

Southern Skies

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Summer 2008



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4 Meter and Phoenix - see page 19. Credit: George Fleenor

Officers of the Southeastern Planetarium Association

President

Adam Thanz
Bays Mountain Planetarium
853 Bays Mountain Park Road
Kingsport, TN 37660
(423) 229-9447, Fax: (423) 224-2589
Email: thanz@ci.kingsport.tn.us

President-Elect

Jon Elvert
Irene W Pennington Planetarium
La. Art & Science Museum
100 South River Road
Baton Rouge, LA 70802
(225) 344-9478; Fax (225) 344-9477
Email: jelvert@lasm.org

Past-President

Patsy Wilson
Margaret C. Woodson Planetarium
1636 Parkview Circle
Salisbury, NC 28144
(704) 639-3004, Fax: (704) 639-3015
Email: wilsonpk@rss.k12.nc.us

Secretary/Treasurer

Mickey Jo Sorrell
Morehead Planetarium & Science Center
CB#3480 UNC-CH
Chapel Hill, NC 27599
(919) 962-3300
Email: sorrell@email.unc.edu

IPS Council Representative

John Hare
3602 23rd Avenue West
Bradenton, FL 34205
(941) 746-3522, Fax: (941) 750-9497
Email: johnhare@earthlink.net

Editorial Staff of *Southern Skies*

Southern Skies Editor

James Sullivan
Buehler Planetarium & Observatory
Broward College
3501 Davie Road
Davie, FL 33314
(954) 201-6681, Fax: (954) 475-2858
Email: jsulliva@broward.edu

Associate Editors

Technical Column

Robert Cruz
Miami Space Transit Planetarium
Miami Science Museum
3280 South Miami Avenue
Miami, FL 33129
305-646-4200
Email: rcruz@miamisci.org

Archeoastronomy Column

Woodrow W. Grizzle III
Rt. 4 Box 4917
Jonesville, VA 24263
Email: woodrow.grizzle@gmail.com

Associate Editors

Small Talk

Elizabeth Wasiluk
Berkeley County Planetarium
109 Ridge Road North
Hedgesville, WV 25427
(304) 754-3354, Fax: (304) 754-7445
Email: isbeth4@hotmail.com

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President's Message

Adam Thanz
Bays Mountain Planetarium
Kingsport, TN

I am writing this article just after the SEPA conference that was held in Lafayette, LA. I hope you were able to attend, learned a lot, and had a grand time. I know I did! Kudos goes to Dave Hostetter and the great staff at the Lafayette Natural History Museum & Planetarium. They are an exemplar of "The Right Stuff" for planetarians.

Some of my experiences: I was able to see a number of planetarium shows that I had not seen before. I attended great workshops and presentations from you and guest speakers. I was able to learn more

Rates and submission formats for advertising space in SEPA's quarterly journal *Southern Skies* are:

Rates	Dimensions
\$100.	Full-page 7" wide x 10" high
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\$25.	Quarter-page 3" wide x 4" high

These rates are per issue and in B&W copy. The entire back cover of our journal is also available either in B&W for \$125, or in color for \$150. A 10% discount to any size ad can be offered only with a year's (four issues) commitment of advertising. Ads accepted on a space available basis. Ads must be camera ready and conform to dimensions listed. Payment must accompany advertisement order, made payable to the Southeastern Planetarium Association (send payment to Secretary/Treasurer Mickey Jo Sorrell). The underlying mission of our advertisements is to promote resources, products, and services related to the planetarium profession. SEPA reserves the right to refuse advertisements.

about new planetarium projection and control systems from friendly and knowledgeable vendors. I was able to conduct official SEPA meetings with great support from you, the membership. And, I was able to enjoy a number of cajun dishes throughout our visit!

During our meetings, a number of choices were made by the membership. First, elections. We had three qualified persons vie for the President-Elect position. April Whitt, Kelly Herbst, and Laurent Pellerin. April Whitt won the election and she will do a splendid job. I am also proud that we did have such a difficult choice to make. For Secretary/Treasurer and IPS Representative, Mickey Jo Sorrell and John Hare will continue respectively in those positions. They have done a great job and will continue to do so. The host for the 2010 conference was also chosen by the membership and it was Bays Mountain Park & Planetarium in Kingsport, TN. The dates are June 8-12, 2010. Mark your calendars for a wonderful time. The theme is "The Art of Storytelling." Jason and I have already planned on lots of great activities, programs, and speakers for this event. We are very excited to be your host.



SEPA President Adam Thanz

(Continued on page 9)

IPS Report

John Hare
ASH Enterprises
Bradenton, FL

IPS Elections...

Ballots will be sent to all current IPS members sometime around mid-October. You must vote no later than November 21st for your vote to be counted. Last time around only 23% of the membership voted!

Candidates are as follows:

President-Elect

Mark Rigby, Brisbane, Australia
David Weinrich, Moorhead, Minnesota

Secretary

Lee Ann Hennig, Alexandria, Virginia

Treasurer

Shawn Laatsch, Hilo, Hawaii

2008 IPS Conference re-cap...

WOW!!!

Nearly 600 delegates were in attendance at the 19th biennial IPS Conference hosted recently by Chicago's Adler Planetarium. The attendance broke the previous record of about 450 in Wichita, 2002. The Adler staff arranged and conducted dozens of papers, poster sessions, panel discussions, keynote speakers, and technology demonstrations to the delight and interest of all. Oh yes, there was a sunset cruise on the final day complete with fireworks against a backdrop of the awesome Chicago skyline. Over 31 vendors furnished in excess of \$225,000 in sponsorship funding and were heavily involved in various panel discussions, exhibits, and technology demonstrations.

2010 IPS Conference updates...

Alexandria, Egypt will host IPS in 2010. Please note that the conference dates have been shifted earlier due to the total solar eclipse that will occur on July 11, 2010. IPS 2010 is scheduled for June 26-30 and once again presents a "problem" in relation to the traditional SEPA conference time frame. Prospective 2010 SEPA conference hosts please note!

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Editor's Message

James Sullivan
Buehler Planetarium & Observatory
Davie, FL

All you State Coordinators out there, thank you for the work you do in gathering the news. To everyone else, look under your state heading and send something to these folks. If your state heading happens to be blank, then that's a sign. Maybe you should step up and volunteer.

I wish to extend a hearty welcome to Woodrow Grizzle. He is beginning a new column on Archeoastronomy.

If you are tetering on the precipice of writing a column, then how about starting with a small step instead of the huge leap? Write an article AND send it in!

We can receive electronic files in most any format. Also, graphics can be received electronically or in hardcopy, including slides or photos, and will be converted to digital with sufficient resolution.

Submission deadlines: January 1 (Winter), April 1 (Spring), July 1 (Summer), October 1 (Fall).

Thanks to Broward College and its wonderful printing department for assistance.

May your domes be full and your skies clear.



Paul Campbell Fellowship Award Nomination Form

Nominees must have been a member of SEPA for at least ten years, and they must display qualities in each of five areas, as represented by the five-pointed star shaped award: integrity, friendship, service, knowledge, and vision. Please submit this form to any SEPA Council member.

Nominee's Name: _____

Qualifications: _____

SEPA Membership Form

Please send your check to SEPA, c/o Mickey Jo Sorrell, Morehead Planetarium & Science Center, CB#3480 UNC-CH, Chapel Hill, NC 27599.

____ One Year, \$25 (\$15 outside SEPA geographical region)

____ Two Years, \$40

Name _____

Organization _____

Planetarium _____

Address _____

City _____

State / Zip Code _____

Voice Phone _____

Fax Phone _____

Email Address _____

Staff Position _____

IPS Member? Yes _____ No _____

Contribution to Scholarship Award Account: \$ _____

Small Talk

Elizabeth Wasiluk
Hedgesville High School Planetarium
Hedgesville, WV

I have lots of tidbits to share with you.

Aurora Pictures

Is anyone interested in aurora pictures? If so, an old friend, Larry Ledlow, Jr. in Alaska takes beautiful aurora pictures, check him out on the web at <http://www.ledlow.org/aurora.htm> You can reach him at lighttrekker@photo.net, phone +1 907 978-4881 or +1 646 219-0571 fax.

Important High School Astronomy Study

If you teach high school astronomy like I do, you might be interested in this survey: <http://lkrumena.myweb.uga.edu/SUMMARY.HTM> Newly minted PhD, Dr. Lawrence E. Krumenaker, did a most interesting survey on high school astronomy classes around the country. Even if you don't teach one, you might like to go here for information. If you give Dr. Krumenaker your name, he will even contact you with the information on the high school astronomy education organization he is starting. If you participated in the survey, like I did, you might

find your comments in Dr. Krumenaker's unpublished paper.

To Infinity and Beyond

I have been using the website "Heavens Above" to find out when the space shuttle has been flying above Hedgesville and Martinsburg, WV. I have been sharing the information all school year on Luke Skywalker's light saber flying on board the space shuttle: http://www.space.com/entertainment/cs_070828_sts120_lightsaber.html, as well as a twelve inch toy version of Buzz Lightyear. Have you seen the hilarious video of Buzz Aldrin talking with Buzz Lightyear? Go to:

http://www.nasa.gov/multimedia/nasatv/on_demand_video.html?param=http://mfile.akamai.com/18566/wmv/etouchsyst2.download.akamai.com/18355/wm.nasa-global/STS-124/buzz2buzz.asx
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Or heck if that is too hard for you to remember, just head over to the space shuttle video archives and look for it there.

A Funny Thing Happened On Our Way To Mars

Towards the end of school, as we were getting ready for Mars Phoenix to land, (Hopefully you got your Phoenix Landing Day video on time, not a day late as I did.), I had decided to do this Astrobiology Collaborative Lab on Planning A Human Landing On Mars with my high school students. On one of the sections, the students had to pick which type of occupations should be represented when selecting a crew. One of the students insisted that there be a plumber on board. Some other students argued with him that this wasn't as necessary as some of the other occupations listed. The very next day, that student was vindicated by the story about the toilet going bad on board the International Space Station (Go to <http://www.foxnews.com/story/0,2933,362562,00.html> to see pictures!) and parts having to be flown in from Russia to be packed away to fix it. At this point the toilet has been repaired and that makes for one happy ISS team! (Go here for repair details: <http://news.sky.com/skynews/article/0,,30200-1318158,00.html>)

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Archeo- astronomy The Winter Solstice

Woodrow W. Grizzle III
Jonesville, VA

As I write, I am stifled by the full force of a South Florida summer. In order to stir my creativity, I thought cooler thoughts, leading to the following article about winter.

The coming of the winter solstice has been both predicted and hailed for thousands of years. Though it is uncertain whether or not Neolithic peoples had the ability to predict a celestial occurrence such as a solstice, it is known that such peoples were farmers, and relied heavily on the land and the march of the season for their lives and livelihood. Despite a probable lack of ability to pinpoint solar astronomical events, Neolithic peoples did keep track of the Moon. Artifacts of notched bones appearing to count out lunar cycles are found in many Neolithic social sites. The importance of the winter solstice can be simply put as "the return of the Sun." Though the winter solstice is itself the shortest day of the year, it also means that each day afterward, and until the summer solstice, the time that Sol would show his life-giving face increases.

No one really knows which civilization was the first to realize the importance of the solstice, or that it was the turning point of the darkness into light. There exists, though, a book entitled 4,000 Years of Christmas, written by Earl W. Count in 1948. In this tome, Count believes that the Mesopotamians were first, with a 12-day festival of renewal designed to

help the god, Marduk, tame the monsters of chaos for one more year. The reality is that, in addition to the Mesopotamians, many cultures from across the globe perform or performed solstice ceremonies. The common thread is an ancient fear that the failing light would never return unless humans interviewed with festivals of anxious vigil or antic celebration.

Some of these festivals include what would become Christmas, originally celebrated on the winter solstice, and one of the most widely recognized holidays in the world today. From the ancient festivals come the traditions of caroling and Yule logs. The use of holly, ivy, mistletoe, and pine for decoration during this time is symbolic of life that does not fade as the Sun's glow passes from the sky.

Because of the great role that the winter solstice played in the lives of ancients, they built great monuments to honor and observe it. Among these was the famous Stonehenge, which aligns perfectly with both the winter and summer solstices. Another is the tomb site of Newgrange, in Ireland. Newgrange is a Neolithic site, and is far older than Stonehenge and even older than the Pyramids. Within Newgrange is a chamber into which shined a beam of sunlight during the winter solstice. Another site exists in Scotland, and is called Maeshowe, located on the Orkney Islands. There is a chamber that admits the last rays of the setting sun on the winter solstice. Many more megalithic structures exist throughout Europe that are oriented to the solstices and equinoxes.

Solstice observation sites exist on other continents, too. The youthful field of Archaeoastronomy studies such sacred sites all over the world. Research in this field revealed that the Medieval Great Zimbabwe, or "African Stonehenge," in sub-Saharan Africa indicates a purpose common to Stonehenge. In North America, one of the most famous such sites is the Sun Dagger of Chaco Canyon, New Mexico, built a thousand years ago by the Chacoans - ancestors of the Pueblo people.

In our modern world, we do not often think of the beginning of winter as a turning point. We think of it as the beginning of a season. In reality, the beginning of winter marks the beginning of a great sea-

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A Sad and Happy Note

By the time you read this, Dr. Mike Reynolds, formerly of Chabot Observatory and Science Center as well as the Brest Planetarium in Jacksonville, FL has fully recovered from a heart attack he suffered last winter. For those who don't know him, Dr. Reynolds has contributed much to astronomy education on my fronts. His list of accomplishments is inspiring. Go here for details: http://www.meade4m.com/advisors/reynolds_bio.html I had the pleasure of attending the Support Program for Instructional Competency in Astronomy (Project SPICA) with him in the summer of 1988.



Mike Reynold (left) and Carter Roberts (right) taken in better times in California. Credit: Betty Wasiluk

Also famed amateur astronomer, Carter Roberts, President of the East Bay Astronomy Club lost his battle with rectal-colon cancer recently. (Read what



Carter Roberts picture of the Milky Way with reference lines drawn to show you where you are looking.

Norm Sperling, former planetarian and astronomy educator had to say about him in Sky and Telescope magazine: <http://www.skyandtelescope.com/news/18360994.html> Carter did much to further astronomy awareness at the amateur level and logged more time than anyone I know under an eclipsed sun. He was an outstanding astrophotographer and you can see an example of his work on the web site of the International Planetarium Society at <http://www.ips-planetarium.org/> in a photo he took of the Milky Way. I met him several times on trips to the west coast and also had the pleasure to star gaze with him at the famed Fremont Peak State Park in California. (Go here to see details: http://www.parks.ca.gov/?page_id=564) He even has an asteroid named after him: Asteroid (10683) Carter = 1980 LY - MPC 41030 2000, JULY 26, discovered June 10, 1980 by Carolyn S. and Eugene M. Shoemaker at Palomar Observatory. Mostly, I will



Photo taken by Conrad Jung of the asteroid that bears Carter's name. Conrad was able to show it to Carter before he died.

miss seeing him and his astrophotos on his hand designed Christmas cards. (Look there is Carter up on a camel at the total eclipse in Libya!) Rest in peace Carter, I hope you have a bird's eye view of the cosmos where you have gone.

The National Radio Astronomy Observatory's Great Pulsar Search

Back in March, I applied to attend the National Radio Astronomy Observatory's Pulsar Search Col-laboratory, where students and teachers at the high school level join forces with scientists to search data gathered by the Robert C. Byrd Green Bank Telescope (GBT) to discover new pulsars. I have been selected to attend and have narrowed the search for students to just one. If everything goes as planned, I

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Speaking of conferences, there has been a slight modification of the 2009 SEPA conference. The WAC (Western Alliance Conference), which represents the planetarium member regions of the western U.S., will be joining us in Nashville, TN. This was a last-minute decision that the SEPA Council had to decide upon quickly. This was during the IPS conference in Chicago, IL. The new Sudekum Planetarium will be able to handle the larger group as they have seating for about 160. Plus, they are quite central to the U.S. I'm sure it will be a great event and fun for all.

On a different note, every once in a while SEPA gets to honor its members that have done an exceptional job and represent great integrity in their position. Two such persons were honored during the 2008 conference. Carole Holmberg of the Calusa Nature Center in Fort Meyers, FL and April Whitt of Fernbank Planetarium in Atlanta, GA. The awards were presented by fellow SEPA members Linda Hare and Patsy Wilson respectively. It has been the fashion for the presenter to list the recipient's qualities before revealing the name. Only until later in the presentation are details divulged that make it obvious who the person is. It was interesting to note that it took until the details for both of these women to recognize that it was them! I see this as great modesty, which is just like them.

Progress on our log home is proceeding slowly at this time. The house is dried-in, and we are awaiting the well driller in the next few days. After that, we will have the logs cleaned, install electric lines, duct work, drywall, trim, shingles, etc. Some good luck: we were able to acquire the 1965 vintage A3-P from Newport News, VA. They are upgrading and needed help to remove the instrument and also find a good



Work continues on our home. The windows, siding, entrance-way porch, and first-floor false eave are installed. A. Thanz

home for it. Since we have our students over at our home for star parties throughout the year, it was a great opportunity for all. We are missing some indicator dials, so if you have some laying about, we'd be happy to acquire them.

That is all for now. If you have anything to share, please send it to the journal editor, James Sullivan, to include in the journal. Photos are also a great asset for the journal. If you gave a presentation or workshop during the conference, please send that in with visuals. I'm sure we would all benefit from that.

Small Talk (Continued from page 8)

will be unable to see you at the South Eastern Planetarium Association meeting in Lafayette, LA, because my student and I will be at Green Bank, WV attending the program. If you would like to learn more about the program, you can go here: <http://www.gb.nrao.edu/epo/psc.shtml>

So if I don't get a chance to see you in July take great photos to share and raise a Woodchuck or two on my behalf. Hope you have a terrific summer!

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Conference registration is estimated to be around \$400. Several hotels are conveniently located and prices for 5-star hotels are under \$150!

Pre and/or post conference trips include Alexandria, Cairo/Giza, and Luxor/Aswan.

Look for more details in future issues of *Southern Skies* and at the official conference website <www.bibliotheca.org/ips2010>

2012 Conference site invitations...

Three sites have submitted invitations to host the 2012 IPS conference:

- St. Etienne, France
- Baton Rouge, LA
- San Francisco, CA

The site will be chosen by IPS Council at the off-year IPS Council meeting to be held in the summer of 2009. I will furnish information on the various sites in future editions of *Southern Skies*.

sonal turnaround. The winter solstice marks the return of the Sun, of light, and of life to our fragile, blue globe.

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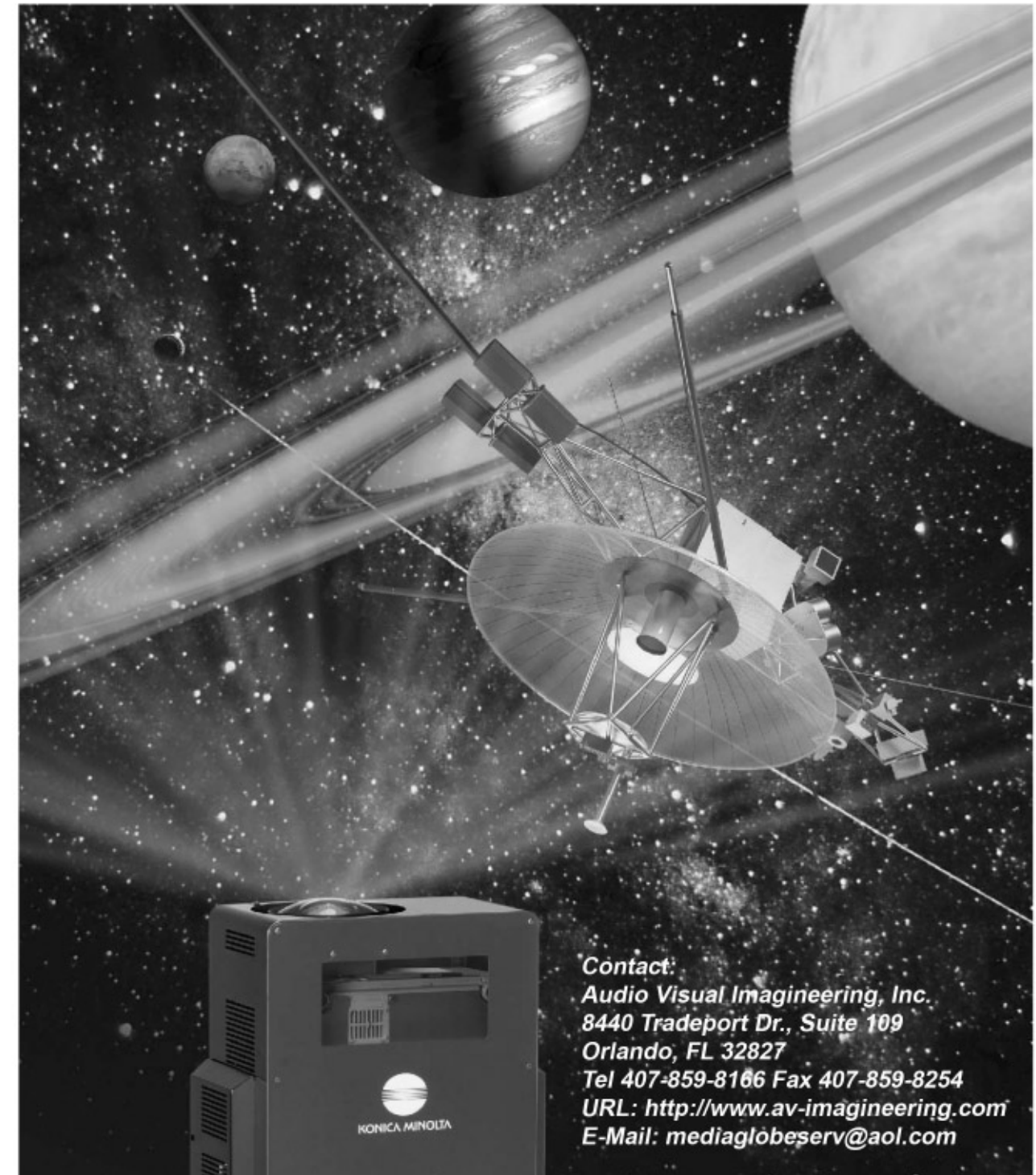
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Minutes to learn - light years to explore!

News From SEPA States

FLORIDA

contact: George Fleenor
GeoGraphics Imaging and
Consulting, Bradenton, FL
Jetson1959@aol.com



Florida Planetarium Association (FLORPLAN)

Contact George Fleenor for details.

Buehler Planetarium Broward College Davie, FL

Susan J. Barnett reports: The Buehler Planetarium & Observatory is running public shows four days a week. The weekend shows and monthly specials include *The Secret of the Cardboard Rocket*, *In Search of New Worlds*, *Footsteps*, *Explorers of Mauna Kea* and *Skywatchers of Ancient Mexico*.

We continue to rotate shows on Wednesdays, and these shows include *The People*, *Dawn of Astronomy*, *Astrology: Fact or Fiction*, *To Worlds Unknown*, *2061: Secrets of Mars* and *A Dozen Universes*.

The Buehler Observatory has viewing four times a week. It has free public observing Wednesday, Friday, and Saturday evenings. In addition, we

observe the Sun on Wednesday afternoons. We usually have one telescope set up to view sunspots, and watch flares through a Hydrogen-Alpha filter on another.

Hallstrom Planetarium Indian River State College Fort Pierce, FL

Jon Bell reports: Indian River Community College, home of the Hallstrom Planetarium, has now become a four-year school which will be able to offer baccalaureate degrees in nursing, business and education. With this change in status comes a new name: Indian River State College.

We just put in a deck that connects our Spitz 512 tub with the control console, which is in the front of the theater facing toward the rear. Can't wait to start setting out special effects and constellation projectors on it! Later this summer the theater, now fifteen years old, will get new carpeting. Despite strict rules about having drinks, etc. in the theater, and despite my actual presence at all the shows, folks have still managed to sneak in some sodas that have stained the carpet. Considered linoleum or tile, but since acoustically that's not so good, but the floor is slightly raked and there's a risk of slipping, we're going with carpeting again. I'll have pictures at the SEPA conference, where I hope to see all of you.

I'm on vacation now, and since I have no staff, the place shuts down until I return. Besides star parties, open houses and astronomy day, we're (wait a minute, there is no "we;" I'm flying solo here!) planning on presenting *The Planets*, *Star of Wonder*, *The Telescope*, and *Daughter of the Stars* in the upcoming year.

Incidentally, we (again with the "we?") don't hold Astronomy Day on whatever the "official" date is, but whenever it suits our (actually, there is a "we" and an "our," in this case, since I'll be relying on help from the Treasure Coast Astronomical Society, a great amateur astronomy club!) schedule, which this year will be on February 28, as we have a pretty crescent moon to look at then and it's when we still have a lot of folks in town who winter in Florida.)

LOUISIANA

contact: Jon Elvert
Pennington Planetarium
Baton Rouge, LA
jelvert@lasm.org



Lafayette Planetarium Lafayette Natural History Museum Lafayette, LA

Dave Hostetter reports: SEPA will visit Lafayette from July 22-26 for the 2008 conference. It will be the usual busy conference, with plenty of time for presentations, lots of good food, and some interesting trips and speakers. The Lafayette staff members hope you plan to be there!

We have a busy summer planned with extra programs for the public and many programs for day care centers and summer schools. The featured public program is *Secrets of the Southern Skies*, a program about the European Southern Observatory and its research that was originally produced in France. We have the English version for the public and the French version for upper level language classes during the school year. *Secrets of the Southern Skies* follows our springtime production of SEPA's own *The Planets*. It was well received by the public and we recommend it to you!

Ongoing projects this fiscal year include revamping the meteorite exhibit in our planetarium lobby and building a remotely operated observatory on the Museum roof. Both projects are on schedule and we expect to have them finished by the end of the year.

As the school year opens, we plan to start a "Young Astronomers" club as an after school activity for 13 to 18 year olds. Several local teachers have expressed interest in developing astronomy clubs at their schools, and we hope to work with them to share ideas, activities, and projects.

We think it's going to be a good summer and fall in Lafayette - all we have to do is survive SEPA....

MISSISSIPPI



Russell C. Davis Planetarium Jackson, MS

Gary Lazich reports: The Russell C. Davis Planetarium showed for summer the large format films *Dinosaurs Alive!* and *The Human Body* with the Loch Ness sky features *More than Meets the Eye* and *Larry Cat in Space*. So many groups have reserved admission that, because we show week-day matinees during the summer, we have had days with shows every hour on the hour from 9 a.m. through 3 p.m. In September, we will celebrate our 30th (Pearl) Anniversary with a special event.



Those of you that read IPS News online carefully may have noticed the inclusion of an article from a local paper about our planetarium. The reporter interviewed our Director of Human and Cultural Services, who drew on information I had supplied him. We are in the process of determining whether it would be more cost-effective to renovate the existing facilities or build a state-of-the-art facility elsewhere. Our local arts council, along with an architectural firm and a developer, has proposed a plan that would replace our second-floor office space with a gourmet restaurant and our third-floor lobby and theater with a performing arts theater. Everyone concerned agrees that Jackson needs a planetarium; we now must decide whether it will

remain in its current location or move to another one.

In June, we received a visit by Executive Director Bernard Burel and Director of Programs Marc Moutin from the *Cite de l'espace* in Toulouse, France. They are planning to develop a major exhibition commemorating the 40th anniversary of the *Apollo 11* mission. The Moon Experience will feature a simulated lunar surface and base that allows interested visitors to experience walking under 1/6 Earth's gravity. M. Burel and M. Moutin hope to replicate their exhibition for use inside the Convention Center currently under construction that abuts the Planetarium to the west. Because we had planned to present an *Apollo* retrospective anyway, we welcome the prospect of such a large and spectacular space-related experience next door."

Rainwater Observatory & Planetarium French Camp, MS

James Hill reports: The Rainwater Observatory and Planetarium expanded its popular "Backyard Astronomy" series to include the summer sky. We offered family oriented talks followed by observing the four Fridays in June at 7:30 pm. We also offered in June a week-long 'Astronomy for Teachers' workshop that afforded three semester-hours of credit to participants. Finally, we presented programs for 60 children at the Welty Library in Jackson and then returned to do a night program for 300 Foundation members at the Mississippi Museum of Natural Science. Special thanks go to members of the Jackson Astronomical Association who came and helped by setting up their telescopes.

The big news is that the long hoped for high speed internet is in the near future. French Camp Academy will be letting a contract shortly to run fiber optic lines to all their dorms and since we are "on the way" to one of the dorms, we will be able to tap into the line to get it to the Sangre facility. Once it's there we can connect to the fiber optic we already have and run it back to the classroom and meeting room. After that we can add equipment to create a local "hot spot" for people to connect to the internet with their laptops.

We are slowly getting better at using the new Sangre 25" Ritchey-Chretien computer-controlled telescope. Belgian amateur astronomer Alexandre Lhoest came by to some of our programs and stayed far into the night to help us with getting CCD images and using the MaximDL program.



Carolina Association of Planetarium Educators (CAPE)

See listing under PARI StarLab.

Millholland Planetarium Catawba Science Center Hickory, NC

Curt Spivey reports: Hi all! After a very slow May for public attendance, things are picking up again now that summer is here. We opened *Astronaut* on June 13 and it keeps bringing folks in! Over the summer, we have expanded our show time offerings and are now putting an average of 400 visitors per week through the planetarium (keep in mind we have 65 seats). I have also been teaching in our summer camp program the entire month of June, which leaves me VERY tired! I should note that despite the lack of general public in May, our school programs were wall to wall for nearly the entire month.

On the laser front, our evening programs continue to be wildly popular! We had six sold out shows of *Laser Led Zeppelin* in May. In June, we end with the techno show *Hypnotica* which really isn't that popular a genre around here (my fault, I'll admit - I LOVE techno). Despite that we still had about 40 per show! I've now established there is a core audience of 30 or 40 folks that it doesn't matter what the theme is, they'll show up because they love the lasers that much! As of this writing, tickets for our

July show, *The Wall* go on sale in three days, and we are expecting a line - just like a concert!!

Lastly, I'm delighted to report we will be upgrading our SkyLase lens this August. Our visitors haven't seen anything yet! I hope to keep the laser shows fresh enough to have these huge crowds continue for many years.

PARI StarLab Pisgah Astronomical Research Institute Rosman, NC

Bob Hayward reports: As in past years, summertime is probably the busiest time of the year for the Education Department at PARI (Pisgah Astronomical Research Institute) near Rosman, NC. For the sixth year in a row PARI is hosting Duke TIP (Talent Identification Program) Field Study in astronomy and astrophysics. Due to the popularity of PARI's on-site programs in past years, the limit was increased to 30 students this year. In June twenty-nine high school students from all over the nation spent two weeks in residence at PARI receiving instruction and professional lectures on a variety of topics and then completing research projects themselves.

PARI hosted two sessions of fifteen high school students each in the Space Science Laboratory program. These students from local school systems spent a week in residence at PARI and will continue their studies throughout the upcoming school year. This is the last year of the three-year grant from the Burroughs-Welcome Foundation; a proposal has been submitted to continue funding for this highly successful program.

July 17-18 PARI once again hosted a summer symposium for students involved in the R.O.B.O.T.S. (Robotics: Opportunities for Building Outstanding Talent in the Sciences) program funded by the National Science Foundation Academies for Young Scientists.

The "Evening at PARI" campus tour, lecture and observing series for the public continues successfully each second Friday evening. Speakers are invited from local universities, PARI staff and professional visitors to PARI. This program has served

to make PARI more visible in the community and Western NC as a whole. StarLab outreach programs continue to schools and recreation venues for summer programs.

Christi Whitworth, Science Educator, along with Don Cline, President, and Jo Cline, Chairman of the Board, represented PARI at the June joint meeting of the American Astronomical Society and the Astronomical Society of the Pacific in St. Louis. Christi also attended the June meeting of the International Planetarium Society in Chicago. Unfortunately, schedule conflicts prevented PARI being represented at the SEPA meeting in Louisiana in July.

Bob and Christi are in the midst of final planning for the Carolina Association of Planetarium Educators (CAPE) meeting August 25-26 at PARI. For more information see the Spring issue of *Southern Skies*, p.25, or contact Christi cwhitworth@pari.edu or Bob rhayward@pari.edu, 828-877-6348. Information and online registration is available at PARI's website www.pari.edu.

Finally, we are reluctant to announce the departure of Beth Harris from PARI's education staff. Beth is applying her many talents to private consulting and will have PARI as one of her clients so she is not completely gone. We wish her the best in her new endeavor!

Margaret C. Woodson Planetarium Horizons Unlimited, Rowan-Salisbury Schools Salisbury, NC

Patsy Wilson reports: The planetarium is on summer schedule - shows are presented by special request only except for the third Saturday evening in each month. A number of Senior Citizen and Summer Day Camp groups have been served. This slower season is a good time for program research and development. (The downside being that no pay is involved, but what else is new. We've all worked untold hours of "volunteer" time in our facilities.)

Patsy presented, *Blast Off*, a retrospective on the Mercury, Gemini and Apollo missions, to over 200 Boy Scouts at the Belk Scout Day Camp in Mint Hill recently. She also discussed the Mars Phoenix

mission during lunch. At the end of a very long, hot day, she was given her first boy scout patch.

In June we ran *Solar Max* as our public opening and July will feature *Laser Spirit* to celebrate Independence Day. Later this summer, we will, like Curt in Hickory, add a lens upgrade to our Skylase system just in time for the beginning of another school year.



Planetarium
University of Puerto Rico at Mayagüez
Mayagüez, PR

The editor welcomes this new contributor: Dolores Balzac is the Planetarium Coordinator at the University of Puerto Rico, Mayagüez Campus. She is also an Outreach Specialist for NASA's Puerto Rico Space Grant Consortium (PRSGC).

Dolores Balzac reports: For the summer we have a few educators workshops preparing for the IYA. Our activities start as early as October 2008 with the presentation of the committee that will work in P.R.



DuPont Planetarium
Ruth Patrick Science Ed. Ctr. , USC
Aiken, SC

News from the DuPont Planetarium: The DuPont Planetarium at the Ruth Patrick Science Education Center (RPSEC) on the campus of the University of South Carolina Aiken partnered with the Astronomy

Club of Augusta to sponsor Earth and Sky Night on National Astronomy Day. Unfortunately, it was cloudy and rainy leading up to the event. In fact, one of the gallant leaders of the club sent a message out to the members stating that the event was cancelled. Fortunately, a few people from the club arrived anyway so we had a number of telescopes on the lawn in front of our planetarium. We also had the Bechtel Telescope housed in the RPSEC Observatory open. As the evening continued, there were some breaks in the clouds that provided glimpses of the Moon and Saturn. While we had a light turnout, people who participated enjoyed themselves. In addition to the telescope viewing, we also provided a number of hands-on activities about the Earth and sky. Among the more popular attractions were the egg drop contest and the robotics demonstration from the nationally competitive M'Aiken Magic Robotics team.

On National Astronomy Day, we also had our public debut of our newest show, *To the Moon and Beyond*. This is a local production with our talented scriptwriter, Darlene Smalley. The show featured local talent as the narrators. A local television news celebrity, Mary Morrison, was the narrator for the show and a local radio celebrity, Tony Baughman, read the part of one of the main characters. The characters of a mother and daughter were read by mother/daughter team, Laura and Moriah Melvin.

On May 9th, we had a VIP showing for our two sponsors. Washington Savannah River Company, which operates our local Department of Energy Nuclear Plant was one of our financial sponsors. We also wrote a proposal and received a grant from the Porter Fleming Foundation. This is a local foundation that supports the arts, humanities and education in the Central Savannah River Area of South Carolina and Georgia.

In June, the planetarium presented *More Than Meets the Eye* from Lochness Productions and *Digistar "Laser" Fantasy*, which is a local production. In July, *In My Backyard* from the Calgary Science Centre and *Digistar "Laser" Fantasy* were shown to the public. In August, the planetarium will present *The Explorers of Mauna Kea* produced by the Bishop Planetarium in Hawaii and *Digistar Virtual Journey*, another local production.

Settlemyre Planetarium
Museum of York County
Rock Hill, SC

Glenn Dantzler reports: The Settlemyre planetarium had another very successful year. Attendance is up despite the rising cost of fuel. This summer we are alternating shows 3 days per week and the weekends. Of course these shows are already "in the can" and can be alternated at will. The idea is to get return visits from day care centers. I have been assigned extra duties here at the museum. These duties are floor interpretation of both natural and cultural history. I have been in ongoing training in both these areas. This interpretation occurs between the hours of 2 and 4 pm when the planetarium is not usually in use during the school year. On the weekends the planetarium is in use from 11 am - 4 pm. This precludes the production of any new shows of course for school or public use but have an adequate backlog of shows I can pull out of the "box" if necessary.

I have approached the education director to give me one hour a month on Saturdays to show a program not based on the premise that only families with small children will be here on Saturdays. I intend to call the program "Scientific Saturdays". I am going to try to do this in conjunction with the International Year of Astronomy. Also I hope to persuade our local astronomy club to do more outreach and I hope to put on a workshop for building the Galileo telescope. This is contingent upon the scopes costing only ten dollars each. Wish me luck in these endeavors. Hope you all have a good summer and the school kids keep coming despite the rising cost of fuel.



Bays Mountain Planetarium
Kingsport, TN

Adam Thanz reports: The saga of our planetarium theater refurbishment project continues to provide

challenges and excitement. If you've been following our story, you'll know that we are in the middle of a \$1.3 M project to replace just about everything in our theater. Jason & I have put an incredible amount of sweat-equity into this project. This is not uncommon within our profession. As I write this, we are now on the verge of construction. This is when the public will notice something happening with the theater. All work so far has been behind closed doors. It's either been removing equipment or working with the engineer, contractors and our city government. We are also marching bravely into the unpredictable world of full-dome video production. This is where science and mathematics meets the precarious environment of computer software and hardware. You can hear and read about these tribulations from many sources, but you don't realize it until you delve into it. Being able to create 3-D models and environments is one thing, but then dealing with the rendering is another. Rendering is slow. Very slow. Also, there is the wonderful occurrence of random errors by the computers and the rendering software. Throw into that the bizarre nature of the software to sometimes not be able to handle rendering a camera view that is pointing at the zenith. The fix for this is to tilt all your cameras 1 degree off vertical. Huh. As construction starts, there will be countless more problems to deal with as well. Regardless of what may happen, we will survive. We are also charting unknown territory in composing music and effects for 5.1 surround sound (for us, anyway). Jason is heading this up. He is well prepared with years of sound engineering experience, composing skills, and Apple's Logic Pro software. This new theater definitely requires a quantum leap in technical skills and ambition.

As far as activities we provide to the public, we give programs on the weekends that provide what's up with the current night sky including an update to the theater project. We have continued with our free, public solar viewing on clear weekends. We will also be providing our StarWatch programs. They are our free, nighttime observing sessions at our observatories. They are on the Saturday nights of October and November.

Speaking of October, StarFest is on the 24-26. It is a major regional star party that we host. It is our

25th anniversary and we have extended the length to three days! Jason Dorfman is heading this event and it's going to be great. There will be lots of presentations, observing, food and fun. All activities, food, T-shirt, place to sleep is included in one low price. If you want to attend, you must pre-register. Go to baysmountain.com for more details.

VIRGINIA
contact: Kelly Herbst
Virginia Living Museum
Newport News, VA
Kelly.Herbst@thevlm.org



**John C. Wells Planetarium
 James Madison University
 Harrisonburg, VA**

William Alexander reports: After almost three years after being closed to the public, the John. C. Wells Planetarium at James Madison University has received a \$1.3 million renovation. The renovation consisted of a new GOTO-Chronos planetarium projector that works as a hybrid system with a Digistar-3 full-dome projector system. The renovation also included a brand new inner dome that gives spectacular star images, and all new seats and carpeting.



The project was made possible due to the Miller Hall renovation at JMU, as well as the funding by the College of Science and Mathematics. The renovation was initiated by now-retired physics professor, Jon Staib, who thought it was imperative that

JMU continue efforts in astronomy outreach. Our audiences will include the general public, school groups, JMU classes, as well as a whole host of other visitors. We feel that providing outreach to schools is where the Wells Planetarium can make a real impact on the next generation of scientists. To this end, I've initiated a Wells Planetarium Teachers Advisory Panel that will consist of local teachers. These teachers will help provide insight and advice on how best to serve the science education mission at local school systems.

In September 2008, the department of Physics and Astronomy will rededicate the planetarium in honor of John C. Wells who passed away in 2005. Since Dr. Wells was such a tireless educator and champion of science, what better way to honor him than with such an advanced facility with a clear mission of promoting science education? Dr. Wells would certainly be proud of his namesake. The future of the Wells planetarium is indeed exciting. Be watching for announcements about the rededication festivities on the JMU physics website <http://csma31.csm.jmu.edu/physics/>.

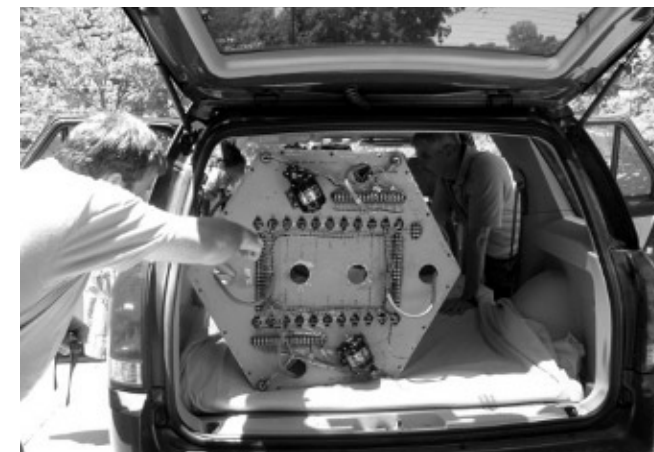
**Virginia Living Museum Planetarium
 Newport News, VA**

Kelly Herbst reports: When I wrote up the news in the Spring, I had no idea just how different things would be a scant three months later!

Suddenly, not long after my submission to SEPA was made, a breakthrough in our planned planetarium upgrade came! We had a donor, who has asked to remain anonymous, step in and give a large sum of money, allowing us to proceed forward with renovations. Management here at the museum decided to strike while the iron was hot, and the decision was made to close as soon as school programs ended, and reopen with our new digital theater in December of this year. All of a sudden I was instantly four months behind on a very big project! But things are going well and we're on schedule to install our new Spitz sciDome and AVI SkyLase later this Fall.

The most painful part thus far has been having to part with my beloved Spitz A3P. But fortunately

it has found a good home with Adam Thanz and Robin Byrne in Tennessee! The removal process went amazingly smoothly (despite 43 years of accumulated wiring weirdness) and my baby is now resting, awaiting the completion of the construction of its new theater. Thank you so very much to Adam and Robin for all their help! I still can't believe we fit that big old machine into a Saturn Vue!



So we are now officially closed for all programming, as you can imagine! Walls are coming down and seats are being cleaned and reupholstered and all kinds of crazy things are happening. Summer classes must continue however, as they were booked long before any of this was scheduled. So John and I are busier than the proverbial one-armed paper hanger!

As I write this IPS is underway, and SEPA is fast approaching. How I miss seeing everyone. SEPA 2009 is already blocked out on my calendar! Can't wait!

**Thomas Jefferson HS Planetarium
 Richmond, VA**

Leslie Bochenski reports: School has been out for about 3 weeks now, and I'm enjoying the time off. It was a busy school year, with over 125 classes of 3rd, 4th, 6th, 8th and 9th grade students visiting the planetarium for a variety of programs. In addition to all these programs, I taught one honors class of astronomy for some very bright and interesting students. They kept me laughing most days!

This summer, the Planetarium will be painted. It is long overdue; there is peeling paint on all four walls, and last time they painted it glossy black. I'm just hoping my request for flat black doesn't get lost in the school bureaucracy. What is a planetarian's favorite color? Flat black.

Have a great summer everyone!

Cover Photo Info:
 Can you say light pollution?

Name: 4 Meter & Phoenix

Description: While participating in the Advanced Observing Program at Kitt Peak on March 7, 2008, I took this exposure of the 4 meter in front of the distant light pollution created by the city of Phoenix located over 121 miles away. The low cloud layer, which later dissipated, enhanced the illumination problem. Still, the skies are steady and the science spectacular!

Nikon D300
 ISO 400, 24 mm f-3.8, 266.2 secs exp, tripod

George Fleenor, Geographics



