NOVAC

THE NEWSLETTER OF THE NORTHERN VIRGINIA ASTRONOMY CLUB

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President's Column

Brenda Clements Jones

Some of our members have been having fun recently, dreaming of club observing sites in what they hope would be perfect places for setting up their telescopes and binoculars. Places like Arizona, New Mexico and even the dark side of the moon! These dreams of course provide club members with jets and shuttle flights to the ideal observing sites! If only we could rub the magic lamp and have it happen!

Truth is, here we are stuck in the glare of the big city and have to drive for an hour to get to semi-dark skies. Not only do we have to drive, but for at least one of our sites we have to work to maintain it. I'm referring to the Savage Farm site, which has grass to be mowed and bushes to be cut back at the very least. During the time that we've had permission to use Savage Farm, Jon Stewart-Taylor has devoted many hours to organizing work parties to keep the site in good shape. Jon now finds that he cannot continue with this task. He's got a number of members who have been real troupers, pitching in to help when the work was needed. I'm looking for someone who would be willing to set up dates for the work parties and get things going so that we can continue to use this beautiful spot as one of our club observing sites. Please give me a call (703-527-7963) or send me an e-mail message (74723.3263@compuserve.com) if you're able to help out!

Someone else has been dreaming too. Not of a perfect dark sky site, but of a nearby site, and

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Coulter Reborn?

By Jon Stewart-Taylor

One of the more disheartening happenings in the amateur astronomy world was the recent bankruptcy of Coulter Optical. Long a supplier of astonishingly inexpensive (some would say cheap) Dobsonian-mount large reflector telescopes, Coulter could not survive the illness of its founder and folded, leaving hundreds of customers without telescopes for which they'd paid non-refundable deposits at ordering time.

Quite by accident, I recently found out that the remaining stock and assets of Coulter has been purchased by Murnaghan Instruments of Florida. A quick visit to their WWW site

http://www.magicbbs.com/murni

showed essentially the same product line, minus the 17" but with a 6" f/8 added.

My interest was piqued, so I sent an e-mail message to the address given in the web page (murni@bix.com), identifying myself as a member of the Northern Virginia Astronomy Club, and saying I was considering writing a short article for the NOVAC Newsletter. Murnaghan Instruments president Patrick Murnaghan not only responded to the e-mail, but offered to contact me via telephone to answer any questions I might have. Most of the information which follows is taken either from the e-mail response, or from the 45 minute phone conversation. Please note that although I'm presenting this as a question/answer session, and the information is correct to the best of my knowledge, this is not an actual transcript of

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President's Column

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he's located one. Greg Wuestenhagen contacted me some time ago about a site that he thought was pretty good despite it's close in location.

Through just a little bit of work, he and I have been able to get permission to use the Nichlason site. Those of you who live in the Springfield area will find it particularly appealing since it's so close to home. Even from my home in Arlington it takes just 25 - 30 minutes to get there! For directions and rules for this new site see the back of this newsletter.

Keep on dreaming - maybe one of these days we'll find the perfect dark sky site for the club!

Brenda □

We Wuz Lucky!

From: "Brent A. Archinal" <baa@casa.usno.navy.mil>

Subject: Asteroid passes through Earth-Moon system Sunday!

To: novac@his.com

Date: Fri, 17 May 1996 16:50:49 EDT

Fellow NOVAC'ers

Don't forget to duck - it's gonna be a close one this time! On Sunday afternoon, about 1 PM EDT, an asteroid will pass the Earth at a distance of 0.0030 AU - about 280,000 miles - about THE DISTANCE OF THE MOON at apogee! 1996 JA1 was discovered Tuesday morning from Catalina observatory in southern Arizona. I haven't figured out the best times for observing it, but if clear it might be reasonably bright (e.g. 11-12th magnitude) Sunday morning or evening. It will be moving extremely fast across the sky, covering around an incredible 7 degrees per hour at closest approach! That's over the width of the Moon in just four minutes!!! Brian Marsden notes "Apart from the moon, this is intrinsically the brightest object known to pass this close to the earth."

Don't forget to drop us a line if you happen to be able to spot this.

- Brent

Info on New Site

Gregory Wuestenhagen

From: skeetr@ix.netcom.com

Date: Mon, 20 May 1996 17:29:53 -0400

To: novac@his.com

I saw the site on Saturday afternoon. It looks SMALLER now that the trees are leafed out. I would say that it is 150 yards wide, 1/4 mile long.

There is a dirt/gravel turn in that goes down a hill into the woods. This is the area to turn into, then park on the grass off of this "road".

I used this field a few times last year before initiating the process of gaining access for NOVAC. I found the viewing to be within 1/2 magnitude of the sky at Crockett.

I had no trouble seeing Leo/Virgo galaxies w/ my 8" S/C. Easy targets like Orion neb. and Andromeda show well. Planets and other bright objects are good targets for this locale as well. The height of the trees on either side of the field (which runs about NE x SW) limit the horizon and thus the object viewing time.

If someone has the time and inclination to go to Crockett or Savage Farm I would encourage them to do so instead of using this site. It should be reserved for those occasions when time does not allow the longer trip, or when the case of acquiring permission to use it on "off" nights make it attractive. It's also a good place to take friends or family for a first session as the overall time/effort requirement is considerably less than going to the other sites.

The aforementioned "road" leading through the field and down the hill into the woods is frequented by teenagers on summer evenings. There is a property caretaker in close proximity. I have encountered teens on two occasions; both times they were friendly and interested in what I was doing, but I would advise not to make a habit of going there alone.

I live in relatively close proximity to the site (20 minutes), so if any NOVACer is looking for an observing partner at that location, feel free to e-mail me personally. I'll join you if I can make it.

Gregory Wuestenhagen □

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

Site Locations

Here are the locations of our four observing sites as provided by Bruce Miller:

Savage: 39° 05' N, 77° 52' W;

Parsells: 39° 01' N, 77° 32' W

Crockett: 38° 37' N;77° 43' W

Nichlason: 38° 44' N; 77° 21' W

Re: E-Mail Membership Directory

Corrections and additions:

william.jensen@tcs.wap.org

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

Article submissions, in ASCII please, may be posted to the NOVAC Computer Bulletin Board (BBS) to Elliott Fein or to edfein@cpcug.org. Questions? Call Elliott at (301) 762-6261 or contact him on the internet at edfein@cpcug.org.

The 1996 NOVAC Picnic

Craig Tupper

Crockett Park. You've been there a hundred times, and you think you know everything you would ever want to know about it. You can drive there blindfolded, without even missing the cutoff to Route 28. You have the lock combination memorized. You can walk to the port-a-potty without clicking on your LED, even after the neighbor's "security" light has clicked off for the night. You know it's a great place to share eyepiece time with other observers, from the most novice to the most experienced. You can drive off the field and back onto the pavement at 2:00 a.m., at the breakneck speed of five miles per hour, missing all the posts and the remaining observers, without turning on your headlights. What more is there to know about it?

Well, Crockett by day is a different place, as some of those who attended the annual club picnic on Saturday, June 15 discovered. Around 20 people gathered well before dark to enjoy each others' company, eat too much food, and take advantage of the weather. This was a better turnout than last year, and perhaps will continue to grow as people learn what Crockett has to offer. Off to the right of the observing site, past the man-made lake, there really is a State Park, and there we came, drawn like flies to the NOVAC banner hanging from our rented pavilion. (Your dues at work!)

It was a good opportunity to be casual with other astronomy buffs, as well as to meet some of the astronomy "widows" and "widowers" who don't normally show up for club events. Discussions ranged across a broad number of topics, many of which had (gasp!) nothing to do with astronomy. For a while, a nearby group in another pavilion had a live band playing '50's and '60's music, just loud enough to make your toes tap. The weather was great, warm but pleasant under the pavilion roof, and my two small children found plenty of playmates at the nearby whatever-you-call-those-big-playground-structures.

After a nice picnic, my six-year-old daughter Janelle and her friend Kean prevailed upon me and Kean's dad Rich Kaiser to rent a canoe down at the lake. Canoes at Crockett! And only six bucks an hour! Who'da thunk it? They even have paddleboats, if you want to get sweaty and go slow. We loaded the four of us, plus my two-year-old son Kelton, into the canoe and paddled off. Our trip around the lake had numerous highlights, including the two ultralight planes that buzzed by; the expedition to the dam where we heard the water rushing out of the lake; letting the kids paddle (no, we didn't lose anyone over the side); and spotting some kind of rope obstacle course high in the trees near the dam (is Crockett a Marine training facility?). But the best part was gliding closely by a flock of over 50 geese on the far shore, including several fuzzy half-grown babies. The dads had as much fun as the kids, maybe more. We got back to shore about 1/2 hour before twilight, and everyone started to pack up the picnic gear to go set up for the night's observing.

Lots of folks came late only for the observing, resulting in a pretty good crowd for the evening, and maybe 20-25 scopes. The seeing that night was excellent, but the sky was fairly hazy up until it completely clouded over sometime after 1:30. The dimmest fuzzies were lost in the mist, but there was still plenty to look at, and lots of friendly folks to share news and views with.

But even if the night had been a total washout, it would have been worth the drive just for the afternoon. I hope that even more people will come out and discover the "other" Crockett park at next year's picnic. I think it will be a tradition with our family. □

Coulter

(Continued from page 1)

either the e-mail or the telephone exchanges.

JST: What are the reasons you decided to acquire Coulter's name and assets after their bankruptcy?

PM: We knew about the product, and for a long time were considering adding an entry-level telescope which would be adaptable for use with CCDs later.

JST: The most obvious change to the scopes is the prices. The new prices put Odyssey scopes in the same price neighborhood as similar Orion, Celestron and Meade products. What will buyers get for choosing an Odyssey?

PM: The prices, although somewhat higher than the old Coulter prices, still represent a bargain. One of the reasons that the "old" Coulter went under was that there was so little "real" profit built into their prices, and therefore there was no cushion available for business emergencies such as the owner's illness. Also, we've made some meaningful improvements in the mount structure, mirror mount and tube. The ground board will have a bushing added to the pivot for smoother operation and greater durability. The existing azimuth bearing pads will be replaced with Teflon (tm) furniture glides, and the bottom board will be coated with something like Formica (tm).

JST: The primary and secondary mirror mounts on my 1995 Coulter 10" are marvels of simplicity and cheapness, but difficult to adjust. What changes have been made to them in the new scopes?

PM: A rudimentary 9-point mirror mount will be used on 10" and larger scopes, and possibly, on all from the 6" up. There have been reports of Coulter primary mirror mounts which allowed the collimation bolts to touch the mirror. This will be eliminated. In addition the bolts will have finer threads for more precise adjustment, and will be hand-tightenable, so tools will not be required to do collimation in the field. No changes are planned to the secondary mount.

JST: The specifications in the web page say that all primary mirrors are "1/8 wave or better". How is this measured? Is this wavefront error, or surface error? What about the secondary?

PM: The primary is guaranteed 1/8 wave or better on the surface, or 1/4 wave or better on the wavefront. On the secondary we hope for much better than 1/8 wave. We're also considering using enhanced coatings on all secondarys as a standard feature.

JST: The web page describes the focuser for the new scopes as "low profile". Is this a "real" focuser, or do the new scopes still use the old plumbing-parts focuser?

PM: At this time we are investigating replacements for the plumbing-parts focuser, but no decisions have been made. We'd like to go with something like the Lumicon screw-on replacement focuser, but cost considerations may prevent it.

JST: The scope comes with a "Coated 27 mm Eyepiece". Is this still the ex-binocular Kellner which used to come with Coulter scopes, or is it now a "real" telescope eyepiece?

PM: The current supply of binocular Kellners will be used up. After that, we're considering supplying a better eyepiece, but no decisions have be made yet.

JST: When do you expect to start shipping scopes?

PM: We're planning on August 1st, 1996.

JST: Thanks very much for your patience with a lot of questions.

Savage Farm Report #1

William C. Burton
To: novac@his.com

Date: Thu, 23 May 1996 08:02:33 -0400

From: bburton@resdgs2.er.usgs.gov (William C. Burton)

Subject: Report from Savage Farm

On Saturday, May 18 several NOVAC members converged on Savage Farm for a beautiful night of stargazing. Jon S-T and his whole family was there, the kids snuggled down in their sleeping bags on the patio when I arrived at dusk. Jon had his Coulter 10-inch Dobsonian, and I brought my 8-inch f/7 Newtonian. Much later another member and his wife or daughter showed up with an Astrophysics 6-inch f/9 Starfire refractor. The night was near perfect: warm, with no clouds, and a light breeze to keep away the dew. Perhaps the sky could have been more transparent, but one could argue that comfort is worth a few tenths of degree of magnitude: I observed until 3 A.M.in a T-shirt! Jon determined a limiting magnitude of about 6. I found galaxies as faint as 13.0. The Stewart-Taylors saw several bright meteors with trains, including a reddish one. Seeing was poor, but open and globular clusters looked especially good. By 2 A.M. the Milky Way was high up, its complex reticulations clearly visible. Unfortunately no one had the ephemerides for either Hale-Bopp or the close-approach asteroid.

Savage is an ideal site for the deep-sky "specialist" who waits for a favorite target area to get high in the sky and then goes out once or twice every year to observe in that area. I spent most of the evening in the area north and east of the constellation Leo, not quite making it into the Virgo cluster of galaxies. The sky is, in my humble opinion, darker than Crockett's. There is no western horizon, but a good eastern horizon, and Savage may be suitable for the early-morning apparition of Hale-Bopp next winter, if there is no snow. In late summer, when the meadow flowers are in bloom, it is a lovely place.

I talked to Paul McCray and he says that NVRPA has no plans to mow up there this year. Therefore the NOVAC officers and board should think about how best to keep up this excellent, FREE site, of which mowing and minor road maintenance are the major tasks. Apparently Pete Gural kept a lawnmower up there last year, stashed under a tree, and he has done virtually all of the mowing. If his mower is still available, we need to coordinate a volunteer schedule for mowing, and if it is not, we need to find a replacement mower. I talked to McCray about the possibility of storing equipment in the cabin, but he says the place was broken into after NVRPA installed a new lock, and equipment would not be secure.

Unfortunately, I will be gone most of the summer on a field assignment, so am not in a good position to coordinate anything, but I will try to pitch in. In any case, NOVAC needs to put its organizational resources to work in maintaining the Savage Farm observing site.

Savage Farm Report #2

William C. Burton
To: novac@his.com

Date: Tue, 4 Jun 1996

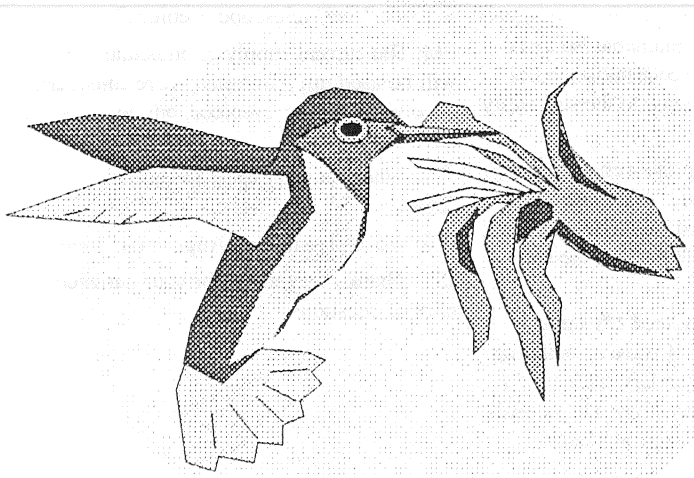
From: bburton@resdgs2.er.usgs.gov (William C. Burton)

The Savage Farm observing site benefited last week from sprucing-up efforts by NOVAC members. Jon Stewart-Taylor took advantage of a power outage at work on Thursday to go up there for several hours of pruning and weeding.

On Saturday a work party was convened by Pete Gural and included Brent Archinal, Bill Burton, Bob l'Hommedieu, and Mike Walker. They arrived heavily armed with two lawn mowers and three weed whackers and cleared out the access road, patio area, parking spaces, and path to the A-frame in less than three hours. We then relaxed under the spreading tree next to the patio with cool drinks and had an impromptu NOVAC meeting, which naturally included a discussion of the acquisition and maintenance of observing sites.

Dave and Gail Hunt of Waterford, Va., (non-members) have generously donated their old but perfectly functional lawnmower to NOVAC for use on the Savage Farm. It now resides on the porch of the old house near the patio. NOVAC members are encouraged to "take it out for a spin" on their next visit to the site. Please bring your own can of gasoline, since we can't store any at the site, for obvious arson-related reasons.

Help Wanted



NOVAC needs someone to organize work parties (grass cutting and bush trimming) for our Savage Farm site. Please contact Brenda Jones at 703-527-7963 or e-mail 74723.3263 @compuserve.com

AIP Bulletin Excerpts

PHYSICS NEWS UPDATE
The American Institute of Physics Bulletin of Physics News Number 268 May 1, 1996 by Phillip F. Schewe and Ben Stein

SATURN'S RINGS ARE SEEN EDGE-ON at Earth only twice every 30 years. This is a good time to view the Saturn system since the glare of the rings is so much less. For the recent 1995 ring-plane crossings, the Hubble Space Telescope made extensive observations. Some findings: the ring system overall is about 1.2 to 1.5 km thick; the F ring is inclined relative to the A ring; the rings are covered by a tenuous sheath of OH molecules; the tiny inner satellite Prometheus was some 19 degrees of longitude away from its estimated position; the E ring flares (at a distance of 7.5 Saturn radii) to a thickness of about 15,000 km. (Several articles, Science, 26 April 1995.)

THE FIRST BINARY-STAR SYSTEMS BEAMING X-RAYS AT SUB-MILLISECOND rates have been observed by the Rossi X-Ray Timing Experiment, an orbiting telescope launched in December 1995. Speaking at this week's meeting of the American Astronomical Society in San Diego, RXTE scientists reported that a binary system (Sco X-1) in the constellation Scorpius was emitting x-rays on and off 1130 times per second. Another binary system (4U 1728-34) in the constellation Sagittarius was emitting x-ray bursts at a rate of up to 1100 per second. In each case the x-rays are believed to arise when material from a normal star falls onto a companion neutron star. For Sco X-1, x-rays beamed at a slower rate are also seen. The researchers are puzzled as to why the slower pulses and the faster 1130 pulses/sec emissions are modulating over time in the same way. (AAS press release.)

PHYSICS NEWS UPDATE
The American Institute of Physics Bulletin of Physics News Number 270 May 9, 1996 by Phillip F. Schewe and Ben Stein

TWO EFFORTS TO MEASURE THE HUBBLE CONSTANT are converging somewhat. Wendy Freedman of the Carnegie Institution reported at a NASA press conference today that she and her colleagues were finding that values for the Hubble constant (H), a measure of the expansion of the universe, hovered in the range 68 to 78 km/sec/Mpc. (In 1994, they reported a preliminary value of 80.) A separate group led by Allan Sandage, also of Carnegie, recently reported a Hubble constant of 57. Freedman's team is midway through a 3-year program of measuring the distance to 20 distant galaxies by observing Cepheid variable stars, whose intrinsic brightness is related to the rate at which their luminosity varies. These observations in turn can be used to calibrate other means for determining distances to objects at even larger scales where local gravitational interactions have a lesser impact on a calculation of H. The secondary yardstick methods include the determination of the peak brightness of type-Ia supernovas and the use of the Tully-Fisher relation, according to which a galaxy's luminosity is related to its rotation rate. The latest entry in Freedman's inventory is galaxy NGC1365 in the Fornax cluster, at a distance of 60 million light years. (NASA press release, 8 May 1996.)

THE OLDEST STARS IN THE MILKY WAY ARE 15 BILLION YEARS OLD. An important adjunct to the debate over the Hubble constant is the notion that the universe cannot be younger than its older stars, which appear to be those in globular clusters, spherical clumps of hundreds of thousands or millions of stars found near and around our galaxy. Don VandenBerg of the University of Victoria (davb@uvvm.uvic.ca, 614-721-7739) uses the Canada-France-Hawaii telescope to view the ancient, metal-poor stars (they largely lack the elements heavier than helium which many younger stars inherit from earlier supernova explosions) in globular clusters.

By plotting the stars' luminosities versus their colors, and by employing the standard model for stellar evolution, the age of the stars can be calculated. VandenBerg, speaking at last week's meeting of the American Physical Society in Indianapolis, said the oldest reliably dated stars, in globular cluster M92, were most likely 15 billion years old. Uncertainties in the determination of the distances to the clusters (effecting calculations of the stars' luminosities) might permit an age of 13 or even 12 billion years. But VandenBerg asserted that the ages could not be much younger than that. New observations of his in globular cluster M13 did not alter this assessment.

PHYSICS NEWS UPDATE
The American Institute of Physics Bulletin of Physics News Number 272 May 23, 1996 by Phillip F. Schewe and Ben Stein

THE GALILEO PROBE that penetrated Jupiter's atmosphere in December 1995 found only a fraction of the water expected. Further analysis of the probe data has turned up additional surprises. Wind speed at the surface was clocked at 150 m/sec; at the lower depths the speed did not fall off but actually increased to 200 m/sec. Lightning on Jupiter was observed to be less frequent than on Earth. Torrance Johnson of JPL, speaking at this week's meeting of the American Geophysical Union in Baltimore, said that now that all of the probe data had been downloaded, new software was being installed on the Galileo spacecraft to better prepare it for upcoming tasks, such as the June flyby of the moon Ganymede. Galileo will pass as close as 900 km and will take the best-ever pictures of the scarred moon.

PHYSICS NEWS UPDATE
The American Institute of Physics Bulletin of Physics News Number 276 June 21, 1996 by Phillip F. Schewe and Ben Stein

POLARIZED LIGHT AS A BLACK HOLE SIGNATURE. How can astronomers be sure that black holes exist? The motions of stars and gas near presumed black holes provide provisional evidence, but additional assurances are desirable. Paul Wiita and his colleagues at Georgia State suggest that the polarization (the preferential orientation) of x-rays coming from some celestial objects such as x-ray binaries and active galactic nuclei can be used to demonstrate the presence of a black hole. These x-rays are thought to arise when material pulled from nearby stars toward black holes piles up on (and heats up) the accretion disk hovering closely about the hole. According to Wiita (wiita@chara. gsu.edu), light coming from the inner part of the disk will not only be more energetic than light from further out on the disk, but will show greater changes in polarization as well. Furthermore, the degree of the polarization should be enhanced in a characteristic way by the lensing action of the black hole's huge gravitational field. It will, however, be difficult to test this hypothesis in the near future since the apparatus for measuring polarization was recently dropped from plans for the orbiting AXAF x-ray telescope, to be launched in 1998. (Gang Bao, Paul Wiita, and Petr Hadrava, Physical Review Letters, 1 July 1996.)

Minutes of the May and June General Meetings

Bill Jensen

Minutes of the May 15,1996 General Meeting of the Northern Virginia Astronomy Club.

The meeting was called to order at 7:30 PM by Club President Brenda Clements Jones. She welcomed 60 members and guests to the meeting held at the Arlington Planetarium.

Announcements:

1.Brenda Jones announced that Greg Wuestenhagen had secured an additional close-in observing site for club members. The new site, the Nichlason site, will be available to members on the same nights as Crockett. Members can also call the park and leave a message that they would like to use the site on unscheduled nights, and if they don't get a message advising otherwise, it will be available for use. It is adjacent to the Fountainhead Regional park in Clifton VA. Greg distributed a handout with directions to the new site, and future newsletters will include these directions for reference.

2.Brenda Jones requested assistance in locating a lock missing from the Crockett park portajon.

3. Ron Ferris announced that there is information available on Roboscope, a telescope controlled via internet access.

Officers Reports:

Vice President Doug Jackson announced that the June meeting would consist of a swap meet.

Bill Jensen reviewed the monthly mail received, including offers to club members for observing cards, and various trips of interest for amateur astronomers.

Observing Report:

Jeff Stetekluh gave the observing report for May, and Jon Stewart-Taylor conducted the monthly sky tour using the planetarium projector.

Questions and Answers:

Members discussed the difference of approximately 9 degrees between celestial north, and north as indicated by a compass

May Presentation:

Drew Le Page, a member of the editorial board of SETIquest magazine, presented a summary of the search for extraterrestrial intelligence. He highlighted the history of the search, noting that scientists have used both non-targeted and targeted observational techniques. He discussed the traditional targeted methodology as being too rigid in its criteria . He also described a mathematical model of targeting, with estimates of the probability of technological civilizations in our galaxy. He noted that the probability of civilization was a subset of the overall targets of habitable planets. He also highlighted the criteria of star size, type and concluded his talk by citing the top ten candidates for further targeted research, and answered questions concerning the most recent planetary systems discovered within the last few months.

The meeting adjourned at 9:00 PM.

Respectfully submitted,
Bill Jensen
Secretary

Minutes of the June 19,1996 General Meeting of the Northern Virginia Astronomy Club.

The meeting was called to order at 7:30 PM by Club President Brenda Clements Jones. She welcomed 43 members and guests to the meeting held at the Arlington Planetarium.

Announcements:

1.Brenda Jones announced that approximately 25 members enjoyed the club picnic at Crockett park.

2.Brenda Jones requested assistance from any club member willing to act as a coordinator for the Savage site.

3.It was noted that an IMAX film called "Cosmic Voyage" would be shown at the Air and Space Museum theater in August 1996.

4. Jeff Stetekluh announced that the new web site address for the club was http://astro.gmu.edu/~novac. He further advised that the site was "under construction".

5. Volunteers were requested to assist in an observation session for children to be held on October 10,1996 at Camp Highroads.

Officers Reports:

Vice President Doug Jackson announced that the July meeting would consist of a presentation by a scientist from the Goddard Space center on planetology.

Bill Jensen reviewed the monthly mail received, including vendor offerings to club members by Morningstar Telescopes, Gnome Telescopes, Hooker Telescopes and Astrosystems Inc., an offering by a magazine called Amateur Astronomy, plus a request for assistance by a scouting group in the Springfield area.

Treasurer Ken Pettijohn announced that the subscription rate for Sky and Telescope magazine had increased to $27 annually.

Observing Report:

Jeff Stetekluh gave the observing report for June, and Craig Tupper conducted the monthly sky tour using the planetarium projector.The meeting then adjourned to the Swap Meet which was held indoors due to the inclement weather.

Respectfully submitted,
Bill Jensen
Secretary

NOVAC Notices and Benefits

Discounts on *Sky & Telescope, CCD Astronomy*, 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. For ***CCD Astronomy Magazine*** at $20 per year, make your check payable to "Sky Publishing Co.". You can subscribe to ***Astronomy Magazine*** for $18.00 (one year) or $36.00 (two-years). Make your check payable to Kalmbach Publishing Company.

In each case, note on the check: "new subscription" or "renewal." Send your check to Ken Pettijohn, 7916 Ivymount Terrace, Potomac, MD 20854.

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 for 20% 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 an Orion Ultrascopic 10mm and Meade MA 25mm eyepieces with 1.25-inch barrel sizes. To borrow this scope you will need to show your NOVAC observing pass and leave a $500.00 security deposit.

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 this scope you will need to show your NOVAC observing pass and leave a $250.00 security deposit. If you are interested in borrowing either of these scopes, contact Bob L'Hommedieu at (703) 978-0946. He will schedule a time for you to pick the scope up at his home. Bob lives at 4415 Eastwood, Fairfax, VA.

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 Librarian Marta Krause, or Deputy Librarian Steve Custerer 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 1996
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. Trustee Meetings are held the Tuesday 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 Chewning 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 David Petty, Assistant Park Manager, will come out and ask members of the public to leave. The gate 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 David Petty, 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 noises, 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.

(Continued from page 7)

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 to the 47-a exit. This is 234 South to Manassas. Continue on 234 for 2.8 miles then turn right on Godwin Drive at what was previously the *Po Folks* restaurant. Follow Godwin Dr. for 1.8 miles keeping to the right to merge with Rt. 28 West. Once on Route 28, continue driving for another 13.7 miles through the towns of Nokesville, Catlett, and Calverton until you turn right on Rt. 643 toward Warrenton. There is a small country store (*Mayhugh's*) on the corner of the intersection. Go on about a mile up Rt. 643 to the Park Entrance road. Look for a small sign for C.M. Crockett Park on your right directing you to turn left. Once on the park entrance road, go one-half mile to the park gate.

Alternate directions to avoid Manassas: 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 West on Waxpool, and go 1.8 miles to the Waxpool/Farmwell intersection. Turn left on Route 625, Waxpool Rd. (!), and go 1.6 miles to the Waxpool/Ryan/Shelhorne intersection. Continue on Waxpool for about another 1.6 miles to the field. Turn left and follow the blue parking signs to the parking area.

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 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. □

The **NOVAC Newsletter** is the official publication of the ***Northern Virginia Astronomy Club*** and is published six times per year at 5 Carter Court, Rockville, MD 20852-1005, edfein@cpcug.org, telephone (301) 762-6261, Elliott D. Fein, Editor and Publisher. The NOVAC Newsletter is sent to members of NOVAC as a regular membership benefit.

Membership in the Northern Virginia Astronomy Club is $18.00 per year and is open to anyone interested in astronomy or the sciences. Contact Ken Pettijohn,Treasurer, 7916 Ivymount Terrace, Potomac, MD 20854, telephone 301 983-3199. All notices of change of address should be sent to Ken Pettijohn. Please include both old and new addresses.

NOVAC does not knowingly accept advertising for products of inferior quality nor does it accept the responsibility for the quality of advertised products.

NOVAC members are invited to contribute materials of interest for publication consideration in the NOVAC Newsletter. The editor reserves the right to edit all materials submitted.

Article submissions, in ASCII please, may be posted to the NOVAC Computer Bulletin Board (BBS) to Elliott Fein or to edfein@cpcug.org.

Deadline for submissions is three weeks in advance of publication, e.g., Aug. 10 for the Sept./Oct. Newsletter

1996 NOVAC Observing Dates

C.M. Crockett Park, Nichlason Site

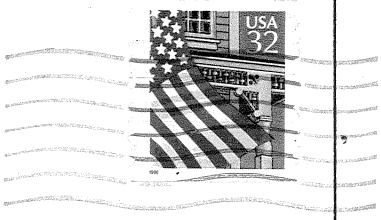
July 12,13,19,20
August 9,10,
August 11 and 12 . . . . . Perseids
August 16,17
September. 6,7,13,14
September. 21
. . . . .Northern Virginia Telescope Meet
October 4,5,11,12
November 1,2,8,9
December 6,7,13,14

Savage Farm

July 5,6,7,12,13,14,19,20,21
August 9,10,11
August 12. . . . . Perseids
September 6,7,8,13,14,15
October 4,5,6,11,12,13
October 21 . . . . . .Orionids
November 1,2,3,8,9,10
November 17 . . . . . Leonids
December 1,6,7,8,13,14

NOVAC

The Northern Virginia Astronomy Club
c/o Nicole Mastej
2241 Lovedale Lane, Unit J
Reston, Virginia 22091



Inside:
–Information on new observing site,
–New directions to Crockett
and much more!

12/96 - $0.00

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