

The Skyscraper

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the monthly publication of



The Amateur Astronomical Society of Rhode Island

47 Peepload Road
North Scituate, RI 02857

www.theskyscrapers.org

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See back page for directions to Seagrave Observatory.

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Email subscriptions:

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The Skyscraper

February 2005

February Meeting

Friday, February 4, 2005; 7:30pm at North Scituate Community Center

Dave Huestis, historian and long-time member, will be our speaker for the February meeting. Dave will be giving us a historical perspective on the 30th anniversary of the Midland Mall planetarium project. The hugely successful project was one of Skyscrapers early community outreach activities. It involved the construction of a portable planetarium, setting it up in what is now known as the Rhode Island Mall, and during the course of a week instructing approximately 1200 visitors about the night sky.

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, in N. Scituate. 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.

February 4 7:30pm **February Meeting** at Seagrave Observatory
Friday

February 5 8:00pm **Public Observing Night** at Seagrave
Saturday Observatory

February 12 8:00pm **Public Observing Night** at Seagrave
Saturday Observatory

February 19 8:00pm **Public Observing Night** at Seagrave
Saturday Observatory

February 26 8:00pm **Public Observing Night** at Seagrave
Saturday Observatory

Note:

Due to the amount of snow on the grounds at Seagrave Observatory, Public Observing Nights will likely be cancelled for the next few weeks.

President's Message

Dan Lorraine, President

Dear Skyscrapers,

I just wanted to share with you some upcoming events for Skyscrapers members:

March 12 (tentative):

Ever look at Jupiter and Saturn through a 20" Alvan Clark refractor? Well here's your chance. Skyscrapers will once again (weather permitting that is) have exclusive use of the 20" Clark at Wesleyan University's Van Vleck Observatory in Middletown CT. We will meet at Seagrave Observatory and car pool for the 1_ hour drive. The date is tentative and more details will be forthcoming on the web.

March 18-20:

We will be returning to the Hartness House Inn in Springfield Vermont, the birthplace of amateur telescope making. Weather permitting Skyscrapers will be able to observe with the unique 10" Brashear refractor – unique because you access the telescope through a long underground tunnel from the house and observe from a completely enclosed and heated room. There is also a small museum featuring many of the relics from the early telescope makers and Russell Porter. Bob Horton has also made arrangements to visit the observatory at Hildene, home of Abraham Lincoln's son Robert Todd Lincoln. For more information on this trip see the web for all of the details including pricing and links to the Hartness House, and to see photos from our last weekend there look for the Hartness House trip under the "Gallery" section.

April 30 – May 6:

Twenty-seven Skyscrapers members will be departing Providence for Flagstaff for three nights observing with the historic 24" Alvan Clark refractor made famous by Percival Lowell and his observations of the "canals" on Mars. Other sites on the itinerary are the Grand Canyon, Meteor Crater, Petrified Forest, the U.S. Naval Observatory, Sedona, Wupatki ruins, and more. NOTE: The trip is currently full.

June 25:

I have scheduled a visit to the historic Maria Mitchell Observatory on the beautiful island of Nantucket.

From their web site regarding Maria Mitchell: "Born on Nantucket in 1818, Maria Mitchell was one of ten children. Her father, William, taught astronomy and celestial navigation to sons and daughters alike while her mother, Lydia Coleman, urged her girls to learn occupations and seek independence. As first librarian of the Nantucket Atheneum, Maria continued her studies in astronomy, and in 1847 earned international renown and a gold medal from the King of Denmark when she discovered a telescopic comet. Mitchell became the first woman elected to fellowship in the American Academy of Arts and Sciences, and the first woman Professor of Astronomy. A devoted professor, she nurtured a generation of Vassar College graduates. As President of the American Association for the Advancement of Women, Mitchell promoted higher education and suffrage for women. Today, as we encourage a new appreciation of women's contributions, this remarkable scientist, educator, and social reformer assumes her rightful place in the pantheon of famous Americans."

We will be visiting her house, her private observatory, burial site, and many other interesting places associated with this very important astronomical figure. Dr. Vladimir Stelnitski, Director of the Maria Mitchell Organization will be our guide (see their website at www.mmo.org).

July meeting:

Once again we will be offering our successful members and their families cookout!

I hope everyone has had a chance to view Comet Machholz. If not, there's still plenty of time. See Sky & Telescope's web site for finder charts. Also, don't miss the February meeting, it's guaranteed to be an interesting 30 year reflection on one of the largest projects undertaken by Skyscrapers – the portable and inflatable planetarium that was on display at the Midland Mall (now Rhode Island Mall). Dave Huestis has prepared a Power Point slide presentation for the group that is sure to entertain! Remember the February and March meetings will be held at the Scituate Community Center on Route 116. We'll see you there!

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Saturn's Splendor

Dave Huestis

There are only a couple of astronomical events that can entice me out into the cold of winter these days. You can't beat a bright display of the northern lights dancing across a transparent winter sky. The only other celestial wonder that has the power to call me out into the cold is the sixth planet from the Sun, Saturn. The winter and early spring sky of 2005 will be dominated by this ringed beauty. You can wait until the milder weather signals a new season, or you can dress warmly and spend some quality viewing time observing our solar system's most beautiful planet.

Saturn has been in the news lately because of the Cassini spacecraft's arrival back in July '04. We've seen breathtaking images of this ringed planet and many of its moons that put the old Voyager images to shame. If you are unfamiliar with the Cassini mission, visit the mission home page. Not only does it include a wealth of information about the spacecraft and all its instrumentation, but also it houses an archive of all the images taken to date. They will knock your socks off!

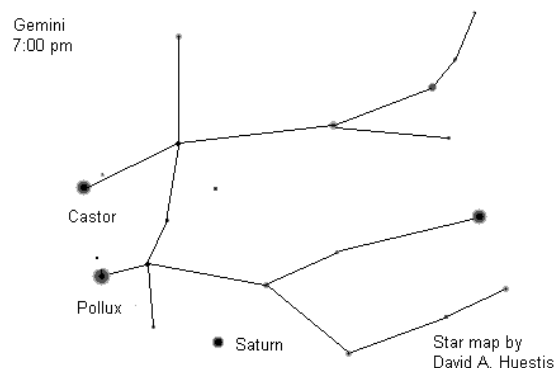
And back on January 14, a small 705 pound probe named Huygens descended through Titan's atmosphere and landed on the surface of Saturn's largest moon. Some of the first views show a landscape possibly "carved" by liquid methane (and you thought New England was cold!!).

But you know, despite the wonderful high resolution images of Saturn provided by Cassini, nothing compares to using your own telescope or those at Seagrave Observatory to examine the Saturnian system for yourself. If you've never seen Saturn through a telescope, you are missing a view you won't soon forget.

"Many telescopic views in the heavens disappoint the beginner, but that of Saturn does not. Even though the planet may not look as large as he expects to see it from what he has been told of the magnifying power employed, the untrained observer is sure to be greatly impressed by the wonderful rings, suspended around it ... No previous inspection of pictures of these rings can rob them of their effect upon the eye and the mind. They are overwhelming in their inimitable singularity, and leave every spectator truly amazed."

So wrote Garrett P. Serviss in his 1901 book, *Other Worlds*. I often quote from his body of astronomical works because the author makes such succinct observations that, written more than 100 years ago, still ring true today. Let the word spread during a star party that Saturn is in view through a specific telescope and watch the line form. Saturn and his rings can still draw a crowd to the telescope.

At the beginning of February, Saturn can be found about halfway up the eastern sky about 7:00 pm in the constellation Gemini.



If you can locate the giant constellation Orion, look up and to the left (north) of this mighty star pattern for Gemini. The twins are represented by the bright stars Castor and Pollux, both of which have a string of stars that form the "stick" bodies. This string of stars points towards Orion.

Even under low magnification, your first glimpse will clearly reveal Saturn's magnificent ring system. The southern face of the rings remain tilted to our line of sight almost to its maximum angle through March. After that the angle will slowly decrease until the rings are seen "edge-on" in 2009. Because the rings continue to remain wide open, this configuration allows us to observe detail in their structure.

It's amazing they are visible at all, considering Saturn's distance from the Earth, and the fact that the ring plane is only about 328 feet thick (just larger than the length of a football field). Although there are hundreds of ringlets, you shouldn't have any difficulty seeing the separation between the primary A (outer) and B (inner) rings, called the Cassini Division. This gap is only 2,175 miles wide. In comparison, the width of the A ring is 9,321 miles and the B ring is around 16,032 miles across.

The rings are comprised of irregularly shaped dirty snowballs, ranging in size from grains of dust to many particles the size of pebbles. There are also some "boulders" as large as a few hundred feet and some small mountain sized bodies. They all orbit Saturn along the planet's equatorial plane.

Though the rings are the main attraction, you can also view the planet's salmon-colored cloud tops. The bands in its upper atmosphere are much less prominent than

those of Jupiter. Very little cloud detail can be seen in small telescopes. Saturn would look very boring through a telescope without its ring system. One thing you can look for is the shadow of the planet projected onto its rings.

Saturn also has satellites you can observe. Its four brightest are Titan, Rhea, Dione and Tethys, and you can watch these moons orbit Saturn like a solar system in miniature. Titan, which orbits Saturn in 16 days, will be the brightest and, during its greatest elongations east or west of Saturn, can be easily spotted.

Secretary's Report

Ken Dore, Acting Secretary

Monthly Meeting

7 January 2005, North Scituate Community Center

Meeting Start – 7:40 PM

Secretary's Report: Approved as reported in the January Skyscrapers Newsletter.

Treasurer's Report: Finances were reported by Bill Kirby and made available for review at the meeting, approved as reported.

Trustee's Report: Ted Ferneza reported that the repairs to the Clark Ante Room are almost completed. Jack Szelka and the other trustees were thanked for a job well done. Costs were less than \$150 dollars. There is a squirrel living in the Clark building; Pat Landers has offered a cage to catch him.

Librarian/Historian's Report: Dave Huestis has many Astronomy and Sky and Telescope magazines to sell at 30% off sale for members. Dave read from the first Skyscraper Newsletter, 30 years ago. Next month Dave will be the featured speaker and will present the story of the great Skyscraper Planetarium project of 1975.

Nomination Committee: Dan asked for people to run for office as a chance to do their share. We are a volunteer organization and need your help. You will find it is a pleasure to serve for such a fine organization with the history and traditions we have. If you are thinking about running, please see Dave Huestis, Rick Lynch or Steve Hubbard.

New Business: Introduced member applicant: Ray Kenison (to be voted on next month)

Old Business: Voted in as new member: Craig Cortis. Welcome Craig.

Enjoy the beauty of this magnificently ringed world almost one billion miles from our home planet.

If you'd like to explore the universe with larger instruments, then by all means visit Seagrave Memorial Observatory on Peepoad Road in North Scituate on any clear Saturday night once the parking lot is snow free. Our members will be happy to share their love of the sky with you. More information, including directions, membership, and snow closures, can be found at our website: www.theskyscrapers.org

As always, keep your eyes to the skies.

Good of the Organization: 1) Steve Hubbard updated us on future speakers at our monthly meetings. They can be seen on the web site under "Monthly Meetings" <http://www.theskyscrapers.org/>

2) Bob Horton advised that a repeat of last year's trip to Hartness House is planned for March 18th and 19th. Please sign up if you are interested.

3) Dolores Rinaldi donated a calendar of Hubble Space Telescope photographs for the clubhouse.

4) Dolores suggested that we hold the next Christmas meeting at the North Scituate Community Center. We were too crowded at the clubhouse. Dan and most members agreed so Dan will try to get it reserved.

5) Dan is planning a club trip to Nantucket in the summer to visit the Observatory of Maria Mitchell, the first professional female astronomer, and possibly other sites on the Island.

6) Stan and Mercedes have made permanent member name tags for the meetings. If you do not have one, please sign up. The badges remain at the club so you won't forget them.

Adjournment: The meeting was adjourned at about 8:45 PM

Speakers:

After the break the following members gave short presentations - Bill Guca: camera and tripod astrophotography, mostly of planetary conjunctions.

Tom Rinaldi: CCD imaging

Rick Lynch: Rick's astronomy career and the evolution of his backyard observatory

Bob Howe: Solar eclipse at La Paz, Mexico

Steve Hubbard: Video from the '04 members picnic, Stellafane and the White Mountain trip.

The Southern Cross

William Tyler Olcott

Four stars the Cross compose
Hallowing tropic skies
All through the night it glows
To Gladden mortal eyes

The stars like golden nails
Transfix the Cross to night
When darkness wanes and pales
It vanishes from sight

The day of toil begins,
And busy men forget
The sacrifice for sins
Mankind's immortal debt

Each night recalls again
The agony and scars
Above in his domain
There gleams His Cross of stars

For Sale

I've got a couple of older computers running Windows 95 for sale. See the spec sheets attached for each computer available. Since they are running Windows 95, they are not USB compatible. However, both are in great working order, and one could find a variety of uses for them.

Asking price for the Compaq Presario 9548 is \$400.

Asking price for the HP Vectra Series 4 is \$200.

Interested folks should contact me by email at dhuestis@aol.com.

Compaq Presario 9548



- Running Windows 95
- 1.6GB hard drive
- 81,920KB Ram
- 100 MHZ
- 3 1/2" drive
- CD-Rom – read only
- Iomega Zip 100 external drive, parallel port, w/9 ZIP 100 MB disks
- PS/2 Mouse
- 101/102 Natural Keyboard
- Teac internal 800/1600 tape drive, w/3 3M TR-2 Travan 800MB tapes & Arcada backup software
- UsRobotics 56K internal Voice/Fax/Modem
- W/MS Office 4.2 and other assorted software, including Norton's Utilities and Anti-Virus.

Fine working order.

HP Vectra Series 4



- Running Windows 95
- 1.19 GB hard drive/32MB RAM
- 99.71MHZ
- 3 1/2" drive
- DOS 7.0 PS/2 Mouse
- Std Microsoft 101/102 Keyboard
- W/ MS Office 97, Norton Utilities for Windows 95

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**