NOVAC

THE NEWSLETTER OF THE NORTHERN VIRGINIA ASTRONOMY CLUB NO. 133 • VOL. 30 • MARCH/APRIL 2008

NOVAC Members Attend the 2008 Winter Star Party

By Joe Francis

Each year, in January or February, NOVAC members attend the famous Winter Star Party (WSP) on West Summerland Key, Florida, just southwest of the Seven-Mile Bridge. The latitude there is 24:38:25N, so you can see well below the southern horizon that we experience in Virginia. The additional attractions are the warm sunshine during the day and the clear steady air during the night. Good "seeing" conditions are produced by the surrounding ocean that provides uniform conditions so the air is normally steady, not turbulent with altitude, as it glides over the Keys; therefore, telescope viewers don't experience the wiggly images that are common at other land-locked locations. These attractions are so strong that amateur astronomers from all over the US, Canada and Europe attend the weeklong star party each year. We met one young woman

Continued on p. 2

Figure 1. Al Nagler demonstrating the Tele Vue NP127 with a Bino-viewer.

MESSAGE FROM THE PRESIDENT

Greetings NOVAC Members!

For sports fans, spring signals the return of baseball. But, for us amateur astronomers, spring is the season of galaxies! From Ursa Major to Leo, to the supercluster of galaxies spanning the sky in Virgo and Coma, it is time to grab our telescopes, our favorite star atlas and get out observing those wonders in the sky. There is no better time to enjoy, share or learn about these wonderful objects than at NOVAC's celebration of Astronomy Day on May 10, 2008 at Sky Meadows State Park. So mark your calendar and come out to a great night under the stars and galaxies, of course.

Enjoy the Sky
Ed Witkowski
NOVAC, President

NOVAC celebrates Astronomy Day 2008

May 10, 2008
Sky Meadows State Park
Delaplane, Virginia

Please check the NOVAC webpage for details
www.novac.com

2008 Winter Star Party from page 1

from Toronto who had been to 18 Winter Star Parties. This one was held from 4 to 10 February, yet we were often blessed with 83-degree weather.

My wife Sherry and I are new NOVAC members. We both joined in Oct 2007 because after having a life-long interest in astronomy and studying the subject a bit in college, we realized it was finally time to do something about it. The WSP 2008 was our first real Star Party. The other NOVAC members who attended include Pete Johnson, Greg Piepol, Arlen Raasch, Kent and Jane Allingham and Sam Cantey, all more senior and more experienced astronomers than Sherry and I. However, I would like to share a few stories about our rewarding experiences from the perspective of a beginner.

There are normally several vendors of quality astronomical equipment at the WSP to sell merchandise, answer questions and even loan astronomers some hardware for trials. The engineer in me pulls me to these vendors to learn about the latest hardware. I gravitated one day to the Tele Vue booth and began talking to a nice older gentleman. He was very knowledgeable and patient with my many questions. He let me try out the new NP 101 APO refractor telescope with the acclaimed, new Ethos 13mm eyepiece. The scope was positioned to view a small toy frog of many colors that was mounted far away as a viewing target. He explained that the name Ethos came from their motivation to "do no harm to the image." Well, when I looked through the Ethos eyepiece on the NP 101, I was amazed at the clarity, detail, color purity and brightness of the image. I could see a few very fine dust specks on the eye of the frog from far away. I was surprised that my eye couldn't see all of the field-of-view without moving it around the eyepiece. But it was daylight, so my eye pupil was much smaller than it would be for night vision. The nice older man was generous with his knowledge about eyepiece options for my beginner

Continued next page

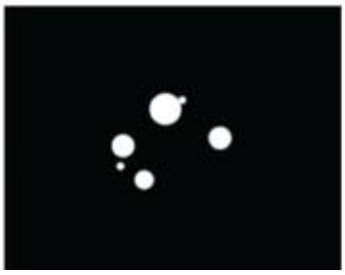


Figure 2. The Orion Nebula (upper) and a typical view of the Trapezium (lower) under high magnification and excellent seeing

2008 Winter Star Party from page 2

Figure 3. Chris Stephan Washing the 36 inch Mirror.

telescope. I was ready to buy one of these Ethos eyepieces for just under $700, but my wife was standing there with somewhat less enthusiasm. So, I didn't get one -- yet. Later, when I was talking to my wife Sherry about how nice this older man was, she informed me that the name on his badge was Al Nagler. Then I was really impressed that such an accomplished man, famous for his telescope and eyepiece designs, would spend so much time with a new amateur. He is truly a wonderful man. Sherry and I have found kindness to be common among the senior NOVAC members; they are knowledgeable and generous people who will go out of their way to help new members. We also found such people in abundance at the WSP. We already believe that amateur astronomers are typically very special people who enrich the lives of others.

Another memorable experience centered on the Meade 16-inch RCX400 Ritchey-Chrétien (RC) telescope that was available for demonstration. The Meade representative trained it on the center of the Orion Nebula, known as M42, to show us the small set of stars named the Trapezium. The four main stars of the Trapezium were strong and bright with no coma and the two smaller stars nearby were also distinct. The power was about 500, but there was no wiggle to the stars in the image. The "seeing" was excellent. Pete Johnson, another NOVAC member at the WSP, told us that WSP attendees have sometimes reported seeing at magnifications up to 3000. I usually have trouble seeing at a magnification of 130 in King George, VA.

My last story is a summary report of the demonstration on "Mirror Cleaning" provided by Chris Stephan of the WSP staff. The most important guidance to know about Mirror Cleaning is DON'T DO IT until the mirror is at least 1 year old and preferably two years old. This is because the coatings on the mirror need time to cure. Washing the mirror too early will probably do permanent damage to the coatings. Besides, the mirror can be very dirty without significantly degrading your viewing. Washing the Mirror, Step one: remove the mirror from the telescope and spray it off with clean water to remove all loose dirt. Then mix up a bucket of water with a couple of squirts of Dawn dishwashing liquid (original unscented) and pour it on the mirror for a pre-soak. Get out your 100-percent pure medical-grade cotton balls and use them to gently rub the mirror to complete the cleaning. Make sure the mirror is propped up on one side so it will drain completely; then spray it off with clean water. Use 100-percent pure medical-grade alcohol to "wash off the water." Then complete the drying process with the dry, pure cotton balls and rub any remaining streaks gently to achieve a perfectly clean mirror. Chris demonstrated this procedure on the 36-inch "Yard" mirror. In this demonstration, the biggest problem was removing the heavy mirror from its case. As a new member with a reflector telescope, I appreciated these instructions.

The WSP always includes a great variety of demonstrations and briefings that you can join during the day. Greg Piepol, another NOVAC member gave an excel-

Continued on p. 4

Figure 4. "Greg Piepol Answering Questions after his Presentation"

2008 Winter Star Party from page 3

Figure 5. Pete Johnson Receiving a Door Prize

lent briefing on the sun "Observing and Imaging" with many beautiful images. We also thought that his presentation was the most professional of them all. Very Well Done.

The WSP always provides a large set of door prizes to the lucky ticket holders on the last full day. This year, both Arlen Raasch and Pete Johnson were lucky.

Our WSP 2008 photos are available on the NOVAC website at http://www.novac.com/photos/WSP2008.php. There you can also see photos of Kent and Jane Allingham, other vendors and very many telescopes next to the ocean.

The next WSP will be the 25th anniversary event with many extra attractions. It will be held for 10 days from 19 to 28 Feb 2009. We hope to be there again. Tickets are normally available on the Internet beginning about September. ✶

ALCor-ner by Rob Mckinney

News from the Astronomical League | www.astroleague.org

If you made it to the first NOVAC meeting for 2008 you saw me stand up and introduce myself as the new Astronomical League (AL) representative for our club. I'm here to serve you and your needs as you pursue amateur astronomy by linking you to the many resources the AL offers.

I have big shoes to fill after the years of excellent work by Laquetta Karch. She improved your ability to choose AL membership independent of your NOVAC status and be in charge of whether you received AL notices. She also made positive changes in how NOVAC data is transferred to the AL, crucial for your AL membership and for benefits like your subscription to *The Reflector* and your opportunity to receive observing awards. And she really pushed participation in those award programs because it encourages you to observe.

That's one thing we started with in 2008 when our President challenged you to earn your Lunar observing certificate. And that's just one of many kinds and classes of recognition for the hours you spend at the eyepiece. Please, go to the AL website and see for yourself how doable it is to reward yourself, as well as how much the AL offers to your hobby—from ways to contribute to the science aspect of our hobby to events to observing tools.

I'm glad to stay active in NOVAC as your ALCor. Let me know how I can help you enjoy the heavens! ✶

Astrocast.TV premiers on the Internet

Astrocast.TV, the first-of-its-kind webcast for anyone interested in learning about our universe, was launched on March 24, 2008. Featuring a visually-rich format, it is hosted by NASA/JPL Solar System Ambassadors Greg Piepol and Greg Redfern, and Astrocast Special Advisor Dr. Harold Geller. The webcast is produced by Midnight Rider Productions LLC.

My Top Ten Astronomical Experiences By Bill Burton

During a two-year sabbatical from serious observing, I've had time to reflect on my amateur astronomy career, and came up with this top-10 list. What's on your list?

1. **Total solar eclipse, February 1998, Aruba.** The shadow rushed over the water just before totality and then we were screaming and crying at the sight of the great solar corona, flanked by Jupiter and Mercury, for four long minutes. In tripod-mounted 20x100 binoculars I beheld red prominences, a coronal loop and, moments before totality ended, the elusive thin red chromosphere. There is nothing like a total eclipse!
2. **Comet Hyakutake, March 1996, Florida**. With the same 20x100 binoculars on a warm night on a Florida beach, and the comet high overhead, I could see jets of dust coming out of the inner coma and curving backwards towards the long, long tail as Hyakutake glided among the stars.
3. **Comet Shoemaker-Levy impacts on Jupiter, July 1994, Virginia.** Everyone was surprised when the fragments of the breakup of Comet Shoemaker-Levy left visible scars after collision with Jupiter's atmosphere. In the ensuing weeks I was able to sketch and map these scars within the atmospheric belts as they appeared one after the other, using an 8-inch Newtonian reflector in my backyard.
4. **All-sky aurora borealis, September 1990, Canada**. I was at a fishing resort in northern Ontario with my father and brother in law during this display, which started as a band in the south and progressed to a shimmering curtain covering the whole sky. At first it was brilliant emerald-green, with pulses of light moving up the curtain and exploding in violet sprays at the zenith. Although the color faded after about a half-hour, the pulsations continued until I finally had to go to bed, ecstatic and exhausted. The display was still there the following night, only dimmer.
5. **Dark southern hemisphere skies, May 2006, Madagascar.** Our geologic field party was camped on a sandy riverbank, and after dark Sagittarius and the center of the Milky Way were straight overhead. The dark lanes of the home galaxy were as sharply delineated as in a long-exposure image, and star clusters in the vicinity of Carina and the Southern Cross were beautiful in my 10x40 binoculars. Early one morning, after seeing the Large Magellanic Cloud the previous evening, I got up to see the Small Magellanic Cloud and 47 Tucanae above the southern horizon. To the east, embedded in the zodiacal light, were two remnants of the broken-up comet Schwassmann-Wachmann-3. It is the only time I have seen two comets with tails in the same binocular field of view.
6. **Comet West, March 1976, Seattle.** Soon after I moved to Seattle in early March of that year, Comet West appeared over the Cascade Mountains at dawn. The striations of its magnificent dust tail were so bright and distinct that I was able to sketch them using a 60 mm spotting scope from the middle of this big city. At the end of the month I celebrated my birthday with new-found friends at the Comet Tavern on Capitol Hill.
7. **Fireball, June 1967(?), Canada.** On a fishing pier in southern Ontario late one night, I watched as a giant fireball scooted over the northern horizon. It had a brilliant white core, an electric blue inner halo, a flaming orange outer halo, and a tail that appeared to wag. I toppled over onto the deck, moaning in disbelief.
8. **Comet Halley, April 1986,** Virgin Islands. The lower latitudes were the best place to see Halley at its closest approach, and we ended up on a beach under dark, clear skies on St. John. Warm water lapped at our ankles as we observed the comet to the south, embedded in the splendid star fields around Scorpius and Sagittarius, with an enormous head and a tail fanning out away from us. Phosphorescent plankton washed up on shore around us as glowing green spots, which we dubbed "land comets."
9. **Perseid meteor shower, August 1997, Wyoming.** This was a peak year for the Perseids following the passage of Comet Swift-Tuttle, and I was able to watch them all night under dark skies at 8000 ft near Laramie. I recorded the time, magnitude, and direction of nearly 300 meteors over 4 hours, and got to publish the results in the ALPO newsletter, *The Strolling Astronomer*. Although the Leonids at their peak a few years later were arguably more spectacular, I did not observe them for as long or from as good a site.
10. **A night on Breezy Hill, Stellafane,** Vermont. Stellafane is the Woodstock of amateur astronomy and its American birthplace, and nothing makes New England stargazers happier than a clear night on Breezy Hill. On a number of July and August nights in the early 80s I wandered around the hillside, meeting new people in telescope lines, gazing up at the sky, and getting spectacular views of famous objects in large and innovative telescopes. Later my wife joined me, and finally our two kids were twice able to enjoy the experience. In 1996 I traveled down to the event from my summer work site in central Vermont, a 2-hour drive instead of 12, and ended the weekend arguing cosmology with John Dobson at the Hartness Museum. ✶

Book Review By Tim Nicholson

Illustrated Guide to Astronomical Wonders
By Robert Bruce Thompson & Barbara Fritchman Thompson

Late last year I was reading emails from the Yahoo group "Talking Telescopes" when I saw one that really caught my attention. It was a note from a representative of the publishing company O'Reilly Media asking for interested parties to apply for a free review copy of the Thompson's new book, *Illustrated Guide to Astronomical Wonders*. I immediately sent the young lady an email asking if I could be included in the mailing of the free review copies. She replied that I had been added to the list and would be receiving my copy in a few weeks. I was really looking forward to this as I had recently purchased the Thompson's book *Astronomy Hacks* and had had a wonderful time reading it and learning all about their tips and tricks for telescope use. And this wasn't going to cost me the $30 cover price either!

In due time the book arrived and I gave it a quick glance over. It is separated into two main parts. First, an "Introduction to DSO Observing" section which covers things like what equipment to use and the lists that the book were derived from to Astronomical terms and concepts. Also here is found the Observing Equipment chapter. After that is the main meat of the book, 50 chapters covering constellations from Andromeda to Vulpecula. This main section is what the book is really all about. Each constellation has an introduction with its name, pronunciation, season, culmination, neighbors and lists of both binocular and urban objects viewable. There are constellation star charts that cover 50º and show an overview of the area. Tables with featured star clusters, nebulae and galaxies and one for featured multiple stars are listed on the first pages of each chapter. Then the chapters begin to go into greater detail on each object including DSS photos courtesy of Palomar Observatory. Detailed star charts for each object are included each including 5º finder circles. This section is meant to be used directly at the telescope and both the print font and size has been optimized for use under dim red light.

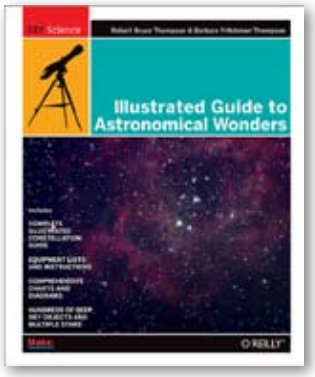
So I have found another good read and one that will come in very handy at the telescope! This book is completely made up of nearly 400 objects from lists by the Astronomical League and the Royal Astronomical Society of Canada, including:

The Messier Club
Binocular Messier Club
Urban Observing Club
Deep Sky Binocular Club
Double Star Club
RASC Finest NGC List

The nearly 400 objects were chosen to help observers meet the requirements for these clubs and any observer who is a member of the Astronomical League or the RASC and completes these Observing lists is entitled to an award which includes a Certificate and in some cases a pin. Part of your NOVAC dues (if you so choose) goes to membership in the Astronomical League and we have an Astronomical League liaison in our club.

Taken from the back of the book is this list of things that you will learn from this book.

1. You will learn fundamental concepts and terminology of astronomy.
2. How to choose, buy and use the equipment you need.
3. How to read star charts and locate objects in the night sky.
4. Which objects to look for every night of the year in 50 constellations.
5. How to find those objects and what they look like.



Written in an easy-to-follow, conversational style I find unique to the Thompsons, this book is one that a beginner can use right away and even an accomplished amateur will find useful at the telescope. I highly recommend it and will keep my copy near me when I plan and observe.

On a side note, I was recently contacted by the young lady from O'Reilly Media to see if I would be interested in reviewing a book on *Digital Astrophotography* by Stephan Seip. She sent me a copy and I will be reviewing it in a later issue of the NOVAC Newsletter. ✶

NOVAC Members—
Get 35% off from O'Reilly, No Starch, Paraglyph, PC Publishing, Pragmatic Bookshelf, Rocky Nook, SitePoint, or YoungJin books you purchase directly from O'Reilly. Just **use code DSUG** when ordering online at www.oreilly.com/store/ or by phone at 800-998-9938.

Free ground shipping on orders of $29.95 or more.
For more details, go to: www.oreilly.com/news/freeshipping_0703.html

Do you have a story to tell?
Members are encouraged to submit photos, articles, tips and reviews of books, software and equipment. If you would like to submit an article for publication send an email to newsletters@novac.com.

"To observe, and to help others observe"

NOVAC is a non-profit, all-volunteer organization chartered to advance amateur astronomy in Northern Virginia. Members benefit from:

Access to dark sky observing sites:
NOVAC maintains agreements that provide club members with year-round access to observing sites away from city lights

Monthly meetings
Monthly meetings are held at 7 p.m. on the second Sunday of each month in Room 80 of the Enterprise Building on the campus of George Mason University. Each meeting features a lecture on an interesting topic by a local expert. See the web page or future newsletters for a schedule of speakers.

Bimonthly newsletter
The NOVAC newsletter provides information specifically for NOVAC members, as well as general interest articles on such topics as observing reports, equipment reviews, upcoming events, ATM projects, and more.

High-quality telescopes to borrow
NOVAC members may borrow one of the clubs several "loaner" telescopes at no charge. Members may choose from among three 6 in. reflectors, two 10 in. f/6 reflectors, an 8 in. SCT, and a hydrogen-alpha solar scope. Binoculars are also available for loan.

Club website
Up to date information about club events and activities is maintained on the club website at *www.novac.com.*

Large club library
NOVAC maintains a well stocked library that members may borrow from by contacting John Deriso *(olgazer@verizon.net)*. A full list of titles is available from the club website.

Private email listserv
Members keep up with current club information by subscribing to the NOVAC email list, without fear of flame wars or spam emails.

Public outreach opportunities
Several times each year, volunteers from NOVAC present astronomy programs to schools, churches, Scout troops, and other public groups.

Membership in the Astronomical League
Through NOVAC's membership in the Astronomical League, NOVAC members gain access to the AL's newsletter, services, and observing programs.

Discounts on astronomy magazines
Subscriptions to *Sky & Telescope* and *Astronomy* magazines are offered to club members at a considerable discount. Contact Kent Allingham (see contact info at right).

See your Membership Guide for more details.

The NOVAC Newsletter is the official publication of the Northern Virginia Astronomy Club and is published six times per year. The NOVAC Newsletter is sent to members of NOVAC as a regular membership benefit.

Membership
Membership in the Northern Virginia Astronomy Club is $30.00 per year and is open to anyone interested in astronomy or the sciences. Additional memberships at the same address without additional copies of the newsletter are $5.00 per person. Contact:

Kent Allingham
3510 Country Hill Drive
Fairfax, VA 22030
kent.allingham@verizonbusiness.com

Change of address
All notices of change of address should be sent to Kent Allingham. Please include both old and new addresses.

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

Submissions to the newsletter
NOVAC members are invited to submit articles for publication in the NOVAC Newsletter. The editor reserves the right to edit all materials submitted. Send article submissions to the Editor, Tim Nicholson, at newsletters@novac.com.

The deadline for submissions is two weeks in advance of publication:
May 15, 2008 for the May/June 2008 newsletter.

Next Meeting

May 18, 2008, 7 p.m.

Program TBA

General membership meetings are open to the public, and are held at Enterprise Hall, room 80, on the campus of George Mason University (see www.novac.com for directions) in Fairfax, Virginia. The meeting hall is in the basement floor of the building. Since Parking Lot B is now closed, you should park across the street in the far reaches of the Patriot Center's parking lot, then walk up the path to the rear of Enterprise Hall.

NOVAC Needs You!!!

NOVAC has a great corps of volunteers, and needs their help. Every year NOVAC hosts two premier public events, ***Astronomy Day*** and *The Star Gaze*.

This year's Astronomy Day will take place on May 10th at Sky Meadows and The Star Gaze will take place on October 4th at Crockett Park. NOVAC has an urgent need for an Event Coordinator and other volunteers to help at Astronomy Day. If you can help, please contact me at president@novac.com.

Thank You
Ed Witkowski
NOVAC, President

Upcoming Events

May 10

NOVAC's Astronomy Day

Sky Meadows State Park
www.NOVAC.com

May 17

Open House

The Friends Wilderness Center hosts an annual night sky viewing event. We offer very dark skies for sky viewing in our isolated wilderness preserve east of Charles Town, WV.

Please see www.friendswilderness.org.

July 30 - August 3,2008

2008 Mason Dixon Star Party

www.ycas.org

October 4, 2008

NOVAC's Star Gaze

Crockett Park
www.NOVAC.com

THE NORTHERN VIRGINIA ASTRONOMY CLUB
c/o Kent Allingham, Membership Director
3510 Country Hill Drive
Fairfax, VA 22030

Non-Profit Org.
US Postage Paid
Reston, VA
Permit No. 6595