

## The Skyscraper

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the monthly publication of



**The Amateur Astronomical Society  
of Rhode Island**

47 Peepoad Road  
North Scituate, RI 02857

[www.theskyscrapers.org](http://www.theskyscrapers.org)

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See back page for directions to Seagrave Observatory.

Please submit items for the newsletter by January 15 to Jim Hendrickson, 1 Sunflower Circle, North Providence, RI 02911 or e-mail to [jim@distantgalaxy.com](mailto:jim@distantgalaxy.com)

**Email subscriptions:**

To receive *The Skyscraper* by email, send email with your name and address to [jim@distantgalaxy.com](mailto:jim@distantgalaxy.com). Note that you will no longer receive the newsletter by postal mail.

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# The Skyscraper

January 2004

## January Meeting

**Friday, January 2, 7:30pm at North Scituate Community Center**

Our January meeting will be an informal members' presentation night. Members may give short talks on any subject. Contact Steve Hubbard if you would like to give a presentation.

### Directions to North Scituate Community Center

From Seagrave Observatory: North Scituate Community Center is the first building on the right side going south on Rt. 116, after the intersection of Rt. 6 Bypass (also Rt. 101) and Rt. 116.. Famous Pizza is on the corner of that intersection. Parking is across the street from the Community Center.

## Skyscrapers Calendar

Public observing is held every Saturday at Seagrave Observatory weather permitting and when the grounds are accessible.

<b>January 2 Friday</b>	<b>7:30pm</b>	<b>January Meeting</b> at North Scituate Community Center
<b>January 3 Saturday</b>	<b>7:00pm</b>	<b>Public Observing Night</b> at Seagrave Observatory
<b>January 10 Saturday</b>	<b>7:00pm</b>	<b>Public Observing Night</b> at Seagrave Observatory
<b>January 17 Saturday</b>	<b>7:00pm</b>	<b>Public Observing Night</b> at Seagrave Observatory
<b>January 24 Saturday</b>	<b>7:00pm</b>	<b>Public Observing Night</b> at Seagrave Observatory
<b>January 31 Saturday</b>	<b>7:00pm</b>	<b>Public Observing Night</b> at Seagrave Observatory

# Astronomical Highlights for 2004

*David A Huestis, Historian*

It's not often I can state we didn't miss much when a meteor shower has been clouded out. The Leonids back in mid-November put on a poor show worldwide, only producing about ten or so meteors per hour at peak. Definitely no enhanced activity. In fact, that rate is even below what is expected during "normal" years. Looks like the Earth missed most of the meteor stream entirely.

Before I get into the prospects for the meteor showers of 2004, I must detail some major astronomical events you should start getting excited about in the upcoming year.

First, we've got a couple of comets that may put on a great display before mid-year. Comet NEAT might become 1st magnitude (brighter than the stars in the Big Dipper) during mid-May in the western sky after sunset. Then Comet LINEAR will put in an appearance after sunset during the beginning of June, in the southwestern sky!

Since this is the first time these dirty snowballs have visited the inner solar system, predictions of their behavior are unreliable at best. As famed comet discoverer David Levy once said, "Comets are like cats. They both have tails and they do what they want!" Let's hope the early forecast for a pair of bright, naked-eye comets proves true.

The second, and very rare astronomical event (only 81 will occur between 2000 B.C. and A.D. 4000) for 2004 is the transit of Venus. On June 8, Venus will pass between the Earth and the Sun. Using a properly filtered telescope, an observer will see the disk of our nearest planetary neighbor slowly move "across" the disk of the Sun. The event will already be in progress when the sun rises around 5:08 am. The dark sunspot-like dot will begin to egress the solar disk around 7:05 am, and leave it entirely at around 7:26 am. The last one occurred in 1882, and the next one will occur on June 6, 2012. Don't look at the Sun at all, unless you use equipment specially suited for such a purpose.

And finally, we have another opportunity to observe a total lunar eclipse on October 27-28. Totality will last just over 40 minutes, 15 minutes longer than last November's event. And since the Moon will be further into the Earth's dark umbral shadow, it may appear darker than the last two total lunar eclipses we experienced.

Furthermore, let's not forget the annual meteor showers that send blazing shooting stars across our skies. Unfortunately, the first meteor shower of 2004, the Quadrantids, will be spoiled by bright moonlight this year on the night of January 3-4. A waxing gibbous

Moon (three days before Full) will certainly reduce the number of meteors one could observe. Though past rates have risen as high as 100 meteors per hour, moonlight will wash-out all but the brightest of the shower members. Also keep in mind the Quads have a very sharp peak, usually lasting only about an hour.

Normally 40 or so bright, blue and fast (25.5 miles per second) meteors will radiate from the constellation Bootes. Cast your gaze towards the northeast sky and scan around. Bootes will rise higher into the sky as the morning progresses, and when the activity increases, you'll know exactly where to train your eyes.

The Moon will brighten the entire sky, even more so if we have snow on the ground. If you want to try your luck with the Quadrantids, at least shield the Moon from your direct view. Also, despite the interfering moonlight, try observing from a non-light polluted site. Therefore, you will maximize your chances of seeing as many shooting stars as possible. The Quads often blaze more than halfway across the sky, and a small percentage of those leave persistent dust trains. Just remember, it's going to be quite cold out there, so be sure to do whatever is necessary to stay warm and alert.

The prospects for the major meteor showers of 2004 are much better than last year. The April Lyrids, the Perseids and the Geminids will occur without much interference from the Moon. The Orionids will be quite observable as well once the First Quarter Moon sets. The June Lyrids look good on paper, but the shower is now practically extinct. Let's hope the weather on any peak meteor shower night is to our advantage to observe as many shooting stars as possible. A quick glance at the accompanying chart will highlight 2004's meteor showers and Moon phases.

<b>Month</b>	<b>Shower</b>	<b>Date</b>	<b>Moon Phase</b>
January	<b>Quadrantids</b>	3-4	Waxing Gibbous (3 days before Full)
April	<b>Lyrids</b>	21-22	Waxing Crescent
May	<b>Eta Aquarids</b>	5-6	Full Moon
June	<b>Lyrids</b>	14-16	Almost New Moon
July	<b>Delta Aquarids</b>	27-28	Waxing Gibbous
July	<b>Capricornids</b>	28-29	Waning Crescent
August	<b>Perseids</b>	11-12	Waning Crescent
October	<b>Orionids</b>	20-21	First Quarter
November	<b>Leonids</b>	16-17	Waxing Crescent
December	<b>Geminids</b>	12-13	New Moon

# Secretary's Report

Bob Napier, Secretary

## November Meeting

November 7, 2003 at Seagrave Observatory

SPEAKER PROGRAM - 7:45 - 9:00

MEETING CALLED TO ORDER - 9:15

INTRODUCTIONS - Officers, Trustees, Guests

SECRETARY'S REPORT - Accepted as published in the Skyscraper.

TREASURER'S REPORT - No Report.

TRUSTEES' Report - The dome donated by Raytheon is being stored until better weather conditions in the spring. Apparently the Clark drive was left on and there was a minor problem with the clock drive timing. There was a Girl Scout star party held this past month at Seagrave Observatory. The Clark building ladder is being refurbished by Trustee Rich Arnold. A Nov. 8 lunar eclipse star party is planned at Seagrave Observatory. A jug of water left in the Patton telescope roll-off is causing condensation problems with the telescope; members are asked not to leave liquids in the observatories.

HISTORIAN - No Report.

NEW BUSINESS - Several new applicants were introduced for membership. They will be voted on at the next meeting under OLD BUSINESS.

OLD BUSINESS - A motion to acquire a green laser pointer was not passed, instead, members who have laser pointers may volunteer the use of their pointers. New membership applicants proposed at the last meeting under NEW BUSINESS were voted on and accepted into membership.

GOOD OF ORGANIZATION - Bob Howe showed poster prints he received from Greg Mort - two posters were offered to members for the highest donations (\$20 and \$13). The December 5 meeting will feature Dennis DiCicco, a senior editor at Sky and Telescope magazine - he will give a talk on the recent Antarctic solar eclipse. The January, 2004, meeting will be a "show & tell" by the members. The February meeting will be held at the Planetary Data Center at Brown University. A couple of trips are being planned for the coming year - Hartness House in Springfield, Vt., and White Mountains in California in July - see Bob Horton for more information, also, a trip to the Museum of Natural History Planetarium in February - see Al Hall for more details. AstroAssembly 2003 net of about \$1,000, a full report will be given later. A Boy Scout star part at the Feinstein Facility will be held on Saturday, Nov. 15. Dan Lorraine donated several DVD videos to the Skyscrapers' Library - "From the Earth to the Moon", "Apollo 8", "Gemini Project" and "COSMOS". There will be an Executive Committee meeting at 5 PM on Nov. 15.

SLIDE SHOW - Bob Horton showed several slides of the recent bright auroras.

MEETING ADJOURNED - 10:00 PM

## December Meeting

December 5, 2003 Meeting at Seagrave Observatory

There was no business meeting this month due to the snowstorm.

SPEAKER PROGRAM - Dennis DiCicco, senior editor at Sky & Telescope magazine, spoke on his adventures chasing solar eclipses over the years. He also talked about his most recent eclipse chasing expedition to the Antarctic eclipse of Nov. 23, 2003, observing from a jet flying at over 30,000 ft. Dennis' talk started about 7:45 when there was a "dusting" of snow on the ground, but when it finished there was 5 to 6 inches accumulation.

## Checking Account Report

11/21/2003 Through 12/21/2003

Category Description	11/21/2003- 12/21/2003
<b>INFLOWS</b>	
deposits	
donation	100.00
dues	25.00
<b>TOTAL deposits</b>	<b>125.00</b>
<b>TOTAL INFLOWS</b>	<b>125.00</b>
<b>OUTFLOWS</b>	
astro	
church	100.00
grill	250.00
<b>TOTAL astro</b>	<b>350.00</b>
electric	13.95
insurance	1,771.00
POSTAGE AND PRINTING	36.86
propane	4.28
<b>TOTAL OUTFLOWS</b>	<b>2,226.09</b>
<b>OVERALL TOTAL</b>	

## Account Balances Report 1

(Includes unrealized gains)  
As of 12/21/2003

Account	12/21/2003 Balance
<b>ASSETS</b>	
Cash and Bank Accounts	
checking acct	1,917.73
savings	10,051.75
<b>TOTAL Cash and Bank Accounts</b>	<b>11,969.48</b>
<b>TOTAL ASSETS</b>	<b>11,969.48</b>
<b>LIABILITIES</b>	<b>0.00</b>
<b>OVERALL TOTAL</b>	<b>11,969.48</b>

## **Directions to Seagrave Observatory**

### **From the Providence area:**

Take Rt. 6 West to Interstate 295 in Johnston and proceed west on Rt. 6 to Scituate. In Scituate bear right off Rt. 6 onto Rt. 101. Turn right onto Rt. 116 North. Peeptoad Road is the first left off Rt. 116.

### **From Coventry/West Warwick area:**

Take Rt. 116 North. Peeptoad Road is the first left after crossing Rt. 101.

### **From Southern Rhode Island:**

Take Interstate 95 North. Exit onto Interstate 295 North in Warwick (left exit.) Exit to Rt. 6 West in Johnston. Bear right off Rt. 6 onto Rt. 101. Turn right on Rt. 116. Peeptoad Road is the first left off Rt. 116.

### **From Northern Rhode Island:**

Take Rt. 116 South. Follow Rt. 116 thru Greenville. Turn left at Knight's Farm intersection (Rt. 116 turns left) and follow Rt. 116. Watch for Peeptoad Road on the right.

### **From Connecticut:**

- Take Rt. 44 East to Greenville and turn right on Rt. 116 South. Turn left at Knight's Farm intersection (Rt. 116 turn left) and follow Rt. 116. Watch for Peeptoad Road on the right.
- Take Rt. 6 East toward Rhode Island; bear left on Rt. 101 East and continue to intersection with Rt. 116. Turn left; Peeptoad Road is the first left off Rt. 116.

### **From Massachusetts:**

Take Interstate 295 South (off Interstate 95 in Attleboro.) Exit onto Rt. 6 West in Johnston. Bear right off Rt. 6 onto Rt. 101. Turn right on Rt. 116. Peeptoad Road is the first left off Rt. 116.



**47 PEEPTOAD ROAD  
NORTH SCITUATE, RI 02857**