

## The Skyscraper

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### The Amateur Astronomical Society of Rhode Island

47 Peepload 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 April 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

April 2005

## April Meeting

Friday, April 8, 2005; 7:30pm at Seagrave Observatory

Note that the April meeting will be held on the *second* Friday of April.

For our annual meeting, we are pleased to have as our guest, **Dr. Richard Binzel** from the Massachusetts Institute of Technology. He will be presenting a talk entitled: "**Asteroids: Friends or Foes?**" Hollywood movies and newspaper headlines portray our imminent doom from the collision of a giant asteroid or comet. Is there any science fact related to this science fiction? What would we do if an object was actually found on a collision course? Might we someday instead utilize asteroids as stepping stones to Mars or as space resources?

Dr. Binzel is a professor of Planetary Science in the Department of Earth, Atmospheric and Planetary Sciences at MIT. He is one of the world's leading scientists in the study of asteroids and the planet Pluto. In 1999, he devised the Torino Impact Hazard Scale, which assigns a number to the likelihood that a newly discovered asteroid will strike the Earth. Asteroid number 2873 bears his name, an honor bestowed by the International Astronomical Union in recognition of his contributions to the field.

For more information on the web, please go to:

<http://impact.arc.nasa.gov/torino/NASApres.html>

Elections for officers for the 2005-2006 year will be held at the April meeting..

## Skyscrapers Calendar

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

<b>April 2 Saturday</b>	<b>8:00pm Public Observing Night</b> at Seagrave Observatory
<b>April 8 Friday</b>	<b>7:30pm April Meeting</b> at Seagrave Observatory
<b>April 9 Saturday</b>	<b>8:00pm Public Observing Night</b> at Seagrave Observatory
<b>April 16 Saturday</b>	<b>8:00pm Public Observing Night</b> at Seagrave Observatory
<b>April 23 Saturday</b>	<b>8:00pm Public Observing Night</b> at Seagrave Observatory
<b>April 30 Saturday</b>	<b>8:00pm Public Observing Night</b> at Seagrave Observatory

**Note: Membership renewals are due in April.**

# A Difficult Month for Local Stargazers

*Dave Huestis*

The last time we had a decent display of meteors was back in December during the Geminids. The skies were exceptionally clear and Moon-free, but it seems we missed the peak of the display by several hours. My hour and a half vigil of scanning the sky was rewarded with only 36 meteors. Of those, there were a few bright ones that made the effort more than worthwhile. Still, the number of meteors was not what we usually expect of this event, the now most reliable meteor shower of the year.

I had hoped we would have another good opportunity to observe the upcoming display of meteors in April, the Lyrids. This brief shower peaks on the night of April 21-22, at 1:00 am EDT (eastern daylight time). Normally this early morning time frame would be ideal for us in New England, but unfortunately the waxing gibbous Moon (full on the 24th) will overshadow all but the brightest members.

This observing scenario is quite disheartening. I look forward to the Lyrids, even despite their meager numbers. Why? Because we've usually been hibernating during the past few months due to the weather. And this year it was so cold and snowy, even I didn't venture out too often.

Even with the bright Moon flooding the sky, I still plan on giving the Lyrids a chance this year. It may only be for an hour or so, but I do love to glimpse even one bright meteor flashing across the sky. If you decide to give the April Lyrids a try as well, the specific characteristics of this meteor shower follow.

As mentioned above, the Lyrids peak on the night of April 21-22. If you, like I, are going to observe for only a short period of time, I would plan my observing session centered around the estimated peak time of 1:00 am. The constellation Lyra, from where the meteors will appear to radiate, will be well up in the eastern sky. The swift and bright Lyrid meteors disintegrate after hitting our atmosphere at a moderate speed of 29.8 miles per second. They often produce luminous trains of dust that can be observed for several seconds.

Normally the peak rate for the Lyrids is 15 to 20 meteors per hour, but the interfering moonlight will reduce that number considerably...at least by half! And, since the Lyrids are a narrow stream of particles, the nights before and after the peak night will fair even worse.

Additionally in April, don't forget to set your clocks ahead one hour on Sunday, April 3rd at 2:00 am (or at least before you retire on Saturday night the 2nd), otherwise you'll be an hour late for that first function on Sunday morning.

Also, on April 8, a hybrid solar eclipse (it starts out as an annular, becomes total for 45 seconds, then ends as a annular) will occur over the South Pacific and its path will take it over northern South America. Visit this web site <http://www.hermit.org/Eclipse/2005-04-08/> for details. Folks in the southern United States will see varying degrees of a partial solar eclipse, depending upon their proximity to the narrow central eclipse path.

For instance, residents of Key West, Florida will see just about 50% of the Sun's diameter obscured by the Moon. We are too far north here in southern New England to see any percentage of the eclipsed Sun. If you wanted to observe even a small "bite" taken out of the Sun by the Moon, you'd have to travel to a location somewhere between Perth Amboy and Trenton, New Jersey (the northern limit of the partial eclipse that is closest to us).

To detect such a small notch in the Sun's disk you'd also need a properly filtered telescope. It would be better to watch the Evening News and CNN for eclipse reports. They often cover these events. You can also be proactive and search the web for sites that may provide eclipse images after the fact. You might even be lucky to find a site that will provide live coverage, not only of the partial phases seen well south of here, but also of the annular-total-annular phases from somewhere along and within the narrow path.

And finally, you may hear news about an upcoming penumbral lunar eclipse on April 24. The Moon slips only into the Earth's lighter shadow. This phenomenon is not a partial or a total lunar eclipse. Penumbral lunar eclipses are often difficult to detect, even despite the fact that this one is fairly deep. Unfortunately for us, the maximum occurs when the Moon is setting, around 5:47 am EDT. Also, since the Sun rises around 5:49 am on that date, the event will be occurring during bright twilight. The further west one observes this event, the better the opportunity will be to detect the light shading of the lunar surface. Our luck will change eventually!

A note about our Saturday public nights at Seagrave Memorial Observatory in North Scituate. Actually, the lack thereof this winter. I thought the winter of 2003-2004 was bad! Yikes! All the snow made our parking lot impassable this winter. Plus, there weren't too many Saturday nights that were clear anyway! I trust by the time you read this column we will be back to our regular weekly schedule. You can always surf our website ([www.theskyscrapers.org](http://www.theskyscrapers.org)) for up-to-date information.

Keep your eyes to the skies!

# Secretary's Report

Joel Cohen, Secretary

## Monthly Meeting

March 4, 2005

North Scituate Community Center, North Scituate, RI

Meeting Start - 7:32 p.m. Called to order by 1<sup>st</sup> Vice President Steve Hubbard

**Secretary's Report** - Accepted as published in the Skyscraper

**Treasurer's Report** - Accepted as read and posted by Bill Kirby

**Trustee's Report** - Dave Huestis spoke for Ted Ferneza and asked for additional volunteers to help with a heavy schedule of upcoming Star Parties

**Librarian/Historian's Report** - Dave asked that we return books and other materials that have been out on loan over the winter months. Dave also announced that an expanded version of his presentation on "The Great Planetarium Project" is now accessible on the website.

**Nomination Committee** - Rick Lynch reported the following slate of officers for the 2005/2006 term: President Dave Huestis, 1<sup>st</sup> Vice President Glenn Jackson, 2<sup>nd</sup> Vice President Ted Ferneza, Secretary Joel Cohen, Treasurer Bill Kirby, Members at Large Mercedes Rivero and Jerry Jeffrey, Trustees Jack Szelka, Rich Arnold and Marian Juskuv.

**New Business** - none

**Old Business** - none

**Good of the Organization** - Dave noted the appearance of two iridium flares on Saturday March 5 to be visible in the vicinity of the Observatory. Gerald Kimber-White asked if anyone had information on Sun Dogs. Dave Hurdis reported that the new Director of AAVSO is Dr. Arne Henden who has just moved up to New England from the Naval Observatory in Flagstaff, AZ. Dave Huestis reminded us of the March 12th trip to Van Vleck Observatory in Middletown, CT, the April 2<sup>nd</sup> trip to Whitten Observatory in Wellesley, MA, the Alan Bean lecture June 8<sup>th</sup> at Venus de Milo restaurant in Seekonk, MA, and the June 25<sup>th</sup> day trip to Martha Mitchell Observatory on Martha's Vineyard.

Steve Hubbard noted the upcoming speakers for April, Dr. Richard Binzel, May, Carol & Carl Peterson (Please note the May meeting is moved to May 13<sup>th</sup>)

Steve also noted that Rivers Camera Shop is having an Astro Day on April 30<sup>th</sup>.

Adjournment - 7:52 p.m.

Following adjournment, Steve introduced Dr. Ian Dell Antonio of Brown University who spoke to us about his research on matter and dark matter in the universe. Some of his remarks included a statistic that we see only 1% of the actual existing matter. Another portion addressed gravitational lensing, why it occurs and how it affects images we see and capture. Of note were the methods of measuring galaxies affected by lensing.

## Star Party Schedule

*Ted Ferneza*

The Star Party calendar has been filling up. Looks like we're in for a busy season. Our popularity has never been higher with the Public.

I'd really like everyone to consider signing up for at least 1 of the upcoming events. There is nothing better than experiencing the excitement of others when given a chance to do a little astronomy. Feel free to email me back your intentions. There will be a sign-up sheet passed around at this Friday's meeting.

**March 31 Thursday - Steere Farm School in Burrillville ( no rain date ).** Large (300 people ) Star Party that often gets some press exposure. Really need to have 10 - 12 members with equipment. Real good time - large / mostly dark field with good horizon.

**April 2 Saturday - Metcalf School {member Donna Gaumond's 3rd grade class} (rain date April 9).** Short talk in the meeting hall followed by observing. If we could open all 3 buildings this evening we can guarantee the kids and parents a good show. .

**April 7 Thursday - Cranston Pack 12 Scouts (rain date April 21 ).** Possibly 40+ for this one. Again, if we could at least have 3 volunteers to man the equipment and open up all buildings that would be perfect. I'll do a short talk in the meeting hall and emcee the outdoor follow-up.

**April 12 Tuesday - Compass School ( on site in North Kingston - near URI ).** We're going to make one more attempt to get these kids a look at the heavens. The School has already made a nice donation to Skyscrapers so hopefully we can cap off our efforts there with some clear sky observing. Could use 4 or 5 members with equipment to help me.

**April 15 Friday - Audubon Society (rain date**

**Monday April 18** ). Very popular event with great attendance. Definitely need all buildings to be open. Yard scopes are also encouraged.

I assure you that the crowded calendar is atypical and will clear up in May. Scout groups break up by then and we don't have any annual parties planned during late spring / summer.

Any help would be much appreciated. Our Public exposure has been limited lately so everyone is looking forward to some clear skies and telescope-time!!

## Gallery

More photos can be found at <http://www.theskyscrapers.org/gallery/>



Van Vleck Observatory trip, March 12, 2005



Hartness House/Hildene trip, March 19, 2005

### **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**