



The Skyscraper

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SKYSCRAPERS, INC · Amateur Astronomical Society Of Rhode Island · 47 Peepetoad Road North Scituate, RI 02857 · www.theSkyscrapers.org

December Meeting & Holiday Party with Dr. Kristine M. Larsen

Saturday, December 6 at North Scituate Community Center

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Dr. Larsen has been a faculty member at Central Connecticut State University since 1989, where she is currently Professor of Physics and Astronomy and Director of the university honors program. She is the author of two books, *Stephen Hawking: A Biography*, and *Cosmology 101*, as well as numerous articles and presentations. Although trained in theoretical physics, her research

has focused on astronomy education, the history of women in astronomy, and the use of scientific concepts by fantasy and science fiction writers such as J.R.R. Tolkien. Dr. Larsen is also dedicated to public outreach in astronomy, mainly through the Copernican Observatory and Planetarium at CCSU and her work with the Springfield Telescope Makers in Springfield, Vermont.

DIRECTIONS TO THE 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, in N. Scituate. Famous Pizza is on the corner of that intersection. Parking is across the street from the Community Center.

December 2008 Highlights

1	Moon, Venus, & Jupiter in conjunction, look West after sunset.
	5 First Quarter Moon
	12 Full Moon
13	Geminid meteor shower peaks
	19 Last Quarter Moon
21	Winter Solstice
	27 New Moon

December 2008

6 Saturday	7:00 pm	December Meeting & Holiday Party North Scituate Community Center
13 Saturday	7:00 pm	Public Observing Night Seagrave Memorial Observatory, weather permitting
17 Wednesday	7:00 pm	Executive Committee Meeting Seagrave Memorial Observatory, all members welcome
20 Saturday	7:00 pm	Public Observing Night Seagrave Memorial Observatory, weather permitting
27 Saturday	7:00 pm	Public Observing Night Seagrave Memorial Observatory, weather permitting

President's Message

Glenn Jackson

With the approach of winter upon us now, and fewer outside commitments, now is the time to get involved in your astronomy organization. Cold weather and clear dark skies have brought on a flourish of activities at Skyscrapers. There is no shortage of Star Parties that you can participate in both and Seagrave Memorial Observatory and several traveling star parties. For information contact Bob Forgiel bforgiel@cox.net. Jack Szelka is in the process of organizing two Dark Clear Sky Parties at Ninigret State Park. For more information about the Dark sky parties contact Jack Szelka ai1k@cox.net.

The Observatory committee is planning several training sessions on the scopes at Seagrave Memorial Observatory. If you would like to be trained to operate the scopes at Seagrave Memorial Observatory and become a key holder, contact Tracy Haley mtk99h@cox.net. If you prefer to contribute your efforts in an administrative position the Nominating Committee is putting together a slate of officers and volunteers for all of the positions in the organization. If you would like to be considered for any of these positions contact Joel Cohen papajoe49@verizon.net.

Considering that we are all Rhode Islanders and the real name of the game is food, if you would like to share your "Holiday Treat" with us at our December 6th monthly meeting at the Community Center contact Steve Hubbard cstahs@yahoo.com. The December

monthly meeting and Holiday Party is a great time to introduce a friend or family member to Skyscrapers. The scheduled speaker Dr. Kristine Larsen of Central Connecticut State College has a great presentation that is appropriate for all members of the public.

For those of you that are looking for a good read, check out the contents of our Astronomy Library at our web site <http://theskyscrapers.org> and then contact Tom Barbish and he will bring your selection to the next monthly meeting labtjb@verizon.net. Perhaps the best read is the Skyscrapers 75th Anniversary publication, copies are still available from Dave Huestis Dhuestis@aol.com.

If you have a thought, concern or an issue that you would like to bring to the attention of the Executive Board you are invited to attend the next E-Board meeting on December 17th at the Scituate Community Center, contact Glenn Jackson glenn.jackson6@verizon.net.

And last but not least if you would like to share the spot light by making a presentation to the membership on any of your outside astronomy interests at the "Members Presentation Night" at the January 2nd monthly meeting contact Steve Hubbard cstahs@yahoo.com.

To all members and friends of Skyscrapers I would like to wish you all the very best of this Holiday Season. May we all be blessed with good friends and clear skies.



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 by December 15 to Jim Hendrickson, 1 Sunflower Circle, North Providence, RI 02911 or email to jim@distantgalaxy.com.

Email subscriptions

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



Jupiter & Venus; 11/19/08 at 5:45PM with a Sony DSC-F707; 8 seconds at f/2. Photo by Tom Thibault.

Geminid Meteor Shower

Dave Huestis

On the night of December 13-14 stargazers would normally be preparing themselves for a cold night of observing the most consistent and reliable of all meteor showers, the Geminids. Unfortunately the bright Full Moon (on the 12th) will prevent all but the brightest of these shooting stars from being seen.

It's quite a shame the Moon will spoil

the view since one can usually begin observing right after sunset and perhaps see the peak of activity before midnight.

While the peak rate can approach 100 to 120 meteors per hour, you'll only be able to catch a few of the brighter meteors as they blaze through our atmosphere at 21.75-miles per second. More than likely you'll only see the exploding meteors called fireballs.

So check the sky out every half hour or so to see if you can spot a Geminid or two despite the interfering moonlight. You might get lucky and see one as it brilliantly disintegrates high above your

head. Just don't forget to duck if it seems to be coming directly at you!

Good luck with the December Geminids.

And finally, the Winter Solstice occurs at 7:04 am EST on December 21. Notice how far south the Sun arcs across the sky on this day.

Please note that Seagrave Observatory in North Scituate will be closed on Saturday, December 6. Also refer to our web site at <http://www.theskyscrapers.org> for snow/ice cancellations.

Happy holidays and clear skies to you all.

The Mystery of the Christmas Star

Dave Huestis

The last time I wrote about the mystery of the Christmas Star was three years ago. Where has the time gone? While no new astronomical revelations have been uncovered to account for the appearance of the Star of Bethlehem over 2,000 years ago, I think it is scientifically prudent to recount some of the natural events proposed for its origin.

Most people are familiar with the biblical account of the event, particularly of the Magi and their travels to the little town of Bethlehem led there by a brilliant star in the sky.

"Behold there came wise men from the east to Jerusalem, saying, Where is he that is born King of the Jews? For we have seen his star in the east, and come to worship him..." Matthew 2:1-2

Many folks "faith"-fully believe that divine intervention led the Magi to the manger in Jerusalem. But what was the Star of Bethlehem? Since the event occurred in the sky, astronomers are the best detectives to examine this mystery.

Some scholars have recently wondered if an actual "visual" event occurred at all. Perhaps the Magi, who were astrologers, "saw his star in the east" in astrological charts only. The supporting evidence for this theory is that no other contemporary observers reported any unusually bright object in the heavens.

However, it is this writer's belief that some astronomical event did occur in the sky, and the Magi interpreted its astrological significance.

Several ideas have been proposed over the years to identify the source for

the Star of Bethlehem's appearance. Due to historical references we can narrow our search to the years between 7 B.C. to 2 B.C. Some theories have consistently held up under careful scrutiny, while others have since been discarded.

For example, a very bright and exploding meteor, called a fireball, has been suggested. However, even large ones don't persist for days or months, and the Magi "followed" it for at least that long. A nova or supernova explosion of a star has also been proposed. It would be exceedingly bright, probably even visible during the daytime. Unfortunately for this theory, not even the astronomically observant Chinese recorded any such sky event during the years in question. The same applies to a variable star that periodically increases and decreases its brightness. These theories just don't meet all the criteria. However, there are three theories that do explain the star's appearance quite well, especially when taking into consideration the many astrological coincidences.

We must keep astrology in mind when examining the Christmas Star mystery. Why? The astrologically minded Magi charted the stars because they, as well as the populace, believed sky happenings had a direct effect upon humankind. These events, if read correctly, could inform them of what was happening or what could happen. It was like a cosmic news bulletin,

and they were waiting for the big story to break! That big story was foretold in a prophecy that the King of the Jews would be born in Bethlehem, and in Jewish tradition that a sign would appear two years before his birth.

The one theory that has been tossed around for many years was the Halley's Comet - Christmas Star connection. The one insurmountable problem with this explanation is that Halley appeared during 11 B.C., somewhat too early to be considered. Until a few years ago there were no other accounts of any bright comets during the time we're concerned with. However, ancient Chinese and Korean texts have



recently revealed a bright comet in 5 B.C. If this were the only possible explanation, I'd say this one would get my support. But two other explanations tie things together much more nicely.

Today we know the positions of stars and the orbits of the planets to a great degree of accuracy. With sophisticated software one can recreate the sky as it looked in the past from anywhere on the Earth's surface, or one can create what the sky will look like hundreds of years hence. This tool has been used in the search for the Christmas Star. In the past I have merely reported what other astronomers have discovered. A few years ago I recreated the skies of ancient Jerusalem on my home computer and have verified their findings. My observations and conclusions follow.

I started my inquiry by setting the sky clock back to 7 B.C., as well as selecting a very specific location, Jerusalem. During that year, the planets Jupiter and Saturn had three close encounters, called conjunctions. The closest, during December 7 B.C., occurred when the planets were two full moon diameters apart from each other. Unfortunately they did not appear as one bright object, as one must interpret the appearance of the Christmas Star.

Regardless, during March, 7 B.C., there was a heliacal rising of Jupiter and Saturn, meaning they rose about the same time the sun did. This event was astrologically significant. Then in September of the same year, the planets rose acronychal, that is, they rose in the east as the sun set in the west. Astrologically the heliacal rising was thought to signify birth, while the acronychal rising

was one of five principal positions the early astrologers, especially the Babylonians, highly regarded.

Later in 6 B.C., the planet Mars joined Jupiter and Saturn for a triple conjunction. Also significant was that this conjunction occurred in the constellation of Pisces (the sign of the Hebrews, and in the Jewish tradition the sign of Israel). Pisces, as well as Saturn, was the sign of the promised Messiah. Furthermore, the Jews considered Jupiter to be a royal symbol, and Saturn to be Israel's protector.

These coincidences are quite significant when you take into consideration the astrologer Magi who were waiting for a sign to appear among the stars. Despite Jupiter and Saturn not appearing as one bright object, the astrological coincidences seem to point to the year 7 or 6 B.C. for the appearance of the Christmas Star. However, a similar event has recently come to light that satisfies almost all the criteria, with one exception.

Beginning in 3 B.C. there were two conjunctions of Jupiter and Venus. What is more important, there were three conjunctions of Jupiter and the star Regulus in the constellation of Leo that same year. Jupiter and Regulus both meant "king," and Leo was a sign of the tribe of Judah. Later on in 2 B.C. the planet Jupiter moved into the constellation of Virgo, the virgin, and remained in the belly of this sky pattern for a while.

The very observant Magi would have interpreted this sign as the fulfillment of the prophecy ... the birth of the Jewish king. And since we know shepherds only tended to their flocks in night time during lambing in the spring, then the

events in the spring of 3 or 2 B.C. seem to be a reasonable choice for the explanation of the Christmas Star. The one flaw with this explanation concerns King Herod. While no exact date is known for the king's death, he is believed to have died prior to April 4 B.C.

Unless some new historical documents are uncovered, we may never know what transpired in the Middle East two thousand years ago. Whatever was observed in the sky in the distant past, I'm sure the dark skies of the day afforded both the Magi and the general populace a splendid view of the heavens. With the sophisticated software available today, you too can recreate the skies of history. I used The Sky, version 4, for my travels back in time a few years ago. Recently I revisited those ancient skies using TheSky6 software and verified my previous observations. At least the skies on my computer are always clear ones!

In conclusion, one may wonder why Christmas is celebrated on December 25th. When the Christians were under the heel of the Roman Empire, their religion was declared illegal. They had to worship in private. During this time though, the Romans celebrated the winter solstice with a week-long festival, Saturnalia, centered on December 25. The Christians decided to hold their religious observance at the same time to escape persecution. The 25th of December was chosen, and in 313 A.D. when Emperor Constantine accepted Christianity for himself and his kingdom, he retained that date for the celebration of Christmas.

Happy Holidays to you all and keep your eyes to the skies!



During June 1976, Skyscrapers hosted the Northeast Region Astronomical League (NERAL) Convention at Bryant College, with field trips to Seagrave and Ladd Observatories. The images were supplied by long-time member Steve Hubbard. Can you identify these three individuals who attended this convention? Send me an email with your conclusions or see me at the December Holiday Meeting.

What Happened to Comet Holmes?

by Dr. Tony Phillips

One year after Comet 17P/Holmes shocked onlookers by exploding in the night sky, researchers are beginning to understand what happened.

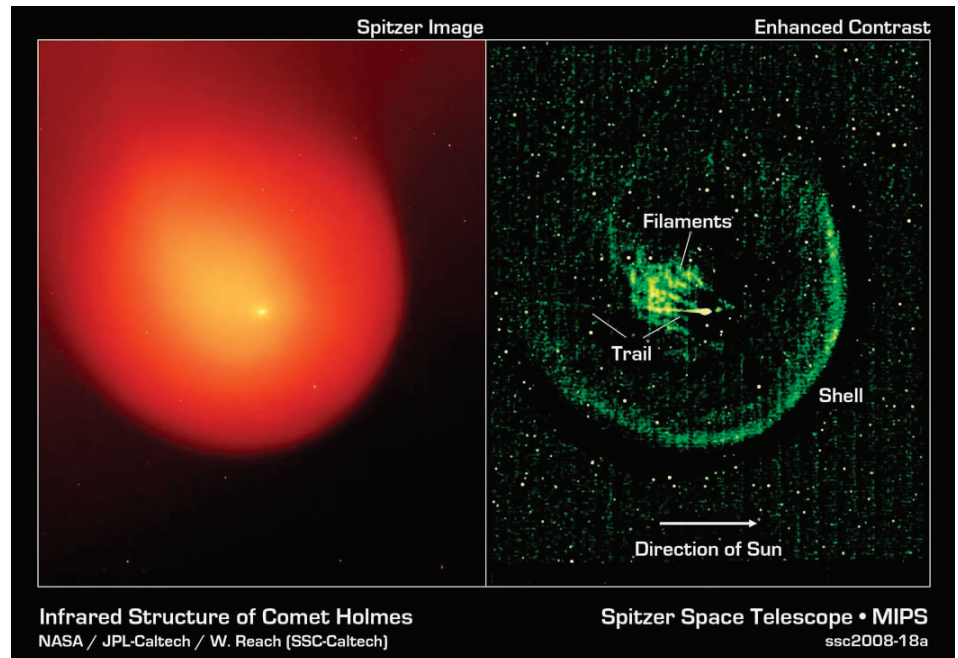
"We believe that a cavern full of ice, located as much as 100 meters beneath the crust of the comet's nucleus, underwent a change of phase," says Bill Reach of NASA's Spitzer Science Center at the California Institute of Technology. "Amorphous ice turned into crystalline ice" and, in the transition, released enough heat to cause Holmes to blow its top.

Anyone watching the sky in October 2007 will remember how the comet brightened a million-fold to naked-eye visibility. It looked more like a planet than a comet—strangely spherical and utterly lacking a tail. By November 2007, the expanding dust cloud was larger than Jupiter itself, and people were noticing it from brightly-lit cities.

Knowing that infrared telescopes are particularly sensitive to the warm glow of comet dust, Reach and colleague Jeremie Vaubaillon, also of Caltech, applied for observing time on the Spitzer Space Telescope—and they got it. "We used Spitzer to observe Comet Holmes in November and again in February and March 2008," says Reach.

The infrared glow of the expanding dust cloud told the investigators how much mass was involved and how fast the material was moving. "The energy of the blast was about 1014 joules and the total mass was of order 1010 kg." In other words, Holmes exploded like 24 kilotons of TNT and ejected 10 million metric tons of dust and gas into space.

These astonishing numbers are best explained by a subterranean cavern of phase-changing ice, Reach believes.



Comet Holmes as imaged by the multiband imaging photometer (MIPS) on the Spitzer Space Telescope. The enhanced contrast image at the right shows the comet's outer shell and mysterious filaments of dust.

"The mass and energy are in the right ballpark," he says, and it also explains why Comet Holmes is a "repeat exploder."

Another explosion was observed in 1892. It was a lesser blast than the 2007 event, but enough to attract the attention of American astronomer Edwin Holmes, who discovered the comet when it suddenly brightened. Two explosions (1892, 2007) would require two caverns. That's no problem because comets are notoriously porous and lumpy. In fact, there are probably more than two caverns, which would mean Comet Holmes is poised to explode again. When? "The astronomer who can answer that question will be famous!" laughs Vaubaillon.

"No one knows what triggered the phase change," says Reach. He speculates that maybe a comet-quake sent

seismic waves echoing through the comet's caverns, compressing the ice and changing its form. Or a meteoroid might have penetrated the comet's crust and set events in motion that way. "It's still a mystery." But not as much as it used to be.

See more Spitzer images of comets and other heavenly objects at www.spitzer.caltech.edu. Kids and grownups can challenge their spatial reasoning powers by solving Spitzer infrared "Slider" puzzles at <http://spaceplace.nasa.gov/en/kids/spitzer/slider>.

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

Reflections on Three Decades of Variable Star Observing

by Gerald P. Dyck

Sometimes I feel that my thirty years of variable star observing have been about as variable as the variable stars themselves. Next month I will send in my 300th consecutive monthly report to the AAVSO. Today I look back at highlights, lowlights, trends and changes in my astronomical endeavors.



I MADE MY FIRST VARIABLE STAR ESTIMATE in the summer of 1978. It was under the tutelage of Greg Stone of Westport, Massachusetts. He had set up his 6-inch Criterion reflector behind his house on the banks of the Westport River. After some splendid planetary views he asked me if I had every seen a variable star. His response to my negative reply was to show me ZUMa. He showed me the chart, explained the process, then said we should make independent estimates before comparing results. I was quite pleased that my 9.2 matched his 9.2 exactly. This prompted me to make inquiries at the AAVSO and acquire a beginner's packet. Two of my vivid recollections of that visit to 187 Concord were seeing Katherine Hazen sitting at a desk opening the mail and checking scores of hand-written observation reports. At another desk sat Marguerite plotting light curves with pencil and ruler. Indeed, times have changed.

The years from 1978 to 1982 were spent in learning the technique of estimating variables and slowly expanding the number of stars I could find. I began with Miras like S and T Gem, U CMi and U Her which I monitored with my newly-built 10-inch reflector. My cautious one-page hand-written reports landed on Katherine's desk.

1983 was a momentous year for me. It was then I built my 17.5-inch Dobsonian using optics I had gotten in trade for a ready-to-use 8-inch Criterion and a 90mm Celestron refractor. One summer later my Stellafane-awarded "monsterscope" was happily housed in a new Merry-Go-Round Observatory and I felt ready for more ambitious endeavors. I recall standing in the observatory one August evening in 1984 and saying to myself that this splendid facility was worthy of some focus greater than casual recreational astronomy. That focus became the passion for observing cataclysmic variables, the first of which (U Gem) I had seen in outburst the previous winter.

From 1984 to 1992 were my most active observing years when my energy and enthusiasm seemed boundless. I observed on every clear night. I got up for frequent pre-dawn sessions. I cursed the clouds. I cursed the moon. I got the blues when some non-astronomical event required my attention on a clear night. My list of targets expanded to

about 100 stars, about 75 of which I could keep up with pm/am sessions. Another impetus came in 1986 when I got my first computer and taught myself enough Basic to write a customized program for entering, sorting, graphing and reporting my data. For a dozen years I mailed in my monthly computer-printed reports which had to be re-entered into the computer at HQ. The longest of these contained 1350 observations made during a fabulous February which brought 26 consecutive clear nights. Of course, I was proud of my output, but I was always second or third in the yearly totals. I joked with Helga that because of Danny I would always be an Underbeek. And so I have been. One number that I am very proud of is 16 - the greatest number of CV outbursts detected in a single night.



The years from 1992 to the present have been marked by a slow but steady decline in my observing output. I attribute this in part to my decreasing energy with advancing age, but largely to the discouragement caused by the loss of dark skies in our small town. I recall seeing 15.6 stars a decade ago - now I strain to see 14.0 on the best of nights. I recall standing in awe of the majesty of the night - now I look up with disgust and tears for the glory that has passed from my sight. What Helga and I could once enjoy in our own backyard we must now travel to New Hampshire or New Mexico to see.

There have been milestones, of course, which I cherish: composing a musical suite for the 75th Anniversary of the AAVSO and later seeing it published, making my 100,000th

estimate while on Mt. Wilson, being chosen by Director Janet Mattei to give a talk on visual observing at the Toronto meeting, pausing for a moment of silence before I made my 132,124th estimate, cooperating in many terrestrial and space-based observing campaigns, taking my telescope to many dark and wonderful astronomy places, and receiving my certificate last December for 150,000 observations. And perhaps it was a minor highlight for the HQ staff when in the year 1994 I tweaked my Basic program to format my observations for immediate electronic entry in the AAVSO database.

It is sad but true to say that since 2004 I have been known to look forward to a cloudy night when I can avoid the sorrowful effort of looking for my old celestial friends through the polluted

murk of southeastern Massachusetts skies. This sorrow has been recently heightened by the loss of my dear devoted observing companion. For twelve years Smudgie would jump up and rush to the back door at the sound of my words "let's go get some Vs." He had his own cushion near the telescope where he would faithfully keep watch with me. When his eyesight and general strength failed I carried him out for his last few sessions. Now he is buried just behind the observatory. I wish that his name were included on award certificates. It is with a heavy heart that I press on, but I intend to contribute to the AAVSO database for as long as I am able. Oh yes, one more number fills me with awe. It is the number 512 - the number of consecutive months that Leslie Peltier sent in his data reports.



Heaven's View Observatory

Tom Thibault

Well, I spent my first year and a half with my new scope setting it up on clear nights either in my backyard or drive-way depending on the season. All of the summer and a portion of the spring and autumn were spent in the backyard and the rest was in the driveway. The set up and breakdown time normally took 15 to 20 minutes each even with most of my gear stored in the garage. The rest of the gear was in the house which really pleased my wife Lisa. On numerous occasions the time spent setting up was all for naught due to the clouds rolling in. The summer wasn't bad other than the dew from the grass and mosquitoes, but the winter months brought their own issues with the cold especially with a wind and slippery conditions on the snow-covered pavement. This is when I decided that a roll-off roof observatory was needed to improve the quality and increase the quantity of my time observing.

I began my quest to build the observatory by surfing the web for ideas, designs, and testimonies from those who have completed their own. I also took advantage of being a member of Skyscrapers during our meetings and sky parties, by scrutinizing the two roll-offs at the society's property. All this research under my belt, I was ready to begin, but I still had many questionable details that I would need to decide on during the actual construction.

I started by deciding on the size, my concept was for a 6x8, it increased to a 8x8, but I finally landed on a 8x12. My decision was based on web feedback and looking at Skyscrapers' layouts. It made sense to build it larger, at a minimal increase of cost to have a comfortable space that would allow growth in both size of telescope and direction in which my interest may go. I spent quite a few days in the backyard determining the location that I would construct the observatory. The location

I decided on was based on nights viewing I had done in the backyard, which identified light sources from neighbors and street lights. It also became clear I would need to remove two 40' high pine trees to provide a clear view to the south. Once the two pines were removed it was time to begin, this was June of this year.

I purchased the majority of the material at Lowes with a 35% discount from a friend that worked there during a grand opening, nice savings. I decided to build it on cinder blocks footings with a 6x6 Pressure-treated pier cemented independently 4' deep into the ground. The pressure-treated pier would allow for it to be cut to the proper height at a later date. The cinder blocks avoided the need for building permits and taxes, it also allowed for the easy relocation possibly in the future. I positioned the pier off center; it is 4' from one end providing 8' on the other. I did this to provide space



Opposite: Roof shingled, siding completed, and door added and wood trim painted. Above: Interior and exterior view looking to the Southwest. Right, top to bottom: Celestron C8-SGT mounted and ready for 1st light in Heaven's View; The walls being sheathed and roof support trestles added; The hip roof structure completed and in its position; The V-groove castors secured to roof structure and positioned on top of 1-1/2x1-1/2 angle iron track. Photos by Tom Thibault.



for a desk and allow for an overhang of the roof above the desk. This also positioned the pier out of the path of the entrance door to allow easy and open access. The actual construction started on July 5th, I ran an underground electrical line from the house to the pier. We laid a plastic sheet on the ground and covered it with stone to eliminate moisture. We utilized Pressure-treated lumber for the floor framing and decking, I say we, because my son Adam helped me with most of this project as well as a number of his friends on various portions throughout. We framed the walls, which included two openings for basement windows to provide light and ventilation during the day. We sheathed the walls and it was now time to decide on the roof structure and rolling system for the roof.

I decided on a hip roof design to maximize sky visibility to the west, the direction the roof would roll off. My original thought was to use a garage door track system for the roof, but was concerned that the roof structure would be too much for the tracks and rollers to handle. I still hadn't decided on the roofing material, but was leaning towards a corrugated material to limit the weight. The decision was made for me when I was offered shingles for free. This in turn made my decision

to abandon the garage door track system; instead I went with angle iron and castors with V-grooved wheels. I purchased the 40' of angle from a company in Lincoln and the 6 castors from Grainger. This decision also finalized the design of the roof structure.

We built the roof on top of the wall framing to ensure the alignment to the walls. Once completed, we jacked up the roof utilizing car jacks with posts to the roof ridge. We attached the angle iron to the top of the wall framing and the roof support trestles. Then the castors were attached to the bottom of the roof framing. Once complete, we lowered the roof so the castors contacted the angle, a roll test verified all worked well. We then ran the internal electrical which includes a duplex on the pier and one for each of the four walls. A light was added on both the interior and exterior at the side of the door opening. It was now time to apply all the finishes.

Lisa wanted the observatory not to look out of place with our house and neighborhood. We vinyl sided it white to match the house and constructed the door with T-111 and pine to resemble a barn door and painted it red in that vain. I lined the interior walls with peg board which I received also at no cost. I felt this would finish it off



and would also help in not retaining heat build up. I also installed a good size roof vent with the same intention. Final touches included the addition of stairs and the red paint on the door and

window trim. The addition of some furnishing, such as a 2x5 table, chairs, seven-drawer file cabinet, shelves, and radio brought it all together. I added a table lamp to compliment the wall-mounted red light on the interior and exterior. We completed the project on Labor Day weekend by installing the steel mounting bracket I designed and a friend built. Since then I have used the H.V.O. every chance I get.

The following are my thoughts after 3 months of utilizing the Heaven's View Observatory:

The benefits of having a Roll-off Roof observatory are numerous; it

has provided me with many nights of enjoyment. I no longer have to debate whether I should take the time to set up, only to be disappointed and have to spend the time breaking down my equipment due to the weather going sour. It houses all my equipment and books to Lisa's delight and puts them all within arms reach when needed. I no longer have to battle the dew for half the year and the cold winds for the other half. It shields me from neighborhood lights and has even blocked the moonlight on occasions simply by adjusting the roof position. The shingles on the roof added quite a bit of weight

but the heavy duty castors and angle iron track made it very manageable. We'll have to wait till next summer to see if the shingle roof will be a heat problem, but I don't expect it to be, it's well ventilated and should be fine. Besides the shingles being free, I felt more confident they would hold up better with the New England weather and weight of the winter snows. The time and cost to complete the H.V.O. was well worth it and I look forward to many nights viewing the heavens in comfort. Written by Tom Thibault



Woman's Wilderness Weekend, Friday, October 17th at URI Alton Jones Campus. We had a total of around 45 women attend. There were some clouds but the departed just before the event started. Thin high clouds moved back in around 9:00 and the moon was not yet high enough above the trees. The group of women left but returned by 10:00 when the moon was just over the tree line. Photos by John Kocur.

November Meeting Notes

Friday, November 7, 2008; Seagrave Memorial Observatory

Glenn Jackson

The meeting was called to order by President Glenn Jackson @ 9:00 PM

The Secretary's report of September's meeting as published in the November issue of Skyscraper was accepted and approved by the membership.

The Treasurer's report as published in the November issue of Skyscraper was accepted and approved by the membership.

1st Vice President Steve Hubbard presented the scheduled speakers as follows: December 6th Dr. Kristine Larsen "Eccentrics, Old Maids, and Just Plain Maids: The Pioneering Women Spectroscopists of Harvard" • January 2nd "Members Presentations" • February 6th Dr. Padma Venkatraman "Caroline Herschel" • March 6th Jim Zebrowski "NASA Ambassador" • April 3rd Dr. Sara Seager "Exo-planets Atmosphere"

2nd Vice President Kathy Siok reported that the October 2008 AstroAssembly was a great success and enjoyed by all. The net profit was \$1,769.92. In addition she noted that more than 50% of the attendees were members of Skyscrapers.

Historian Dave Huestis reported that all but 3 of the "Second Printing" editions of the Skyscraper 75th Anniversary Book have been sold. If you would like a copy contact Dave as soon as possible.

Librarian Tom Barbish reported that there would be no late fees charged for over due books. If you would like a book for winter reading contact him and he will bring it to the next monthly meeting.

Star Party Coordinator Bob Forgiel listed the scheduled star parties as



follows: December 4th Scouts December 5th Scouts • January 8th Scouts in Thompson CT • January 15th Thompson Rain Date • January 23rd Women's Wilderness Weekend

Trustee's Report: Bob Napier reported that the 16" Meade is under repair and needs a new motor that can be ordered from

Pittman's. Bob recommended that we order 2 motors for \$905.48 • Tracy Haley announced an Observatory Committee meeting to be held November 19th at Seagrave Observatory. All key holders should attend.

Nominating Committee. Joel Cohen, Jack Szelka, and Jim Hendrickson are requesting that anyone interested in running for an office in the skyscraper administration contact them as soon as possible.

New Business: New Member were introduced: Constance Silva • John and Mary Deluca • Marie Deluca

Bob Napier made a motion to purchase 2 motors for the 16" Meade from the Pittman Corporation for \$905.48

Old Business: There was no old business to discuss.

Good of the Organization: All monthly meeting and E-Board meetings will be held at the Scituate Community Center Starting December 6th, • E-Board Meeting December 17th all members are invited, Agenda: Nominations, Purge Membership List, • Meeting cancellations via Channel 10 and E-mail

Motion to Adjourn was approved by all members at 9:47 PM

Minutes submitted by Glenn Jackson

E-board Meeting

October 29, 2008, Nichole Mechnig
Glenn Jackson called the meeting to order at 7:04pm local time

AstroAssembly • Community Center Excellent location • Bathrooms at the observatory during the day needs to be look at (cleaning up a little) • Food choices were very good and members were able to get seconds on almost everything

16" Meade Repairs and Costs • Brown was going to order the same motors but changed their minds help with shipping costs and discounts on ordering motors together • New motor from manufacture • With in-coders 2 x \$432.00 (motor and in-coder) • Plus on-time set up fee of \$100.00 or \$150.00 • Order 2 motors since same is for inclination and declination • 5-6 weeks for delivery • This will be brought up at the December members meeting

December 6th Saturday members meeting • Community Center • Bring a special dish • No Donations • Normal Meeting

Elections and Nominating Committee • Please see Glenn Jackson for insight

Star Party volunteers • Why are members not signing up ahead? • Have almost had to cancel because of no membership sign ups

Trustee's term of office • This was brought up by Tracey Haley • 3 years seems to long even with the rotation of the senior trustee

Review of the Constitution and By-laws for the next incoming President will be made by Glenn Jackson

Meeting in January 9th due to the holidays maybe possible Glenn Jackson will find out if Community Center will be available

Motion was made for meeting to be adjourned by Tracey Haley
8:18pm local time

Directions to Seagrave Memorial 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