the information they need to get started. In other words "How do you integrate them into club activities?" Outreach is one way to do it. If you do this correctly, stand back, they will surprise you in what they learn and are willing to do to help others. This is a program that I started with the concept of a “club greeter" and is where I get the majority of

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people willing to come out and help me with all of this. Because club sponsorship for these events is unlikely, I start from scratch with new club members

Demographics in an astronomy club presents problems with distance to reach both people and suitable viewing sites. In New Castle County, it is often difficult to find the Milky Way. Because of this variability in viewing sites, we must settle for what can be seen at the sites we have.

Several members of the DMSG have helped with my events which I greatly appreciate. Lastly, I ask the DMSG what are your regular scheduled outreach events? Are you interested in doing this? Do you think you can support it somewhere in your area? Do you have a plan for the involvement of new members to your club? Let me know what you think!

James T. Morgan

An Improved Calendar

Beth Hartung, daughter of member Bill Hartung, developed and presented a humerous and lively proposal for a new and improved world calendar. Unfortunately,her condensed summary was not available at publication time.

NASA MISSION UPDATES

UPDATE ON MARS ROVERS

Jerry Truitt presented the high resolution graphic portions of the NASA slide show on the 2 Mars Exploration Rovers, Spirit and Opportunity for the time periods through May 13.’

The text portion for this time period, along with odometry’ had appeared in the June issue of the Stargazer News.

CASSINI UPDATE

As of June 1,Cassini spacecraft was 12 million miles from Saturn with one of it’s first tasks being the flyby of the moon **Phoebe**

Southern Constellations

This month’s southern constellation, **Centaurus,** was presented by Randall Willis and concludes our year-long survey of most of the southern constellations. Many thanks to those individuals who stepped up and delivered these presentations at the monthly meetings.

Centaurus Stars

Alpha Centauri aka Rigel Kentaurus

At 4.34 light years away and magnitude -.27, it is our closest neighbor and the 3rd brightest star in the heavens. Alpha Centauri is a triple star system of Alpha A, Alpha B and a red dwarf flare star Proxima Centauri.(Proxima is slightly closer to us than alpha.)

Beta Centauri (Hadar) This Mag .66 spectral type B1 II, together with Alpha Centauri, forms the pointer to the Southern Cross.

Deep Space Objects Centaurus has one of the largest finest and nearest globuar clusters in **Omega Centauri** at 17000 light years away.

4 1/2 degrees north of this cluster is the peculiar elliptical galaxy **NGC5128**. In addition , there is a large radio Galaxy called **Centaurus A.** Finally we have **NGC 3918,** a large bluish green planetary nebula about 12 arc minutes in diameter.

Omega Centauri The largest and oldest globuar cluster known . If Orion is the nursery of stars, Omega Centauri has to be the cemetery. Many of these Stars are helium to carbon burners on their way to red giant hood.

From the Presidents Desk....

June 14, 2004

Well, Summer is here again! Seems like only yesterday that Summer '03 was nding…remember the hurricane and a state of emergency declared in Maryland that closed all Maryland State Parks and almost prevented No Frills? This summer will be somewhat drier and calmer than '03; you heard it here first.

Did you see the Transit of Venus on June 8? I hope you did because it was a very impressive event. A group of about 30 folks met at Woodland Beach on the Delaware River east of Smyrna before sunrise and enjoyed the transit from sunrise until 4th contact around 8:00 am. Apparently, the River's temperature vs the air temperature prevented the fog formation that plagued a lot of East Coast observers.

We were treated to a fine sunrise with only about 5-10 degrees of clouds on the horizon. It was a bit frustrating to find the sun with the solar filters on the scopes and the clouds on the horizon but within a few minutes the sun cleared the clouds and we had front-row seats for the remaining hour-plus of the event. Just seeing the sun rise from the River and burn through the clouds was beautiful. My first peek was with a naked scope (sans filter) through the thick cloudbank before the sun cleared it. The sun was a deep red with Venus being a jet-black disk; the large diameter of Venus surprised me. This could have been related to the horizon effect. Remember how large the sun and moon appear on the horizon vs overhead? And the seeing on the horizon was "liquid", ie, the entire circumference of the sun was in motion. This image is "burned" into my memory. And let me say that I do not recommend using a naked telescope for solar viewing to anyone. The only reason I attempted this was the thick cloud cover on the horizon and I looked into the eyepiece only after holding my hand over the eyepiece to see the intensity of the image and after checking thru the finder.

Back in May 1994, we had a partial (about 85%) solar eclipse. Luck and the cloud gods dumped on Smyrna that day. As the eclipse progressed, the clouds seemed to thicken and the sun disappeared through my filtered scope. This time I pointed a naked 35mm camera at the clouds and found the sun…it was a nice subdued milky white in a less than 50% crescent barely visible through the clouds. So I used the naked camera and a naked 6" scope to photograph a fully clothed (read that, CLOUDY) solar eclipse. The worst that could have happened was a burned camera shutter curtain if the clouds would have suddenly parted; but believe me I was very sky observant and would have ceased this type of photography if the clouds had parted. The clouds provided an interesting background for the sun/moon alignment. So, if clouds are twixt you and the sun, be careful, but if the opportunity arises to salvage the event, go for it. Just remember there will be other opportunities to get a view or a picture but you only have one pair of eyes. BE CAREFUL any time you are looking at Ol' Sol.

Looking forward to our 2004-2005 calendar and some possible exciting activities for our Club will be the business-related topic of our July 3rd get together at my house (2:00 PM until we are finished). I will have a proposal for meeting topics, establishment of special interest groups, events, etc for us to consider. If you have ideas that you would like to sponsor within Delmarva Star Gazers or have the Club consider, please bring the details along or send them to me and I will include them with the package of materials I will provide. No idea is too large or too small or not good enuf…each one is precious and will be appreciated, evaluated, promoted or tabled, and could possibly become the next BIG venture of Delmarva Star Gazers. Our members' ideas are the strength of Delmarva Star Gazers and they must be treasured.

Speaking of July 3rd at my house, 514 Marilyn Road, Smyrna, DE 19977…all DSG members and family members/significant others are invited to attend. Fourth of July Hot Dogs, Hamburgers, Corn-on-the-cob, sodas and other liquid refreshments will be provided; desserts and snacks are whatever you bring. We are doing our 4th of July event at my house this time in lieu of the

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

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 Don Surles at 302-653-9445 for more info

skeeter infested woods we have endured for the past few summers. To insure the sanity of my wife, Karen, a phone call indicating the number in your party is appreciated. The phone number is 302-653-9445.
Our organization is growing. Over the years we have increased the number of members significantly and with the numerical increase in members has come a geometrical increase in our capabilities, talents, and possible paths of interest. Currently there are so many possibilities for us to pursue that we cannot do justice to them all. We must pick and choose those that are "right" for our Delmarva Star Gazers. We are faced with the choice of choosing only a path that every member sees as being "right" for him/her or do we choose many different paths that will each fit the interest of a few members?

This is the dilemma - a few topics or interest for all or several topics for small groups? I would like for our organization to choose the many-path-option because I believe we can create subgroups of members who can attack a concept, make it bear fruit and then share the fruits with the entire organization. Imagine if we had ten subgroups, ie, special interest groups, and that each group made a single contribution to the club each year! Could the number of SIG's increase to twenty? The rewards for Delmarva Star Gazers would be tremendous. Think about your personal desires in amateur astronomy and then think about how a DSG SIG could help you succeed in those desires. I believe you and DSG can work together more effectively than we have in the past.
Forward your thoughts…
We are making progress on our Ten Year History. If you have a story, a comment, picture, or any other form of information that is relevant please consider sharing it with us. Our purpose is to document our first ten years, while most of us still possess our memories, for those who may come along a few years from now and have questions about the beginnings of DSG and the ornery old *F@##$* of the early years.
Remember that your memories are just as valid as mine and will yours will be more valuable to the story's completion. Our goal is to have a keepsake product for members and other amateur astronomers by Christmas 2004.
Enuf said – have a great summer. See you July 3rd at my house or at Tuckahoe. Don…

The Solar system in July *by Paul Riley*
If you are out late on July 4th , they are NOT meteors with sonic booms that you're observing, it's just fireworks to celebrate Our Independence Day. So along that line - try looking for the North American Nebula (NGC 7000) just off Deneb in Cynus. Keep to low power, and a light pollution filter helps. Mid-month there will be three planets (Jupiter, Mercury, and Mars) and a crescent moon under Leo at dusk. For those of you with BIG glass, try finding Pluto, it's near Sabik in Ophiuchus.

Club Activities

Club Meetings- We meet in the First Presbyterian Church in Smyrna, DE (653-8000) on the first Tuesday of each month from 7-9 PM. From US 13, turn west at Wendy's and go one stoplight on Commerce Street; the church is on the right directly across from the Fire Hall.

Future Meetings.. The annual meeting dates for 2004 are: January 6, February 3, March 2, April 6, May 4, July 3 Picnic at Don's house, August 3 No inside meeting;event to be scheduled, September 7, October 5, November 2 and December 7.
The regular meeting format includes discussion of club activities, observing highlights and an advertised presentation.We solicit suggestions for topics and presenters.

Club Observing... Observing is (usually) scheduled for the Friday nearest the New Moon to maximize the hours of deepnight without the moon in the sky. Unless otherwise stated, the monthly observing site will be at the baseball field in the camping area at Tuckahoe State Park. The observing days for 2004 are:
January 16, January 23, February 20, March 19,.**April 14-18 (Stargaze X)**, April 23, May 14, June 18, July 16, August 13, August 20, **September 15-19 (No Frills IX)**, October 15, November 12, and December 10.
The cloud or rain date for the monthly Friday observing will be the following Saturday, but don't trust the weather man! Go outside and look for yourself or check the CNN weather link on our web page. If you still can't decide, call Don Surles (302) 653-9445 or Lyle Jones (302) 736-9842.

Delmarva Star Gazer Officers 2004-2005
President.....Don Surles 302 653 9445
Vice President.....Jerry Truitt 410 885-3327
Secretary.....Paul Riley 302 738-5366
Treasurer.....Kathy Sheldon 302 422 4695

Tuesday, June 08, 2004 8:13 AM Keith Lohmeyer
Hi all, The weather gods smiled on us this morning! I hope everyone had the great views that I had from my driveway here near Denton. I had my Coranado Maxscope 40 ready to go before sunrise. A little fog threatened but did not get thick enough to ruin the show. As the sun rose over the trees the black dot of Venus was visible to the naked eye on the dark orange disk of the sun. Very quickly the sun became too bright to view directly. Pointing a scope toward the sun usually involves using shadows. I didn't realize that shadows were so difuse at dawn, I could not use my finder. I had to move the scope around until the sun was in the eyepiece. With the exception of a cloud passing through around 6:10 I was able to view the entire show. I did not detect the teardrop in my scope. All in all a great morning. Keith

Tuesday, June 08, 2004 8:28 am Steve Long Hey, Keith! I was out at 6 AM in Sandtown, and the fog worked to my advantage. From 6 AM to about 6:25 I was able to photograph the transit, before the sun rose above the fog and became too bright for my camera to image even at f/45 and 1/4000. I didn't have any sun-observing equipment, so when I started to get big green spots in my eyes even through a polarizing filter and two pair of sunglasses, I quit. Here's a sample, from about 6:05 AM. Steve

Tuesday, June 08, 2004 8:45 AM Kent Blackwell
We saw it here on the boardwalk of Virginia Beach as well. The sky was so murky on the horizon I viewed it without filters. The view of the thin clouds across the surface of the sun with the shadow of Venus was simply lovely in the 20x120 Nikko Big Eyes. Wow, no scope I had could begin to match that view. I'll remember it until the day I die. Kent Blackwell

Tuesday, June 08, 2004 9:29 AM Dave Groski
Hi All, The Northerner's in Hockessin area had made plans to observe from Delcastle Rec. Park, but when we arrived the placed was covered in thick fog ! We quickly packed up and head up Limestone road to the Pike Creek Shopping Center to some excellent viewing. We could see the disk of the planet naked eye through the hazy. We saw a flattening of the disk at 3rd contact but not the "black drop". A few minutes later we could see Sunlight shining through Venus' atmosphere as it out lined the section of the planet that was off of the disk of the Sun ! I was surprised at how large Venus was against the Sun, compared to the transit of Mercury I viewed as a kid back in 1973 were it was just a dot. I'll remember this one for a longtime and what made it even better was observing it with good friends! Dave

Tuesday, June 08, 2004 9:58 AM Dave Wells
Hi all, The weather certainly did cooperate for a change. I, and my grandson, were at the Dune Overlook at Cape Henlopen State Park at 4:45 am. 4" refractor (with Herschel wedge) and 25x100 bino's (with Baader filters) were all set up and waiting for sunrise. The sun emerged in a mixture of low clouds and fog over the ocean, and first views were through the bin's with the filters removed. The size of the disc was amazing; I had expected it to be smaller after the DAS demo at Stargaze X. Views through both the telescope and binoculars were spectacular and I think I got some good pictures using the refractor at prime focus with a 2X Powermate. If they came out good I post some later. We got to share our experience with seven additional people who showed up. They all were thrilled by the views and greatful for the opportunity to see this event. One of the spectators was the publisher of the Cape Gazette, and if any of my pictures are worthwhile I will be sending them to him.All in all a great and unforgetable morning. C'mon 2012.I agree with Keith the sun is hard to find in a telescope at dawn, At my Sun Spotter was useless. Both my grandson and I thought we saw the "black drop". I will have to see if I captured it in pictures. Dave Wells

Tuesday June 08, 2004 10:07 AM Michael P. Borgia &~$*# the Weather gods! Weather was close to zero-zero in Newark!. Tried driving up the road to New Castle Airport to set up, but weather was just as bad and the sun did not appear until just after fourth contact.
Mike.Borgia

Tuesday, June 08, 2004 1:24 PM Don R Surles
News of the views from Woodland Beach, DE - better late than never! I awoke at 3:30 AM this morning and prepared for the trek to Woodland Beach. For those who have not had the pleasure of visiting WB let me say that it is on the beautiful banks of the Delaware River about 7-8 miles east of Smyrna. Basically it is a parking lot and a condemmed fishing pier inhabited by swarms of marsh mosquitoes and green head flies(they come over from Jersey!). My truck was packed with the Ultima 8 sct, the Nikon 4" refractor, cameras, and filters. I made a pot of coffee and took off about 4 AM. And when I arrived at 4:15 there were people already set up! A rooster crowed just as I opened the truck door - dawn was coming and I questioned whether the rooster was a good omen or a bad one.I set up the

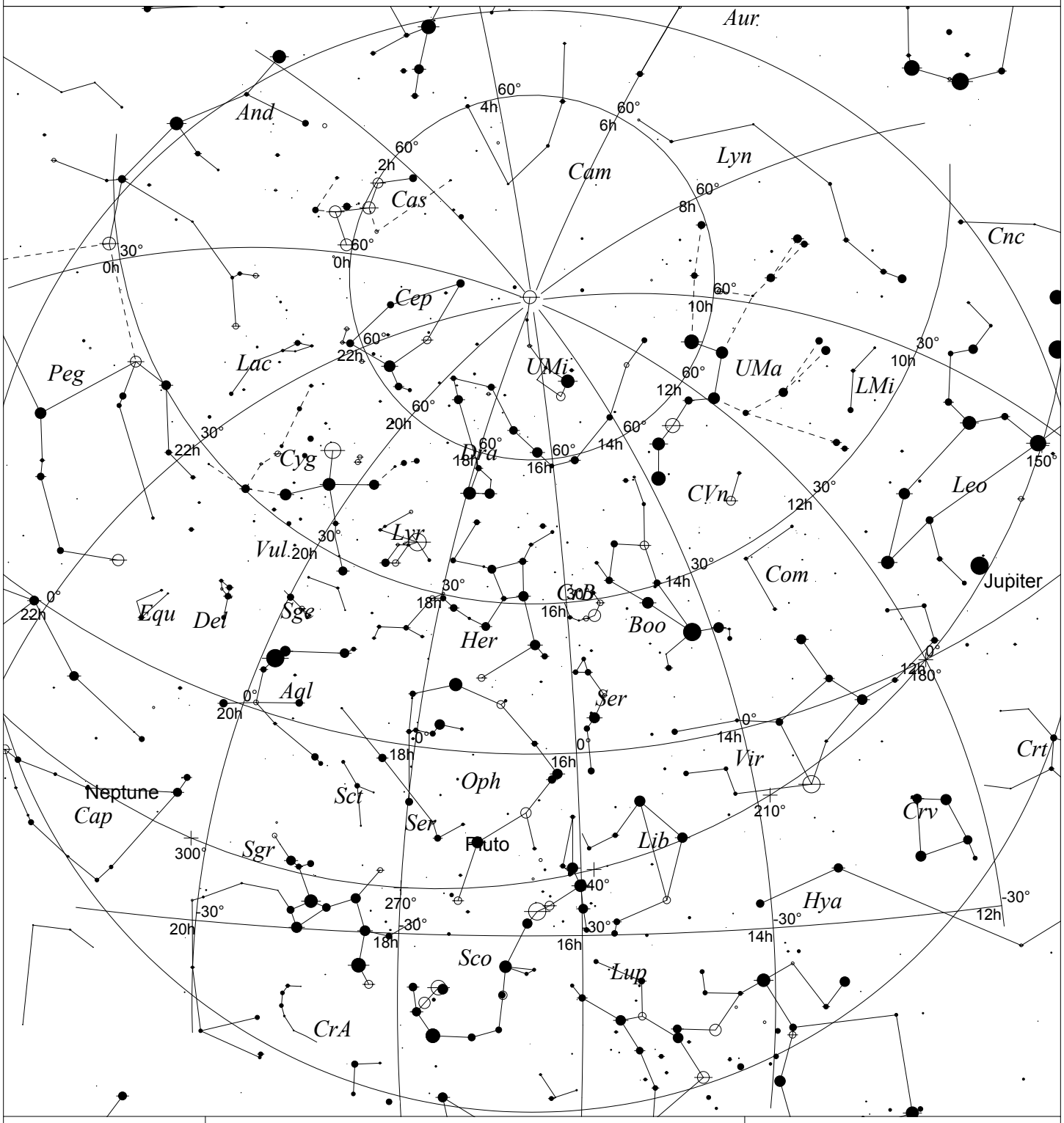
Nikon scope with an F-2 Nikon camera and 100 speed VS slide film. The Ultima was set up for viewing...and we waited for the sun to appear. As we waited several more folks arrived. All told we had around 30 people - I had 30 "I saw the Venus Transit, June 8, 2004" buttons and gave them all away - so there must have been at least 30. The sun rose above the River through approx 5-10 degrees of clouds so thick I couldn't see it through the filter so I did the unthinkable and removed the filter to look directly at the sun - thru the finder first and then thru the Ultima. God, what a view! The sun was deep red and Venus was jet black, round, and much larger than I expected. I allowed a couple of brave souls to get a fast peek before replacing the filter because Venus was rising through the clouds rapidly. This was by far the most memorable view. Coffee, doughnuts, good people, good equipment, Great Weather, no marsh mosquitoes, and a TRANSIT OF VENUS! As Frankie said, "That's life!" We watched the entire event - only for a few minutes were we bothered by a small hazy cloud. As the event neared the end Norman Todd convinced me to switch the camera to the Ultima so we could view thru the Nikon refractor.Everyone had several sessions at the eypiece right thru 3rd & 4th contact. None of us saw a black drop effect. I am sure none of us will ever forget the image as Venus crossed the edge of the Sun. That was a graphic display of Cosmic Geometry. Now what is the next astronomical event for us? Don

Tuesday, June 08, 2004 1:31 PM Steve Dexter
Doug Miller and I with several other friends watched it from Broadkill Beach. Low clouds and fog over the bay prevented us from seeing anything for about the first ten minutes. Then we could see the orange disk of the sun with Venus visible naked eye, but I agree with others that it was hard to find in the scope. I had two scopes, TV101 and an Orion 127 Mak on opposite ends of a two-armed Giro-2DX mount, both with Baader filters. The image was definitely better in the refractor. Maybe the Mak still had some temperature issues. The low clouds at our location were finely banded, so at times the image looked like Jupiter with a shadow transit. At one time a jet trail drifted across the face of the sun as an irregular black strip parallel to the cloud bands. That was an interesting visual effect. As others have mentioned, we couldn't really see the teardrop effect either at third contact. I was using the 17 Nagler4 in the TV101 (about 32X) at the time. Maybe it would have been visible at higher mag ...All in al a wonderful observing experience. Only regret - deciding to leave the 20X80 binocs home, especially after Kent's comments.
Did anyone see it in Hα? Steve Dexter

Tuesday, June 08, 2004 1:37 PM Doug Miller
Steve Dexter and I met several others from coastal Sussex this morning to observe the transit of Venus. We occupied a nice, elevated and bug-free "expedition" site at Broadkill Beach, on the dune right at the end of Route 16. Initially there was some question whether the sun would clear the low clouds and fog over the Delaware Bay, but within ten minutes of the predicted sunrise, a pinkish, flattened solar disk popped into view, and Venus was clearly visible. At that point no filter (or telescope!) was needed, but soon the sun grew too bright for unprotected eyes and cameras. Subsequently, it proved difficult to find the sun with telescopes since it was still considerably dimmed by haze and scarcely visible through aperture filters.As the sun rose, it brightened greatly and passed through thin layers of high clouds that were plainly seen against the disk. At times thesun looked more like Jupiter with cloud bands and Venus a Galilean moon's shadow--except much sharper in outline. We enjoyed the transit through3rd and 4th contacts and came away with an appreciation for how difficult is was (and is) to time these events accurately. As souvenirs of the event, I took lots of digital images, so we'll see how they turn out. BTW, transit gazers outnumbered surf fishermen by about 10 to 1! Doug

Wednesday, June 09, 2004 10:10 PM Bob Bunge
A couple of months ago, after listening to me babble about the transit, my wife decided this would be a good excuse for her to arrange a trip to the beach. So she found a hotel in Delaware that was on the beach and made reservations. We had mostly clear skies, with a good amount of haze over the ocean (but no fog!). The sun popped through the haze perhaps 10 degrees above the horizon For a few minutes, it was possible to see the black dot of Venus, naked eye, against the orange disk of the sun naked eye without any filters! At least to my way of thinking, this makes for a double rare event - a hundred year event that can't under most conditions be seen without optical aid of some sort. So here's about what it looked like via my trusty Nikon FM2, 300mm f/4.5 Nikkor lense, at 1/125 of a second, 200 ISO Kodak color neg film. Scan from the negative. Some minor processing with Paint Shop Pro.Visual observations with a 4.25-inch f/10 planetary newtonian, Baader solar film, at 212x were outstanding. No "blackdrop" effect was seen. Seeing was excellent at first, but degraded by 3rd contact. Third contact was easier to "mark" then 4th contact. We were observing with Sue and Steve Rismiller of Ohio. Steve had an H-alpha filter on a small refractor. His announcements of both contacts trailed my white light announcements by a full minute. Sue, Steve and myself are all total eclipse veterans. Upon first sighting of the sun and the event, we all three experienced a brief moment of "quick, do everything in the next 60 seconds before it's over - bincs, naked eye, H-alpha and white light... whew. Then we realized we had another hour plus to go.Clear Skies, Bob Bunge

SKYMAP FOR JULY 2004



STARS	SYMBOLS		
<1 • 3.5	Multiple star	Dark nebula	Radio source
1.5 • 4	Variable star	Globular cluster	X-ray source
2 • 4.5	Comet	Open cluster	Other object
2.5 >5	Galaxy	Planetary nebula	
3	Bright nebula	Quasar	

TUCKAHOE STATE PARK
JULY 16, 2200 HOURS EDST

Local Time: 22:00:00 16-Jul-2004 UTC: 02:00:00 17-Jul-2004 Sidereal Time: 16:33:12
Location: 38° 58' 0" N 76° 56' 0" W RA: 16h33m13s Dec: +38° 57' Field: 182.0° Julian Day: 2453203.5833