

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

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See back page for directions to Seagrave Observatory.

Please submit items for the newsletter by March 15 to Jim Hendrickson, 1 Sunflower Circle, North Providence, RI 02911 or e-mail to jim@distantgalaxy.com

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The Skyscraper

March 2004

March Meeting

Friday March 5, 7:30pm at North Scituate Community Center

We are fortunate to be having with us Rich Nugent of The Amateur Telescope Makers of Boston who will present a talk entitled "Earth at Opposition... The Transit of Venus." We will learn more about these very rare events and get a preview of the one occurring later this year. Rich has been involved with amateur astronomy since the 1960's, was a chemist at New England Nuclear for 23 years, has built a 20" Dobsonian telescope and is currently teaching 6th grade science and math at Fuller Middle School in Framingham MA. I have heard him speak before and he is a great speaker and one that I am sure you will all enjoy hearing. Look forward to seeing you then.

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.

March 5 Friday	7:30pm	Monthly Meeting at North Scituate Community Center
March 6 Saturday	7:00pm	Public Observing Night at Seagrave Observatory
March 13 Saturday	7:00pm	Public Observing Night at Seagrave Observatory
March 20 Saturday	7:00pm	Public Observing Night at Seagrave Observatory
March 25 Thursday	6:30pm	Steere Farm School Star Party at Steere Farm School, Harrisville See details on next page
March 27 Saturday	7:00pm	Public Observing Night at Seagrave Observatory

Reminder: Dues are payable in April

We will be offering both *Sky & Telescope* and *Astronomy* magazines at a reduced cost to all members

President's Message

Dan Lorraine, President

On Saturday February 21, 16 Skyscrapers members arrived at the Hartness House Inn for what we were hoping would be a night of observing with the Hartness Telescope. The telescope was constructed in 1910 and is a 10" Brashear refractor designed by Russell Porter. What's unique with this telescope is that the observer sits in a fully enclosed and heated observation room. Access to the telescope is gained from a long underground passageway that leads from the house to the telescope.

The Hartness House is a historic Vermont Bed and Breakfast and country inn offering 43 rooms, all with private baths, modern amenities, and a fine dining restaurant in a beautifully restored 1904 country mansion and estate belonging to former governor of Vermont James Hartness. The accommodations were superb and the inn offered all of us a fantastic dining experience that evening in their restaurant. Skyscrapers members enjoyed everything from soup and salad, cheddar and walnut ravioli, venison, pomegranate-roasted duck, to Kenny's favorite, pan seared salmon!

Unfortunately for us the weather was not cooperative so we didn't get to use the telescope but owner Alex Leonenko gave us a private tour of the telescope and the museum where many of the original telescopes from the early telescope makers are on display. Springfield Vermont was the home of the amateur telescope making movement spawned on by Russell Porter and Albert Ingalls of Scientific American. Not only was Russell Porter interested in astronomy and telescope making, he was an artist, Arctic explorer, and a professional architect having designed many of the buildings in downtown Springfield. Porter is most known for having designed the 200" telescope at Mt. Palomar, which for years was the largest telescope in the world. Many of Porters works of art are on display at the museum.

The new inn owners Alex and his wife Alla were splendid hosts and could not have been more accommodating to everyone. They have extensive plans for expanded gardens on the grounds this summer, which would make a summertime trip well worth it. If you're looking for a weekend getaway I would highly recommend the Hartness House Inn! Please visit their website at www.hartnesshouseinn.com.



More photos from the trip are on the Skyscrapers web site www.theskyscrapers.org

Volunteers Needed for Burrillville Star Party

Thursday, March 25, 2004, 7:00 pm (set up at 6:30pm) at Steere Farm School, 915 Steere Farm Road, Harrisville, RI

See Dave Huestis at the March meeting or contact him by email: dhuestis@aol.com, to volunteer for this event. A generous donation is provided to Skyscrapers for our efforts.

This is a BIG star party with 300+ pupils, parents and family members. We need about 12 telescopes contractually, but the more the merrier, so don't hesitate to volunteer. Everyone has a great time at this event, and I'm not only talking about the kids and parents. Here's an opportunity to share your love of the sky with dozens upon dozens of youngsters, one of whom may someday walk on the surface of Mars (or maybe a future Skyscraper president)! You could be that spark that sets that youngster on a career path that takes him or her to space. At worst, you'll introduce them to the wonders of the heavens. Do you remember who piqued your interest so long ago?

Directions from Seagrave Observatory

Take a left out of Seagrave parking lot and go to stop sign (this is Route 116); take a left. Continue on Route 116 until you come to intersection with Snake Hill Road (Knight's Farm apple orchard on far corner). Route 116 bears to the right. Stop at stop sign and proceed straight ahead on West Greenville Road. This takes you to Route 44. Just before you get to Route 44, there is a fork in the road. Take the left fork and stop at the stop sign. You want to take a left (west) onto Route 44. Continue on Route 44 west into Chepachet. Route 102 joins it from the left. Continue on Route 44 until you see Route 102/Route 100 bear to the right (there is a traffic light at this intersection). Bear right onto Route 102/100. A couple hundred yards ahead Route 102 bears to the right and route 100 continues straight ahead towards Pascoag. Go straight ahead on Route 100.

About a mile down the road Route 98 bears to the right (also called Steere Farm Road). Take this right and the school is about a mile or so down on the left.

If you wish precise directions from your specific location, please get those directions by using www.mapsonus.com or www.mapquest.com

ET Phone Earth

David A Huestis, Historian

Over the next hill. Through the next valley. To the New World. Journey to the Moon. The far reaches of our solar system. To infinity and beyond. Sorry!!! I got carried away. But you get the idea!

Humankind has never been satisfied with what merely lies in his own backyard. We must explore. We have to know what is beyond the next hill. The more questions we answer about our existence, the more questions we ask. Our inquisitiveness will never end.

That's why we have the two rovers, Spirit and Opportunity, on Mars at this moment. We hope they will help us define what and who we are in this vast universe.

In just our Milky Way galaxy alone there are about 400 billion stars. And we now know other planets exist around many of them. Do any have the potential for sustaining life of some kind? Are sentient beings out there among the stars of our galaxy pondering their existence and ours as well? Do they have the same drive deeply entwined in their DNA to determine if other intelligent life-forms exist elsewhere in the universe? If we are alone in the universe, then "it seems like an awful waste of space" as Jodie Foster said in the movie Contact.

Most "respectable" scientists dispute reports of UFOs and close encounters with alien beings of any kind. (That's a topic for another time.) Those purported sightings aside, we have no proof that any alien civilizations exist. But we still want to know for sure. Talk about a discovery that would dramatically change our world!!

Man-made radio signals from Earth daily "leak" out into space. Since they travel at the speed of light, the more powerful radio signals (from the late 1930's) to ever leave our planet are now 50 plus light years away. Those signals would be very weak, and it would take a very sophisticated alien receiver to discern them from all the other natural galactic noise.

That's why scientists deliberately transmitted a very powerful radio signal into space using the Arecibo radio telescope in Puerto Rico on November 16, 1974. It was directed toward a globular cluster of 300,000+ stars called M13 in Hercules. It is about 25,100 light years

away, so it will be a while before "someone" receives the message, decodes it, and formulates and sends a response. That's if they are listening as the signal zooms by their star system. I wouldn't want that long distance call on my telephone bill.

SETI (Search for Extra-terrestrial Intelligence) projects have continued in one form or another to this day, with several countries trying their ear (sic) at listening for extraterrestrial signals. But there is one program that continues today that you can play an important role in. It's the SETI@home project.

This ambitious program also uses the Arecibo radio telescope, but this time it's listening for ET signals. So much data is collected that it can't be thoroughly processed in real-time. Therefore, it is stored for processing at a later time. At first researchers thought it would take years and costly computer time to process all the collected signals. Then, someone got an absolutely brilliant idea. Where can one find lots of smaller computers sitting idle most of the time. Home computers!!!! So began the idea of distributed processing.

The signal data stored at UC Berkeley is "chopped up" into units 107 seconds each. Computer users at home can download software (<http://setiathome.ssl.berkeley.edu/>) that not only contains a nice screen-saver, but it also provides the number crunching processing program required to perform a detailed analysis of the downloaded data.

(The computer analysis is too complex to present in this quick review. When you decide to visit the SETI@home website you can click on all the links that describe the screen-saver display characteristics and what they represent. Also you'll find information on the various calculations performed on the data to detect any potential signal.)

Once a unit has been processed, the program will signal the user to login to the website and transmit the results and get another unit of data. Downloading a unit takes me about a couple of minutes on a dial-up connection. Processing the data is another story. On a Pentium 4, 2.53 Ghz computer it takes an average of about 4 hours and 30 minutes to complete.

There are several options you can choose. You can set it to run only when your machine is idle (like a regular screen-saver), or you can have the calculations always running, and the screen-saver will still kick-in when the machine has been idle for a set time. It's really simple to do, and it's really important.

Millions of computer users around the world have analyzed SETI data in this manner. Researchers promise that the user whose computer detects a true signal will get credit for that discovery. Since the inception of SETI@home the researchers have processed the initial acquisition of signal data, and are now re-analyzing signals that showed "potential." Some require re-observation to determine whether we have kindred spirits in this vast universe.

Soon that follow-up phase will be complete, and SETI@home will be replaced by a more ambitious program called BOINC (Berkeley Open Infrastructure for Network Computing). It has been developed as a distributive processing application that can be adapted to any scientific discipline. However, plans do call for a southern hemisphere SETI search, plus a new program called AstroPulse to detect possible extraterrestrial microsecond radio pulses.

These projects will benefit from the enhanced architecture that BOINC will provide. Think about it. Climate and global warming models require enormous computing power. So does cancer research. And you can play a big role in lending your computer idle time to scientific endeavors.

Get rid of that star-field screen-saver effect or the 3D pipes. Go beyond your backyard, the next hill or our solar system. Download your SETI@home software at <http://setiathome.ssl.berkeley.edu/> and contribute to mankind's search for the ultimate discovery. Maybe your computer will detect that signal from an alien intelligence. You, and our world, will never be the same.

Don't forget you can sample the local neighborhood of our galaxy with optical telescopes at Seagrave Memorial Observatory on Peepoad Road in North Scituate every Saturday night beginning at 8:00 pm. Admission is free. If snow covers our parking lot, the observatory will remain closed. More information, including directions, membership, and weather related closures can be found at our website: www.theskyscrapers.org

Keep your eyes to the skies and your SETI screen-saver humming!

Secretary's Report

Bob Napier, Secretary

Monthly Meeting

February 6, 2004

Brown University Planetary Data Center

Meeting Start: 7:40 PM

Secretary's Report - (Status not recorded.)

Treasurer's Report - (Status not recorded.)

Trustees' Report - An Ash Dome Committee, consisting of Ted Ferneza, Joel Cohen, Al Hall, et. al., to study how to install the Ash Dome donated by the Raytheon Corporation. Recommendations may be to retro-fit the 16" roll-of roof building, build a new building, etc. A land donation may be sought for more space.

New Business - One new membership applicant was introduced.

Old Business - Three new membership applicants that were introduced at the January meeting were voted into membership.

Nominations Committee - The following slate of 2004 - 2005 officers was suggested by the committee: Pres. Dan Lorraine; 1st VP Steve Hubbard; 2nd VP Bob Horton; Secretary Joel Cohen; Treasurer Bill Kirby; 1st Member-at-large Ken Dorr; 2nd Member-at-large Mercedes Rivero and Trustee Rich Arnold.

Good of the Organization - A waiver will need to be signed for those who want to go on the White Mountain trip this coming summer; Joel Cohen is looking into the acquisition of a portable LCD projector; magazines Astronomy and Sky & Telescope are offered at a membership discount; the New York bus trip is sold out at 47 attendees; a trip to Van Vleck Observatory at Wesleyan University in Middletown, Ct., will be tentatively scheduled for March; there will be a Steere Farm School star party March 25 - about a dozen volunteers with telescopes will be needed - see Dave Huestis if you can help out; an Audubon Society star party will be held April 8 (rain date April 15) - see Dave Huestis for details.

Treasurer's Report

Account Balances Report: (Includes unrealized gains) As of 2/16/2004

Account	2/16/2004 Balance
ASSETS	
Cash and Bank Accounts	
checking acct	1,359.53
savings	10,058.77
TOTAL Cash and Bank Accounts	11,418.30
TOTAL ASSETS	11,418.30
LIABILITIES	
	0.00
OVERALL TOTAL	11,418.30

Checking Account Report 2/3/2004 Through 2/16/2004

Category Description	2/3/2004- 2/16/2004
INCOME	
deposits	
dues	40.00
publications	65.90
TOTAL deposits	105.90
TOTAL INCOME	105.90
EXPENSES	
library	19.96
Repairs	67.68
subscription	65.90
TOTAL EXPENSES	153.54
OVERALL TOTAL	

Historical Notes: The Beginning of Skyscrapers

Bob Napier, Secretary

Excerpted from the Society's Secretary's Notes:

"Minutes of the Meetings and Record of Dues of The Skyscrapers, Amateur Astronomical Society of Rhode Island. May 1932 - Nov. 1936"

Minutes of the meeting, Thursday evening, May 5th. 1932. Ladd Observatory. 8 p.m.

At the invitation of Prof. Charles H. Smiley of Brown University, a group of persons interested in forming an astronomical society, met at the Ladd Observatory. Prof. Smiley acted as temporary chairman.

The following officers were elected:

President. Rev. John G. Crawford.
Vice-President. Mrs. Elizabeth H. Morpeth.
Sec'y.-Treasurer. Maribelle Cormack.

The name of the organization was chosen by vote. It was decided to call it THE SKYSCRAPERS, and to append the phrase, amateur astronomical society of Rhode Island.

The purpose of the organization was defined - to bring together for mutual benefit persons really interested in astronomy, either as teachers, craftsmen or laymen.

The annual dues will be \$2.00 payable at the June meeting. There will be no initiation fee.

Meetings will be held once each month, on the first Monday and the first Wednesday, alternately. The next meeting will be on Monday, June 6th. Place to be announced.

Both Brown University and the Park Museum have offered their facilities to the group.

A membership committee was appointed, to pass on new members. Prof. Smiley, Chairman; Mr. Philip G. Newmarker; and Miss Genevieve Fogarty.

Persons desiring membership are requested to send their names and reason for desiring to join the group to the secretary, Miss Cormack, at the Park Museum.

The secretary was instructed to send a notice to the newspapers and editorial page.

The question of sending letters to the heads of departments in science in the high schools was discussed.

Regular members must be over 20.

Associate members under 20 may be admitted by special consent. They will not have power to vote. Dues will be \$1.00.

A program committee was appointed. Mrs. E. H. Morpeth, Chairman; Mr. John L. Euart; and Mr. Paul Eberhart.

Members were invited to look through the telescope at Venus and Jupiter.

It was announced that the Observatory would be open early Sunday morning (3.00 A.M.) May 15th. when Saturn will be visible.

The meeting adjourned at 10.30.

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**