

## The Skyscraper

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the monthly publication of



### The Amateur Astronomical Society of Rhode Island

47 Peepthead 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 December 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

December 2002

## December Meeting

Friday, December 6, 7:30pm at Seagrave Observatory

“The Newport Tower – Sunlight and Moonshine”, William Penhallow

Located In Newport Rhode Island, it is commonly known as the old stone mill that was built by Benedict Arnold. However, in recent years, other puzzling theories have been put forth – including several that conclude pre-Columbian voyagers constructed the tower. And there is a substantial evidence to support these controversial theories. Professor Penhallow will demonstrate that the Newport Tower is a sophisticated astronomical observatory with many significant astronomical alignments incorporated into its design – too many, and too sophisticated to just be happen chance. You’ll never look at the Newport Tower the same way again!

Professor Emeritus of Physics at the University of Rhode Island, where he taught physics and, especially astronomy for 32 years, Penhallow received his ScB degree from Brown University and his MS from the University of Maine, and did graduate work at Indiana University. He taught and conducted research at both Brown and Wesleyan. He is the founder of both the Quonochontaug (RI) Observatory and Frosty Drew Public Observatory in Ninigret Park, Charlestown, Rhode Island.

Special refreshments will be served: Shrimp, cheese and crackers, apple cider and eggnog. As an added treat, the ever so talented Gerry Dyck will provide us with a live performance of Holiday music. So don’t miss out on the fun!

## Skyscrapers Calendar

Public observing is held on the 2<sup>nd</sup> and 4<sup>th</sup> Saturday of the month at Seagrave Observatory, weather permitting.

**December 6 7:30pm December Meeting** at Seagrave Observatory.  
**Friday**

**December 14 7:30pm Public Observing Night** at Seagrave  
**Saturday** Observatory

**December 28 7:30pm Public Observing Night** at Seagrave  
**Saturday** Observatory

# Meeting Notes

*Pat Landers, Secretary*

## Monthly Meeting November 1, 2002

Commenced at 7:42 p.m.

**Treasurer's Report:** \$4,395.77 checking account; \$10,553.32 savings account; \$14,949.09 total

### **AstroAssembly**

\$2,497.70 inflows; \$1,298.11 costs

Total profit from AstroAssembly was \$1,056.99. \$509 was earned by the raffle, and \$279.10 from the grill.

**Trustees Report:** 1) It was hoped that the Clark telescope would be removed by Saturday the 9th; Al Hall intends to restore the original Clark drive. A flyball governor is needed, as are new bushings for the shaft, and the cleaning and repainting of various parts. 2) The 12" Meade is chattering; Meade will refurbish it for \$500 exclusive of shipping; a new keypad is needed. However, repairs will be tabled for now until we have a more exact estimate from Meade, and until the Clark returns.

**Old Business:** None

**Membership:** 10 proposed new memberships will be voted upon next month: 1) Raymond Bettencourt, Johnston; 2, 3) Ed and Cythina Lefkowicz, Providence 4) Mercedes Rivers-Hudec, Kingston, RI 5) Richard Billings, Brooklyn, CT 6) Robert Caul, Narragansett 7) David Miller, Hope, RI 8) Alan Berthiaume, Sutton, MA 9) James Van Hof, Rumford, RI 10) James Frutchey, Providence

**New Business:** Al Hall proposed that an investment committee of 5 be established. He will put his proposal into writing.

### **Good of the Organization:**

Bob Howe thanked all those who helped on Astroassembly. The Mars opposition of next August will be a close one--at 25.3 arc-seconds, the

red planet will appear larger than Saturn. The Skyscraper is now available via e-mail to interested persons. A meeting with RINET at the end of October went well; the RINET showed a particular interest in remote imaging with the Meade 16". There will be a special holiday monthly meeting in December.

Finished at 8:16 p.m.

## **E-Board meeting November 9, 2002**

Steve Hubbard, Jim Hendrickson, Tom Rinaldi, Bob Howe, and Pat Landers were in attendance.

Options on repairing the Meade 12" were discussed. Perhaps only the keypad will be replaced; however, the telescope may need to be sent back to Meade for more extensive repairs.

The RINET meeting went well. Its representatives expressed a particular interest in remote imaging. Tom Rinaldi outlined the various improvements needed for remote imaging: 1) Robofocus (\$375); 2) Maxim DL/CCD \$400; 3) a CCD camera, such as made by SBIG, Finger Lakes, or Apogee. With the software, the estimated cost is \$11,500. A proposal will be prepared. It would take 6 months for set-up.

The question of what to do when Public Night is a cloudy one was discussed. Should we offer a presentation, or even a video, to those members of the public who show up despite the weather? Nothing firm was decided.

Jim Hendrickson needs one more month to finalize the website.

Bob Howe announced he cannot lead the planning for AstroAssembly next year. Among his suggestions for whoever takes his place are the following: 1) the raffle items need to be handled differently; 2) we should establish a central location for the AstroAssembly registrations, form, etc., 3) we should begin formally inviting past attendees.

# Mid-December Meteor Shower

*David A Huestis, Librarian*

As usual, due to a variety of deadlines, I am writing this column a week before the Leonid meteor shower. I will report on that display during my January column on meteor shower prospects for 2003. I can only hope the astronomers' predictions came to fruition and clear skies prevailed.

Regardless of the Leonids' performance, the most reliable meteor shower of the year is the upcoming Geminids of December. This year the peak is on the night of December 13-14, Friday night to Saturday morning. Unfortunately a waxing gibbous Moon (just past first quarter) won't set until around 2:00 am on the 14th. This scenario will somewhat reduce the number of meteors that can be observed until it sets. However, after moonset, observers from a dark sky location should view about 75 shooting stars per hour blazing across the heavens.

The Geminid shower now sports two different peaks about six hours apart. An observer may therefore possibly see several increases and decreases in the number of meteors during the course of the night. Whether or not we see both those peaks entirely depends upon the time the Earth intercepts the meteor stream and its tributaries.

To maximize your chances of seeing the shower to best advantage, you should dress warmly and position yourself in an environment well away from annoying outdoor lighting of any kind. Some folks may think you're crazy, but you can still use a lawn chair or chaise lounge from which to observe comfortably.

In the mid to late '70s I remember observing the Geminids from Seagrave Observatory with a foot or so of snow on the ground. We had to shovel out an area so we could position our lawn chairs for observing. During that same time period from my own observatory in Uxbridge, Massachusetts, I remember my feet tingling from the cold. As I was closing the roof of my observatory I recall seeing several Geminids blazing across the sky simultaneously. Reluctantly I had to retreat to the house to thaw out. Man, was it cold that winter.

And yet again, during a Geminid meteor shower watch from Seagrave Observatory, it was clear when we started observing, but sometime during the night we all fell asleep. When we awoke we realized some

clouds had paid us a visit, since we were all covered with a dusting of snow. Moral of that story is...stay awake while meteor observing during the winter, otherwise they may have to pick you up with ice tongs in the morning!!

By maximizing your opportunities, that is choosing a dark sky observing site and staying awake, you should expect to observe 75 Geminid meteors per hour after moonset. Before that time you may see up to 50 per hour. The Geminids are characterized by their multi-colored display (65% being white, 26% yellow, and the remaining 9% blue, red and green).

Because the stream of particles intercepts the Earth's orbit at a right angle, the meteors hit our atmosphere at a moderate speed of 21.75 miles per second. They are fairly bright and also have a reputation for producing exploding meteors called fireballs. The Geminids are the most dependable display because they are an old shower and therefore the individual meteors are evenly distributed throughout the meteor stream. Good luck and stay warm and alert. Don't observe alone. Share the experience with a friend.

In conclusion, whether Mother Nature provides cold and snowy or mild and rainy weather during the next couple of months, astronomically the Winter Solstice occurs at 8:13 pm on December 21. While the Farmer's Almanac predicts more snow for southern New England during February and March, the US Weather Service forecasts above average temperatures for our region due to a moderate El Nino.

Who will ultimately be correct? Does it really matter? We can't do anything about the weather! Besides, this is New England. Before global warming it was expected to snow here during winter. Anyway, if Mother Nature provides us some clear skies for the Geminid peak on the night of December 13-14, I don't care what comes out of the sky after that.

Happy holidays and clear skies to you all.

### 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.



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