

The Skyscraper

Vol. 32 no. 7

The monthly publication of



Amateur Astronomical Society
of Rhode Island

47 Peepoad Road
North Scituate, RI 02857

www.theskyscrapers.org

President

Dave Huestis

1st Vice President

Glenn Jackson

2nd Vice President

Ted Ferneza

Secretary

Joel Cohen

Treasurer

Bill Kirby

Members at Large

Mercedes Rivero-Hudec

Jerry Jeffrey

Trustees

Richard Arnold

Jack Szelka

Marian Juskuv

Librarian

Dan Lorraine

Editor

Jim Hendrickson

See back page for directions to
Seagrave Observatory.

Submissions

Please submit items for the newsletter by
July 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.

© 2005 Skyscrapers, Inc.

The Skyscraper

July 2005

July Cookout & Meeting

SATURDAY, JULY 9, 4:00PM AT SEAGRAVE OBSERVATORY

The Skyscrapers annual cookout is on July 9, 2005, beginning at 4:00pm at Seagrave Memorial Observatory. As usual there will be a lot of food on hand for the all-you-can-eat price of \$5.00 per person.

Following the cookout, Dr. Martha Hanner, lead scientist on the current Stardust Mission, will present a talk called **COMETS: FROZEN TIME CAPSULES** and the status of the Stardust Mission.

Dr. Hanner received her Ph.D. from the Rensselaer Polytechnic Institute in astronomy in 1969. She has 26 years' experience in spacecraft and ground-based studies of cometary, interplanetary, and interstellar dust grains. She is currently an adjunct professor at the University of Mass at Amherst, has been a co-investigator on the Pioneer 10/11 Imaging Photopolarimeter and the Galileo Dust Detection Experiment, as well as the Giotto Dust Impact Detection System. She was a Guest Investigator on the Helios Zodiacal Light Experiment. She has been a regular observer of comets and interstellar dust clouds using NASA's Infrared Telescope Facility. Dr. Hanner is currently research leader of the Asteroids, Comets, and Satellites Element at JPL.

JULY 2005

2
SATURDAY

9:00PM **Public Observing Night**
Seagrave Observatory

9
SATURDAY

4:00PM **July Cookout & Meeting**
Seagrave Observatory

9:00PM **Public Observing Night**
Seagrave Observatory

16
SATURDAY

9:00PM **Public Observing Night**
Seagrave Observatory

23
SATURDAY

9:00PM **Public Observing Night**
Seagrave Observatory

30
SATURDAY

9:00PM **Public Observing Night**
Seagrave Observatory

IN THIS ISSUE

PRESIDENT'S MESSAGE 2

30TH ANNIVERSARY OF
THE APOLLO-SOYUZ TEST
PROJECT 2

A GLIMPSE OF MERCURY
& TWO MINOR METEOR
SHOWERS IN JULY 4

SECRETARY'S REPORT 5

SKYSCRAPERS GALLERY

DINNER WITH ALAN BEAN 6

SKYSCRAPERS TRIP TO
NANTUCKET ISLAND 7

ASTROASSEMBLY 2005
PREVIEW:
STORY MUSGRAVE 8

INVITATION TO MEMBERS
COOKOUT 9

EDITOR'S NOTE 10

President's Message

Dave Huestis, President

I can't believe the annual Skyscraper cookout is fast upon us. Where does the time go?

The cookout is on July 9, 2005, beginning at 4:00pm at Seagrave Memorial Observatory. As usual there will be a lot of food on hand for the all-you-can-eat price of \$5.00 per person. If you go away hungry from this cookout, it's your own fault!

The menu includes hamburgers and hot dogs, veggie burgers, potato salad and cole slaw. There's chips, soda and water, plus watermelon for dessert. All you need to do is bring lawn chairs to be comfortable, and of course bring your appetite!

We will also have a Hydrogen-Alpha filter set up on the 16-inch Meade so you can observe any solar prominences or flares. If you've never observed the sun in H-alpha, then you are in for a treat.

Afterwards, at 7:30pm, we will have a quick business meeting, a break for coffee and danish, then we can sit back to enjoy a wonderful program by Dr. Martha Hanner who will be speaking to us about COMETS: FROZEN TIME CAPSULES. See a more detailed bio for Dr. Hanner elsewhere in this newsletter.

This is one meeting you don't want to miss. Come

and join your Skyscraper associates for a memorable afternoon. Reminisce with some of us "old-timers" about the past, or create new memories for the future.

Early in the evening I will share with you my firsthand experience almost 30 years ago watching the last of the Apollo rockets lift off from the Kennedy Space Center as part of the Apollo-Soyuz Test Project. A short Powerpoint presentation will be accompanied by a six minute audio clip I made at the time.

I also hope you noticed a new contributor to last month's newsletter and our web site. Glenn Chaple, an old friend of mine, and currently writing "Glenn Chaple's Observing Basics" for Astronomy magazine, has agreed to provide us a column on a quarterly basis. Glenn is an avid variable star and deep sky observer. Glenn also wrote a column for Odyssey magazine for 10 years. He's been an amateur astronomer for over 35 years now and has been a 7th grade science teacher for almost 30 years. Glenn has been a long time member of the ATM's of Boston and the AAVSO. He lives up in Townsend, Mass. Glenn has achieved much success in this fascinating hobby of ours. Maybe I can convince him to provide us a column on how he got interested in astronomy!

I look forward to seeing you all at our July 9 cookout.

30th Anniversary of the Apollo-Soyuz Test Project

Dave Huestis, Historian & President

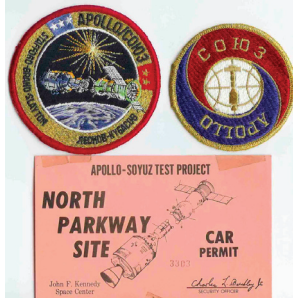
I'm not sure what came first...the idea to spend a two-week vacation in Florida, or the possible opportunity to observe the last rocket launch in the history of the Apollo program.

Fortunately, both came together. Dan Lorraine's uncle worked for NASA down at Cape Canaveral. Dan knew that permits were granted to the public to allow a specific number of visitors to view the launch from a safe distance at the space center. He requested such a pass from his uncle, and sure enough, the permit was issued. See accompanying image of this pass.

So the entire trip was planned around the scheduled launch date and time of July 15, 1975, at 3:50pm EDT. An old photography friend of mine, Joe Calo, decided to join me on this excursion. This was our first trip to Florida, so of course we also took in all the attractions.

But the greatest thrill of all was the day of the launch. Instead of camping the night before the launch, we picked an ocean-side cottage motel just south of Daytona Beach to spend the night. The key factor here was they had a color television so we could get

up early and watch the launch of the Soyuz spacecraft from Russia first thing in the morning. Well, we both slept through the alarm and woke up about two minutes after the Russian launch. We hadn't missed much. The "feed" in those days wasn't great, and the image that had been recorded was terrible.



We soon left the motel and traveled down to the Kennedy Space Center. The traffic was quite heavy. Folks without passes were starting to line the roads that provided a view to the launch facilities to the east of route A1A. We soon got onto the base and our permit allowed us to get within a couple of miles from launch complex 39B. In fact, the area where we parked our vehicle and set up our cameras was the future runway for the space shuttle to land. It was already under construction.

A lot of people had access to this observing vantage point. They just kept coming and coming. It was a hot day, and we stood or sat out in the sun most of the time. There was nothing around to shade us from the heat anyway.

Well, the countdown continued and eventually everyone's gaze was directed toward the launch pad and Apollo. This was not the Saturn 5 rocket. To get the command module into orbit only required its smaller cousin, the Saturn 1B. Since that extra stage was not required for this mission, the spacecraft, missing the first stage, sat atop a platform.

We had a local radio station on so we could follow the chatter between the astronauts and mission control. Then the famous countdown sequence began ... 10, 9, 8, 7, 6, 5, 4, 3, 2, 1 Flames leaped from the mighty engines and Apollo began its ascent into the late afternoon sky, which had only scattered clouds. It was beautiful. I had watched so many of the Mercury, Gemini and Apollo launches from my living room. Now I was experiencing a launch firsthand. I was so busy taking pictures through my camera that I'm not sure I even took time to view it without looking through the telephoto lens. Soon the roar of the engines reached us. Wow! It was quite loud. And this was only a Saturn 1B. I can only imagine what the noise was like when the Saturn 5's used to blast off. As I continued to click off the images, I could hear the cheers and

applause of the assembled crowd. I get goose bumps even now as I recall how I felt. It didn't take long for Apollo to ascend out of sight. My adrenaline was still pumping for some time afterwards.

You too can get a feel for the excitement we experienced that summer day at Cape Canaveral. Please see the images accompanying this article.

It took us a while to leave the area because of all the traffic. But we didn't really care. Though we still had about a week and a half of vacation left and a whole lot of adventure ahead of us, I must say witnessing the last launch of the Apollo program was definitely the highlight of the trip. Many thanks are owed to Dan Lorraine and his uncle for facilitating this opportunity of a lifetime.

Launch and ascent of Apollo on the Saturn 1B. Bottom: Vehicle Assembly building, still used today for space shuttle assembly.



Photos by Dave Huestis.

A Glimpse of Mercury & Two Minor Meteor Showers in July

Dave Huestis, President

The month of July is going to be a little slow astronomically speaking for casual backyard stargazers. Maybe it's for the best. With the rain, then heat and resulting humidity, the mosquitoes are already drawing more blood than my doctor does. And with so many diseases now more prevalent from insect bites, even I won't risk unnecessary exposure to their onslaught.

But by covering up as much skin as possible and dousing yourself with the maximum percent of Deet allowable, you can catch a glimpse of our solar system's innermost planet Mercury during the first week or so in July, and then at the end of the month watch for two fairly minor meteor showers to send a few shooting stars across the heavens.

On June 27, the planets Mercury and Venus are so close in the western sky at sunset that they will appear as one object to the naked eye. You'll need an unobstructed horizon because this event will happen with the planets within ten degrees of the horizon (that's the distance covered by your fist held vertically at arm's length!!). If observing conditions allow, binoculars or a small telescope will resolve the two bodies. Venus will show a 91 percent illuminated disk, while Mercury's will be 60 percent. Each night these two celestial wanderers will move farther apart.

Then, on July 8, the stunning view of Mercury (now only 42 percent illuminated) and Venus (about 89 percent illuminated) will be joined by a very thin crescent Moon. Again, this event will all take place with the three objects within twelve degrees of the west, north-west horizon. The Moon will be the highest in the sky, followed within a couple of degrees by brilliant Venus, then about a degree below and to the left you'll once again catch a glimpse of Mercury.

This heavenly configuration would be a great image to capture using a digital camera. Try your luck. If you're successful, send it to the Skyscraper webmaster at our web site listed later in this column. Good luck!

Shortly after this wonderful apparition, Mercury will quickly move closer to the horizon each successive night and will soon disappear below it, while Venus will rise higher and higher into the night sky.

Also in early July, the 5th to be exact, the Earth will be at its farthest point from the Sun for the year at 94,514,940 miles.

The only other highlight for July is a couple of meteor showers at month's end. The first one, the Delta Aquarids, peaks on the evening of the 27th to the early morning of the 28th. The Moon will be just past last quarter. It will definitely interfere somewhat with observing all but the brightest of the meteors. Usually about 20 bright, yellow meteors can be observed per hour at peak. Because these meteors nearly broadside the Earth, their speed is a moderate 25.5 miles per second.

The second meteor shower, the Capricornids, come a day later on the night of July 28/29. The Moon will still be apparent during the early morning hours, so it will reduce the number of meteors one can observe. The Capricornids are characterized by their often yellow coloration and their frequent brightness. They are also slow interplanetary interlopers, hitting our atmosphere at around 15 miles per second. Expect perhaps less than eight meteors per hour at best, though the Capricornids are noted for producing brilliant fireballs.

Don't forget, you can enjoy magnificent views of the heavens by visiting Seagrave Memorial Observatory on Peepoad Road in North Scituate. Skyscrapers, Inc., The Amateur Astronomical Society of Rhode Island, offer public observing free of charge every clear Saturday night. The gate to our facility opens about a half-hour after sunset. Our members will be happy to share their love of the sky with you. More information, including directions and membership, can be found at our website: (<http://www.theskyscrapers.org/>).

Keep your eyes to the skies!

Dear Skyscrapers,

Your kind expressions of sympathy through your cards and calls is gratefully acknowledged and deeply appreciated.

The loss of my Dad was very hard. I miss him every day. His memorial service was a wonderful celebration of his 85 years on Earth.

Thank you all again for your support and prayers.

*Fondly,
Sue Hubbard*

Secretary's Report

Joel Cohen, Secretary

Monthly Meeting

Friday May 13, 2005; Skyscrapers Meeting Hall

Meeting Start - Dan called the meeting to order at 7:40pm and asked for a moment of silence in remembrance of Frank Dubois' wife who had recently passed on.

Secretary's Report - Accepted as published in the Skyscraper

Treasurer's Report - Accepted as read and posted by Bill Kirby. Bill announced that there is a discount available on all purchases through Sky & Telescope for all subscribers. See their web site.

Trustee's Report - Dan noted in absence of the Trustees that our lawns have been fertilized and grub chemicals have been applied and then the lawns were mowed.. Dan also noted that registrations for the upcoming AstroAssembly have started to arrive early.

New Business - New member applications were received from William Gillen and Al Cardi.

Old Business - New members voted in unanimously were James Van Hoff and Anthony Fascia.

Good of the Organization - Al Hall announced that StarConn was resurrected and a slate of speakers has been engaged. It will be held June 11 in Middletown, CT. Joel Cohen reported that recognition was given to the Skyscrapers Web Site by the Development Manager for Lowell Observatory. Russell Tweed said that our website

was one of the few they have come across that they chose to establish links with. Kudos to Jim Hendrickson. John Kocur presented a slide show of the Arizona trip. Dave Huestis announced that he has sold another \$266 worth of old Sky & Tel magazines and that many more are still available. Dave also reported a \$120 donation from the Audubon Society Star Party. Joel thanked both Dan and Rick Lynch for organizing the Arizona trip. Dan reminded members that those attending the visit to Whitin Observatory will be meeting Saturday May 14, at 7pm at Seagrave. Dan also reminded members of the upcoming trip Saturday June 25th to the Maria Mitchell Observatory on Nantucket Island. Dan took a moment to thank the members of the Executive Committee and others who had helped him make his term as President such a success.

At the end of business, Dan handed the gavel to Dave Huestis. Dave presented Dan an award (gavel & plaque) from the membership which read: Dan Lorraine, For Outstanding Presidential Leadership, 2003 - 2005. The meeting was adjourned at 8:25pm

Following the break for refreshments, Mark and Carolyn Collins Peterson of Loch Ness Productions made a presentation on Planetarium Shows. History of the equipment used, material covered, production methods and wonderful samples of their creative collaborations over the last 30 years were included. Carolyn writes the scripts and Mark produces the shows incorporating current graphics, photography, digital and laser technology along with his original musical compositions. Their shows are seen in planetaria around the world.

Monthly Meeting

June 3, 2005; Skyscrapers Meeting Hall

Meeting Start - 7:40pm

Secretary's Report - Read by Joel Cohen

Treasurer's Report - Read and posted by Bill Kirby

Librarian's Report - None - Dan Lorraine not present.

Historian Dave Huestis reminded us that this July is the 30th anniversary of the last Apollo Launch

Trustee's Report -None

New Business - None

Old Business - New memberships for William Gillen and Al Cardi were approved.

Upcoming Speakers - Glenn Jackson reported that

the line-up of speakers included Dr. Barbara Welther, July; Dr. Robert Wilson, August; Marcia Bartuszek, September, and Howard Chun in November.

Good of the Organization - Upcoming events are: June 8th Alan Bean dinner, June 25th trip to Maria Mitchell Observatory.

Kay Peterson read a letter from her daughter, currently working with the research team for the Hubble Space Telescope, regarding Story Musgrave, featured speaker at AstroAssembly. Bob Horton reported running into John Briggs in California while attending the Riverside Convention. John is moving back to Massachusetts for a new position and will be seen again in North Scituate. Ted Ferneza reported that the free ride to register for AstroAssembly is now over because the invitation is

going public to 126 organizations. Please check the Skyscraper for Meeting dates as our schedule has necessarily gone away from the traditional first Friday of the month. This has been due to field trips, holidays and speaker schedules. Next meeting is the cookout and will be held Saturday, July 9, 2005.

Adjournment - (approximately) 8:35pm

Following adjournment and a brief break for refreshments, Dr. Martina Arndt of Bridgewater State College addressed our group. Dr. Arndt spoke about her current research in solar physics, data collected and personal observations made on field trips to solar eclipse sites. Dr. Arndt also related the current state of research and new findings in her field.

Skyscrapers Gallery



LEFT TO RIGHT: Jim Hendrickson, Dawn Burdick, Steve Hubbard, Donna Gaumond, Captain Alan Bean, Dolores Rinaldi, Dan Lorraine, Rick Lynch, Gerald Kimber White, Ken Dore, and Dave Hurdis. Photo by Bill Gucfa.
RIGHT: We had the opportunity to meet Alan Bean in a pre-dinner reception, during which we were able to informally chat with Bean, have our photos taken and copies of his book *Apollo* autographed. Photo by Ted Ferneza.

SKYSCRAPERS GROUP PHOTO AT LOINES OBSERVATORY

Back row left to right: Joe Sarandrea, Sue Hubbard, Ray Kennison, Donna Kennison, Glenn Jackson, Jack Szelka, Dave Hurdis, Rick Arnold and Peter Boyce, our gracious host. Sitting left to right: Dan Lorraine, Ken Dore, Jerry Jeffrey, Charlotte Jeffrey, Jackie Sarandrea, Ileen Szelka, Nora Hudec, Mercedes Rivero-Hudec. Oh yeah, and the bum on the ground is Steve Hubbard!



Left: the 8" Alvan Clark scope at Loines; center: the refinished telescope on the left is Maria Mitchell's 5" Alvan Clark refractor. The field tripod was found in the attic and beautifully restored by Dr. Peter Boyce; right; Before we boarded the ferry for the return trip to the mainland, we were treated to a beautiful sunset. Photos by Dan Lorraine.

AstroAssembly 2005 Preview

STORY MUSGRAVE



Story Musgrave is one of NASA's most experienced astronauts. With a 30 year career spanning the Apollo era of the 1960s right through to the Space Shuttle program of the 1990s, he is the only astronaut to have flown on all five Space Shuttles. He is also a pilot, surgeon,

mechanic, poet and philosopher.

The experiences of a small child growing up on a 1000 acre dairy farm in Massachusetts provided a foundation for Story's fascination with machinery as well as his extraordinary love of nature. Born 19 August 1935 during the Great Depression, by the age of 10, Story was already operating and repairing tractors and farm machinery. However, in a childhood which was marred by alcohol and abuse, Story and his two brothers led an isolated life, and it was to nature that Story turned to escape the dysfunctional world around him.

For Story, his experiences in space were the epitome of his childhood exploration and discovery of nature. It was the child who is totally immersed in a strange and wonderful environment, who finds new perspective in the experience. For Story, each successive spaceflight was to become richer and richer.

During the years from 1967 through to 1989, Story continued to work as a part-time trauma surgeon at the

Denver General Hospital and as a part-time professor of physiology and biophysics at the University of Kentucky Medical Center. He also began a decade of study in the humanities and completed a Master of Arts degree in literature.

Throughout his career with NASA, Story enriched his experiences with his ongoing studies and by capturing the essence of spaceflight through a variety of mediums including photography, poetry and personal experiments. He was the first astronaut to photograph Uluru (Ayer's Rock), Mt Everest and the Egyptian pyramids from space, and to demonstrate the behavior of consumer products like Coca Cola in zero gravity. He also studied the psychological responses of performing certain tasks in various orientations. On each spaceflight, Story carried a little black book with typically over one hundred creative things to do in space.

Story retired from NASA in 1997. Today he shares his many unique experiences through performances across the USA and internationally. He is a popular guest of the Astronaut Encounter Program at the Kennedy Space Center and also consults for Walt Disney Imagineering and Applied Minds Inc. in

their research and development divisions. He is an advocate and visionary for the continual exploration of space and the author of numerous scientific papers on a diverse range of topics including aerospace medicine, exercise physiology, temperature regulation and clinical surgery. His recreational interests include flying, photography, scuba diving, parachuting, gardening and running.





Members Cookout Saturday July 9, 4:00pm

Our monthly meeting for July has been changed to Saturday July 9 and will be held in conjunction with our third annual Skyscrapers cookout. This month's speaker will be Dr. Martha Hanner, who will be speaking to us about **COMETS: FROZEN TIME CAPSULES**. See a more detailed bio for Dr. Hanner elsewhere in this newsletter.

Gerry Dyck will bring his solar telescope equipped with a Hydrogen Alpha filter so you can observe solar prominences and flares.

MENU

Hamburgers and Cheeseburgers
Veggie Burgers
Hot Dogs
Potato salad and Cole slaw
Chips
Soft drinks and water
Watermelon

The cost is \$5.00 per person for all you can eat!

If you missed it last year you really did miss a great time. Plan on attending this year to catch up with old friends and enjoy a nice summer day at Seagrave Memorial Observatory.

Bring lawn chairs.

EDITOR'S NOTE

Wow, a Ten-Pager! I can't recall the last time Skyscrapers produced such a tome of a newsletter! Well, it was actually 9 pages but I felt I couldn't leave a blank one, so I inserted the Story Musgrave bio in as a bonus feature. It is great to see so many members participating in all the great activities that go on at Skyscrapers.

You may have also noticed that *The Skyscraper* is formatted slightly differently. A software-related problem came up recently that caused some people to not be able to download it. I apologize for any troubles anyone may have had, and I decided at that point that we need to use different software that is better suited for the job. Since it is Adobe software, which also makes the PDF viewer, it is capable of producing PDF files more efficiently with much smaller download sizes. A side benefit to this upgrade is the ability to create a higher quality layout for *The Skyscraper*. For me, another side benefit is that it makes editing *The Skyscraper* much easier and fun than it was before.

I would like to thank the members who contribute regularly to *The Skyscraper*. Without these contributions *The Skyscraper* wouldn't exist. I also take this time to encourage more members to contribute. Since we now have the ability to add many photos to *The Skyscraper* without making it a difficult download, I would like to include member-submitted astrophotos of current or recent celestial events.

Future plans include improving the general layout of *The Skyscraper*, adding more skywatching information and current events, and including more great content submitted by members. I would like to edit a ten-pager more often.

I hope you enjoyed reading *The Skyscraper* this month. Feedback and contributions are always welcome.



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