



the Skyscraper

vol. 37 no. 4
April
2010

Amateur Astronomical Society of Rhode Island ★ 47 Peeptoad Road ★ North Scituate, Rhode Island 02857 ★ www.theSkyscrapers.org

Seagrave Memorial Observatory is open to the public

weather permitting

Saturdays 8pm - 10pm

Please note that the observatory may be inaccessible for several weeks following a winter storm. See web site for updates.



North Scituate Community Center

All of our winter meetings (Dec-April) are held at the Community Center. From Seagrave Observatory, the 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. Parking is across the street.



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April Meeting with Jack Szelka & Dave Huestis

FRIDAY, APRIL 2, 7:30PM

NORTH SCITUATE COMMUNITY CENTER

The Skyscrapers' Monthly Meeting on April 2, 2010 at the Scituate Community Center will feature two talks by Skyscrapers' members Dave Huestis and Jack Szelka.

Yerkes Observatory and Adler Planetarium by Jack Szelka

Member Jack Szelka will present a Powerpoint presentation highlighting a visit to the Adler Planetarium in Chicago, Illinois and Yerkes Observatory in Williams Bay, Wisconsin.

He will cover some of the astronomical exhibits at the Adler; the Telescope display, Atwood Sphere and the other astronomy related displays.

Also presented, a tour of the Yerkes Observatory including highlights of the buildings, equipment and history of the many great astronomers who have worked there. The main feature is the worlds largest refractor, the 40-inch Alvan Clark lens and a night of viewing with this scope.

The Sesquicentennial Birthday of Frank Evans Seagrave (1860-1934) by Dave Huestis

Dave Huestis, a Skyscrapers member since 1975 and the society's historian for many years, will be presenting a talk to commemorate the sesquicentennial birthday (March 29, 2010) of Frank Evans Seagrave (1860-1934).

Skyscrapers purchased Frank's observatory and 8¼-inch Alvan Clark refractor on Peeptoad Road back in 1936. Dave will reveal some important facts that he has uncovered from his continued research into Frank Seagrave's life and achievements. He also promises a few surprises.

Phases of the Moon



6



14



21



28

OTHER NOTABLE EVENTS: The Moon is near Antares on the morning of the 3rd. Mercury is at greatest eastern elongation on the 8th. The Moon is 1.5° north of Mercury on the 15th. Mars is 3° north of M44 on the 15th. The Moon is between Venus and the Pleiades on the 16th. April Lyrids peak on the 22rd. Venus is 4° south of the Pleiades on the 24th & 25th. Mercury is at inferior conjunction on the 28th.

Bob Horton

President's Message

The Annual meeting of Skyscrapers will be held at the North Scituate Community House on Friday, April 2nd at 7:30pm. April is a busy month for Skyscrapers. We will be electing new officers for our society, voting on an operating budget for the coming fiscal year, and collecting membership dues.

In this issue of the Skyscraper you will find a copy of the ballot. Any member in good standing and at least 18 years of age may vote. You may either mail this ballot to the address provided, or deliver it in person at the April meeting. Please make your selections, and then place your ballot in an envelope, and write "ballot" and your name on the outside of the envelope. If you plan to attend the meeting, please hand your ballot to one of the members of the Nominating Committee – Kathy Siok, Rick Arnold or Bob Napier. The Nominating Committee will also have extra ballots available should anyone forget theirs at home.

Our operating budget for the coming fiscal year, which was introduced at our last meeting under New Business, will be voted on this month under Old Business. After some discussion, we will vote on the motion to accept or reject the budget as presented to the membership last month. This proposed budget, which is published in this newsletter, is only an operating budget so that we can pay our recurring expenses. A complete

listing of all expenditures, such as the new roof we had installed on the meeting hall last fall, and approved by the membership as a separate motion, can be found in our yearly, audited financial report, which will be reported to the membership this month under New Business.

April also marks the time to renew our membership dues. Please fill out the enclosed form so that we will have your most current contact information. You may mail in your membership renewal or you may renew at any monthly meeting. If you joined Skyscrapers recently, this past January through March, you will not have to renew your membership until April 2011. Your continued support is greatly appreciated.

Clear Skies, Bob Horton

Membership Renewals are due in April

MEMBERSHIP RENEWAL FORM ON
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Executive Committee Meeting

WEDNESDAY, MARCH 31ST AT 7PM
AT SEAGRAVE OBSERVATORY

All members are welcome to attend.

Glenn Chaple's Sky Object of the Month

An unwritten law in astronomy states that you should avoid observing any sky object when it's near the horizon. First of all, incoming light has to pass through a greater amount of earth's atmosphere when approaching from a low altitude. Secondly, ripples from escaping ground heat create turbulence that's most troublesome near the horizon.

However, if you want to experience one of the night sky's loveliest treats, ignore that law and look at Sirius when it's low in the sky. When the night sky's brightest star is situated high above the southern horizon as it is after sunset on February and March evenings, it's a magnificent sight. A gleaming, sparkling diamond, Sirius captivates the

Sirius

beholder, no matter whether viewed with unaided eye, binocular, or telescope.

Sirius is now on the wane, setting soon after sunset. As it nears the horizon, something magical happens. That same atmospheric turbulence that wreaks havoc on sky objects refracts the light from Sirius, causing it to sparkle in a dazzling array of gemlike hues. Its diamond like radiance is interrupted by flashes of ruby red and emerald green - a visually entrancing sight.

Next time you set out to do some "serious" astronomy, try a moment to make a "Sirius" observation. You'll be delighted you did.

Your comments on this column are welcome. E-mail me at gchaple@hotmail.com



The Skyscraper is published monthly by Skyscrapers, Inc. Meetings are usually held on the first Friday of the month. Public observing is usually held every Saturday night at Seagrave Memorial Observatory, weather permitting.

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Directions

Directions to Seagrave Memorial Observatory are located on the back page of this newsletter.

Submissions

Submissions to The Skyscraper are always welcome. Please submit items for the newsletter no later than **April 23** to Jim Hendrickson, 1 Sunflower Circle, North Providence, RI 02911 or e-mail to jim@distantgalaxy.com.

E-mail subscriptions

To receive The Skyscraper by e-mail, send e-mail with your name and address to jim@distantgalaxy.com. Note that you will no longer receive the newsletter by postal mail.

CELEBRATING THE SESQUICENTENNIAL BIRTHDAY OF Frank Evans Seagrave (1860–1934)

March 29, 2010; by Dave Huestis

Frank Evans Seagrave was born March 29, 1860, son of Mary Greene (Evans) and George Augustus Seagrave. George was a wealthy owner of a textile mill located just outside of Providence, as well as a Providence bank president. Young Frank went to a private school run by the Reverend Wheeler of Providence, whose school was noted for preparing young men for university, particularly Brown, and it was there that he acquired a knack for mathematics. On October 26, 1874, at the age of 14, Frank's interest in astronomy was awakened by an eclipse of the moon. So great was this new interest that his father bought him a 3-inch refractor soon after. It is reported that Frank observed every fair night.

In 1875 he began traveling to the Harvard College Observatory (HCO) twice a week, where, even though he wasn't enrolled as a student, he was given access to the library and instruments. Frank's father was so impressed with his son's new-found activities that he purchased an 8¼-inch Alvan Clark refractor as a present for Frank's 16th birthday (1876). Two years later the telescope was delivered and an observatory was built in the backyard of his father's house at 119 Benefit Street in Providence, Rhode Island. This great instrument was then the 3rd largest in New England, and was the largest in New England in private hands. The telescope was mounted in May, 1878. Present at the dedication ceremony was none other than Alvan G. Clark, the famous telescope maker. Also present was Leonard Waldo, Assistant Director of HCO under E.C. Pickering, who thought the "complement of accessories attending the telescope could occupy the time of two competent observers."

In 1877 a government sponsored solar eclipse expedition took young Seagrave to Potsdam, Germany, where Frank not only observed and photographed the reversing layer, but also obtained prominence and corona spectra. And after his success there, Frank was invited to participate in a government sponsored solar eclipse expedition to Ft. Worth, Texas, with Harvard. And in 1900 a similar opportunity in North Carolina presented itself.

During the ensuing years Frank Seagrave observed a myriad of objects, including the sun, variable stars, comets, novae, asteroids, and of course the planets. And he fastidiously calculated the orbits of asteroids and comets and sent them along to E.C. Pickering (1846-1919), Director of Harvard College Observatory from 1877-1919, and others.

Of particular note concerning the planets, in 1901 and 1902 Frank made micrometer measurements of the planet Saturn and his ring system. The German astronomer von Struve had made similar studies and had determined that the distance between the planet's disc and the rings was decreasing very rapidly. In fact, von Struve predicted that the rings would crash down on the planet's "surface" by the year 2150. Mr. Seagrave noted no decrease. Later in 1914 and 1915 Seagrave made the same measurements. No change was detected. Also of importance, Frank observed and photographed the transit of Venus in 1882 from his observatory in Providence.

In 1906 while Frank was reading a German magazine, he came upon an old observation of Halley's Comet. He decided at once to work out an ephemeris for the comet so that he would know where in the sky it might be found. Mr. Seagrave worked on the calculations for three years. When Halley was recovered, it was very close to where he calculated it would be. In fact, Seagrave's calculations were better than many of the professionals. Brown University awarded Seagrave an honorary degree in 1911 for his work on Halley's Comet.

In addition, in 1914, Seagrave was in despair because the coal dust of the city was affecting his observations, and to make matters worse, the city started installing gas lamps. So, Frank looked around New England to find a new site for his observatory. He settled on a plateau in North Scituate at 47 Peepoad Road, where he built a new observatory and moved his 8¼-inch Alvan Clark telescope to its current location.

Recent research indicates Frank Seagrave and Percival Lowell (1855-1916) were friends. Lowell was a famed Mars observer who per-

ceived canals on the planet, presumably constructed by intelligent beings trying to irrigate the arid planet's equatorial regions with water from its polar caps. In 1905 Lowell had also begun a search for a planet calculated to orbit beyond Neptune. Though Lowell died in November 1916, not having found elusive "planet X" as it was dubbed, Seagrave told a reporter that "it was Percival Lowell's wish, that when his planet "X" was discovered, his friend Frank Seagrave would compute its orbit."

Pluto was finally discovered by Clyde Tombaugh on February 18, 1930. Frank never did receive the "honors" to calculate the new planet's orbit. Lowell's promise was never written down or recorded, and this discovery was indeed a prestigious event for Lowell Observatory. Director Slipher did pass along new measurements to Seagrave so he could re-compute Pluto's orbit. But the limelight belonged to Lowell Observatory and its astronomers, not to Seagrave.

Seagrave observed the 1925 total solar eclipse from his North Scituate observatory with a 3-inch refractor, and that same year calculated that New England would observe another total solar eclipse in 1932, where other party's calculations predicted there would be none. Clouds prevented him from viewing this eclipse from Whitefield, New Hampshire. When Skyscrapers was founded in 1932, Seagrave was made an honorary member. Skyscrapers accepted an invitation to visit Frank's observatory, which they did on September 18, 1933.

Seagrave passed away on August 15, 1934. The estate executor was his cousin Walter F. Angell. However, the observatory was not immediately sold. When Angell passed away July 7, 1936, the observatory was listed for sale. Skyscrapers was interested in purchasing the property, and after a committee provided a favorable evaluation following a site visit, Frank Seagrave's beloved observatory soon passed into the capable hands of Skyscrapers, Inc, The Amateur Astronomical Society of Rhode Island.

That event symbolizes "the day the universe changed" for all Skyscrapers members.

April Lyrids Meteor Shower & Other Events Worth Watching

Dave Huestis

Spring has sprung and dew is on the grass. At least that's what I hope has happened since last month's column.

In March I gave you a sneak preview of some beautiful sky scenes to watch for during the first couple of weeks in April. The time has quickly passed and now I want to provide you with some details about observing the two closest planets to our Sun, Venus and Mercury, as they climb out of the solar glare. Venus is more often seen than Mercury because our closest planetary neighbor swings farther away from the Sun in our sky than Mercury does. More times than not Mercury only climbs slightly above one's local horizon.

As April begins, brilliant Venus and much dimmer Mercury will be found very low in the western sky about 30 minutes or so after sunset. Mercury will appear to the lower right of Venus, being about three degrees (six full moon diameters) apart. You'll need an unobstructed view if you expect to catch a glimpse of these two inner solar system planets at that time. Why? Once the sky darkens they will only be about ten to twelve degrees above the horizon (a fist held at arm's length approximately covers this distance). Each night this planetary duo will appear a little higher in the sky after sunset.

Watch as Mercury climbs higher into the sky relative to Venus. After the 8th, Mercury will begin to move back towards the horizon each successive night, finally getting lost in the solar glare once again. Before it completely leaves our sky it is joined by the crescent Moon on the 15th.

Meanwhile, Venus will continue its ascent and will soon become more easily visible. If you have a telescope this would be a good time to focus in on Venus. During April Venus will appear "full." But as the weeks pass you'll be able to watch our closest planetary neighbor "go through" phases similar to that of the Moon. A small refracting telescope or even a scope used for bird watching will show Venus' changing phase.

Check it out every couple of weeks or so. Venus' image size will be increasing as well as it approaches the Earth. Venus will be visible until early fall.

Haven't seen Mars yet? Locally the Moon and Mars are one degree (two full moon diameters) apart on the 15th. Also around that time, between the 15th and 18th, Mars will be passing near the beautiful Beehive Cluster of stars in the constellation of Cancer. Binoculars will certainly enhance this beautiful sight.

I'm glad we had good results from the Geminid meteor shower back in December because the weather the past few months has been horrible for observing the heavens for any activity. While the upcoming April Lyrids meteor shower on the mornings of April 22nd and 23rd usually puts on a meager display of shooting stars, the Moon won't interfere if you can observe during the pre-dawn hours.

The peak of activity for the April Lyrids is predicted for about one o'clock pm on Thursday, the 22nd, for us here in New England. Obviously that's during daylight. So, you could observe Thursday morning and Friday morning. Why not during the evening? Unfortunately the waxing gibbous Moon doesn't set until between 2:30 am 3:00 am on those days. Therefore, in the evening the Moon will brighten the sky somewhat, overshadowing the fainter meteors. Once the Moon sets you will have a couple of hours before dawn to maximize your chances of seeing perhaps 15 meteors per hour. This shooting star display has had unexpected increases in numbers from time to time, so don't just brush it off.

The meteors appear to radiate from an area of sky near the Lyra/Hercules border, very close to the bright star Vega. If you haven't already done so, get yourself an inexpensive planisphere which can be used to locate and identify constellations. You can download one for free from <http://lawrence-hallofscience.org/starclock/skywheel.html>.

Print it on a thick card stock instead of regular copy paper. It's very simple to construct and use. It would be a great project for a young budding stargazer.

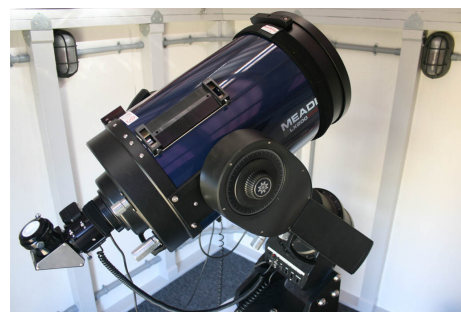
The Lyrids are very fast meteors, slamming into the Earth's atmosphere at a moderate speed of 29.8 miles per second. Think about it. That would be like traveling from Woonsocket to the Showcase Cinemas in Warwick at the junction of Division Street and Quaker Lane in just one second. About one-quarter of the meteors leave luminous trains of dust that can be observed for several seconds. The Lyrids are a fairly narrow stream of particles, so don't expect many on either side of the peak night.

Let's hope March winds do not bring too many April rain showers!

Seagrave Observatory on Peepoad Road in North Scituate is open to the public every Saturday night, weather permitting of course. Check the web site at <http://www.theskyscrapers.org> for opening time and any closure notice. (We opened for the first time this year on March 6. About 25 guests showed up to view the heavens. Let's hope the trend continues.)

You can also visit Ladd Observatory (<http://www.physics.brown.edu/physics/commonpages/ladd/>) located on Hope Street on Providence's East Side on any clear Tuesday night (8-10pm).

Keep your eyes to the skies.



Chris Chapman reports that his backyard observatory is nearly complete.

March Reports

Jim Crawford, *Secretary*
Lloyd Merrill, *Treasurer*

Monthly Meeting 7:30 p.m.

Bob Horton welcomed all members.

MARCH SPEAKER: Savvas Koushiappas
"Extreme Astrophysical
Objects Through a Small
Telescope

SECRETARY'S REPORT:
February report accepted by
membership.

FINANCIAL REPORT:
February report submitted
with no corrections.

1ST VP BOB NAPIER:
Speakers for April meeting
are Jack Szelka, who talks

about his visit the Yerkes Observatory and
Dave Huestis will give a presentation about
Frank Seagrave in celebration of the 150th
anniversary of his birth.

2ND VP STEVE HUBBARD: Reports that
he his continuing with confirmation of the
primary speaker AstroAssembly.

HISTORIAN DAVE HUESTIS: A brief article
of highlights about Frank Seagrave's life will
be in the April edition of The Skyscraper.
He will also present his talk about Frank
Seagrave's life on his sesquicentennial birth
(1860-2010) which occurs on March 29.
Skyscrapers will also be offering a com-
memorative postal cache to celebrate the
occasion.

LIBRARIAN BRUCE MERRILL: No Report
Star Party Coordinator Bob Forgiel: No
Report

TRUSTEE REPORT: Tom Barbish reports
that the contractor completed the tree trim-
ming. Al Hall recommends we not use the
Clark until he checks the drive for lubrica-
tion. The extreme cold weather makes the
scope run slower. Bob Napier reports that
the town of Scituate has completed the first
round of voting to turn off approximately 50
% of the lighting. Bob was invited to give
a talk on light pollution and energy con-
servation benefits by reducing the lighting
as much as possible but within safe limits.
This is good news because it would improve

our viewing at the observatory. Al Hall also
reports that CT. Light and Power has a simi-
lar initiative to reduce lighting for energy
savings.



NEW BUSINESS: Lloyd
Merrill, treasurer, submit-
ted the proposed 2010-2011
Operating Budget as recom-
mended by the Executive
Committee. The motion is to
accept the budget as present-
ed. (A copy of the proposed
budget appears on page 7 of
this newsletter.) The budget
will be discussed and voted

on under Old Business at the April meeting.

NOMINATING COMMITTEE: Kathy Siok
reports that the nominating committee
came up with the following slate of of-
ficers: President, Tom Thibault • 1st Vice
President, John Briggs • 2nd Vice President,
Steve Hubbard • Secretary, Jim Crawford •
Treasurer, Lloyd Merrill • Member at Large,
Mercedes Rivero and Gene Kusmierz •
Trustee, Pat Landers

Dolores Rinaldi was nominated from the
floor by Dan Lorraine and seconded by Sue
Hubbard.

All positions were officially closed.
The voting ballot will be sent out in the
Newsletter 10 days prior to the April meet-
ing. Ballots will also be available at the meet-
ing. Instructions for filling out and mailing
of the ballot will be shown on the form.

OLD BUSINESS: A motion was made to
except two new members, Mr. Jim Wardell
and John Soucy into the organization.
Motion seconded and carried. Welcome
to Jim and John and hope to see you at all
future meetings. Tom Thibault requested a
vote on expenditure of up to \$600 to con-
struct the proposed new sign. Motion made
and carried.

GOOD OF THE ORGANIZATION: Gerry
Dyck recommends members read an excel-
lent book called "Physics of the Impossible"
written by Michio Kaku. It's about what is

impossible now but could be possible in the
future. • John Briggs reminded members
that there will be another Hartness House
event just before the annual Stellafane
Convention in Vermont sometime around
the August time frame. He will update the
members as we get closer to the event. • Bob
Horton reported that Skyscrapers was invit-
ed to participate in a Messier Marathon by
the Astronomical Society of New Haven at
the site of the CT Star Party on March 12th.
• There is an H.P. Lovecraft tribute at Ladd
Observatory on Sunday the 14th of March
from 3-4 p.m. • Ed Turco has offered to con-
duct mirror making classes. Mirror size will
be restricted to 6" and please contact Bob
Horton or Ed Turco for information on how
to procure your kit.

Business Meeting Adjourned at 9:30pm

Cash Flow 2/22/2010- 3/13/2010

INFLOWS

| | |
|----------------------|---------------|
| Dues | |
| Contributing | 100.00 |
| Family | 50.00 |
| Regular | 120.00 |
| TOTAL Dues | 270.00 |
| Interest Inc | 12.53 |
| Astronomymaginc | 34.00 |
| TOTAL INFLOWS | 316.53 |

OUTFLOWS

| | |
|-----------------------|---------------|
| Astronomymagexp | 34.00 |
| Miscellaneous, Bus | 11.49 |
| Postage and Delivery | 24.64 |
| Refreshment Expense | 75.87 |
| Electric | 7.35 |
| TOTAL OUTFLOWS | 153.35 |

OVERALL TOTAL 163.18

Banking Accounts

| | |
|--------------------------|------------------|
| Citizens Bank Checking | 2,421.57 |
| Capital One Money Market | 16,342.09 |
| Total Cash | 18,763.66 |

Election 2010

A Message from Presidential Nominee Tom Thibault

Dear Fellow Members,

I am Tom Thibault and I would like solicit your vote for the position of President of Skyscrapers, Inc., The Amateur Astronomical Society of Rhode Island. Please allow me to take this opportunity to introduce myself and to provide you with a little background.

I live in the town of Blackstone, Massachusetts, just over the border from Woonsocket, RI with my wife Lisa and two children, Adam and Jessica. Our home includes the Heaven's View Observatory which my son and I was completed in September of 2008.

My professional background is in architecture, which I have been involved with for the past 24 years, of which, the past 18 years have been with CVS/Caremark. During these 18 years, my responsibilities have included CAD tool development, Remodel Planning, Prototype and Specification Management, and for the past 10 years, as Pharmacy Design Manager.

My interest in astronomy began when I was young, but to a limited extent. My father was in the Air Force and while traveling with my family I recall many nights lying on the ground or hood of our car staring into the dark skies and marveling at the view. I was lucky. My father's travels brought us to many dark sights, including the Azores, Portugal, Wyoming, South Dakota, and Guam in the

Pacific to name a few.

My deeper interest really began about 10 years ago when I accompanied my daughter during a Brownie function. One of the girls' fathers volunteered his time and brought his 10" Dobsonian to the local school to show the girls Saturn. The view was incredible and I was hooked. This is when I purchased a Tasco reflector and began to look at the planets as they traveled across the sky. The more I saw, the more I wanted to see; apparently I caught the fever you always hear about.

As my interest continued to grow, I wanted to share my experiences and increase my knowledge by interacting with others that had similar interests. Let's face it, your friends and family will only humor you for so long. My wife Lisa was speaking with an acquaintance about her husband pestering her to come out and look at the stars. Well her friend Chris told her that her husband did the same to her and that they should get the two of us together. I'm not sure this was for our benefit or more for theirs. I gave Chris' husband Bing a call and he invited me to attend a Skyscrapers meeting with him. I found the meeting to be interesting and the group very friendly. I became a member the following month and have enjoyed myself ever since, participating in society functions and Star Parties.

I was nominated and elected "Member

at Large" during last years' election and have truly enjoyed my time as an executive board member. I have participated and contributed to a number of society related decisions and proposals that I would like to share with you.

The repair to the meeting hall roof this last Fall was awarded to a contractor I have known for many years, which resulted in a few hundred dollars savings over the competing contractors. I collaborated with Al Hall on a presentation for a possible expansion of our meeting hall in the future. My intention would be to continue evaluate this possibility and determine the feasibility of a restroom as well. I have been closely involved with the executive committee in the development of signage for the Seagrave facility. I had the pleasure in participating in the recent CCD Workshop and have joined the upcoming Mirror Making Class being offered. It would be my intention to continue to organize programs such as these for our members.

I am proud to be a member of Skyscrapers and I will promote and preserve the on going tradition of serving our members and educating the public. I humbly ask for your vote for President in the upcoming election.

Thank you,
Tom Thibault

Election 2010

A Message from Presidential Nominee Dolores Rinaldi

Hello fellow members of Skyscrapers.....

At the March 2010 meeting I was nominated from the floor by Dan Lorraine for the office of President of Skyscrapers, Inc. I accepted the nomination and would like to tell you what some of my goals are if I am elected to be your President. Many years ago when Skyscrapers was founded, it was founded for the main purpose of bringing amateur astronomer together to observe the night sky. I feel that over the past few years our society has been lacking in promoting observing for our membership and I am committed to making that a top priority of mine. I would like to have a members only observing night at least once a month at

which all of our beautiful telescopes will be open and available for our members to enjoy. And if you are not familiar with the instruments we own you will be overwhelmed by the beauty and quality of our 8¼" Alvan Clark refractor built in 1878, which is only one of the four main telescopes housed at Seagrave Observatory! Additionally, I would like all of the telescopes open on meeting nights for more observing and for new visitors to Skyscrapers to have the opportunity to see these scopes in action. In the past we have had many activities planned for the membership that were very affordable and well attended. I want our membership to have more astronomical related activities to choose from, aside from just coming

to a meeting once a month and hearing a speaker. Two examples of things we've done in the past would be our bus trip to NYC to visit The Museum of Natural History & the Hayden Planetarium and our trip to Nantucket to visit the birthplace and observatory of Maria Mitchell, America's first professional female astronomer. I want to add more value to being a member of Skyscrapers! "Star Parties" have slowed down this past year...I will work feverishly to inform more groups about our observatory and have them set up star parties with Bob Forgiel (who I might add is doing a great job as "star party coordinator" !!!!). Part of our income at Seagrave is by donations from star parties and every penny counts in these

tough economic times. But more importantly, it is part of our corporate charter to educate and inspire the public on the wonders of the universe. I will make sure that we offer training classes on the telescopes; we have so many new members...I'm sure that many of you would love to learn how to operate our telescopes. And I know Bob Horton was holding CCD imaging classes... also, Bob and Ed Turco are having a "mirror making" class at the Ladd Observatory..... these are activities that I know some of our members enjoy and participate in, and I will make sure that we maintain that momentum.

Now a little about myself...I have been a member of Skyscrapers, Inc. for 15 years now. I am a past a member at large, was treasurer for 2 years, and I served as "hospitality chair" for many years. I am an avid amateur astronomer and you can find me at Seagrave most Saturday nights educating the public about our observatory and the night sky. When there is a star party I try to attend as many as possible. I can be found at Ladd Observatory in Providence most Tuesday nights. I am also a member of The Astronomical Society of Southern

New England (ASSNE)...and attend every meeting with that group. I attend "Stellafane" faithfully every year, and I also attend the "Northeast Astronomical Forum" (NEAF) which will be coming up in just a few weeks. I go to Ninigret Park or East Beach in Charlestown with other Skyscraper members to observe on clear nights, or for a special occasion like a meteor showers or Messier Marathons.

I have been informed by several Skyscraper members that I have brought in the more new members to our society than anyone else in the history of the Skyscrapers. This is probably because I promote our beautiful observatory as much as possible, whenever possible. I am very very proud to be a member of this organization. Another plus is that I am now retired and have all the time in the world to devote to being President of the society.

Additionally, I would like to implement some kind of program to get more young people interested in astronomy and joining the society. This is something we must think about very soon...I hate to say it...but we aren't getting any younger and we need younger folks to take over the reins in the

future. Now is a great time to get them involved in our organization and teach them the ropes!!!

If elected I will use "common sense" in all decision making. I will have wonderful experienced members that will help me in any capacity I need for the society. I will always be open minded and willing to listen to any and all suggestions from the members. I only have the best of interests for this society and am extremely honored to be in the running for President.

I would like to take this opportunity to thank you for taking the time to read my letter, and also to tell you that I would be very appreciative if you would elect me your next President of Skyscrapers, Inc. I vow to put my heart and soul into the job for the members.

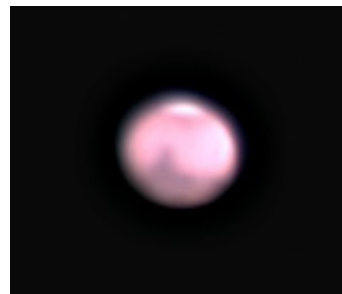
If you cannot attend the April meeting, please be sure to mail in your ballot before the meeting. Remember...every vote does count!!!!

Sincerely,
Dolores J. Rinaldi
Presidential Nominee

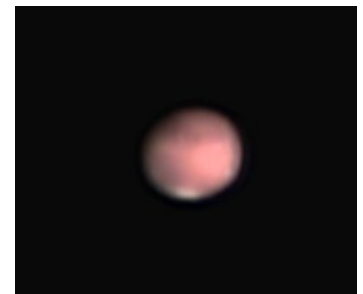
Proposed Operating Budget 2010-2011, to be voted on at the April meeting

| EXPENSES | Expenses YTD | Proposed 2010-2011 | change |
|----------------------|-------------------|-----------------------|-------------------|
| Domain Name | \$35.00 | \$115.00 | \$80.00 |
| Incorporation Fee | \$22.00 | \$22.00 | \$0.00 |
| Postage | \$0.00 | \$290.00 | \$290.00 |
| Printing | \$0.00 | \$140.00 | \$140.00 |
| Special Programs | \$30.12 | \$50.00 | \$19.88 |
| Presidential Fund | \$60.16 | \$150.00 | \$89.84 |
| Electric | \$127.66 | \$150.00 | \$22.34 |
| Propane | \$37.00 | \$425.00 | \$388.00 |
| Refreshments | \$70.00 | \$350.00 | \$280.00 |
| AstroAssembly | \$2,203.73 | \$2,400.00 | \$196.27 |
| Cookout | \$403.00 | \$445.00 | \$42.00 |
| Trustee Expense | \$381.18 | \$518.00 | \$136.82 |
| Property Insurance | \$2,410.00 | \$2,500.00 | \$90.00 |
| TOTAL | \$5,779.85 | \$7,555.00 | \$1,775.15 |
| INCOME | Income YTD | Proposed 2010-2011 | change |
| Other Donations | \$216.10 | \$300.00 | \$83.90 |
| Interest Income | \$138.00 | \$150.00 | \$12.00 |
| Cookout | \$445.00 | \$445.00 | \$0.00 |
| Star Party Donations | \$376.00 | \$500.00 | \$124.00 |
| Dues | \$3,077.00 | \$2,793.00 | -\$284.00 |
| AstroAssembly | \$3,367.00 | \$3,367.00 | \$0.00 |
| TOTAL | \$7,619.10 | \$7,555.00 | -\$64.10 |
| Net | \$1,839.25 | \$0.00 | |

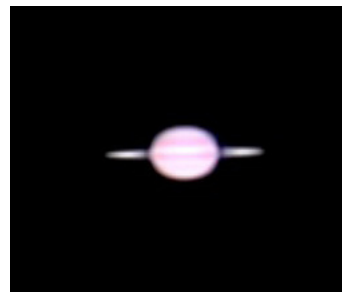
Planetary Images by Steve Hubbard



Feb 18 with Mars showing Syrtis Major. The seeing was very bad, but it didn't come out too bad considering.



On March 16, Mars is starting to get a bit far away for much detail with my 10-inch, showing how Mars is getting smaller as it recedes from us.



Here's an image of Saturn I took March 6. 2 minute exposure with a color Mallincam, processed by registax.



Deadly Planets

by Patrick L. Barry and Dr. Tony Phillips

About 900 light years from here is a rocky planet not much bigger than Earth. It goes around its star once every hundred days, a trifle fast, but not too different from a standard Earth-year. At least two and possibly three other planets circle the same star, forming a complete solar system.

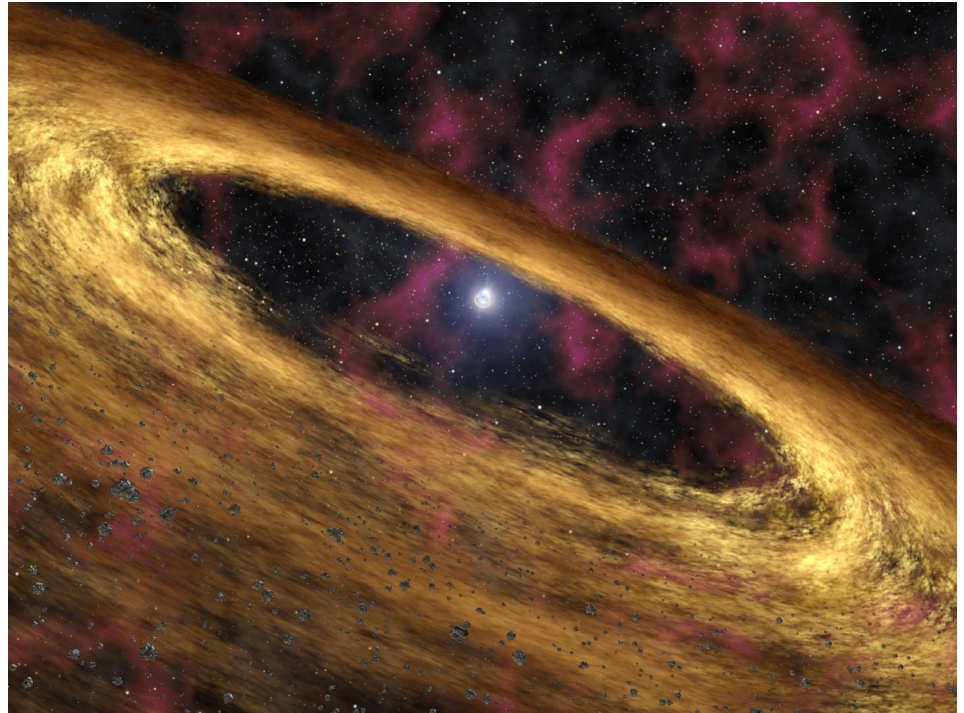
Interested? Don't be. Going there would be the last thing you ever do. The star is a pulsar, PSR 1257+12, the seething-hot core of a supernova that exploded millions of years ago. Its planets are bathed not in gentle, life-giving sunshine but instead a blistering torrent of X-rays and high-energy particles.

"It would be like trying to live next to Chernobyl," says Charles Beichman, a scientist at JPL and director of the Michelson Science Center at Caltech.

Our own Sun emits small amounts of pulsar-like X-rays and high energy particles, but the amount of such radiation coming from a pulsar is "orders of magnitude more," he says. Even for a planet orbiting as far out as the Earth, this radiation could blow away the planet's atmosphere, and even vaporize sand right off the planet's surface.

Astronomer Alex Wolszczan discovered planets around PSR 1257+12 in the 1990s using Puerto Rico's giant Arecibo radio telescope. At first, no one believed worlds could form around pulsars—it was too bizarre. Supernovas were supposed to destroy planets, not create them. Where did these worlds come from?

NASA's Spitzer Space Telescope may have found the solution. In 2005, a group of astronomers led by Deepto Chakrabarty of MIT pointed the infrared telescope toward pulsar 4U 0142+61. Data revealed a disk of gas and dust surrounding the central star,



probably wreckage from the supernova. It **Artist's concept of a pulsar and surrounding disk of rubble called a "fallback" disk, out of which new planets could form.**

was just the sort of disk that could coalesce to form planets!

As deadly as pulsar planets are, they might also be hauntingly beautiful. The vaporized matter rising from the planets' surfaces could be ionized by the incoming radiation, creating colorful auroras across the sky. And though the pulsar would only appear as a tiny dot in the sky (the pulsar itself is only 20-40 km across), it would be enshrouded in a hazy glow of light emitted by radiation particles as they curve in the pulsar's strong magnetic field.

Wasted beauty? Maybe. Beichman points

out the positive: "It's an awful place to try and form planets, but if you can do it there, you can do it anywhere."

Find more news and images from Spitzer at <http://www.spitzer.caltech.edu/>. In addition, The Space Place Web site features several games related to Spitzer and infrared astronomy, as well as a storybook about a girl who dreamed of finding another Earth. Go to <http://tiny.cc/lucy208>.

This article was provided by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.



Left: Eskimo Nebula (NGC2392) taken on March 6 through a C11 SCT utilizing a Meade DSI, 40 stacked 30s exposures processed through PhotoShop. **Right:** Orion Nebula (M42) taken on March 9 through an IOptron 80mm Refractor utilizing a Meade DSI, 10 stacked 42s exposures processed through PhotoShop, Registax, and a new program called Fisch ImageLab. Photos by Tom Thibault.

Skyscrapers 2010-11 Elections Ballot

Please fill out this ballot and bring it to the Skyscrapers' Annual Meeting on Friday, April 2, 2010, or mail it to the address below:

Skyscrapers, Inc. - Ballot
47 Peepoad Road
North Scituate, RI 02857

Mailed ballots must arrive at Skyscrapers by the April 2nd Annual Meeting. **Mailed ballots and ballots brought to the meeting must have the member's name on the outside of the envelope for membership verification.** All entries must be marked "Ballot" on the envelope. Verified ballots will be accepted and counted without identity.

PRESIDENT

- Tom Thibault
 Dolores Rinaldi
 (write-in)

1ST VICE PRESIDENT

- John Briggs
 (write-in)

2ND VICE PRESIDENT

- Steve Hubbard
 (write-in)

SECRETARY

- Jim Crawford
 (write-in)

TREASURER

- Lloyd Merrill
 (write-in)

MEMBERS AT LARGE (CHOOSE 2)

- Mercedes Rivero
 Gene Kusmierz
 (write-in)
 (write-in)

TRUSTEE

- Pat Landers
 (write-in)



47 PeepToad Road
North Scituate, Rhode Island 02857

Skyscrapers, Inc. Membership Renewal

NAME _____
ADDRESS _____

CITY _____
STATE _____ ZIP _____
PHONE _____
EMAIL _____

Membership Dues

| | Annual Dues (choose one category) |
|---|--------------------------------------|
| JUNIOR (13-17) <input type="checkbox"/> | \$10 |
| REGULAR <input type="checkbox"/> | \$40 |
| FAMILY <input type="checkbox"/> | \$50 |
| SENIOR (65+) <input type="checkbox"/> | \$10 |
| CONTRIBUTING <input type="checkbox"/> | |

(any amount in excess of annual dues is gratefully accepted as a donation) \$ _____

Magazine Subscriptions*

Members may optionally subscribe to the following publications at a significant discount from their regular subscription rates.

*Magazine subscription rates subject to change at any time.

ASTRONOMY \$34.00*
SKY & TELESCOPE \$32.95*
(\$10 savings)

TOTAL \$ _____

(Make check payable to Skyscrapers, Inc.)
Mail to: _____

Membership Secretary
Skyscrapers, Inc.
47 PeepToad Road
North Scituate, RI 02857