

(Continued from page 1)

Normally I present a NASA update but I gave the members an update on what I had learned at CERT. I also passed along some information that about the Vial of Life and ICE. Check my note on our Yahoo group for details.

The last show of the meeting was the constellation Aquarius. Aquarius is a dim constellation known as the water carrier or bearer. The Babylonians, Egyptians and Chinese all associated it with water and related it to rains and floods. It is in a part of the sky with other constellations that are watery in nature, Pisces the fish and Capricornus the sea goat.

Interested in getting a scope ? The following has been gleaned from our yahoo groups message board...

Don Surles- Interested in a 6" refractor, my suggestion is to buy a sooper-doooper huge mount for the 6" f-8 refractor scope first...then find an OTA. A better bet is a good 10" dob for a fraction of the refractor/mount \$\$\$; you get almost 3X the light gathering of the 6" ...and use the difference to buy some Nagler eyepieces!

Tim Milligan- What are your interests? If you want to do Deep-Sky (ie, galaxies, clusters, nebs) than a Dob might be a better choice. If you want to do high power planetary work and maybe astro-photos, then a refractor is a good choice. If you want to do Deep-Sky and also casual planet viewing than a Dob is still a good choice. Just try and get a good quality mirror. I get great views of Saturn and Jupiter in my 17.5 mirror.

Kent Blackwell- I have a couple of 4" Unitrons, which are very nice as well. Unitron made a 6" back in the 1950's but there are probably only a handfull of them out there. I'll say this, to sort of back up what Don says, my 4" f/15 Unitron exhibits exquisite images of planets but cannot begin to compare with the detail seen on those planets with my 10" Orion IntelliScope Dobsonian. Still, having just bought an 80mm refractor costing more than even the 12.5" Orion IntelliScope Dobsonian reflector I can understand some people attraction to fine refractors. It's a beauty to look at, and a delight to look through. What to do????

David M Groski- There is another thing to consider with some of the refractors being offered today vs the Unitrons, Nikons etc that were made back in the 60's. The older doublets were at least F/15 to keep the color down but the tube is long. I've looked thru a number of the newer 6" refractor which are around F/8. They have a good amount of color. Unless you're going to pay a lot of money you're going to have color and if you look at a spot diagram for these less expensive lens you'll find that some have over 1/4 wave of residue color.

Many years ago Don and I puzzled over what was the best all around 'scope. We concluded that is a good 10" Dob. You get the most for money in terms of resolution, cost and portability. As a telescope making nut, I just revisited this

idea but with a little different twist. I just completed a 4.25 Schiefspiegler. It is a super planetary 'scope but it's only 4.25". I wanted something with better resolution. Nothing beats aperture ! What is the best planetary 'scope ? I did a bunch of calculations and used the fact that we live on East Coast which doesn't have the greatest seeing. My conclusion is a 10" F/7 dob, with a small diagonal, curved spider and on a poncet platform. So what I'm building now, a 9" Schupmann ! Kent asked "What to do" ? The answer is simple, come to the mirror making class, make a 10" f/7 which will be pretty easy to figure and build a great 'scope, plus you'll have great time with great people.

Don Surles- Dave, maybe it's coincidental that you mention the 10" f-7...I have owned or currently own refractors from 3" f-15 to 8" f-15 and in many combinations of aperture and F-ratios. All share one characteristic...they are expensive. Mars viewing is the acid test for most any scope. During the last Mars apparition I owned a 6" f-15 Tinsley and the 4" Nikon refractors. Neither of them could approach the resolution of my homemade \$175 10" F-7.5 dob. And I might add that the best view of Mars produced by the 25" Obsession is accomplished by stopping it down to a 10" clear aperture.

David M Groski- As we both know nothing beats aperture when the seeing allows. The seeing around here is such that your going to get the best resolution from around a 10" scope. A f/7 focal ratio gives one a well corrected field of view (little coma) and allows one to use a small diagonal to keep the obstruction down. It also doesn't require fancy and expensive eyepieces. Those Naglers are great for low power imaging but for high power/ high resolution one wants the least amount of glass. Also at f/7 you can get up over 200X without one those "pin hole" eyepieces. A curved spider smears out the diffraction spike so one doesn't see them. Stars when the seeing is good, are tiny disks with diffraction rings. A planetary image in a 10" is bright. That allows you use filters to bring out the details. I knew that there was treasure in that old 10" mirror you gave back to me. Keith, there is a pretty good article about curved spiders in Sky and Tel in the early 90's. Basically a single curved spider, where the ends attach to the tube about 90 degrees apart is a very good design. I like to use the shiny black metal banding that is used to wrap lumber. One of the secrets is NOT to paint the vanes flat black. Flat black cools very quickly and can cool to slightly colder then the air. This causes a layer of air next to the vanes to be colder then the rest. This colder air has a different refractive index and actually with increase the amount of diffraction.

Kent Blackwell- Guru Dave mentions long f.l. telescopes. Years ago when I assisted at the Chesapeake Planetarium (still do) an old man (he was 50, I considered him an old man when I was 20) used to bring his homemade 10" f/10 Newtonian telescope for us to look through. Oh my, I'll never forget seeing Saturn in that instrument. Times have changed. In the old days amateurs didn't have to consider transporting their telescopes as often as they do today so the tubes could be as long as needed. What Dave says about chromatic aberration is so true. I think an acromat would have be no faster than f/15 for false-free color.

Don Surles- Thanks for the input on Flat Black paint - I am going

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How to Join the Delmarva Stargazers: Anyone with an interest in any aspect of astronomy is welcome

NAME _____

ADDRESS _____

CITY, STATE & ZIP _____

E-MAIL ADDRESS (If any) _____

Please attach a check for \$15 made payable to Delmarva Stargazers and mail to Kathy Sheldon, 20985 Fleatown Rd, Lincoln, DE 19960. Call club President Lyle Jones at 302-736-9842 for more information.

The November Full Moon

November's full moon arrives at 7:58PM on the 17th. There are many names for this full moon. In North America the most popular names are Beaver or Frost Moon. Probably the reason for the Beaver label is this was the time to set beaver traps before the swamps froze, to ensure a supply of warm winter furs. Another interpretation suggests that the name Beaver Moon comes from the fact that the beavers are now actively preparing for winter.

References to it as the Frosty Moon are probably due to our North American climate that pretty much assures most of the continent will have experienced at least one frost by the time of the November full moon.

Here are some names for the November full moon from other parts of our world:

Civilization	Names
Colonial America	Beaver or Frost Moon
Chinese	White Moon
Cherokee	Trading Moon
Choctaw	Sassafras Moon
Dakota Sioux	Moon when horns are broken off
Celtic	Dark Moon
English Medieval	Snow Moon
Neo Pagan	Tree Moon

Here is a simple experiment that will verify the apparently very large full moon on the horizon is actually no larger than when it is overhead. Hold your finger out at arm's length (try each one to find the little stubby one that barely covers the moon's surface) and sight the full moon with one eye open/one shut. Do this when the moon is overhead and when it is on the horizon. The same finger should cover the moon in both positions; which proves the arc is the same.

Comments 'bout No Frills

Mike Enright-

My wife and I attended our first Star Party this weekend at Tuckahoe and had a wonderful time. The weather was fantastic, the event was very well organized, the people were extremely friendly and helpful. I learned more in a couple of days than I have in months trying things on my own.

Congratulations to everyone who helped put this together. Now I understand why people in the club go to Tuckahoe. That's the first time I've seen the Milky Way in years. I plan on going back more often. Thanks to everyone for so much fun.

Magazine Subscriptions

As a paid member of DMSG, you can sign up -or- renew your S&T or Astronomy magazines through the club for a discount over private rate. S&T, reg. \$42.95, is \$32.95 thru DMSG, Astronomy, reg. \$44, is \$34 thru DMSG. See Pj Riley for details.

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to rework the 4-vane spider and diagonal holder of the 10" F-7.5 this weekend and I will look for some "military anti-infrared paint". Oh, I like the orthos from University Optics for planetary viewing...3 - 4 elements, multicoated, blackened edges...they work well. Also I have had good results with a Meade 3-element 2X barlow and 9mm - 20mm Televue plossels. I might add that I have owned many barlows over the years...ES, Meade, TV, Celestron, Dakin, UO,...and the only one I have kept is the 2X Meade Apo. I have owned a few of the Meade apo's and this is the one that worked for me...they ain't all alike!

Kent Blackwell- Dave, funny you mention not painting the spider vanes black. Has anyone ever seen my 12.5" f/6.2 Newtonian on a Byers 812 mount? It's been retired for years, but even back in the late 1970s I polished the paint off the E&W Optical Company spider vane, leaving a very thin, brass 4-vane spider. EVERYONE told me I was wrong to do that, but all I know is that images in that scope usually beat any other 12.5" around.

David M Groski- Another one of my tricks is when I disassemble an eyepiece or any optics that has a lens, I take a black Sharpie marker and blacken the edges. It really improves the contrast. I second those UO orthos, a real excellent value for the money. Just about any of those 'Volcano' style Orthos from the 60's and 70's are good eyepieces. Most of them came from the same manufacture in Japan.

Thanksgiving

At the end of this month we celebrate Thanksgiving. It's a time of reflection. I thought I would tell you of some of the things I'm thankful for. I'm thankful for health, family and friends (old and new). I'm thankful for clear, or even semi clear, night skies, so I can see the wonderous sites in the night sky. I'm thankful for the group of people who call themselves The Delmarva Stargazers, an enjoyable bunch of folks. I'm also thankful for friction and gravity, because without them, we would fall off this rock we call home.

What are you thankful for? Think 'bout it, but don't strain anything.

Pj

Our rotational speed on Earth at 40 deg. N is ~ 600 mph. The Moon revolves around the Earth at ~ 2200 mph. The Earth revolves around the Sun at ~67,000 mph. The Sun revolves around the Milky Way at ~504,000 mph. (The Sun has only made 18 laps in the last 4.5 billion years). The Milky Way is heading in the direction of Leo at 'bout 1.3 million mph.

But you can get a speeding ticket for going 35 mph in a 25 mph zone.

Your 2005-2006 Officers

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No Frills X Pictures

photos by Frank Sheldon, Kent Blackwell, Pj Riley, Richard Hitt



DMSG star parties - more fun than a rodeo



Moisture, the enemy of astronomers, lurking nearby

inspecting the scope after Kent's dismount

2005 Delmarva No-Frills Star Party

Kent Blackwell

Imagine a star party when 4 or 5 nights are rewarded with clear skies. That's what occurred at this year's "Delmarva Stargazers No-Frills Star Party". A few people arrived as early as Wednesday, September 28. I was not able to do so since I was asked to introduce the new documentary film, "A Sidewalk Astronomer" at the NARO Theater in Norfolk, VA. But you better believe Thursday morning I was packing the truck and trailer full of astronomical goodies. Robert Hitt and I set out on our way up the lovely scenic Eastern Shore. Along the way a vehicle passed; it was none other than Ted Forte, another Tidewater Virginia amateur astronomer making his way to the star party.

Roy and Dee Diffrient greeted us as we entered the equestrian area at Tuckahoe State Park in Queen Anne, MD. Within an hour of arrival all telescopes were set up and we were ready for a night of stargazing, but not before Dee prepared a wonderful gourmet meal for us. The sky was crystal clear, so we knew it was going to be a great night.

What we didn't anticipate was how cold the temperature was going to be. Is this September or January, I thought to myself? As long as the sky is clear, who cares about chilly temperatures? I struggled with some technical difficulties with my telescope at first, but finally managed to get those repaired. While I was fumbling around wondering what to look at Ted Forte was observing obscure planetaries. Roy Diffrient was locating planetaries as well, most from the obscure Minkowski catalog. Roy called me over to look several times. The illusory images, though faint, were unmistakable. I love those faint planetaries. Roy continued finding faint planetaries, as did Ted. Me, I was still rambling along wondering what to view. Someone happened along and asked if he could see The Veil Nebula in my 25". To be honest I had not looked at it



all summer long, so it was time to do so. "Wow! Oh my! It's The Best I've Ever Seen It", I screamed out as the giant telescope was pushed toward The Veil. By now I guess I had attracted a crowd because my scope remained stuck on the object over an hour as passersby got a glimpse.

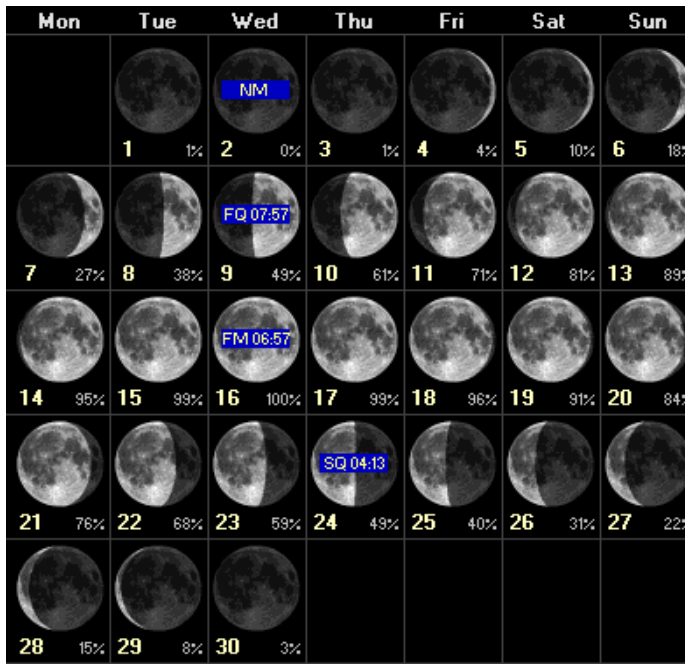
More people arrived on Friday, although the crowd was smaller than I've seen in previous years. Perhaps the high cost of gasoline kept a few at home. The skies that evening were ever better than Thursday, without the cold temperatures and without the wind. Mars was high in the sky late in the evening so I wondered to Steve Darnell's 6" Astrophysics refractor to see it. The Red Planet displayed a wealth of detail, particularly with a red filter to bring out surface details.

I managed to find the large planetary Abell 82 in Cassiopeia. Roy had shown me this the night before in his exquisite 18" homemade Dobsonian. I also viewed another object hitherto seen before, the open cluster King 10. Ted called me over to look at the faint galaxy IC 1297 in Corona Australis through his 18" Obsession Dobsonian. This object always hugs the southern horizon, and never climbs higher than 12-degrees from our latitude in Maryland.

Saturday was a beautiful day, and an excellent opportunity to walk the lovely equestrian grounds and chat with various amateurs about their telescopes. By now the field was nearly full, and I was glad to see so many people finally attend. Every make and model of telescope was in abundance, from gorgeous homemade instruments to commercial ones.

By nightfall everyone was ready to observe. My first object happened to be the small illusive planetary nebula Pe 1-16 in Scutum. The 14th magnitude object was hardly visible at all until using a Lumicon Oxygen III filter, and then it blinked into view beautifully. Early in the evening I observed very seriously, but as the night wore on I grew more and more tired, so spent the time relaxing and gazing into other telescopes.

Since Mars was favorably placed I used my modified occulting eyepiece to see if I could spot Deimos. "Wow, it's the best I've ever seen it", I muttered loudly. Soon a crowd of a half-dozen people shared the view. Danka Prilepkova was



Sun and Moon Data for November 2005
 Tuckahoe, MD
 38.98°N 75.93°W 5hrW
 Daylight Time Civil Twilight

Date	Twilight	Rise	Sun Transit	Set	Twilight	Rise	Moon Transit	Set	%
11/1/2005	7:04a	7:31a	12:47p	6:03p	6:31p	7:03a	12:27p	5:42p	0
11/2/2005	7:05a	7:32a	12:47p	6:02p	6:29p	8:12a	1:16p	6:12p	0
11/3/2005	7:06a	7:33a	12:47p	6:01p	6:28p	9:23a	2:09p	6:50p	3
11/4/2005	7:07a	7:35a	12:47p	6:00p	6:27p	10:34a	3:07p	7:36p	8
11/5/2005	7:08a	7:36a	12:47p	5:59p	6:26p	11:42a	4:08p	8:34p	15
11/6/2005	7:09a	7:37a	12:47p	5:58p	6:25p	12:41p	5:10p	9:41p	24
11/7/2005	7:10a	7:38a	12:47p	5:57p	6:25p	1:31p	6:10p	10:55p	34
11/8/2005	7:11a	7:39a	12:48p	5:56p	6:24p	2:11p	7:07p	*****	45
11/9/2005	7:12a	7:40a	12:48p	5:55p	6:23p	2:44p	7:59p	12:10a	57
11/10/2005	7:13a	7:41a	12:48p	5:54p	6:22p	3:12p	8:49p	1:25a	68
11/11/2005	7:14a	7:42a	12:48p	5:53p	6:21p	3:37p	9:37p	2:37a	78
11/12/2005	7:15a	7:43a	12:48p	5:52p	6:20p	4:01p	10:24p	3:48a	87
11/13/2005	7:16a	7:45a	12:48p	5:51p	6:20p	4:26p	11:12p	4:59a	93
11/14/2005	7:17a	7:46a	12:48p	5:50p	6:19p	4:53p	*****	6:10a	98
11/15/2005	7:18a	7:47a	12:48p	5:50p	6:18p	5:25p	12:01a	7:22a	100
11/16/2005	7:19a	7:48a	12:49p	5:49p	6:17p	6:01p	12:53a	8:33a	99
11/17/2005	7:20a	7:49a	12:49p	5:48p	6:17p	6:46p	1:47a	9:41a	97
11/18/2005	7:21a	7:50a	12:49p	5:47p	6:16p	7:37p	2:43a	10:44a	92
11/19/2005	7:22a	7:51a	12:49p	5:47p	6:16p	8:35p	3:38a	11:38a	86
11/20/2005	7:23a	7:52a	12:49p	5:46p	6:15p	9:37p	4:32a	12:22p	79
11/21/2005	7:24a	7:53a	12:50p	5:46p	6:15p	10:39p	5:22a	12:59p	71
11/22/2005	7:25a	7:54a	12:50p	5:45p	6:14p	11:41p	6:09a	1:28p	62
11/23/2005	7:26a	7:56a	12:50p	5:45p	6:14p	*****	6:53a	1:54p	52
11/24/2005	7:27a	7:57a	12:51p	5:44p	6:13p	12:41a	7:34a	2:16p	43
11/25/2005	7:28a	7:58a	12:51p	5:44p	6:13p	1:41a	8:14a	2:37p	34
11/26/2005	7:29a	7:59a	12:51p	5:43p	6:13p	2:41a	8:54a	2:57p	25
11/27/2005	7:30a	8:00a	12:51p	5:43p	6:12p	3:42a	9:35a	3:19p	17
11/28/2005	7:31a	8:01a	12:52p	5:43p	6:12p	4:45a	10:18a	3:42p	10
11/29/2005	7:32a	8:02a	12:52p	5:42p	6:12p	5:53a	11:06a	4:10p	5
11/30/2005	7:33a	8:03a	12:53p	5:42p	6:11p	7:03a	11:57a	4:45p	1

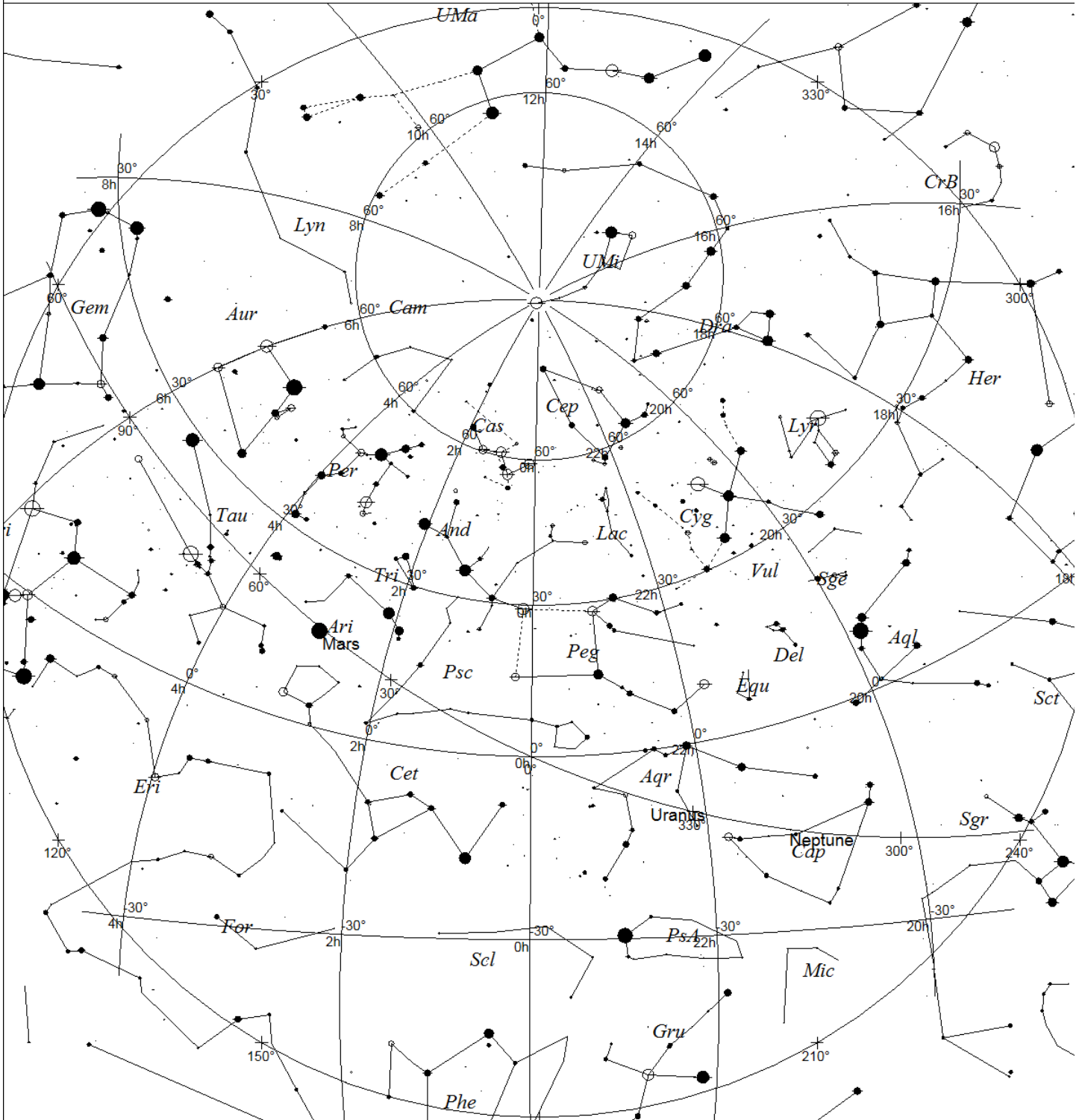
equally impressed. I think it's the first time most people had glimpsed the illusive moon. Deimos is not that faint at 12.2 magnitude but is nearly a million times fainter than Mars itself, and only 58 arc-seconds away! While viewing Mars Ted Forte pushed the power of his scope, not to mention the envelope, to 700x. I must say it was impressive. But the most impressive view I had that night was through Dave Groski's 4.5" f/27 Schiefspiegler at 400x. Imagine, a 4.5" telescope operating cleanly at 400x. The image was still sharp, if somewhat dim. This is surely one of the most perfect telescopes I have ever looked through. By 4:00 am most sane people had retired for the night, except a few of us. The last object I viewed was The Horsehead Nebula in Orion. Using 135x and a Lumicon Hydrogen Beta filter the object stock out starkly. As I readied to put the scope away I decided to look at just one more object, NGC 2392 The Eskimo. This high surface brightness planetary nebula was simply magnificent, even at 635x! What a way to end an astronomical observing night!

By Sunday morning everyone was exhausted and, speaking for myself, ready to go home. Unfortunately, that's a 5-hour drive for me. I want to thank everyone for making me feel so welcomed and also thank everyone for all the hard work for organizing the star party so well. I look forward to the next Delmarva Stargazers Star Party this Spring.



Who needs a Telrad pointer, when a Kent pointer works as well !

Skymap November 4 2005 10PM



STARS		SYMBOLS	
● <1	● 3.5	■ Dark nebula	△ Radio source
● 1.5	● 4	⊕ Globular cluster	× X-ray source
● 2	● 4.5	☄ Comet	○ Open cluster
● 2.5	● >5	☉ Galaxy	⊕ Planetary nebula
● 3		□ Bright nebula	⊞ Quasar

Tuckahoe State Park MD

Local Time: 22:00:00 4-Nov-2005 UTC: 02:00:00 5-Nov-2005 Sidereal Time: 23:53:53
 Location: 38° 58' 0" N 75° 56' 0" W RA: 23h53m53s Dec: +38° 57' Field: 182.0° Julian Day: 2453679.5833

Moondark for November: 24 Hours at the No Frills Star Party



62 preregistered – 101 total attendees – 75 overnighers – 34 cars, SUV's and trucks



9 refractors – 3 reflectors – 16 Schmidt-Cassegrains – 3 binocular mounts – 20 Dobsonians



0 Sunspots – 1 Summer Triangle – 3 planets – billions of stars in the Milky Way



17 tents – 2 RV's – 7 scope trailers – 1 Old West Town – 1 red outhouse – 1 white barn



2 tall ladders – dozens of airplanes – 10 pounds of fish to fry



19 Maryland – 10 Delaware – 1 New Jersey – 6 Virginia – 1 Illinois – 1 Rhode Island license plates



All seen at the [No Frills Star Party](#) 30 September - 1 October 2005 at the Equestrian Center in [Tuckahoe State Park](#), near Queen Anne, Maryland. Moondark is written by [Doug Miller](#), published at the [Moondark web site](#), and printed in the [Delmarva Star Gazers' Star Gazer News](#). This document was last revised on 21 October 2005. Text and images copyright © 2005 by Douglas C. Miller, All Rights Reserved. This material may not be reproduced in any form without prior permission.