

#### Seagrave Memorial Observatory is open to the public

weather permitting



Saturdays 8:00pm - 10:00pm See www.theSkyscrapers.org for updates.

Work Session Scheduled to get the buildings and grounds ready for AstroAssembly

Saturday, September 26th starting at noon. We need your help!

Please contact the Trustees for more information.

#### October 2009

- 4 Full Moon
  5 Mercury at greatest Western elongation (18°)
   8 Mercury 0.3° S of Saturn
   9 LCROSS Lunar Impact http://lcross.arc.nasa.gov/
   11 Last Quarter Moon
   13 Venus 0.6°S of Saturn
   18 New Moon
  - 25 First Quarter Moon

# **AstroAssembly 2009**

Friday, October 2nd & Saturday, October 3rd at Seagrave Memorial Observatory Saturday Evening Program at North Scituate Community Center

A Skyscrapers tradition since 1952, AstroAssembly is our biggest and most anticipated event of the year. Friday night features refreshments and short talks by members. All day Saturday we have talks from members and guest speakers from local universities, socializing with fellow members and visiting members from local astronomical societies, on-site vendors, swap tables, raffle, and door prizes. The keynote program follows the catered buffet dinner at the North Scituate Community Center and this year features Ronald Florence, author of "The Perfect Machine, Building the Palomar Telescope."

### **Special Meeting**

to be held at AstroAssembly, Friday, October 2nd at 7pm

We normally forgo having a monthly meeting during the month of October due to AstroAssembly, but this year we have some important business to be voted on. The Executive Board decided to schedule a brief business meeting that will last no more than 30 minutes.

At our September Monthly Meeting, the Trustees reported that the roof of the meeting hall is leaking. Due to the age of this roof, it was decided that it should be replaced. Several contractors supplied us with estimates for this work. A motion was made to spend up to \$4,000 to have the old shingles removed and a new roof installed. We need to vote on this motion October Presentations include:

#### Al Hall

*The Restoration Of The Alvan Clark Weight Drive* 

#### **Thomas Levenson**

*The (Criminal) Education of Isaac Newton.* 

#### **Mike Mattei**

*Strange Cloud Formations on the Terminator of Venus.* 

#### **William Sheehan**

A centennial observed: E. M. Antoniadi and Mars.

#### **Ronald Florence**

*The Perfect Machine, Building the Palomar Telescope.* 

2nd so that this project can finished before it gets too cold.

Another motion was also made at the September meeting to sell the 11 <sup>1</sup>/<sub>4</sub>" Maksutov telescope recently donated by Allen Shepperton. It is hoped that proceeds from this sale will help pay for some of the expense of replacing our roof. We will vote on this motion this month as well.

We also have some new people to introduce and vote into membership.

So for this meeting, under Old Business, we will vote on the motions that were made last month. We will then ask if there is any New Business. There will be no committee reports or any other items discussed.

### **President's Message**

**Bob Horton** 

Over 35 years ago, our Alvan Clark's original weight driven drive had been removed, and subsequently, some of its parts lost - seemingly forever. I joined Skyscrapers at age 13, soon after that unfortunate series of events, and never had the opportunity to see it in operation. In these past three plus decades, several electrical variants for the drive have been used, but none of them worked all that well. However, the Alvan Clark telescope, with it's fine optics, delivered exquisite views. Many of us have enjoyed looking through it on countless nights.

Al Hall, one of our long time members, has spent the last six years designing and fabricating all of the missing parts of the original weight driven drive. We had a dedication ceremony for the new drive back in July, and some of you may have seen it in operation at that time.

Al had contacted me recently, wanting to meet up at the observatory so that he could make the final adjustments to the drive system. Once everything was fined tuned, the weights that hang from chains on the drive were then cranked up to their starting p osition. Then, a brake was released that started the flyball governor spinning, allowing the

### Spectroscopy Workshop

Friday, October 16 Seagrave Observatory All Members Welcome Contact Bob Horton for more information.

## CCD Imaging Workshops

will resume on Saturdays beginning October 24th at Seagrave Observatory stargazerbob@aol.com telescope to track.

Our first views of the evening were of Jupiter and its moons. I had a wonderful time observing through the 8<sup>1</sup>/4" Alvan Clark refractor. There has always been something magical about using this fine old telescope, but now with the drive system refurbished, it was like stepping back in time to the 19th century.

The drive was working so well we were able to use up to 380 power! In the past, when the drive wasn't working properly, we really couldn't use such magnification without having to constantly nudge the telescope to keep the image centered. Now with the telescope tracking perfectly, and with good seeing conditions, we were really enjoying a view that only the finest optics can deliver.

Later that evening, quite a few visitors from the public had arrived, many of them visiting our observatory for the first time. As much as they were thrilled with the view through the telescope, they were completely fascinated by seeing the flyball governor spinning and watching us periodically crank up the weights that power the drive system. I think we spent more time answering questions about the drive than we did concerning what we were viewing!

On behalf of Skyscrapers, I would like to again take this opportunity to thank Al Hall for all of the time, talent and effort he put into reconstructing the original weight driven drive for our Alvan Clark refractor. If you have not used this telescope recently, please come by soon during one of our open nights to experience it for yourself.

You can also learn more about the project to restore the weight drive at this year's AstroAssembly - Al Hall will be one our Friday night speakers. And if the skies cooperate, we will be using the telescope afterwards.

AstroAssembly will be held on October 2nd and 3rd. Steve Hubbard has done a great job putting together this year's program. You can read more about it elsewhere in this newsletter. I hope to see you there.



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 October 20** 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.

## **October Meteor Showers**

Dave Huestis

Once again most of us southern New Englanders were clouded out for the Perseid meteor shower back in August. Scattered clouds blocked more than three-quarters of the sky when I started my observing run around 11:45 pm on the 12th. Though I did observe a couple of Perseid meteors through small fortuitous breaks in the cloud cover, those windows to the heavens finally succumbed to a much more opaque overcast. Observers further to the east, perhaps out on the Cape, were able to squeeze out a few more hours for their observations. Sadly for us, reports from clear sky locations revealed the Perseids performed well during the shower's peak activity.

Mother Nature has been unkind to us during many astronomical events over the years. But fortunately meteor showers are common enough that we get many opportunities to view them. And one of those better opportunities is scheduled to occur during mid-October.

But before we jump ahead, a minor meteor shower called the Draconids will peak some time between October 8 and 9. Unfortunately a waning gibbous Moon will rise early in the evening and will overshadow all but the brightest meteors of this display of shooting stars.

Concentrate your gaze towards the northern sky, and you'll notice that the meteors will appear to radiate from the constellation Draco. Locate the Big Dipper (Ursa Major), and you'll be looking in the right direction. And by all means, attempt to block the light of the Moon from your field of view. This action will allow you to see more of the fainter members of this shower. As it is, the Draconids are expected to produce no more that ten slow moving (12.5 miles per second) shooting stars per hour.

The more reliable and productive meteor shower of October is the Orionids. These remnants of Halley's Comet intercept the Earth's orbit nearly head-on at 41.6 miles per second, so they are very fast as they blaze across the sky. These meteors appear to radiate from a point in the sky beneath the feet of Gemini (the Twins) and above the head of Orion the mighty Hunter (Not far from the red super giant star Betelgeuse which marks Orion's right shoulder – remember, Orion is facing you!)

The Orionids are best observed between midnight and dawn on the 21st when Orion will be at his highest point in the sky. (For reference, at approximately 3:30 am Orion will be due south of your location and about halfway up off the southern horizon.) And this year the Moon will not pose any problems, since it sets early in the evening on the 20th. All you have to do is get comfortable at an observing site well away from any light pollution source that would reduce your meteor count.

Since the Moon is not a limiting factor this year, an observer in a dark sky can expect about 30 yellow and green meteors per hour during peak. The Orionids are also noted for producing fireballs that create persistent dust trains high in the atmosphere.

Let's hope the weather cooperates for the Orionids. If it doesn't, observing prospects are still favorable for the last two major meteor showers of the year, the Leonids of November and the Geminids of December.

While telescopes are not used for meteor observing, they do provide some wonderful views of the heavens. Seagrave Memorial Observatory (http:// www.theskyscrapers.org) on Peeptoad Road in North Scituate is open every clear Saturday night for public observing. Ladd Observatory (http:// www.brown.edu/Departments/ Physics/Ladd/) on the corner of Hope Street and Doyle Avenue in Providence is open for public viewing every clear Tuesday night. Check out their websites for the open night schedules. There is no admission fee to these facilities on those evenings. Staff and volunteers will be happy to share their love of astronomy with you.

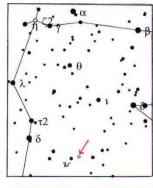
As always, keep your eyes to the skies.

## NGC 7293: the "Helix Nebula"

NGC 7293, the Helix Nebula, is the nearest planetary nebula (distance ~ 450 LY) and largest in apparent size (12 by 16 arcminutes). Moreover, it's a 7th magnitude object. An easy telescopic target? Hardly! The magnitudes listed for deep-sky objects are often misleading, and the Helix Nebula is a prime example. Were you to defocus a 7th magnitude star until the image covers half a moon diameter, you'd have an idea of the visual appearance of the Helix. In Visual Astronomy of the Deep Sky, author Roger N. Clark notes that its average surface brightness is 20.8 magnitudes per square arcsecond.

Despite its faintness, the Helix Nebula can be readily observed. On a clear, moonless night in dark-sky areas, it may be glimpsed with binoculars. In fact some keen-eyed observers in extremely remote locations have spotted the Helix with the unaided eye! The key to viewing the Helix by telescope is to use a telescope/eyepiece combination that can produce a field about one-half to a full degree across. Because of its southerly location, you'll want to select a viewing site with an open southern horizon, free of any sky glow.

I first saw the Helix on July 31, 1981 from the clear skies of Stellafane. Through my 3inch f/10 reflector at 30X, it appeared as a "large, tenuous glow." Stellafane regular Peter Kandefer peeked into the eyepiece and confirmed my sighting. More recently, I had no trouble spotting the Helix with a 4-inch f/8 reflector. The key in both instances was to know exactly where to look. The accompanying finder chart pinpoints the Helix Nebula's location in the



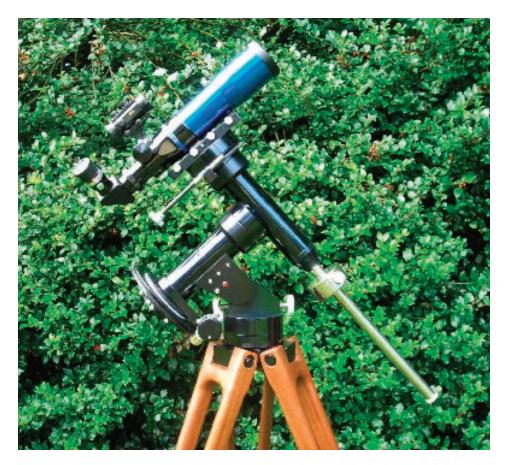
Finder chart for NGC 7293 (the "Helix" Nebula) From Cartes du Ciel

southern part of Aquarius about 1½ degrees west of the 5th magnitude star upsilon Aquarii.

The Helix Nebula offers three challenges: 1. Capture it with binoculars or small telescope; 2. Discern its annular form with medium to largesized telescopes; 3. Spot its 13th magnitude central star.

Are you up to the challenge? On the next clear, moonless autumn night, try your luck with NGC 7293, the Helix Nebula.

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







### **Building an Equatorial Mount** lim Brenek

This article will end up on the subject of a German equatorial telescope mount after I give you a little background.

It seems to the best of my memory that it started when I was 9 or 10 years and saw a go-cart for the first time. Naturally as a kid I had to have one, so I told my father and he said let's build it! So this could let's say be the beginning of it.

Since the sixties there have been numerous internal combustion projects, some good some not so good, but good or bad you retain the knowledge, experience, and hopefully the patience for the rest of your life.

When I joined Skyscrapers I found out I had a long way to go to be patient. I found myself looking for stuff that I could not see! How do you find stuff if you cannot see it? Being a member now for four years my fine friends of Seagrave have taught me a whole lot.

I have seen a lot of fine instruments produced by our members and thought I might want to try my hand at a couple of projects. I had already built a tripod for my 35mm camera, then a half dozen

or so telescope piers, then there was the bino mount.

The next project proved to need a little more accuracy, it was my black walnut tripod and its altazimuth mount which contained some close tolerances. I have been thinking about a GEM for a while, but there was much I did not know or understand – more patience.

If I remember correctly it was at the Womens' Wilderness Weekend earlier this year that club member Jack Szelka said why don't you just build a GEM? Not long after that I was buying materials and getting started. I did not have any plans to go by, nothing telling me what size to make anything, but I said I don't think that should hold me back. I went on the Stellafane web site an copied a picture of Al Hall's and Dick Parker's mounts and said I will build something that resembles them but just smaller. Let me say there were many more trips back to that website for the mounds of information it provides.

Being smaller I had some aluminum tubing that measures 2.5 inches in diameter, that was to be the holders

for my bearings and my 2 main shafts. Quite a bit of the measurements after that are all relative to those two sizes something will look wrong if the sizes are not relative.

My main reason for doing this project was to have a mount that tracks and does not have to be manually moved to follow an object. I knew if it was accurate I would possibly be able to do some time exposures with it. After talking to Bob Horton about tracking he suggested a Byers Drive unit would fit my needs. I advertised on Astromart for one and couple of weeks later it was in my possession, but unfortunately it was geared wrong. With a few e-mails to Al Hall he had the unit tracking very well with a change to the gearing ratio.

I do believe if you come AstroAssembly I will have it there. What did I get out of building this? I now have more patience than when I started. What else did I learn? Probably nothing because I still look for stuff that I cannot see!

## **Observing Report**

Dave Huestis

Skyscrapers Observing Report: September 9, 2009

Many folks of the general public do not know that the ISS and/or the Space Shuttle can be viewed with ease right here in Rhode Island. In fact, most folks don't even know that there is a crew in orbit aboard the ISS 24/7.

It's always great to venture outdoors on a clear evening (or early morning) to watch a favorable pass of the ISS over southern New England. It has gotten so large that some passes overhead make it even brighter than Jupiter!

It's even brighter when the shuttle is docked to it.

It is also fascinating to watch at specific times when the shuttle either docks or undocks with ISS. If you are in the right place at the right time you can see the two craft very close together.

On Wednesday night, September 9 at approx 8:08 pm, Discovery made a favorable pass overhead, at approximately 65 degrees altitude in the NNW at a magnitude of -1.1. Thirty or forty degrees behind it was the ISS, much brighter at -2.9 magnitude.

As I gazed at Discovery with the naked-eye, I suddenly saw what looked like an "explosion" emanate like a burst centered on the craft. Time was approximately 8:08 pm EDT. It only lasted a second, but it did move with the Shuttle. It didn't repeat as I lost the Shuttle along my tree line. The one night I didn't bring out my binoculars.

I came in and told Tina what I saw. I figured it was the crew firing some of the thrusters to begin to move further away from the ISS and prepare to deorbit. It was real cool. In all the times I have gone out to observe a pass of the Shuttle I have never seen anything like this, except when the shuttle launches and comes up the coast with the external tank/thrusters still firing.

I checked out a couple of STS-128 timeline status reports and did find that Discovery did have to make a maneuver to avoid some space debris, but I can't link that report to what I saw by looking at any of the STS-128 timeline status reports (which show specific activity down to the minute.) While I do believe I saw Discovery firing its engines/thrusters, I do not believe at this time it was related to the debris avoidance maneuver.

Still, it was an interesting event to witness. It reminded me of the old graphics in early computer games. To simulate an object exploding they simply created a series of concentric dots emanating from the center of the image and dispersing. Pretty crude by today's standards.

I for one never tire of observing ISS or the shuttle missions when they "fly" within view of us earthbound observers. Perhaps this report will encourage some of you to do likewise.

You can find the dates and times of favorable ISS/Shuttle passes (among other interesting events) by going to http://www.heavens-above.com/. Simply follow the directions and you will soon be "hooked" as well.

#### **Mystery solved**

A few days after my observation of a mysterious "cloud" emanating from the space shuttle Discovery, I noticed a news note on AOL that explained the observation. Shuttle astronaut Kevin Ford executed a 150 pound urine dump right over Rhode Island in preparation for landing. Skyscrapers members Dan Lorraine and Steven Hubbard had also seen the explanation and passed it along. Thanks guys!

See the following link for the full story:

http://news.aol.com/article/ glow-in-night-sky-was-astronauturine/667880

#### Artificial Noctilucent Clouds Observed

On Saturday, September 19, several Skyscrapers members reported sighting the 4th stage of a NASA Black Brant XII Sounding Rocket used for Charged Aerosol Release Experiment launched from Wallopa Flight Facility in Virginia.

http://www.nasa.gov/centers/ wallops/CARE.html

### Upcoming Star Parties Saturday, October 24th

Boy Scout Troop 101 at Camp Aquapaug, North Kingstown 200 scouts

#### Monday, October 26th

Cub Scout Program (seven 10-year old scouts plus adults) at Seagrave Observatory Presentation @ 5:45PM Viewing @ 7:00PM



Great World-Wide Star Count October 9-23

http://www.windows.ucar.edu/ citizen\_science/starcount/

## Spitzer, the Sequel

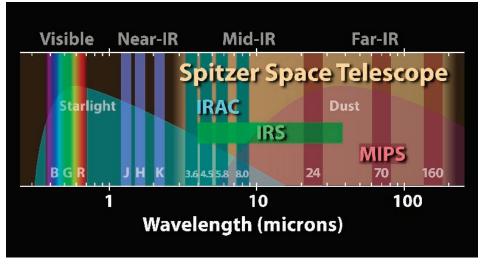
The Spitzer Space Telescope is getting a second chance at life.

The liquid helium "lifeblood" that flows through the telescope has finally run out, bringing Spitzer's primary mission to an end. But a new phase of this infrared telescope's exploration of the universe is just beginning.

Even without liquid helium, which cooled the telescope to about 2 degrees above absolute zero (-271°C), Spitzer will continue to do important research—some of which couldn't easily be done during its primary mission. For example, scientists will use Spitzer's "second life" to explore the rate of expansion of the universe, study variable stars, and search for near-Earth asteroids that could pose a threat to our planet.

"We always knew that a 'warm phase' of the mission was a possibility, but it became ever more exciting scientifically as we started to plan for it seriously," says JPL's Michael Werner, Project Scientist for Spitzer. "Spitzer is just going on and on like the Energizer bunny."

Launched in August 2003 as the last of NASA's four Great Observatories, Spitzer specializes in observing infrared light, which is invisible to normal,

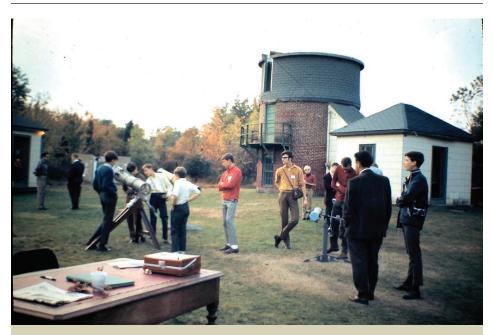


The "warm mission" of the Spitzer Space Telescope will still be able to use two sensors in its Infrared Array Camera (IRAC) to continue its observations of the infrared universe.

optical telescopes.

That gives Spitzer the power to see relatively dark, cool objects such as planet-forming discs or nearby asteroids. These objects are too cold to emit light at visible wavelengths, but they're still warm enough to emit infrared light.

In fact, all warm objects "glow" with infrared light—even telescopes. That's why Spitzer had to be cooled with liquid helium to such a low temperature. Otherwise, it would be



AstroAssembly October 12, 1968 (41 years ago!). Note the condition of the Dome. Image provided by Paul Grueter of the South Shore Astronomical Society.

blinded by its own infrared glow.

As the helium expires, Spitzer will warm to about 30 degrees above absolute zero (-243°C). At that temperature, the telescope will begin emitting long-wavelength infrared light, but two of its short-wavelength sensors will still work perfectly.

And with more telescope time available for the remaining sensors, mission managers can more easily schedule new research proposals designed for those sensors. For example, scientists have recently realized how to use infrared observations to improve our measurements of the rate of expansion of the universe. And interest in tracking near-Earth objects has grown in recent years — a task for which Spitzer is well suited.

"Science has progressed, and people always have new ideas," Werner says. In its second life, Spitzer will help turn those ideas into new discoveries.

For kids, The Space Place Web site has a fun typing game using Spitzer and infrared astronomy words. Check it out at spaceplace.nasa.gov/en/kids/ spitzer/signs.

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



## **September Meeting Notes**

Jim Crawford

#### **Executive Committee Meeting**

Wednesday, September 2, 7:00 p.m. Seagrave Observatory

1) Astro Assembly: Steve Hubbard reserved the large tent for the rear area and will check with Jack Szelka to borrow his tent to be used over the registration area. • Porta Potty was also reserved plus a handicap unit will be needed. • Some items were received for the raffles. • Same caterer is being used as last year and cost will be same. • Speakers are all scheduled. Al Hall will speak about the re-construction of the Clark Drive on Friday night. • Email sent to all members requesting items for the raffle. • Jim Brenek will get permission to use the neighbor's driveway. • Chris Chapman will provide a set of walkie-talkies for parking volunteers. • Scope committee will clean up all the scopes.

2) New Sign: Will be illuminated and will be approx 24"x48". • Sign will contain the Skyscrapers logo, brief explanation about Skyscrapers and safety warnings. • Sign will be removable for storage. • Jim Crawford will come up with the first draft of the wording. • Tom Thibault will check into material and cost.

3) Scituate's new Soccer Field and potential light pollution problem: Bob Napier raised concern about the possibility that this new field could affect our night time viewing. Tom Thibault provided local building ordinances as to type of lighting allowed. As of late September of this writing the Town of Scituate was contacted and assured us that night time lighting will not be installed. The field will be for day time 11Se.

4) Trustee Jim Brenek advised the

E-Board that the main building roof **needs replacement.** Jim has previously report on his efforts to identify leaks in the overhead. The roof was installed in 1988 and is due for replacement. Jim will make a motion at the next meeting to expend up to \$4,000.00 to replace the roof. He has some estimates for review. Jim will also check ensure we are up to date with our pest control spraying in preparation of Astro Assembly.

Meeting adjourned at 8pm

#### Monthly Meeting

Friday, September 4, 7:30 p.m. Seagrave Observatory

Bob Horton welcomed all members and introduced a long time member, **Gerry Dyck** to give a short presentation on "Why I wasn't at Stellafane 09" Gerry attended his biannual family reunion. Gerry makes every effort to visit places of interest when associated with the subject of Astronomy. This trip was no exception and during his family reunion trip he visited a well known Amateur Astronomer's home in Delphos, Ohio, Leslie C. Peltier, (1900-1980). Peltier was considered the "Iron Man of Astronomy" conducting 512 consecutive months of reporting his observations. Gerry presented some photo's taken during his visit showing Peltier's home, original library with books and the 12" refractor telescope pier still left standing in the back vard.

Bob Horton also introduced another long time member, Pete Peterson. Pete presented some interesting problems and solutions he was having with CCD imaging. Pete's observatory serves as a research and development facility to test astronomical hardware. Pete also

### **Treasurer's Report**

8/26/2009 through 9/15/2009 Lloyd Merrill

#### INFLOWS

**Total Cash** 

INFLOWS	
Astroincome	
Astro-banquet	170.00
Astro-registration	221.00
TOTAL Astroincome	391.00
Dues	
Family	50.00
Junior	10.00
Regular	40.00
TOTAL Dues	100.00
TOTAL INFLOWS	491.00
OUTFLOWS	
Trusteexp	213.87
TOTAL OUTFLOWS	213.87
OVERALL TOTAL	277.13
Banking Accounts	
Citizens Bank Checking	6,814.21
Capital One Money Market	16,261.20

conducts training sessions annually to all age groups. CCD imaging is quite complicated and can be frustrating but Pete explained in detail some the issues he was having with his 14" SCT and CCD hardware, and also what he did to resolve his problems. Our library has a video of Pete's presentation. You have got to see this video and you can always contact Pete for questions.

23,075.41

Bob Napier introduced the main speaker, Brendan Hermalyn on NASA's upcoming Lunar Crater Observing and Sensing Satellite (LCROSS) Mission. Read the August Newsletter write up on this speaker.

#### **Business Meeting 9: p.m.**

Secretary's Report: August report accepted by membership.

Financial Report: August report submitted with no corrections.

**1st VP Bob Napier:** Skyscrapers' October monthly meeting will feature a talk by

2nd VP Steve Hubbard: Reported on AstroAssembly 2009. As reported in last month's meeting the reception will be held at the community center Oct 2 at 7:00p.m. Members are requested to donate items for the raffle and volunteers are needed to help out on

Friday and Saturday for the events. Please contact Steve to help out. • Scheduled Guest Speakers are: • Friday night, Oct 2nd, 7:30 p.m. • Al Hall will present talk on the Reconstruction of the Clark Drive at Seagrave. • Saturday Oct 3rd, 12:00 pm: • Ronald Florence author of "The Perfect Machine, The Building of The Palomar Telescope." • Ronald is a historian and novelist. Educated at Berkeley and Harvard, where he received a PhD in French and German history. • Thomas Levenson "The (Criminal) Education of Issac Newton" • Professor Levenson is the winner of the Peabody Award (shared), New York Chapter Emmy, and the AAAS/Westinghouse award and currently the interim head of the Writing and Humanistic Studies department at MIT. • William Sheehan "A Centennial Observed: E.M. Antoniadi and Mars" • William is one of the world's leading students of the planet Mars. Sheehan's first book, "Planets & Perception", published in 1988, was a Book-of-the-Year Selection of the Astronomical Society of the Pacific • Mike Mattie "Strange Cloud Formations on the Terminator of Venus." • Mike has been an active observer for many decades and a member of ALPO and AAVSO. He worked at Harvard Observatory's Agassiz Station (now Oak Ridge Obs.),

Historian Dave Huestis: No report

Librarian Bruce Merrill: Jim Crawford furnished a DVD copy of this year's picnic.

#### **Star Party Coordinator Bob Forgiel:** No report.

**Trustee Jim Brenek:** Reports that the meeting hall needs a new roof. Several leaks were noted over last several months. Ceiling tiles were replaces but at least one tile over entrance door shows staining due to water damage. The existing roof was built in 1988. Jim received a few estimates for review. Jim also did a great job removing the old overhead project system including the reconfiguring of the ceiling tiles and

grid system.

New Business: Jim Brenek made a motion to spend up to \$4000.00 to install a new roof. Motion seconded. Special meeting will be held on Oct 2nd to review quotes and vote on expending the \$4000.00. Bob Horton is recommending that we try to sell the 11" Maksutov telescope recently donate to us. Based on the amount of effort and cost required to bring this scope up to its full capability, it seems that it may be better served to sell it and use the money to offset some of the cost for the new roof. Motion was made to put the scope of for sale and will be voted on at the Oct 2nd special meeting.

**Old Business:** New member, Vincent Chrzanouski was voted into the organization as a member.

**Good of the Organization:** Bob Horton is hoping to resume the CCD imaging and Spectroscopy workshops after AstroAssembly. Bob will notify all when dates are selected.

Meeting Adjourned at 10: pm

#### August Executive Committee Meeting

Saturday, August 8, 4:00 p.m. Seagrave Observatory Submitted by Bob Horton

Discussion Items:

1) AstroAssembly October 2 and 3rd: Steve Hubbard provided the following list of items he's working to resolve: Schedule work sessions for Thursday and Saturday. • Erect tents & Tarps (1 rental, 1 from J.Szelka) on Thursday. • Porta Pottie to accommodate handicap • Set up table and chairs Friday night at Community Center. • Set up refreshment stand next to observatory. • Appetizers, coffee, etc for Friday night. • Confirm use of neighbor's driveway for overflow parking. • Set up sound system. • Permit to allow us to hold Astro Assembly. (K. Siok) • Vendors letter of invite. • Cost Estimate for: Tent, Program Printing, Porta Pottie, Caterer, Banquet, Grille on Saturday, Cheese/ wine, Speakers • Bob Horton will send a mass email to notify members. Will also send email to Sky & Tell and other local Astronomy websites.

2) Window Screens: Discussion on replacing main meeting hall window screens. Trustees will do more research on type of screens and cost. • Need to clean up the brush in back of meeting hall. Trustees will address this issue.

**3) Mirror Making Classes:** Bob Horton raised the idea of holding telescope mirror making classes sometime in mid Oct. Some thoughts were to hold classes on a Saturday for about 3hrs each and extent for 6 weeks.

Need to look into cost for mirrors, stands and grinding blocks/paper kits etc.

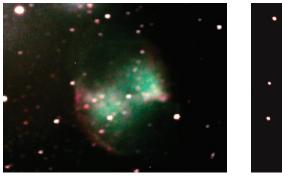
**4) Telescope Sale:** E-Board recommended selling the recently donated 11" Maksutov telescope and use proceeds for main meeting house repairs.

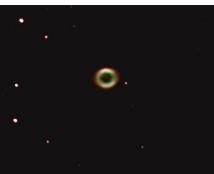
**5) Entrance Chain:** Discussion about possibility of replacing the main entrance chain. Need reflectors on the two pipes and chain.

6) New Sign: E-Board is recommending we add an additional sign at the wall which runs from meeting hall to the poles that support red lights. The sign will contain safety information as well as brief statement about Skyscrapers. More detail discussion will be conducted at the September E-Board meeting.

Meeting Adjourned







**M42, The Orion Nebula** taken with Canon XSi and 80mm Eon refractor. 71 second, single shot, unguided, f/6.25, 1600 ISO. Image cropped, color adjusted, filtered with Neat Image. Photo by John Kocur.

**Messier's Planetaries in the Summer Triangle:** Left: M27 (The Dumbbell Nebula) taken from a C11 SCT using a 6.3 Reducer with a Meade CCD. It was a 2 minute exposure processed with Maxim DL, then Photoshop. It's a bit out of focus, something I'll need to work on. **Right:** M57 (The Ring Nebula), taken from a C11 SCT using a 6.3 Reducer with a Meade CCD. It was a (3) 1 minute exposures, processed and stacked with Maxim DL, then finished Photoshop. Photos by Tom Thibault.



**Jupiter**, taken on September 7 with IS DMK.04 monochrome camera on APM 130/780 + 4x Powermate (3200mm fl @ f/24). Approx 85 frames each RGB, stacked using Registax 5 and RGB combined in Photoshop CS. Photo by Jim Hendrickson.

### **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

