

# STAR GAZER NEWS

NEWSLETTER OF THE DELMARVA STARGAZERS

December 2004

WWW.DelmarvaStarGazers.Org

Volume 12 Number 6

## At the November Meeting.....

Jerry Truitt brought the meeting to order at 7:15 with 25 members and guests attending.

## Outreach Opportunities

**Elkton Central Library** Newark Road Elkton

Astronomy at the Library (Elkton)

Friday, November 19, 2004

Time: 6:00PM - 8:30PM EST (GMT-05:00)

Astronomy at the Library Contact Jerry Truitt

## Bombay Hook

Star Gazers are scheduled to do a program at Bombay Hook Wildlife Refuge Visitor Center this Friday night November 19 from 6:00 PM to 9 PM. Please bring your scope/binos and help us make this a success. Preliminary weather forecasts are for clear and cool...the mosquitoes have flown south. You may want to come early to see the geese and deer as they find their way at sunset.

## Prime Hook Wildlife Refuge

Scheduled for December 9 at 7:00 PM----- not 11/18. They had 78 people for their last event.

## From the President's Desk

November 17, 2004 Tis the season for reflections

Monthly Meeting , Tuesday, December 7

## STAR OF BETHLEHEM

7:00.m. First Presbyterian Church, Smyrna

and for hope, for thanksgiving, recognizing our past successes, and for renewed energy to continue our efforts to improve the future. Tomorrow! Tomorrow! Rah, Rah, Rah and Right, Right, Right.

So what is on your short list for Christmas stocking stuffers? My list includes Naglers (always #1 on the list and only once did a Nagler actually find it's way into my stocking), filters, flashlights, warm socks, a digital setting circle controller, and various other "observing aids". Sometimes I wonder why we need so many of those aids...I remember fondly the days of a single scope, 2 eyepieces, a set of star charts and 1 red light. Believe it or not, I actually starhopped my way through the night and enjoyed the exercise. Now, I probably spend more time loading, unloading, reloading, & unloading than I do observing. Do I have too many "observing aids"? Heck no! All the astro magazines are stuffed, cover to cover, with items that invoke a galactic force and cause the faint fuzzies to line up and waltz across my eyepiece's field of view. Just call and give them your credit card # and a shipping address. It's so easy to get the observing aids you must have for the next session. Now what are you waiting for?

Our next meeting is Tuesday, December 7. Our topics will include Handy Gadgets & Stocking Stuffers, Plans for the Exploration of Mars (ref is S&T 1971 &1972), the Star of Bethlehem, and the Monthly Sky Chart (what's up) section. We continue to meet in the First Presbyterian Church at 7:00 PM the first Tuesday of the month. I hope to see you at the meeting. Please bring your favorite information relative to astronomy and we will add it to the agenda.

The Club has purchased a supply of planispheres and Baader Solar Film. The planispheres are

## PARTY ! PARTY ! PARTY !

## PLAN TO ATTEND OUR ANNUAL STARGAZERS HOLIDAY PARTY

Saturday DECEMBER 4, 2004 1:00 to 5.00 p.m.

1st Presbyterian Church, Smyrna, DE  
(plan to eat around 2:00)

The Club will cook the Ham, Turkey, Stuffin',  
Gravy & provide Drinks

BRING YOUR FAVORITE TRIMMIN' OR DESSERT

## RSVP (if you can)

Help us plan how large a turkey to roast by  
calling Lyle Jones at (302) 736-9842

## WHITE ELEPHANT GIFT EXCHANGE

Why Not? BE Creative - Bring your worst!  
It's Become Tradition!!!

Remember to bring your family and join the fun!  
See you at the Church!

## Looking Back with S&T

Lyle Jones reviewed the Nasa Apollo missions in back issues of Sky & Telescope. The results are summarized on page 4.

\$3.00 each and the solar film will be sold for \$5.00 per 5"X5" section. Both will be at the next meeting and at the Christmas Party.

Our Annual Christmas Party is Saturday, December 4, from 1:00 PM until we wind down. It will also be at the First Presbyterian Church. Please contact Kathy Sheldon for the particulars. The most important particular is that you and your spouse/significant other, and children come to the Party. The food will be great and the fellowship ain't bad. It is a great way to begin the Holiday Season.

Some astronomical events for December: The Number One Attraction is the Great Orion Nebula; now is the time to observe this wonderful nebula. Catch it before it crosses the meridian and use all the aperture and power you have. This one is bright and has so many different features to explore – spend some time exploring the Nebula and I am sure you will be amazed by its complexity.

Number Two on the list for this year is the Geminid Meteor shower December 13. They begin when the sky darkens and this year there will not be moonlight interference. Cross your fingers and hope for clear skies.

If you are a morning observer, there will be an abundance of planets well placed for viewing. Jupiter and Saturn are in the best position. Venus is bright just before sunrise; Mars is very dim and small and Mercury can be found in the morning sky by month's end.

For the Occultites, there will be an occultation of Jupiter and the crescent moon in the early morning (4 am) on Dec 7. We will remind you of this event at the Dec meeting.

And of course, we experience the Winter Solstice on December 21st. Brrrrrr! Turn the heat up for a couple of months.

Christmas season? Oh this will be a moonlit Christmas since the moon will be "full" early on the 26th.

I want to take this opportunity to wish each Star Gazer and his/her family a very Merry Christmas and a Happy New Year. Stay safe. See you at the meeting, the Christmas Party, or at Tuckahoe.

Don...

## **Solar system in December Paul Riley**

This month brings us the cold nights, and shortest days (read LONGEST observing nights!). So get on your long-johns and get outside and do some observing, it doesn't get any better!

This is not a month to sleep in. Some pre-dawn events - Mars-Venus conjunction on the 5th, Venus - Mars - Moon on the 9th, Mercury - Venus conjunction on the 29th with Mars still in the neighborhood.

Skip Neptune and Uranus this month, they are best viewed in the summer. Pluto is in Ophiuchus, a good early evening hunt if you got big glass!

On the 13th at 8 PM the Geminid meteor shower will peak with a ZHR of 120!

This is a very short but busy shower.

Comet P/2004 V4 (NEAT) passes within 1.026 AU of Earth this month, passing through Draco towards Cepheus. C/2004 Q2 (Machholz) will pass near Rigel in Orion mid to late month.

## **Club Resources**

With the recent demise of the *Laurel Highlands Star Cruise*, an interesting dialogue arose on the Yahoo Pages concerning finite club resources and the art of not having too many eggs in one basket. I submit the 2 letters in the thread (titled *Finite resources*) which are self-explanatory. F. Sheldon

James T. Morgan wrote: To all -

One of the first things that I do when I give a presentation to an amateur astronomy group is to hand out some sheets that I have some questions on and I ask each person in the audience to answer them as best they can. One of those questions gets to the heart of an amateur astronomy club's problems.

Here is the question:

If for some reason you must eliminate one activity that you are currently doing because of a lack of resources which one would it be?

The answers sometimes surprise me but it does bring about a discussion that is crucial to all clubs.

Resources (funding, manpower, members, equipment) are finite. How best to manage those resources by placing priorities on all of a club's activities is important to do. It may point out some things to think about in the future. Below, is an example of what I am talking about. I am sure that when they started the *Laurel Highlands Star Cruise*, they never would believe that it would have

to be cancelled at some time because of a lack of resources. I wonder about the Observatory and what the implications are about building it.

Bob Bunge responds

For a number of years, I was involved with a small club in Ohio that built a large and wonderful observatory using a large grant from a local businessman. It followed this accomplishment by staffing a good sized regional star party at the observatory. The club - about 25 members, perhaps 10-15 active - managed this schedule for about five years before the burn out occurred. A number of people attempted to get the core members to transfer many of the party duties to people in other clubs in the region, but were generally unsuccessful. To add to it, there was a sense that every year, the party needed to grow and "out do" the past year's party... in the complexity of the events, the speakers, etc. This made it harder and harder to put on. That's one reason I've liked the approach the Delmarva group has taken... not to attempt to out do themselves each year and to run a no-frills event and just keep "to the core" business of getting amateurs together under the stars.FYI, I'm planning to head out tonight.

Bob

### 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**

### Member Magazine Subscriptions

Just a reminder -- As an added bonus to your **PAID** membership in the Delmarva Stargazers, you can get the club discount on your favorite astronomy magazines, **Sky and Telescope** -or- **Astronomy**. You can save \$10 -or- more ! For more info on a subscription (or renewal) please contact PJ Riley at [pjr127@Yahoo.com](mailto:pjr127@Yahoo.com)

**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 Don Surles at 302-653-9445 for more information

## Looking back with S&T

Using period issues of Sky and Telescope Magazine, Lyle Jones reviewed the NASA Apollo missions which occurred during the period from 1968 to 1973. Below is a brief summary of the Apollo missions arranged in chronological order:

### Apollo 8 December 21 -December 27, 1968

Mission to Achieve Lunar Orbit with Space Craft but no moon landing

**Frank Borman, Mission Commander**

**James A. Lovell Jr., Command Module Pilot**

Event	Date & Time (EST)	Mission Time
Launch	Dec 21 07:51:00 am	00:00:00
Earth orbit insertion	08:32:35 am	00:11:35
Translunar injection	10:41:37 am	02:50:37
Lunar orbit insertion	Dec 24 04:59:20 am	69:08:20
Transearth injection	Dec 25 01:10:16 am	89:19:16
Splashdown	Dec 27 10:51:42 am	147:00:42

### Apollo 10 May 18 - May 26 1969

Lunar Orbit but no Moon Landing

Dress Rehearsal for Apollo 11 with Lunar Module attaining lunar orbit but no landing

**Thomas P. Stafford, Mission Commander**

**John W. Young, Command Module Pilot**

**Eugene A. Cernan, Lunar Module Pilot**

Event	Date & Time (EST)	Mission Time
Launch	May 18 11:49:00 am	00:00:00
Earth orbit insertion	12:00:54 pm	00:11:54
Translunar injection	02:28:21 pm	02:39:21
Lunar orbit ins, Separation	May 21 03:44:54 pm	75:55:54
Transearth inj.	May 22 02:36:17 pm	98:47:17
Splashdown	May 24 05:25:29 am	137:36:29
	May 26 11:52:23 am	192:03:23

### Apollo 11 July 16- July 24,1969

Landing Site: Mare Tranquillitatis

Mission: Land a Man on the Moon and return him safely to Earth."That's one small step for man, one giant leap for mankind"

**Neil A. Armstrong, Mission Commander**

**Edwin E. "Buzz" Aldrin, Lunar Module Pilot**

**Michael Collins, Command Module Pilot**

Event	Date & Time (EST)	Mission Time
Launch	July 16 08:32:00 am	00:00:00
Translunar injection	11:16:16 am	02:44:16
CSM-LM docking	11:56:03 am	03:24:03
Lunar orbit insertion	July 19 12:21:50 pm	75:49:50
CSM-LM separation	July 20 01:11:53 pm	100:39:53
Lunar landing	03:17:40 pm	102:45:40
Begin EVA	09:39:33 pm	109:07:33
First steps on moon	09:56:15 pm	109:24:15
Lunar liftoff	July 21 12:54:01 pm	124:22:01
LM-CSM docking	04:34:00 pm	128:03:00
Transearth injection	11:54:42 pm	135:23:42
Splashdown	July 24 11:50:35 am	195:18:35

### Apollo 12 Nov 14 - Nov 24, 1969

Landing site Oceanus Procellorum

**Charles Conrad Jr., Mission Commander**

**Richard F. Gordon, Command Module Pilot**

**Alan L. Bean, Lunar Module Pilot**

Collect Samples

### Apollo 13 April 11-April 17 1970

This original mission was to be a precision lunar landing in the Fra Mauro highlands to survey and sample the Imbrium Basin, deploying and activating the Apollo Lunar Surface Experiments. *Liquid oxygen tank explosion forced emergency procedures to return to earth.*

**James A. Lovell, Jr., Mission Commander**

**John L. Swigert, Jr., Command Module Pilot**

**Fred W. Haise, Jr., Lunar Module Pilot**

Event	Date & Time (EST)	Mission Time
Launch	April 11 02:13:00 p.m.	00:00:00
Earth orbit insertion	02:25:40 p.m.	00:12:40
Translunar injection	04:54:47 p.m.	02:41:47
LO2 tank anomaly	April 13 10:07:53 p.m.	55:54:53
Trans-Earth inj,	April 14 09:40:39 p.m.	79:27:39
Splashdown	April 17 01:07:41 p.m.	142:54:41

### Apollo 14 January 31-February 5, 1971

Landing Site:Fra Mauro highlands

**Alan B. Shepard, Jr., Mission Commander**

**Stuart A. Roosa, Command Module Pilot**

**Edgar D. Mitchell, Lunar Module Pilot**

Same mission as the aborted Apollo 13

### Apollo 15 July 26- August 7 1971

Landing Site: Hadley Rille/Apennines

**David R. Scott, Mission Commander**

**Alfred M. Worden, Command Module pilot**

**James B. Irwin, Lunar Module pilot**

Apollo 15 was the fourth mission in which humans walked on the lunar surface and returned to Earth.

### Apollo 16 April 16-27 1972

Landing Site: Descartes

**John W. Young, Commander**

**Thomas K. Mattingly II, Command Module Pilot**

**Charles M. Duke, Jr., Lunar Module Pilot**

Mission: EVAs included lunar rover traverses totaling 26.7 kilometers, and collecting lunar samples at 11 sites.

### Apollo 17 Dec 7-Dec 19 1972

Landing Site: Taurus-Littrow

**Eugene A. Cernan, Mission Commander**

**Ronald E. Evans, Command Module Pilot**

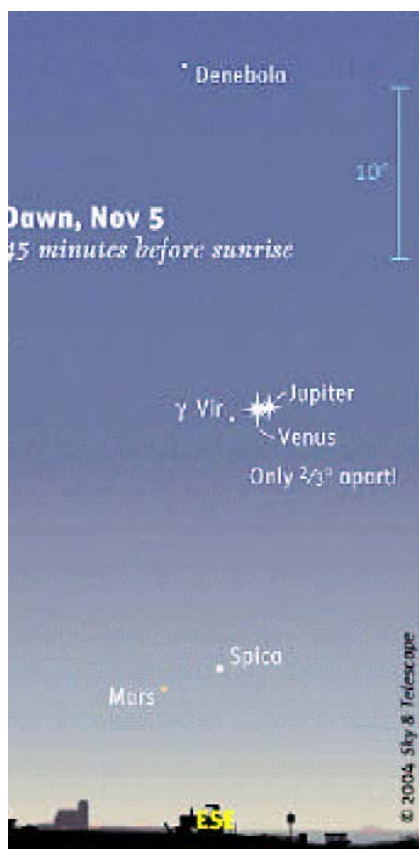
**Harrison H. Schmitt, Lunar Module Pilot**

Mission: Collect Lunar Samples. Returned the richest

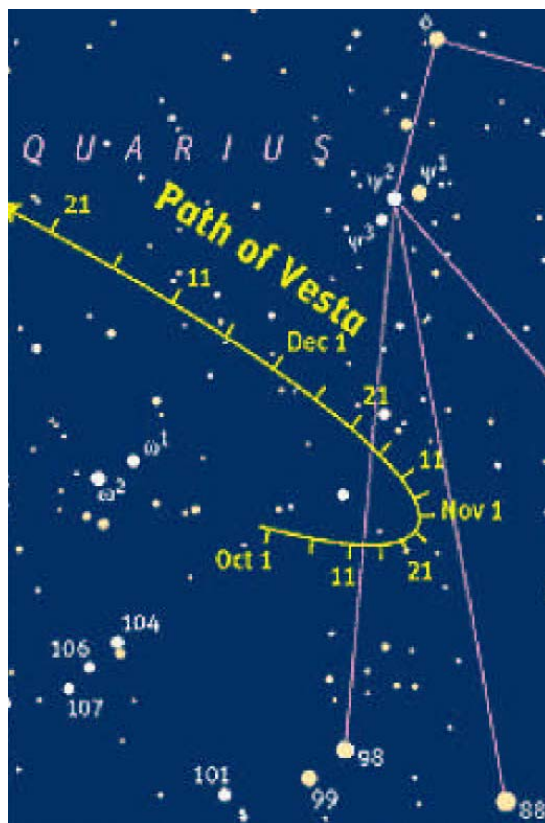
# WHAT'S UP IN NOVEMBER 2004 *Keith Lohmeyer*

## Jupiter Venus Conjunction

*Morning November 5 less than 1° apart*

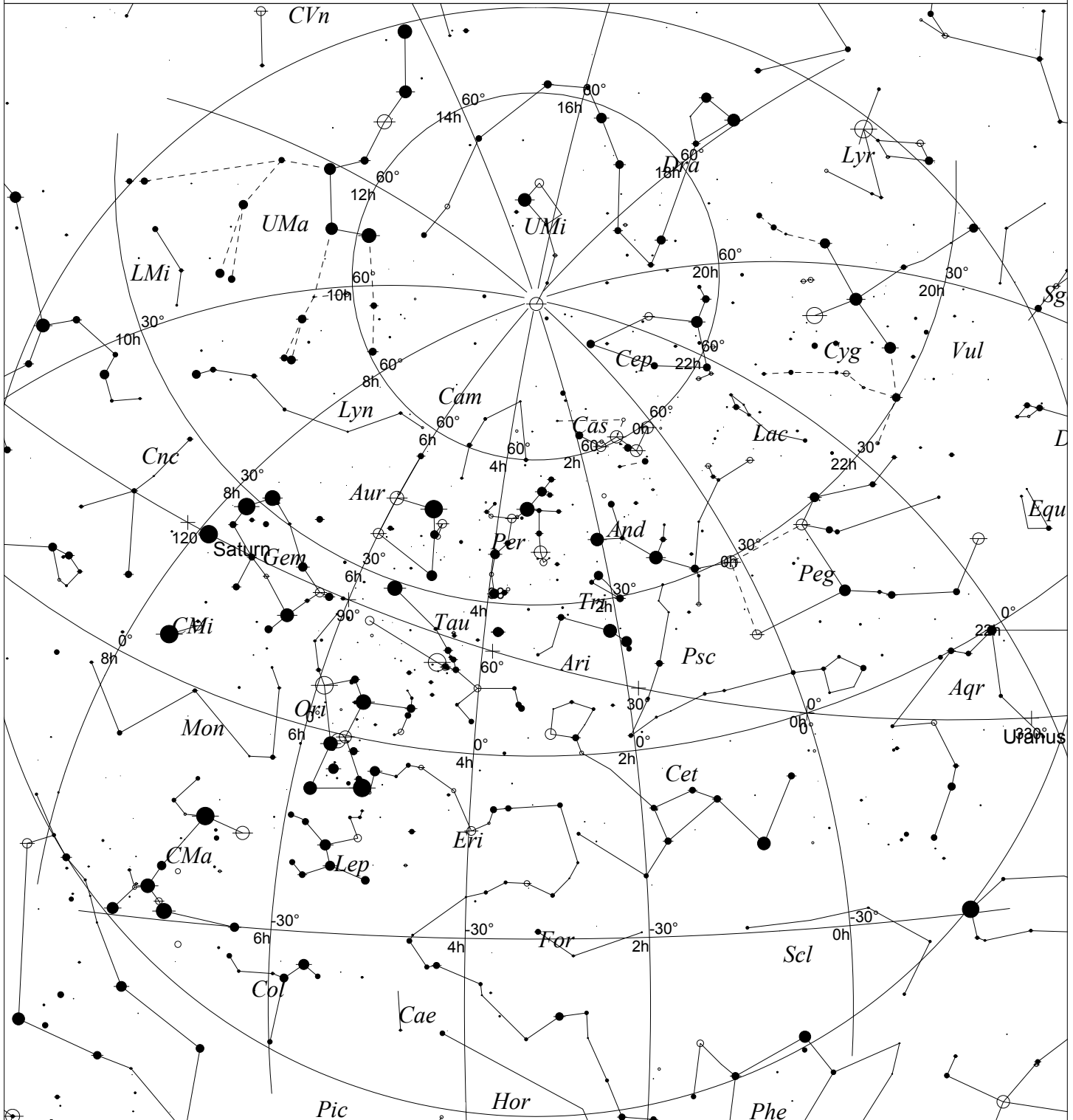


The Asteroid Vesta passes through Aquarius in November



November 9 -Venus, Jupiter and the Crescent Moon

# SKYMAP FOR DECEMBER 2004



## STARS

- <1
- 1.5
- 2
- 2.5
- 3
- 3.5
- 4
- 4.5
- >5

## SYMBOLS

- Multiple star
- Variable star
- ☄ Comet
- ☉ Galaxy
- Bright nebula
- ◻ Dark nebula
- ⊕ Globular cluster
- ⊙ Open cluster
- ♁ Planetary nebula
- ☉ Quasar
- △ Radio source
- × X-ray source
- Other object

TUCKAHOE STATE PARK, MD  
 DECEMBER 10 2004  
 2200 HOURS EST

Local Time: 22:00:58 10-Dec-2004  
 Location: 38° 58' 0" N 76° 56' 0" W

UTC: 03:00:58 11-Dec-2004  
 RA: 3h13m54s Dec: +38° 57' Field: 182.0°

Sidereal Time: 03:13:54  
 Julian Day: 2453350.6257



## Moondark for December: Planet Blog

**Kudos to Venus for 2004:** As if the first transit in 122 years wasn't enough, Venus shown brilliantly through our evening and morning twilights. Here are some notes from my recent attempts to catch Venus in the morning sky.

• **Sunday 11/7 4:30 am** – I set my alarm early to see what's up with the Venus-Jupiter conjunction. Walked down to the boat ramp for a good, low eastern horizon over Red Mill Pond. Nice and clear. Got nice shots with my Olympus 3020 digicam; not APOD material, but a start. Normally skyglow ruins astrophotos, but it just looks like twilight here, silhouetting houses and trees across the pond. I'm definitely astrophoto-rusty though: nearly missed the shot because of low batteries, and I couldn't get the tripod's "quick release" to attach in the dark. Two hikes back to the house, and I still left the red flashlight back home. Most shots were spoiled by camera movement.

• **Monday 11/8 4:30 am** – Let's try this again: this time from the backyard. Camera settings are now pre-programmed: ISO 800, noise reduction "on," manual focus (infinity), SHQ means 2048 x 1536 pixels. Check. Exposures between 10 and 16 seconds look fine when previewed, so I adjusted the composition by zooming in a bit. Trio framed by neighbor's trees, but it's too chilly to wait for Venus to clear tree line. High clouds are a nice touch. Surprisingly obvious how Venus and Jupiter have drawn apart in just 24 hours, while the Moon falls downward toward the planet duo. Better tripod ensures stars are dots.

• **Tuesday 11/9 4:50 am** – Back to the pond—I like that composition much better. Breaking the rule of thirds—*never* put the horizon in the middle—for the mirror image. Reflection of this brilliant trio in the pond adds depth and symmetry. Tiny ripples in the otherwise calm pond distort the Moon and planets—cool effect, but crisper reflections look much better. The time exposures I've used way overexpose the Moon: the crescent phase is invisible, but I do pick up surrounding stars and wispy clouds. A fair swap.

• **Wednesday 11/10 4:30 am** – Very nice arrangement: the Moon, Venus and Jupiter arc gently upward. When reflected in the pond: a very cool composition. Looks like the Earth is in perfect alignment too, and the distance to each increases dramatically moving away from the center of the frame. Stars of the constellation of Virgo are scattered about—immensely farther away, they form the cosmic backdrop. This one will do.

*I'm still trying for the perfect planet shot: Venus, Jupiter, the Moon and the stars of Virgo next appear together in the evening sky of early September '05.*

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 November 2004. Text and images copyright © 2004 by Douglas C. Miller, All Rights Reserved. This material may not be reproduced in any form without prior permission.

