

# NOVAC

THE NEWSLETTER OF THE NORTHERN VIRGINIA ASTRONOMY CLUB

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## President's Column

by Brenda Clements Jones

Our Annual Meeting, which had to be put off for a month because of the wonderful Blizzard of '96, had a good turn out of dedicated NOVAC members, anxious to get on with another year of observing and sharing astronomy with others. We got a lot done and the evening left me with a feeling of excitement for what the year will bring us!

A major item of business discussed at the meeting was the new observing policy for Crockett Park. These changes are being put into effect to make our use of the Park comply with Park rules and regulations. The changes are:

1) 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 pre-arranged 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.

2) 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

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## NOVAC and the Public - Observe Comet Hyakutake

by Brent A. Archinal

It was decided at the February 13 NOVAC Annual Meeting to reserve several nights at Crockett Park for observing the new bright Comet Hyakutake (discussed elsewhere in this issue). The nights of March 15-19, March 22-31, and April 3 will be available for observing by NOVAC members. And, we have decided to hold public star parties at Crockett Park on Friday and Saturday night, March 22 and 23, from 8:00 PM (about the end of twilight and when the comet rises) until midnight. The event is being held on two nights in order to increase the chance it will be clear for one of them. The comet should be well up for observing those nights by about 9 PM, while the Moon sets around 10 PM Friday and 11 PM Saturday. The comet itself is predicted to be of second magnitude at that point, and perhaps will have a respectable tail (or tails?!). Therefore, those nights are best for observing the comet in mid to late evening. Publicity for these events is being planned and we are asking for as many members as possible to come out and help out on the public nights. We need to have a few people there no matter what the weather, in order to help answer questions, etc. However if the skies are clear, we get some good publicity, and the comet is spectacular - all good possibilities! - this may be the most heavily attended event in NOVAC's history.

We also want to encourage members to go out to the park on the other nights the Park will be available. The March 15-19 dates have primarily been reserved for Messier Marathon observing, but the comet should be a naked-eye object (although rising later in the evening) by then as well. On the night of Tuesday, March 26, when the comet passes closest to the Earth, it should be at its brightest, with the tail perhaps at its longest. It will remain visible all

*(Continued on page 5)*

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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.

3) 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.

We appreciate being able to make use of Crockett Park for our observing sessions and look forward to many, many (so long as light pollution allows) more years of observing there! Don't forget that we also have Parsells Field and the Savage Farm for our use. Directions and rules for all these sites are at the back of this newsletter.

Dates were set for various activities throughout the year. You should make note of these dates on your calendar: March 17, 18 and 19th have been reserved at Crockett for a Messier Marathon; March 22 through 31 has been reserved for viewing Comet Hyakutake. What an exciting prospect!!! Please come out to help us on March 22 and 23rd (see Brent's article in this newsletter about the event). April 3 has been set aside at Crockett for the total lunar eclipse.

April 20 is Astronomy Day at Crockett Park. We will be inviting the public out through our publicity and expect a nice crowd. Please plan to come out with your telescope or binoculars as the sun is setting and enjoy the camaraderie. If you don't have a telescope or binoculars, come on out and look through the eye pieces that are set up to share!!

We're having a NOVAC picnic on June 15. Plan to bring your family, friends, food and get to know other NOVAC members! It's an observing night so bring your telescope or binoculars out too and plan to spend some time sharing the skies!

We're planning to have a swap meet at one of the meetings at the planetarium during the summer. So set aside your spare whatevers and be watching for an announcement of the date!

The last new date on the events calendar is September 21, when we'll be having the Northern Virginia Telescope Meet at Crockett Park. This will be on the same day as the Children's Festival at the Park. Keep in mind that we'd like to have a simple display (perhaps solar observing) set up during the Festival. I'll be asking for help with this as the time draws near. The Telescope Meet is much the same as our Astronomy Day event -- simply a fun gathering of telescopes and binoculars. We invite the public out through our publicity and show them the stars!!!

I've got one more item on my list of things to mention to you. For quite some time Linda Thomas has been our librarian. Linda has fought through sickness and unrelenting work schedules and finds it necessary to step down. I'm hoping that Linda's work load will soon ease up and we'll be seeing her at meetings again. She's been a great help not only with the library but has been super in helping with star parties at scouting and school events. Marta Krause, who has just retired from the position of NOVAC secretary, has volunteered to become the club's librarian. For those of you who are new, the library is housed at the back of the planetarium, and books can be checked out during club meetings.

It gives me an immense sense of pleasure to be involved with an astronomy club like NOVAC, which has so very many members who are ready, willing and eager to help out. It's wonderful, too, to have people in the background who are not even members but are there for the club, always ready to help like Steve Smith and Fran Whitney at the Arlington Planetarium, David Petty and Gary Kwolek at Crockett Park, and Paul McCray of the Northern Virginia Park Authority among many others!

Keep looking up!!

Brenda

## Upcoming Messier Marathon

by Sandy Sanders  
ON YOUR MARKS! GET SET! GO!

And the 1996 First Annual NOVAC Messier Marathon is on! NOVAC is going to try out the once a year all night event at Crockett Park scheduled for the weekend of 15/16 March 1996 as well as Sunday 17 March (The luck of the Irish!), Monday 18 March, and Tuesday 19 March for the hardy folks willing to take a day or half a day off from work the next day. The Messier Marathon is an all-night observing session with a goal to see all 110 Messier objects (Yes I know some say there aren't 110 but who's counting!) and have fun doing it. If you find and observe 70 objects and can document them, you can receive a certificate from the Astronomical League. It is very unlikely you can observe all 110 from Crockett Park (M30 is very difficult!), but if you have observed all 110 and can document them there is a nice certificate and pin from the League.

But I'm a rookie! What do I do? I was a rookie in 1994 and observed 98 objects on the night of 10/11 March. I would like to help the rookies out this year since I seem to enjoy helping others observe more than actually doing it. Contact me - I'm not sure which night I'll be out. There are others in NOVAC who may do a Marathon. If you stay out and only view sixty or seventy or so, it's still fun, a big start on the certificates, and you have a better understanding of the sky and many nice deep-sky objects. If there is enough interest afterwards, I'll look into T-shirts, but we'll have to pay for them! I may be able to front a few bucks for a Rookie of the Year award, but NOVAC hasn't approved it yet.

I can be reached at (703) 690-7000 day, (703) 590-8982 evening, and sandys@doubled.com e-mail. See you out at Crockett Park and study up your Messier objects!

PS: Comet Hyakutake will be getting exciting at marathon time, according to the experts, but that's somebody else's article!

## Coulter Odyssey I for Sale

Coulter Odyssey I w/ 28 mm Kellner eyepiece & Telrad, f/4.5 w/ 333 mm (13 inch) aperture f/11.8 w/ 127mm aperture stop, f/19.7 w/ 80mm aperture stop, and f/26.2 w/ 60mm aperture stop.

Focal length = 1500 mm (59"), Dobsonian mount

Delivered Feb 95. Original cost = telescope (\$575) + Telrad (\$50) + shipping

(\$200) + tax (\$45) = \$870. Will sell for \$670. This is a great scope, but I just bought a nice guitar and I cannot afford both! I carry this scope around in my Honda Accord so it is a nice balance between aperture and mobility. Accessories (I will not sell these until the scope is sold.): University Optics 20mm Wide Scan w/80 degree field of view (1.25" barrel) = \$99 (save \$50), Meade 9.7mm Super Plossl = \$60 (save \$30), University Optics 2.8x Klee Barlow = \$50

(save \$30)

Call Neal Blackwell @ (703) 704-3899 (w) or (703) 968-8852 (h)

# Sky Sweep

by Kevin B. Jones

One of the top targets for amateur telescopes during March and April will certainly be Comet Hyakutake (C/1996 B2). As the comet races across the sky from Libra through Boötes, between the Ursae, and across the Perseus Milky Way, it will be passing near several deep-sky objects worth your attention, if you can wrench your gaze from Hyakutake for a few moments!

The comet will spend the first half of March in Libra, growing brighter day by day. During this time, the comet will be several degrees to the east of the globular cluster NGC 5897. This cluster is located about forty percent of the way along a line from Sigma Librae to Gamma Librae. Gamma is the easternmost and Sigma the southernmost star of the four which make up Libra's diamond-shaped outline. At tenth magnitude, this cluster is not particularly bright - it will be considerably fainter than Comet Hyakutake. It is about nine arcminutes in diameter and is fairly difficult to resolve into individual stars.

As Comet Hyakutake climbs northward from the nineteenth to the twenty-third of March, it will quickly pass another, brighter, globular: M5 in Serpens Caput. This cluster will be, like NGC 5897, several degrees to the east of the comet as it passes by. M5 glows brightly at magnitude 6.3, and contains stars of eleventh magnitude and fainter.

Five degrees to the east of M5 and quite close to the comet's position on the twentieth and twenty-first of March are three faint galaxies in Virgo. These galaxies, from east to west, are NGC 5806, 5813, and 5831. They all shine dimly at twelfth magnitude. NGC 5806 is an elongated spiral galaxy, two arcminutes by one in angular size. NGC 5813 and 5831 are both ellipticals less than an arcminute in diameter located to the southeast of NGC 5806. NGC 5813 is a third of a degree from 5806, and 5831 is about a degree from 5806 in the same direction.

As Hyakutake speeds northward into Boötes, it passes the telescopic double stars Zeta and Pi Boötis on March twenty-second.

On March twenty-fifth, Comet Hyakutake passes M101, a large spiral galaxy located a few degrees to the north of the Big Dipper's handle. This galaxy shines at eighth magnitude, but has a low surface brightness because its light is spread out over an area twenty-two arcminutes across, nearly the angular size of the full moon. M101's large angular size and low surface brightness make low powers ideal for sweeping up this galaxy. M101 is a class Sc spiral seen almost directly face-on. M101 is located near the end of a chain of fifth magnitude stars extending

eastward from the naked-eye double Mizar and Alcor.

Just after Comet Hyakutake's closest approach to Earth, it will be moving across the relatively barren area of sky near the North Celestial Pole. By the last days of March, though, the comet will come within several degrees of a spectacular pair of open clusters, known as the Double Cluster, or NGC 869 and 884. These clusters are located in a truly dazzling Milky Way field and are impressive in anything from the smallest binoculars to the largest telescopes. They are also easily visible to the naked eye from even not-so-dark observing sites. Telescopes reveal beautiful color contrasts between some of the clusters' stars.

During the first week of April, as the comet races toward perihelion and sinks toward the evening twilight, it will cross the loose aggregate of stars near the center of the constellation Perseus. This group of stars, centered around Alpha Persei, make up a gravitationally bound cluster of one or two hundred stars called the Alpha Persei Association. This cluster is located relatively near the Solar System in galactic space-"only" several hundred light years distant. The Alpha Persei Association is moving through space toward El Nath, the star joining Taurus and Auriga, at a rate of one degree per ninety thousand years-considerably slower than Comet Hyakutake's rate of motion of still over a degree per day at this point!

As Comet Hyakutake approaches the Sun, it will continue passing deep-sky objects, but the sky surrounding the comet will be too bright to allow them to be seen. As you observe the comet and the deep-sky objects it passes, it is interesting to think about the vast difference in the distances to the comet and to the objects: the comet will be roughly ten million miles from Earth at closest approach, while the Alpha Persei Association, for example, is roughly four quadrillion miles away, or four hundred million times more distant than the comet. The three galaxies in Virgo mentioned above are on the order of ten to one hundred trillion times more distant than the comet! It's hard to comprehend such a difference in scale. Figures such as these make it hard to believe that observers don't need to drastically change focus on their telescopes when changing from viewing Solar System objects such as Comet Hyakutake to viewing external galaxies!

Clear skies!

\* Kevin Jones

at the College of William and Mary in Virginia

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# The 1996 Messier Marathon

by Jon Stewart-Taylor

Every year in mid-to-late March and early April, it is possible to observe all 110 Messier objects in one all-night Marathon. This is not an easy feat, since you have to locate, identify, and observe approximately 10 objects per hour, racing to collect the western objects before they set, and then the eastern objects before dawn drowns them out, while battling fatigue.

Why would anyone **want** to do this? Many Marathoners feel a sense of satisfaction at learning the objects well enough to be **able** to do it. You have a unique opportunity to observe and compare a wide variety of different objects in a single observing session. This year we have the added incentive of public recognition: Those logging over 90 objects will receive a certificate, and have their names published in the newsletter.

NOVAC will be holding the Marathon on the evenings of March 15/16, with cloud dates April 12/13, all at Crockett. A checklist with all 110 objects in the suggested observing order will be available at the February meeting, at Crockett on the Marathon nights, and via e-mail: write to [jstewart@telenet.com](mailto:jstewart@telenet.com) for a copy.

# NOVAC Library to Get Spring Clean-Up

NOVAC's library, housed in the main entrance corridor at the Arlington Planetarium, is due for a Spring cleaning. To improve the usefulness of the library to NOVAC members, an inventory will be taken, the card catalog will be updated, and irrelevant books will be removed. Finally, a list of library holdings will be available at meetings and printed in the newsletter in late Spring.

NOVAC members who currently have books on loan are asked to return them for inclusion in the inventory. If you are unable to return them at the March meeting, please contact NOVAC's 1996 Librarian Marta Krause at (703) 281-9049 or [Krause1206@aol.com](mailto:Krause1206@aol.com). The inventory is also a part of NOVAC's financial records and must be considered for tax returns; inclusion of all library materials is important.

NOVAC gratefully accepts donations of books and other printed materials that are relevant to astronomy and space science. Anyone wishing to make a donation should contact the librarian or any of the club officers.

# A BRIGHT COMET ON THE WAY!

by Brent A. Archinal

Dust off your eyepieces and clean your mirrors! It looks like a really big comet is coming by!

Comet Hyakutake (C/1996 B2) was discovered this past January 28 in Japan by Y. Hyakutake using 25x150 binoculars.

Based on pre-discovery observations in early January, a revised orbit has now been published in the Minor Planet Electronic Circular 1996-C06 of February 10. The relevant portions are given below with predicted positions and magnitudes, and the orbital elements for those of you with orbit programs. The columns of the table are described at the end.

The important point is that on March 26 this comet will apparently pass the Earth by only about 10 million miles, and will be a BRIGHT EASY NAKED EYE OBJECT near first magnitude at that point! It will also be quite bright in late April as it approaches the Sun, but will be difficult to see.

The figures below show that for much of the week of March 24-30 the comet will be CIRCUMPOLAR and visible all night long. On the night of Tuesday, March 26-27 it is predicted to be a 0.7 magnitude object - only a handful of stars will be brighter that night!! As described in another article in this issue, Crockett Park is available for observing during much of this period. A public star party will also be held at Crockett when the comet is best placed in the evening sky, on March 22 and 23. Well, it looked like we were going to have to wait until Comet Hale-Bopp arrived to see a good one, but if these predictions hold, this is a real biggie! Keep your eyes on the astronomy magazines, the World Wide Web sites, and regular press - I'm sure that more info will follow. Here's hoping for clear skies in late March!

- Brent A. Archinal

Excerpts from the Minor Planet Electronic Circular 1996-C06:

Orbital elements:

		C/1996 B2 (Hyakutake)		Marsden	
T	1996 May 1.41087 TT				
q	0.2301957 (2000.0)	P	Q		
	Peri. 130.17807	+0.57751436	+0.80823672		
	Node 188.06079	+0.23067112	-0.02639685		
e	1.0	Incl. 124.88607	+0.78311429	-0.58826576	

From 155 observations 1996 Jan. 1-Feb. 10.

Ephemeris:

C/1996 B2 (Hyakutake)								
Date	TT	R. A. (2000)	Decl.	Delta	r	Elong.	Phase	m1
1996 03 02		14 52.08	-22 27.8	0.786	1.498	114.4	37.1	6.7
1996 03 04		14 52.94	-21 51.2	0.719	1.461	116.4	37.4	6.4
1996 03 06		14 53.71	-21 05.8	0.653	1.424	118.5	37.8	6.1
1996 03 08		14 54.36	-20 08.7	0.586	1.386	120.6	38.0	5.8
1996 03 10		14 54.89	-18 55.7	0.520	1.348	122.9	38.2	5.4
1996 03 12		14 55.25	-17 20.1	0.455	1.310	125.3	38.3	5.0
1996 03 14		14 55.41	-15 11.0	0.390	1.271	127.9	38.1	4.5
1996 03 16		14 55.27	-12 09.4	0.326	1.232	130.6	37.8	4.0
1996 03 18		14 54.70	-07 39.0	0.263	1.192	133.6	37.2	3.4
1996 03 20		14 53.39	-00 24.5	0.203	1.152	136.4	36.6	2.7
1996 03 22		14 50.61	+12 23.9	0.150	1.111	137.2	37.6	1.8
1996 03 24		14 43.68	+36 23.2	0.111	1.070	128.5	46.8	1.0
1996 03 26		14 11.5	+71 48.3	0.104	1.028	103.8	70.5	0.7
1996 03 28		04 05.6	+78 49.1	0.135	0.985	80.5	91.7	1.1
1996 03 30		03 21.98	+63 31.9	0.185	0.942	66.9	102.7	1.6
1996 04 01		03 13.58	+54 56.3	0.243	0.898	58.8	107.9	2.0
1996 04 03		03 09.73	+49 38.8	0.304	0.853	53.2	110.3	2.2
1996 04 05		03 07.24	+46 04.3	0.366	0.808	48.8	111.3	2.4
1996 04 07		03 05.25	+43 28.1	0.429	0.762	45.1	111.3	2.5
1996 04 09		03 03.41	+41 26.8	0.493	0.715	41.9	110.7	2.5
1996 04 11		03 01.57	+39 47.2	0.558	0.667	38.8	109.5	2.5
1996 04 13		02 59.61	+38 21.0	0.623	0.618	35.9	107.8	2.4
1996 04 15		02 57.46	+37 02.5	0.688	0.569	33.1	105.5	2.2
1996 04 17		02 55.04	+35 47.4	0.754	0.519	30.3	102.6	2.0
1996 04 19		02 52.30	+34 31.8	0.820	0.468	27.4	98.8	1.8
1996 04 21		02 49.18	+33 12.0	0.886	0.418	24.5	93.9	1.4
1996 04 23		02 45.62	+31 43.8	0.952	0.368	21.4	87.5	1.0
1996 04 25		02 41.57	+30 01.8	1.018	0.320	18.2	78.8	0.6
1996 04 27		02 37.08	+27 59.6	1.081	0.278	14.7	67.2	0.1

Delta = geocentric (earth-comet) distance (A.U.s)

r = heliocentric (sun-comet) distance (A.U.s)

Elongation = sun-earth-comet angle (degrees)

Phase = sun-comet-earth angle (degrees)

m1 = estimated visual magnitude

(Continued from page 1)

night all of that week. A total lunar eclipse will be visible during the early evening of April 3 - a spectacular event in itself. And since the sky will be dark during totality, it may bring us one more opportunity to see the comet well!

Final details of the public star party and further details regarding the comet will be presented at the March 20 NOVAC meeting. Please come and sign up to help us out on the two public nights (if you haven't already at the February meeting), or give Brenda Jones a call at 703-527-7963. I can also provide more information at 703-448-7466 (evenings). We really would like all of you to participate in this event. Here is your chance to see at the very least, a fairly good comet, or perhaps, as currently predicted, the brightest comet in over 20 years!

Come on out "to observe, and help others observe" a wonderful event.

- Brent A. Archinal

## What's Your Sign?

By Jon Stewart-Taylor

Although astrology and astronomy began as a single science, they've since diverged considerably. Astrology has neglected to take into account a number of "details" about the universe as they've been discovered. One of the more obvious is the precession of the equinox.

This means that the dates for the "sun-signs" usually given by astrologers are, well, wrong. The 13 "real" zodiacal sun-signs, with the dates and number of days the sun is actually in them, are currently:

Jan. 19 - Feb. 15: Capricornus, the Goat (28 days)

Feb. 16 - Mar. 9: Aquarius, the Water Carrier (22 days)

Mar. 10 - Apr. 14: Pisces, the Fishes (36 days)

Apr. 15 - May 8: Aries, the Ram (24 days)

May 9 - Jun. 17: Taurus, the Bull (40 days)

Jun. 18 - Jul. 17: Gemini, the Twins (30 days)

July 18 - Aug. 7: Cancer, the Crab (21 days)

Aug. 8 - Sep. 11: Leo, the Lion (35 days)

Sep. 12 - Oct. 22: Virgo, the Virgin (41 days)

Oct. 23 - Nov. 17: Libra, the Scales (26 days)

Nov. 18 - Nov. 22: Scorpius, the Scorpion (5 days)

Nov. 23 - Dec. 11: Ophiuchus, the Physician (18 days)

Dec. 12 - Jan. 18: Sagittarius, the Archer (38 days)

Omitted for simplicity is Cetus (the Whale), which is a sun-sign for less than 1/2 day in spring. One additional thing to note is that although this may be the "dawning of the Age of Aquarius" (when the equinox occurs with the sun in Aquarius), it'll be a very slow dawn.

The equinox is still located comfortably in Pisces.

I'm proud to note that, with a birthdate of December 3rd, I'm an "Ophiucus".

## PHYSICS NEWS UPDATE

The American Institute of Physics Bulletin of Physics News

Number 255 January 19, 1996 by Phillip F. Schewe and Ben Stein

**WATERWORLD: NEW EXTRASOLAR PLANETS HAVE BEEN DISCOVERED,** and they might support liquid water. Scientists discussing the new observations at this week's meeting of the American Astronomical Society in San Antonio, Texas, sense that with solar systems other than our own available for inspection, a new era in astronomy is opening up. This study of regular planets orbiting sun-like stars (planets around pulsars were detected a few years ago) began only in October 1995 with the discovery of a planet around the star 51 Pegasi (Update 246). That planet orbits its star at a radius of only 0.05 AU (an astronomical unit is the distance between Earth and sun), making it very hot (1000 C) and inhospitable for life. Geoffrey Marcy of San Francisco State announced at the AAS meeting the discovery of two planets, both about 35 light years from Earth. One orbits the star 70 Virginis at a distance of 0.43 AU with a period of 116 days; it has a mass of about 8 or 9 Jupiters and a surface temperature of about 83 C (185 F). Liquid water and conceivably life forms could be sus-

tained on such a planet or on a nearby moon, Marcy said. The other planet orbits the star 47 Ursae Majoris at a distance of 2.1 AU with a period of 1100 days. It has an estimated mass of 3.5 Jupiters and a surface temperature of -90 C. Marcy notes that some zones in the planet's atmosphere could harbor liquid water. Marcy hinted that his long-term study of 120 nearby stars, carried out at the Lick Observatory, would soon yield more planets. Basically, his evidence for planets consists of slight modulations in the light coming from the stars as a result of the tug between planet and star. Meanwhile, Christopher Burrows of the Space Telescope Science Institute reported that the star Beta Pictoris, whose circumstellar dust disk has long been thought of as a possible nursery for planets, did in fact possess a Jupiter-sized planet. The evidence for this, he argued, was a warping of the inner part of the dust disk caused by the tidal effects of a presumed planet orbiting in the clear zone between the star and the inner edge of the dust disk.

**THE HUBBLE DEEP FIELD (HDF),** a picture of a tiny patch of sky taken by the Hubble Space Telescope, is the deepest optical image of the universe ever recorded. Actually, it would be more accurate to say that the HDF has captured the faintest galaxies (down to an

unprecedented 30th magnitude) rather than the deepest or furthest galaxies because the distances to many of the objects are not yet known. Still, if as expected, deepness goes with faintness, and if thereby the image serves partly as a snapshot of the universe at a very early time in its history, then it is significant that the density of galaxies in the field is quite high; an estimated 1500 of all types and shapes crowd the frame. This would suggest that telescopically, astronomers had not yet glimpsed the epoch of the first galaxies. The observations were carried out over a ten-day period in December 1995 and used four wavelength bands in order to achieve a true color image.

### THE FIRST DIRECT IMAGE OF THE SURFACE OF A STAR

Other than our sun was reported by Andrea Dupree of Harvard-Smithsonian. The surface of the star, Betelgeuse, had been indirectly imaged earlier using speckle interferometry, in which many brief exposures are added up to make a composite image. Dupree's pictures, made with the Hubble Space Telescope, confirm previous suspicions that Betelgeuse's surface exhibits a giant bright spot. According to Dupree, the spot is 2000 K warmer than its surroundings and that this might be indicative of a new physical phenomenon at work in some stellar atmospheres.

# Astronomy Day

Come out with your telescope or binoculars as the sun is setting and enjoy the camaraderie.



Come on out and look through the eye pieces that are set up to share!!

## April 20 at Crockett Park

## NOVAC E-Mail Directory

by Brenda Clements Jones

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David Helgerson	helgerson_dave@advmar.com
Doug Jackson	djackson@cais.com
Bill Jensen	BILLJENSEN@aol.com
Pete Johnson	pjohnson@dgsys.com
Brenda Jones	74723.3263@compuserve.com
Kevin Jones	kbjone@mail.wm.edu
Ralph Kantrowitz	71643.1555@compuserve.com
Steve Kusterer	Spk@ntw.ssg-reston.tandem.com
Marcy Marxer	cfink@aol.com
Nicole Mastej	nmastej@b-r.com
Doug Mistler	dmistler@access.digex.net
Doug Mistler	71240.515@compuserve.com
James O'Connor	oconnor@cybercash.com
Joel O'Rourke	jforourke@tasc.com
Bob Owen	raowen@ahoynet.com
Christopher Reed	hwing@seas.gwu.edu
Carol Romett	ROMETT@guvax.georgetown.edu
E.E. "Sandy" Sanders	Sandys@doubled.com
Kin Searcy	searcy@smte-gw.spawar.navy.mil
Jeff Stetekluh	jeff@drax.gsfc.nasa.gov
John Sullivan	john.sullivan@autodesk.com
Chewning Toulmin	pct@his.com
Sue Trainor	suetrainor@aol.com
Craig Tupper	ctupper@mail.erols.com
Malcolm Visser	svisser@comsearch.com
Stan Wisseman	Wisseman@arca.com

## E-mail list service to change

From jstewart@telenet.com Mon Feb 19 16:05:08 1996  
 for <edfein@cpcug.org>; Mon, 19 Feb 1996 16:05:03 -0500  
 From: jstewart@telenet.com (Jon Stewart-Taylor)  
 Message-Id: <9602191916.AA01423@deneb.telenet.com>  
 Subject: NOVAC: NOVAC E-mailing list to move!  
 To: uunet!cpcug.org!edfein@uunet.uu.net (Elliott Fein)  
 Date: Mon, 19 Feb 1996 14:16:34 -0500 (EST)  
 Electronic mailing list message:

X-From: jstewart (Jon Stewart-Taylor)  
 X-To: jstewart (Jon Stewart-Taylor)  
 X-Date: Mon., 19 Feb 1996 14:03:03 -0500 (EST)

Hi all. For a number of different reasons, the location and format of the NOVAC E-mailing list is changing. Beginning Monday, Feb 26, the official host for the list will be his.com. In addition, the list will be managed by Real List-management Software (tm), to wit, Major-Domo. Chewning Toulmin will be the new list maintainer (step forward and take a bow, Chewning!), and I expect he'll have more to say about all this in the near future.

In the short term, to put yourself on the list, just send email to majordomo@his.com, and in the message area, type:

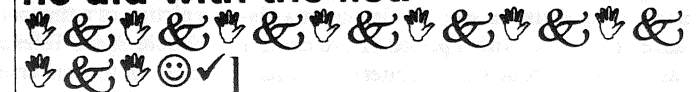
subscribe novac <your-email-address>

To send messages to the list, just send mail to novac@his.com. No weird subjects required. In fact, please **don't** put the "NOVAC:" on the subject line: I'll set my software to forward from the old list to the new list and vice versa. When you start getting duplicates, send me a mail message, and I'll take you off the old list. After a month or so, the old list will be permanently deleted.

Thanks to everyone for putting up with my cobbled-together scripts and slow turnaround time, and a special thanks to Chewning for making this vastly improved list available.

J.  
 --  
 Jon STEWART-TAYLOR jstewart@telenet.com -or- te-  
 lenet!jstewart@uunet.UU.NET  
 Ventre malsata orelon ne havas.

**[Editor's note: Let's all give Jon a great big hand for the super job he did with the list.**



# The 1996 Winter Star Party

By Craig Tupper

The Winter Star Party (WSP), hosted by the Southern Cross Astronomical Society, is one of the most popular annual star parties in the U.S. Held each year around February at a Girl Scout camp in the Florida Keys, the WSP is limited to around 600 attendees, and fills up within days of the applications going out in the fall. This year's event was February 12-18.

I didn't think I'd have a chance to go; despite submitting my application as soon as I got the form, I was told that I was #148 on the waiting list. All that changed with a phone call I got on February 6; a friendly Canadian had one extra ticket, eh, and for only \$50 more than the face value of \$100! Time to shift into high gear.

I have a friend who already had a ticket, and quickly arranged a ride with him. It was a 20 hour drive over two days, arriving the night before and camping in a nearby trailer park. The gates to the WSP were not opened until around noon on 2/12, but the line of cars started forming around 10:00 the previous night. By 8:00 am there were about 40 cars lined up, hoping to secure that prime camping/scoping spot. But there was no such thing as a really bad spot, although it did get fairly crowded.

The weather for the week was a bit disappointing, colder than normal (as low as 47 degrees, and no higher than about 78) and quite windy for three of the five nights we stayed. However, the rain came only briefly one morning, and the clouds only wiped out big parts of two nights. A much better percentage of observing weather than good old D.C.

The skies were not as dark as I had hoped, although WSP literature makes clear that the real attraction of the skies there is the incredible seeing from being out in the ocean. This is certainly true, as Venus just sat there as I've never seen it before, unwavering in the eyepiece, and many times there was no observable twinkling in even the brightest stars. But the Miami and Key West light pollution combine to make the sky background about as bright as Crockett Park.

The sight of hundreds of scopes set up in the camp was amazing. My little 8" newtonian was one of the "babies" there, while really nice refractors, SCTs, and monster dobs were everywhere. The granddaddy was the famous 36-inch "Yard Scope" brought by Astronomy-to-Go, but there were perhaps 25 other scopes between 16 and 33 inches in aperture. I got plenty of mileage out of my scope, but also spent a fair amount of time mooching views through some big mirrors. Everyone was extremely friendly and more than willing to share

their scope, and I learned lots of new objects. Of course, some of the best fun was observing some of those southern sky objects that become available from a latitude of 25 degrees. The globular cluster Omega Centauri filling a Nagler eyepiece in a 25 inch scope is something hard to describe; hundreds of stars are resolved cleanly and the feeling arises that you could jump in and swim around inside of it. Other southern highlights were the elliptical galaxy Centaurus A, with its huge bisecting dust lane easily visible in my 8-incher; Eta Carina and the enormous bright Keyhole Nebula that covers more than a square degree of sky; the Southern Cross sitting on the oceanic horizon at 3 am; and the Jewel Box open cluster.

The WSP attracts many of the "big names" in amateur astronomy, either as speakers, marketers, or otherwise. This year's roster included John Dobson, Jack Newton, Don Parker, Tony and Daphne Hallas (who won a 4" refractor door prize -- as if they need it!), Dan Joyce (who ran a mirror grinding class), Jack Horkheimer, Al Nagler, Richard Berry, Carlos Hernandez, the president of Lumicon, and many others whose names I don't know or have forgotten.

There were also many vendors around, lots of equipment swapping, and a load of door prizes, none of which went to one of the neediest and most deserving amateurs in attendance.

Many folks claimed to be "regulars" at both the WSP and at the Texas Star Party, where the really dark skies are (and where it's easier to get a ticket!). Many of them offered the opinion that these are the two best star parties, with the most relaxed and friendly crowds as well as good skies and great programs. Perhaps it is because these two events are each a week long, allowing everyone to settle in and be a bit less intense, that helps make them what they are. There were a few families around, and enough kids so that most of them seemed to have playmates, including the adorable 4-year-old girl who presented me with a heart-shaped sticker on Valentine's day. The WSP also offers proximity to the other islands of the Keys, and some very nice local scuba diving and snorkeling. I personally made the acquaintance of some parrotfish, starfish, sea urchins, a lobster, two 4' barracuda, and a host of other beautiful sea creatures.

All in all, this was a delightful vacation for me, the first time I've ever been to a major star party but (I hope) not the last. To top it all off, on the drive back to D.C. we stopped for gas about 5 miles west of Cape Canaveral just in time to unexpectedly witness the launch of NASA's NEAR spacecraft on a Delta II rocket. I can heartily recommend the Winter Star Party as a great getaway for the D.C. astronomer. Maybe I'll see you there sometime. □

Subject: NOVAC: Eclipse 1997 in Mongolia?  
Content-Type: text/plain; charset=US-ASCII  
Content-Transfer-Encoding: 7bit  
Status: RO  
X-Status:

Electronic mailing list message:

X-Date: Thu, 25 Jan 1996 21:44:31 -0500 (EST)

X-From: Sandy Sanders  
<uunet!doubled.com!sandys>

Sandy Sanders of NOVAC is looking for individuals (hardy ones!) or trips or expeditions going to Mongolia/Siberia for the 9 March 1997 total solar eclipse. If anyone knows of anyone who has any information please contact Sandy. I am willing to "stow away" with a scientific expedition and do some observations or assist with experiments. If there is enough local interest, we could investigate a group tour.

See ya in Ulan Bator!

This eclipse may have a Hale-Bopp flavor - a naked-eye comet visible during totality!

Sandy

## Books At Discount

NOVAC is now participating in the discount book sales program offered by Kalmbach Publishing. They will sell our members any astronomy related books for 20% off the list price if we send in a group order. Nicole Mas-tej has offered to coordinate the sales. If you are interested, please see her at a meeting or call her at home (703) 476-1207 to place an order. You

will need to make a check out to NOVAC for the price of the book minus the discount when you place the order. Nicole will send in our order at the end of October so that we will receive the books in time for Christmas. We anticipate doing this 3-4 times a year if demand warrants.

## Highlights of the January, Annual, February Meetings

### Minutes of the January 17, 1996 General Meeting of the Northern Virginia Astronomy Club.

The meeting was called to order at 7:30 PM by new Club President Brenda Clements Jones. She welcomed over 53 members and guests to the meeting held at the Arlington Planetarium.

#### Announcements:

1. The annual meeting has been rescheduled for February 13, 1996, at 7:30 PM at the home of Brenda Clements Jones. On the agenda for the meeting are the plans for the 1996 year, and all members are invited to attend.

2. Janet McCorry has asked for assistance in presenting *Careers in Astronomy* to students of St. Andrew's School in Clifton on January 30, 1996.

3. Brenda Jones is collecting e-mail addresses of members to be included in the annual directory.

#### Officers Reports:

Brenda Jones introduced the new officers of the club.

#### New Business:

1. Volunteers for an activity director and a sky tour coordinator were requested to contact Brenda Jones for further information in assisting the club.

2. Brenda Jones advised that the observing schedule at Crockett Park was still pending final approval by the Park Manager.

#### Observing Report:

Jeff Steteklueh gave the observing report for January, and Brent Archinal conducted the sky tour using the planetarium projector.

#### Member Presentations:

1. Linda and Max Keleckner requested assistance in forming an astronomy club at Max's school.

2. Doug Mistler announced that the February meeting would be highlighted by Jim Huddle, a physics professor at the United States Naval Academy, discussing the total solar eclipse which occurred in 1995 in India.

#### Show and Tell

1. Sandy Sanders circulated a picture of the 1994 solar eclipse.

2. Jon Stewart-Taylor circulated a copy of the *Astronomical Companion*, written annually by Guy Ottwell, and he noted the value of a recent updated printing of an excellent beginner guide, *Turn Left at Orion*.

#### Question and Answers

Members discussed the quality of Orion's Dobsonian telescopes, Tasco's reflector telescopes, and noted that the moon's rotation was 29 days.

#### January Program

Jon Stewart Taylor gave a presentation called "Starting Right in Astronomy". He noted that approximately one-half of the attendees at the meeting were guests, and he encouraged them and the members to ask questions during his presentation. He emphasized that the requirements for enjoying astronomy were interest, enthusiasm, time, the proper tools and good references. His presentation gave beginners a summary of the books and magazines available to newcomers, suggestions on naked eye and binocular observing techniques, and concluded with a summary of the types of telescopes available to the amateur astronomer.

The meeting adjourned at 9:30 PM.

Respectfully submitted,

Bill Jensen

Secretary

### Annual Meeting of the Northern Virginia Astronomy Club

The meeting was called to order by Club President Brenda Clements Jones at 7:45 PM. In attendance at Ms. Jones' house in Arlington were nine officers, members of the board of directors, and members. Ms. Jones distributed an agenda highlighting the topics of discussion for the Annual Meeting.

#### Unfinished Business 1995

1. Security Light. Ms. Jones noted that correspondence had been sent concerning the security light and that no response had been received.

2. Hotline. Ms. Jones noted that Blaine Korcel had asked that the club hotline be moved to another residence. Ms. Jones asked for volunteers for this job. Bill Jensen advised that he may be able to house the hotline, and said he would advise in the near future.

3. Outdoor Lab. Sandy Sanders noted that he would follow up on the status and advise at an upcoming meeting.

4. Personal Property Taxes-Fairfax County. Ms. Jones noted that the club had yet to receive the 1996 return from Fairfax County, which must be filed by May 1, 1996.

#### New Business

1. New Crockett Park Observing Policy. Ms. Jones announced that a new observing policy had been announced by the Park manager of Crockett Park. The public must be welcomed to all scheduled observing sessions. The gate will remain unlocked until 10 PM, at which time the public will be asked to leave by the park official, and the gate will be locked. The club has also been told that all previously unscheduled observing sessions must be re-

quested at least two weeks in advance. Club members are to advise David Petty if they notice any disorderly behavior by the public. Bob L'Hommedieu raised a concern over the liability of the club for any actions taken by a member of the public during one of the observing sessions. Ms. Jones responded that in her opinion that would be the park's responsibility due to the written policy communicated by the park. She further noted that the club had previously paid a \$200 annual user fee for use of the park, but that the club had not received an invoice from the park in 1995. She advised the members present that the park may raise their user fee for 1996, or she may inquire if the policy of inviting the public could be waived if such a fee was paid in 1996.

2. Upcoming Programs and Dates to be Selected. The members discussed the upcoming programs for 1996, especially in light of the policy by Crockett Park that such sessions must be scheduled in advance. After discussion, the following were selected as potential club events, subject to the confirmation of availability by Crockett Park:

Messier Marathon - March 17, 18 and 19.

Comet C/1996 B2 (Hyakutake) March 22 and 23 advertised for Public Observing, and March 24 through March 31 for NOVAC members, with the public allowed as stated in the new park policy.

Total Lunar Eclipse - April 3

Astronomy Day - April 20.

Lyrid Meteor shower - April 21

NOVAC Picnic - June 15

Perseid Meteor shower - August 11-12

Northern Virginia Telescope Meet - September 21.

In addition to the selected dates, Sandy Sanders raised the possibility of selling special event-related items, such as Messier Marathon T-shirts. The scheduling of swap meets in conjunction with the major club events was discussed.

3. Flyer. The desirability of publicizing the advantages of club membership, and special events on the club calendar was discussed. It was noted that such a flyer could be placed at retail locations if the retailers would be willing to provide the space to post it. Currently the club receives referrals from the two independent telescope dealers in the area.

4. Librarian. Former Club Secretary Marta Krause volunteered to be the new Librarian. It was decided that books could be loaned for a period of one month, in conjunction with the club meetings at the Arlington Planetarium.

5. WWW Site. The members discussed the desirability of establishing a web site for internet access, given the growth of the World Wide

Web. They further noted the popularity of the club e-mail system coordinated by Jon Stewart-Taylor.

There being no further business to come before the members, the Meeting was adjourned at 10 P.M.

Respectfully submitted,

Bill Jensen

Secretary

### Minutes of the February 21, 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 over 56 members and guests to the meeting held at the Arlington Planetarium.

#### Announcements:

1. Brenda Jones announced that a new observing policy had been announced by the Park manager of Crockett Park. At all scheduled observing sessions the public must be welcomed. The gate will remain unlocked until 10 PM, at which time the public will be asked to leave by the park official, and the gate will be locked. The club has also been told that all previously unscheduled observing sessions must be requested at least two weeks in advance. Club members are to advise David Petty if they notice any disorderly behavior by the public.

2. As a result of this new policy, Ms. Jones requested and received permission for specialized observing dates to be included in the upcoming calendar of events at the park. They are as follows:

Messier Marathon - March 17, 18 and 19.

Comet C/1996 B2 (Hyakutake) March 22 and 23 advertised for Public Observing, and March 24 through March 31, for NOVAC members, with the public allowed as stated in the new park policy.

Total Lunar Eclipse - April 3

Astronomy Day - April 20.

Lyrid Meteor shower - April 21

NOVAC Picnic - June 15

Perseid Meteor shower - August 11-12

Northern Virginia Telescope Meet-September 21.

3. Brenda Jones announced that the former club secretary, Marta Krause, has volunteered to serve as club librarian.

4. Jon Stewart-Taylor announced that he would host an observing session at Parsells field on Friday February 23. He also announced the new e-mail list address-NOVAC@his.com. One should subscribe by sending a message to majordomo@his.com, and send a message "subscribe".

5. Bob Bolster reviewed a Comet Hyakutake plot, noting it was currently near the constellation Libra at 8th magnitude.

#### Officers Reports:

Vice President Doug Jackson noted that Pete Gural would give the presentation at the March meeting on Meteor Observing.

Marta Krause noted that she had received mail from the Miami Valley Astronomical Society, the Virginia Association of Astronomical Societies, and the Southern Star Party. Members interested in attending one of the star parties offered by these organizations should contact Bill Jensen for further information.

#### Observing Report:

Jeff Stetekluh gave the observing report for February, and Bob Bunge conducted the sky

tour using the planetarium projector. Brent Archinal added more information concerning the comet watch in March.

#### Show and Tell

1. Sandy Sanders circulated a Messier Marathon Guide, and introduced Danny Fitzpatrick, who creates World Wide Web pages.

2. Bill Jensen circulated a copy of The Starry Messenger, a magazine of used astronomical equipment.

#### Question and Answers

Members discussed the eccentricity of comet orbits, the difference between parabolic and hyperbolic orbits, and comet origination points. They further discussed the causes of comet breakup.

#### February Program

James Huddle, Associate Professor of Physics at The U.S. Naval Academy began his presentation of solar eclipses by outlining safety tips for solar observing. He then presented a bibliography on solar eclipse observing. His main interest was solar flash spectroscopy. He highlighted the need for planning in successful eclipse tours, combining the need for good weather as well as the duration of the eclipse at the site. He then presented videos of the total solar eclipse in 1995 in India, and finished his presentation with a video of the total solar eclipse as observed in the Southern Peruvian dessert.

The meeting adjourned at 9:22 PM.

Respectfully submitted,

Bill Jensen

Secretary

**A dark sky  
is a terrible  
thing  
to waste!**



**Ouch!**

**Join the  
International  
Dark-Sky  
Association  
3545 N. Stewart  
Tucson AZ  
85716**

# Dinner before the Meetings - An Anniversary

by Brent A. Archinal

The February 21st meeting was the first anniversary of meeting for dinner before the regular NOVAC meetings. This was first suggested at the NOVAC Annual meeting in January, 1995. This January's turnout was pretty low, being the week after 1996's "blizzard of the century", but overall we've been doing pretty well. This is a chance to meet a few NOVAC members, without trying to do it at a hurried and crowded meeting or unrecognized in the dark while observing. So, before the March 20 and April 17 meetings, please come on by. We can discuss the latest on Comet Hyakutake. As usual, dinner will be at the *Santa Fe Cafe* in Rosslyn. You should plan to arrive at 5:45-6 PM. This is

a nice Mexican restaurant with reasonable prices; credit cards are not accepted. Smoking is allowed in part of this large one-room restaurant. If you arrive first, please ask to be seated in the front in the non-smoking section. 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 just west of "downtown Rosslyn", on the SW 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 Hwy., and turn right at the second light onto Fort Myer Dr. Go two blocks, 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, or around the block to the left on Clarendon just before it ends. The restaurant is also close to the Rosslyn metro rail station. Reservations are not necessary, although it does help to know who's coming so we'll know how big a table to get. If you need a ride to the meeting and back to the metro, or 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](mailto:baa@casa.usno.navy.mil).

See you at dinner!

## Notices Notices Notices

# NOVAC

## Notices Notices Notices

### 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 \$24.00 instead of the regular \$33.00 rate. Make your check out to "SKY & TELESCOPE for \$24". For *CCD Astronomy Magazine* at \$20 per year, make your check payable to "CCD Astronomy Magazine". You can subscribe to *Astronomy Magazine* for \$18.00. This is a discount from the usual \$24.00 rate. A two-year subscription costs \$36.00. 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 Ultrascope 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 and C.M.

##### Crockett Park

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..

(Continued from page 10)

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 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.

**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.

### 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 to where it merges 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.

**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/Shelhome 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). □

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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 Ivy Mount 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.

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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., June 10 for the July/Aug. Newsletter

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## 1996 NOVAC Observing Dates

### **C.M. Crockett Park**

March 15,16  
 March 17, 18, 19 ..... Messier Marathon  
 March 22 thru 31 ..... Comet Hyakutake  
 April 3 ..... Total Lunar Eclipse  
 April 12,13,19  
 April 20 ..... Astronomy Day  
 May 10,11,17,18  
 June 7,8,14,15  
 June 15 ..... NOVAC Picnic

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

### **Savage Farm**

March 8,9,10,15,16,17,22,23,24  
 April 12,13,14,19,20,21  
 May 6 ..... Eta Aquarids  
 May 10,11,12,17,18,19  
 June 7,8,9,14,15,16  
 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 Ken Pettijohn  
 7916 Ivymount Terrace  
 Potomac, MD 20854



**Inside:**  
**Comet Hyakutake**  
**coming!**  
**Messier Marathon**  
**happening!**  
**and much more!**

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