first, we would appreciate it if you'd try to sit in the front in the non-smoking section. There's always plenty of space, so don't worry about finding room with us.

Directions: The *Santa Fe Cafe* is located at 1500 Wilson Blvd, in Rosslyn, with entrances off of both Wilson Blvd. and Clarendon Blvd. This restaurant is easily found, just west of "downtown Rosslyn", on the southwest corner of Wilson Blvd. and N. Oak Street, where Wilson splits becoming Wilson one-way west and Clarendon one-way east. From I-66 east, take the Rosslyn exit to Lee Highway, and turn right at the second light onto Fort Myer Drive. Go two blocks and turn right onto Wilson, and the restaurant will be one block ahead on your left (on the corner across Oak/Clarendon from a big outdoor sculpture). On street parking is usually

available in front of the restaurant, on the other side of the street up the hill, or around the long block (make two left turns) on Clarendon just before it ends by the restaurant. However be sure to feed any parking meter if you arrive before 6 PM. This location is also quite close to the Rosslyn metroraill station.

Reservations are not necessary, although it helps a lot to know who's coming so we'll know how big a table to get. Also, if the weather should turn extremely bad (remember January of '96?!) I can let you know if we've decided to cancel. So if you know you're coming or if you need a ride to the meeting and back to the metro, or just for more information or directions please give me a call (evenings) at 703-448-7466 or e-mail me at baa@casa.usno.navy.mil.

See you at dinner!

- Brent A. Archinal

1997 Messier Marathon Results

Jon Stewart-Taylor

In France during the 1700's, Charles Messier was hunting for comets. He kept finding fuzzy things that weren't comets, so he made a list of them so he wouldn't waste his time on them again. The list grew to about 110 objects, and includes most of the finest star clusters, galaxies, and nebulae visible from the northern hemisphere.

It turns out that the objects on Messier's list are distributed in the sky so that in early spring it is possible to observe all of them in a single night-long observing session: a Messier Marathon. Each year NOVAC sponsors a Messier Marathon in late March/early April. We reserve the observing sites for the entire week around the new moon and distribute checklists. Observers compete with themselves and each other to see as many Messier objects as they can.

1997 was the second "official" NOVAC Messier Marathon. The phases of the moon weren't particularly favorable (it's usually best if new moon falls around March 15th), but several NOVACers did very well indeed. Bruce Miller and Craig Tupper shared top honors, observing 105 out of 110 objects. Rich Kaiser and Mike Walker were close behind, with 104 and 102 objects respectively. Congratulations to all.

The 1998 Messier Marathon is scheduled for March 27, 28, and 29 (cloud dates: April 3, 4, and 5) at C. M. Crockett Park. These dates are regular observing sessions, and you are welcome to try the Marathon at any of the other sites. However, Crockett is the best site for the Marathon due to its dark skies and wide horizons. Mark your calendars, and I hope to see you there.

Editor's Notes

by Elliott Fein

This a "Thank You!" to the people who sent in updated directions to our observing sites: Brent Archinal, Brenda Clements Jones, Ralph Marple, Kevin Quin, Ron Shepard, Craig Tupper, and a specially big **Thank You** to Jon Stewart-Taylor who re-wrote the directions to Parsells to take into account all the comments and his own experience.

Al and Lynn Schumann submitted copy for an article too late to get it into this issue. Look for "What's Up" in the July/August NOVAC Newsletter. They sent me terrific pictures of Hale-Bopp that I'll bring to the next NOVAC meeting.

NOVAC's E-Mail List

P. Chewing Toulmin (pct@his.com)

It has been little bit over a year since the "NOVAC E-Mail List, the Next Generation" came online (the 1st generation being the list run by Jon Stewart-Taylor).

There are currently about 80-85 people on the list. The list is maintained by a program called "majordomo" and is provided by my Internet Service Provider, Heller Information System (<http://www.his.com>). This software does most of the mundane work of receiving and sending out postings to the list and handles most requests to subscribe and unsubscribe.

Types of messages usually posted on the list are observation reports, reminders of NOVAC meetings and Brent's pre-meeting dinners, questions about telescopes and cameras, and anything else to do with NOVAC and astronomy. The list is usually low volume (10-15 messages a week) unless there is a major astronomical event such as the current Comet Hale-Bopp visit, in which case, the list will be quite busy!

To subscribe to the list, send an e-mail to majordomo@his.com and in the body of the e-mail enter:

```
subscribe novac <your_e-mail_address>
```

When majordomo receives and processes your e-mail, it will send you an acknowledgement and a copy of the NOVAC e-mail list information sheet. To unsubscribe from the list, send an e-mail to majordomo@his.com and just put "unsubscribe" in place of "subscribe". You should receive an acknowledgement of your unsubscribe request shortly thereafter.

From time to time, some e-mail addresses become "invalid" because their domain has dropped out of the Internet temporarily. In these cases, all postings forwarded to those e-mails are bounced back to me. I usually leave those e-mail addresses on the list, but if the bounces from the same e-mail address continue for two to three weeks, I will unsubscribe the e-mail address from the list.

So, if you've been getting postings from NOVAC and then suddenly do not receive any messages for over three weeks, it may be because your e-mail address became invalid to the outside world and was unsubscribed. There are always some messages in any given week, so if you've not received anything for over three weeks, you may want to see if your e-mail address is still accessible from outside.

One good way to verify that your e-mail address is still valid is to send an e-mail to majordomo@his.com and in the body, put in "info novac" or "help". You should get a response from majordomo fairly soon if you are still accessible to the outside world. If you do not receive anything from majordomo@his.com in an hour, you may want to ask your mail server administrator to check your connection to the outside world. If you can verify that you're accessible from the outside world but get no messages, try to subscribe to NOVAC as described above. If you're still subscribed, you'll get back an e-mail from majordomo telling you that you're still on the list, otherwise you'll get subscribed to the list. If you have any questions about the above or anything else, you can e-mail me at pct@his.com.

Call for Articles

Here's your chance to see your name in print! Be the first one on your block. Write an article for the NOVAC Newsletter describing your observing experiences: good, bad, or indifferent.

Beginners welcome.

Tell us how you liked observing sites both local and distant. Tell of your experiences buying telescopes and accessories.

What are your favorite astronomy books?

Article submissions, in ASCII please, may be posted to Elliott Fein on the Internet at edfein@epcug.org. Send typewritten material to Elliott at 5 Carter Court, Rockville MD 20852-1005

Questions? Call Elliott at 301 762-6261 or contact him on the Internet.

Let us help you find volunteers!

Do you need volunteers for a non-profit astronomy-related project? You may place an advertisement, free of charge, in the NOVAC Newsletter. See article at left on how to submit copy. Deadline is the 15th of the month before the publication date, e.g., June 15 for the July/August issue.

June 7
NOVAC Picnic
1. Bring Food &
Drinks
2. Bring
Telescope

Minutes of the January and February Meetings

Pete Johnson

Minutes of the March 12, 1997 Board meeting of the Northern Virginia Astronomy Club

The meeting was called to order at 7:35 p.m. at the home of club president, Brenda Jones.

Audit: Ken Pettijohn discussed the results of the NOVAC audit. The auditor made the following suggestions in order to make the NOVAC records more auditable:

- Make Xerox copies of checks
- Purchase a red "Paid" stamp
- Suggested the treasurer should not write reimbursement checks to himself.

Two CDs had matured and Ken asked if we should reinvest the money long term because we had discussed buying property for a club viewing site. The board consensus was not to hold the money. There was no motion.

Ken moved that Pete Johnson be reimbursed for the voice mail modem used for the NOVAC hot line and suggested that Pete own the modem rather than NOVAC. It was agreed that Pete would own the modem if he agrees to maintaining the hot line. He agreed. The motion was approved.

Ken advised that NOVAC needed a new address for the corporation's principal office due to Sandy Sanders leaving the area. Nicole Mastej volunteered her address. A motion to use Nicole's address as NOVAC's corporation's principal office was made and approved.

Minutes: A correction to the February board minutes was noted. An issue attributed to Ken Pettijohn pertaining to Sandy Sanders status as Corporate Agent should have been attributed to Brenda Jones. The minutes were accepted.

Library: Brenda said Herschel Payne's estate will be donating books to the NOVAC library. Craig Tupper said the book committee was almost ready to order books. Bill Burton commented that he would like to see books on astrophotography.

Programs: The March program will feature Geoff Chester.

Savage site: Brenda made a motion to let Ted Roach bush-hog the Savage site. Bill Burton expressed concern about nesting wildlife and that it should be done soon.

Comet Parties at Crockett: Brenda noted the following last minute details:

- Gary Kwolek wants someone at the gate to hand out literature. It was agreed that we would not have anyone at the gate.

- Parking is two dollars and the web site says it's free. Pete said he would fix it.

- The Boy Scouts will be handling the parking.

- We may have a table at the concession booth. It was agreed that we will have literature out, but it will not be hosted.

- Brenda asked Pete to do a press release about the comet parties. Pete agreed.

- For parking we should provide the milk jugs and candles for the luminaries and Crockett will setup and manage the parking.

- No parking on the main road will be allowed.

- Brenda said Brent was printing up fliers for the events.

Brenda brought out the NOVAC sign and described how it worked. Craig and Pete said they would set it up.

The meeting was adjourned at 8:25

Respectfully submitted,
Pete Johnson
Secretary

Minutes of the April 9, 1997 Board meeting of the Northern Virginia Astronomy Club

The meeting was called to order at 7:35 p.m. at the home of club president Brenda Jones.

Brenda noted that Jeff will be out for the next meeting and she needed a volunteer to read his observing report. Tilly volunteered.

Comet Party: Brenda said that most items were in place for the upcoming comet party and reviewed some last minute details:

- The Boy Scouts are coming to handle the parking.

- Craig will handle the Banner.

Past Hale-Bopp parties: Gary at Crockett park reported that they admitted 125 cars with an average of 3.5 people per car. This set the attendance at about 437.

Brenda noted that the Naval Observatory comet Hale-Bopp session on Monday drew 85 people despite high winds.

Bob Bunge reported that one night Sandra O'Connor (Supreme Court Justice) attended.

Astronomy League pro and con: After discussion, Brenda moved that Tilly compose an introduction to the issues of NOVAC withdrawing from the Astronomical League. The document will be circulated among the board members for review, and printed in the next

newsletter. At the May meeting there will be a handout on the issues and 15 minutes of member comments, limited to one minute statements, which will be timed. The issue will then be voted on. The motion was approved.

Nicole volunteered to make copies of the handout. Craig will be the timer.

Picnic June 7: Brenda suggested that we extend an invitation to the club old-timers. After discussion it was agreed, as a gesture of friendship, to extend the invitation to the National Capitol Astronomers (NCA) and Fredricksburg's astronomy club members. The picnic will be bring-your-own-food.

Library: Nicole reported that we had received books ordered by the committee. Bob Bunge moved that we should get the remaining books we had ordered and wait to see what to get in the future. The motion was approved.

Craig said that he was having difficulty getting copies of the library bookcase key made. It was agreed that a library bookcase key should be kept with the planetarium key. Additionally, it was agreed that Tilly should have a copy of the planetarium keys.

Sky Tour volunteers: Brenda expressed a desire to see some new faces doing the sky tours.

Upcoming Programs: Tilly presented the following schedule of programs:

- April - Comet Observing reports by club members.

- May - Star Parties, presented by club members including Bill Burton and Bob Bunge.

- June - Malcom Neidner, recapping the recent Hubble service mission.

- July - Rob Landis on the Russian space program.

- Aug - Solar Flares (no speaker at present)

- Sept - Willmann-Bell publishing

Ken Pettijohn is tied up with taxes and could not attend.

Other Business: Bob Bunge said that he had reserved the Arlington Planetarium for an International Dark Skies Association conference on Saturday, November 1, 1997. Bob is looking for appropriate officials to invite to the event and is soliciting assistance.

The meeting was adjourned at 10:10.

Respectfully submitted,
Pete Johnson
Secretary

(Continued on page 9)

(Continued from page 8)

Minutes of the March 1997 General Meeting of the Northern Virginia Astronomy Club

The meeting was called to order at 7:30 p.m. by club president Brenda Clements Jones at the Arlington Planetarium. There were 50 members in attendance.

Announcements

1. Steve Smith of the Arlington Planetarium will be having a star party at Capon Springs Mother's Day weekend. For information call Steve at the planetarium.
2. George Mason University: The club is signing up members to host the university's astronomy students during NOVAC observing sessions. To sign up contact Pete Johnson or sign up on the NOVAC web site. The dates are any scheduled observing dates.
3. The swap meet will be held at the telescope meet on September 6.
4. Brent made flyers for the Hale-Bopp viewing sessions. They were made available and members were encouraged to distribute them.
5. Brenda presented information about the Naval Observatory comet parties. Information describing when to arrive and where to set up were made available. The dates are March 31 and April 1. Those assisting must be on a sign up sheet which was circulated during the meeting. If members are not on the sign up sheet they will not be allowed to enter the observatory grounds.
6. Sandy Sanders awarded Craig Tupper an Astronomical League Messier observing pin.
7. Geoff Chester is going to have a comet party at Sky Meadows on April 5. He would like NOVAC members to come with their telescopes and binoculars and help out.

Officers Reports

Vice President Tilly Smith: presented list of future programs.

—April - Members presentations of their comet observations, drawings and pictures.

—May - Members will discuss star party experiences such as the Winter Star Party.

—June - Tentative, a recap of the recent Hubble Space Telescope servicing mission.

—July - Rob Landis to talk about astronomy in Russia.

Secretary Pete Johnson: Presented information on club mail and announcements.

Treasurer Ken Pettijohn: If you are receiving Astronomy magazine and are converting from an individual subscription to a club subscription, Ken needs your subscription number.

If anyone made a gift to the club last year and needs a receipt for tax purposes, see Ken.

Observing Report

Jeff Stetekluh present his detailed observing report.

Other Business

Brent showed pictures and drawings of comet Hale-Bopp taken from Skyline Drive. Brent also showed pictures by Bob Bunge who could not attend.

Geoff Chester showed comet photos he had

Minutes of the April 1997 General Meeting of the Northern Virginia Astronomy Club

The meeting was called to order at 7:32 p.m. by club president Brenda Clements Jones at the Arlington Planetarium. There were 42 members in attendance.

Announcements

1. Brent Archinal reminded the group about the Northeast Astronomy Forum. Brent said the presentation schedule included writers for Astronomy, Sky and Telescope magazine, and himself. He encouraged members to attend, and made fliers available. Driving time to the forum is estimated to be a five and a half hours.
2. Brenda thanked every one who participated in the March 29th comet viewing event. Crockett reported 125 paying cars with an average of 3.5 people per car making the attendance about 450 people. This was a good turnout considering the weather.
3. There will be an article in the next newsletter presenting the issues of whether NOVAC

should stay in the Astronomical League. At the May meeting there will be a short discussion period limited to one minute per speaker followed by a vote. Brenda encouraged all members to come prepared to participate.

4. June 7 will be the NOVAC picnic at Crockett Park. Brenda encouraged members to invite friends and members of other astronomy clubs such as NCA (National Capital Astronomers).

5. Brenda warned member against giving the park lock combination to non-members. Use of


the parks is a privilege of membership and the park should only be used during scheduled times. If we abuse our access privilege we could lose access to the parks for the entire club.

6. There have been an increased number of auto accidents on Route 28 leading to the Crockett Park site. In response to this the state has lowered the speed limit to 45 mph. Brenda and Elliott decided to change the

(Continued on page 10)

NOVAC Picnic

We have the Panorama Shelter rented from 2:30 til ???



Bring a picnic dinner, your friends, and family. We'll plan to have dinner around 6.

Saturday June 7 Crockett Park

taken.

Sky Tour

Was presented.

Program

How to get started in astronomy by Geoff Chester.

The meeting adjourned at 9:05 p.m.

Respectfully submitted,

Pete Johnson,

Secretary

(Continued from page 9)

newsletter's published directions for the park to use Route 29 rather than Route 28 noting that it is about the same distance and maybe 5 minutes longer. Brenda also advised members who continue to use the Route 28 approach to be aware of the new speed limits.

Officers Reports

Vice President Tilly Smith: The program for tonight will be members' comet observing experiences and photos.

—May - Star parties, member reports on various events they had attended.

—June - Dr. Malcom Nedner will discuss the recent Hubble servicing mission.

—July - Rob Landis will discuss the Russian space program.

—August - Solar Flares

—September - Perry Remaklus from Willmann-Bell publishers.

Secretary Pete Johnson: Asked members to call the hot line and evaluate it and suggest improvements.

Treasurer Ken Pettijohn: nothing to report.

Additional Business

John Stewart-Taylor presented awards for the recent Messier Marathon. Graig Tupper got 105 Messier objects. Additional awards were given to Bruce Miller, Rich Kaiser, and Mike Walker.

It was announced that the Savage site will be bush-hogged in the next few weeks.

Observing Report

Presented by Tilly in the absence of Jeff Stetekluh.

Sky Tour

Brent Archinal gave the tour.

Program

The program was members' comet observations and photographs. The program was lead off by Brent showing his images and those of Bob Bunge who could not attend.

The meeting adjourned at 9:05 p.m.

Respectfully submitted,

Pete Johnson,

Secretary

Notices Notices Notices



Notices Notices Notices

NOVAC Notices and Benefits

Discounts on Sky & Telescope and Astronomy.

As a member of NOVAC you can get astronomy magazine subscriptions at a discount. To obtain *Sky & Telescope* for \$27.00 (instead of the standard \$36.00), make your check out to "Sky Publishing Co." for \$27. You can subscribe to *Astronomy Magazine* for \$20.00 (one year). Make your check payable to "Kalmbach Publishing Company". In each case, note on the check: "new subscription" or "renewal." If this is the first time you are renewing via NOVAC, please include your current customer number. Send your check to Ken Pettijohn, 7916 Ivymount Terrace, Potomac, MD 20854.

The Treasurer will send in the checks to Sky Publishing and Kalmbach once a month on the first of each month. To have your renewal included, be sure to have it in his hands by the last day of the preceding month.

You can also order any publication directly from Sky Publishing at a 10% discount. Just mention the Club Discount Plan and that you are a member of NOVAC.

There are no special 10% discounts offered on publications from Kalmbach Publishing, but read what follows.

Discount on Books

NOVAC is participating in the discount book sales program offered by Kalmbach Publishing. They will sell our members any astronomy related book in their catalog for 25% off the list price when we send in a group order.

Nicole Mastej is coordinating the sales. If you are interested, please see her at a meeting or call her at home (703) 476-1207 to place an order. Make your check payable to "NOVAC" for the price of the book minus the discount when you place the order. We anticipate doing this 3 - 4 times a year if demand warrants.

Club Telescopes Available for Use

NOVAC makes available two six-inch (f/5) Newtonian reflectors for club members to check out free of charge and use for a limited time.

One scope is a Celestron model SP-C6 on a Super Polaris German equatorial mount and wood tripod. It will readily fit disassembled in any car and is easily transported and can be set up quickly at remote observing sites. The scope comes with Orion Ultrascopic 10mm and Meade MA 25mm eyepieces with 1.25-inch barrel sizes. The other scope is a home-made six-inch reflector on a Dobsonian mount and comes with a 25mm Kellner eyepiece. It is easy to transport to dark sky sites and easy to use. To borrow a scope you will need to show your NOVAC observing pass and leave a \$500 (for the Celestron) or \$250.00 (for the Dobson) security deposit. To borrow the Celestron, contact Doug Mistler at (703) 437-0513; for the Dobson, contact Bob L'Hommedieu at (703) 978-0946. Note: Checks must be made payable to "NOVAC". Checks used as security deposits on telescopes are not deposited and will be returned to the originator when the scope is returned in the same condition it was checked out. The scopes may be checked out for two to four weeks at a time, depending on demand.

NOVAC Library

NOVAC has established a library at the Arlington Planetarium for use by NOVAC members. Books may be checked out and returned only at the monthly meetings. Members may check out books for one month at a time. To borrow books, see NOVAC Librarians Pedro Martinez or Craig Tupper at the monthly meeting. The NOVAC library seeks book donations to the library. If you have any astronomy books or materials you are thinking of discarding, please consider a donation to the NOVAC library. A complete list of all library holdings is available upon request.

NOVAC Observing Schedule for 1997

Observing at Savage Farm, C.M. Crockett Park and Nichlason site: see back cover of this newsletter.

Observing at Parsells Field: any evening.

General Membership Meetings

General Membership Meetings are held at the Arlington Planetarium, 1426 N. Quincy Street, Arlington, VA, on the third Wednesday of every month. To reach the Planetarium, take Interstate 66 to exit 71 West, North Fairfax Dr. (Rt. 237). Go east on Rt. 237 to the 5th stoplight, N. Quincy Street (about 0.8 miles). Turn left onto N. Quincy Street (at the funeral home). Go 6 blocks (about 0.5 miles). The planetarium is the low white domed building on the left.

Trustee Meetings are held the Wednesday before the week of the General Membership Meeting. Non-Trustees interested in attending should contact a Club Officer or Board Member for further information.

NOVAC On-line

NOVAC maintains an e-mail mailing list. Messages sent to the list include reminders about scheduled observing sessions, announcements for unscheduled sessions, requests for quick observing session summaries, MIR observability predictions, etc.

For more information, send a message to Chewing Toulmin, pct@his.com.

NOVAC Observing Site Rules

C. M. Crockett Park: Any night that NOVAC observes at Crockett Park, the observing session will be open to the public. The gate will be locked and will not be unlocked unless a NOVAC member enters the park, at which time the gate should remain unlocked until 10 o'clock (or some other prearranged time) when the Assistant Park Manager will come out and ask members of the public to leave. The gate

(Continued from page 10)

will then be locked and should remain locked through the rest of the evening. NOVAC members may remain until they are finished with their observing session. There is now a 2-week lead time requirement for permission to observe at Crockett Park on nights other than those listed on our schedule at the back of this newsletter. Gary Kwolek recommends that anyone interested in observing in that area on unscheduled nights drive out to the Crockett Park gatehouse, turn left and drive down to the cul-de-sac where you can set up your telescope on the public road.

If any NOVAC member out observing at Crockett Park notices any member of the public violating Park policy, he or she is requested to notify the Assistant Park Manager, who lives in the house adjacent to the end of the parking lot.

During EDT, set up on the large field to the left. During EST, set up on the paved cul-de-sac 200 yds. past the gate. No loud radios, alcoholic beverages or loose pets. Do not leave trash or debris behind. We are guests of the park and park management may revoke our observing privileges at any time due to the carelessness of one person.

Parsells Field: In addition to scheduled nights, NOVAC members may observe at Parsells field ANY evening, with no prior notice. You must park and set up only in the parking area: do not go onto the field itself. Please park to the left, near the entrance and set up to the right, away from the entrance. The usual NOVAC observing site rules apply: no loud noise, alcohol, or loose dogs, and pick up after yourself. We are guests of the Dulles Little League, and could have our access to this site revoked at any time if it is abused.

Savage Farm Site: The Savage Farm site is reserved for NOVAC use on the same nights as Crockett Park plus all the major meteor showers. For non-scheduled observing sessions, call the park manager, Paul McCray, at (703) 729-0596 at least 24 hours in advance and leave a message with your phone number. You MAY use the site for that session UNLESS you receive a call from Mr. McCray stating otherwise. No loud radios, alcoholic beverages or loose pets. Pick up after yourself and do not leave any trash behind. Make sure the gate is locked whenever you are in the park, and when you leave. We are guests of the NVRP and could have our access to this site revoked at any time if it is abused.

Nichlason Site: The same rules apply as for the Savage Farm Site except that in seeking permission to use the site for non-scheduled observing call Smokey Jacobs (Northern Virginia Regional Park Authority) at 703-250-9124 and follow same procedure as with Savage Farm Site.

Directions to NOVAC Observing Sites

C. M. Crockett Park: From the Washington DC/Northern Virginia area, go west on I-66 21.7 miles from I-495 to Exit 43A in

Gainesville onto Rt. 29 South toward Warrenton. After 11.8 miles on Rt. 29, stay left (towards Culpeper), to bypass Warrenton (but still on Rt. 29 S.) Go about 1 mile to Rt. 643 exit, Meetze Road. At top of ramp, turn left to go East on Rt. 643. Go 7.5 miles on Rt. 643. Watch for the C.M. Crockett Park sign on your right, and turn right into the Park Entrance Road. Once on the park entrance road, go one-half mile to the park gate.

Parsells Field: From the Northern Virginia area go West on the Dulles Toll Road until you reach Route 28. Go North on Rt. 28 for 2.8 miles to Route 625, Waxpool Rd. (You may also take Route 7 West to 28, then go South to Waxpool). Turn left on Route 625, Waxpool Rd. (!), and go about 1.4 miles (through the Broadlands development), then turn left onto Waxpool Rd. (!!), which is then a gravel road. The field is about 200 yards ahead. Once on the gravel, you will need to continue straight ahead on a drivewayish road, rather than bearing right and continuing on Waxpool. Note that the field itself is currently undergoing refurbishment, so there are no signs marking it at this time.

Savage Site: Use some combination of Routes 7, 267 (Dulles toll road), and 28 to get to the Route 7 Leesburg bypass. Go around Leesburg on the bypass until you reach "regular" Route 7 again. From the intersection of the bypass and "regular" Route 7, continue on Route 7 west 18.5 miles to Route 601, at the top of Snicker's Gap.

Turn left onto Route 601 south and go 2.4 miles to the park entrance. The park entrance is past the driveway on the left whose gatepost reads *Ben Lomand*. The park entrance is the next driveway on your left. There will be a sign on a tree saying *Wildlife Sanctuary*. If you come to gateposts on the left that say *Belle Allee* and *Ball Alley 1875*, you have gone too far.

You may also take I-66 west to Route 17 North. Stay on Route 17 North until it intersects with Route 50 at Ashby Gap. Turn left onto Route 50 and go 1.0 mile and turn right on Route 601. Continue on Route 601 (Blue Ridge Mountain Road) and go two miles past the main gate of the FEMA installation. Turn right at the park entrance after passing the gateposts with *Belle Allee* and *Ball Alley 1875* on your right.

The park entrance on Route 601 is marked by a small brown and white NOVAC sign. The neighbors periodically pull up the sign, so it may not be there. As you turn into the park, go straight ahead until you reach the gate, which is secured by both a keyed padlock and a combination lock. These locks are located to your left behind the gate as you face it from the outside. The combination is on your NOVAC observing pass. ALWAYS lock the gate behind you. The NOVAC lock MUST be locked to the keyed lock, not to the chain, to allow emergency access by the fire department. Drive to the observing area (the stone patio next to the

house). There is very limited parking at the observing area itself, so please park in the parking area on the right as you face the patio.

Nichlason Site: I-66 to Rt. 7100 (Fairfax County Parkway) south to Ox Road (Rt. 123) south to second right on Chapel Road to immediate left onto Wolf Run Shoals Road (Rt. 610). Continue on Wolf Run Shoals Road (watch signs carefully at twists and turns in the road) for 3.9 miles to the site. It is immediately after a yellow house with white picket fence on the right. Nichlason Site is on the left marked by "Wildlife Sanctuary" signs on utility poles. After third "Wildlife" sign there is a dirt/gravel lane into the site.

From Springfield/Burke area: go north on the Fairfax County Parkway (Rt. 7100) to left onto Burke Lake Road. Burke Lake Road becomes Clifton Road just after the intersection with Rt. 123. Continuing on Clifton Road, turn left at the Citgo station onto Wolf Run Shoals Road. Follow Wolf Run Shoals Road as above to site.

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NOVAC members are invited to submit articles for publication in the NOVAC Newsletter. The editor reserves the right to edit all materials submitted.

Article submissions, in ASCII please, may be sent to Elliott Fein at edfein@cpcug.org, or to Elliott's address in Rockville, given above. Questions? Call (301) 762-6261, or send e-mail.

Deadline for submissions is three weeks in advance of publication, e.g., June 10 for the July/August Newsletter

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1997 NOVAC Observing Dates (Subject to change)

C.M. Crockett Park

May 2, 3, 4 (Eta Aquarid meteor shower), 9, 10, 30, 31
June 6, 7 (NOVAC Picnic), 27, 28
July 4, 5, 25, 26, 27 and 28 (Southern Delta Aquarid meteor shower)
August 1, 2, 8, 9, 11 and 12 (Perseid meteor shower), 29, 30
September 5, 6 (NOVAC Telescope Meet), 26, 27
October 3, 4, 21 (Orionid meteor shower), 24, 25, 31
November 1, 17 (Leonid meteor shower), 21, 22, 29
December 13 (Geminid meteor shower), 19, 20, 22 (Ursid meteor shower)

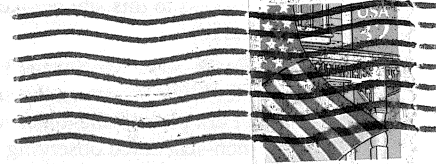
Savage Farm & Nichlason Site

May 2, 3, 4 (Eta Aquarid meteor shower), 9, 10, 11, 30, 31
June 1, 6, 7, 8, 27, 28, 29
July 4, 5, 6, 25, 26, 27 and 28 (So. Delta Aquarids)
August 1, 2, 3, 8, 9, 10, 11 and 12 (Perseid meteor shower), 29, 30, 31
September 5, 6, 7, 26, 27, 28
October 3, 4, 5, 21 (Orionid meteor shower), 24, 25, 26, 31
November 1, 2, 17 (Leonid meteor shower), 21, 22, 23, 28, 29, 30
December 13 (Geminid meteor shower), 19, 20, 21, 22 (Ursid meteor shower), 26, 27, 28

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