

Southern Skies

Volume 25, Number 2

Journal of the Southeastern Planetarium Association

Spring 2005

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President's Message

Spring in the southeast is a beautiful sight, and the lure of the outdoors beckons. Spirits seem to lift and optimism abounds. Luckily in Piedmont, North Carolina, we had a very mild winter with little snow or ice and limited periods of unbearably cold temperatures. I know that probably wasn't the case for our entire region.

At this time of year we also turn our thoughts to the upcoming conference. Mark your calendars, start begging your administrators for funding, and plan to come to Atlanta from June 14th – 18th. April Whitt and staff at Fernbank Science Center are set to welcome us in style. The theme of this year's conference is Astronomy Education.

There will be ample opportunity for you to network, renew old friendships, make new ones, visit with vendors, and share ideas. The conference is only as successful as you make it. Please consider sharing a great project or idea that you've used at your facility by presenting during our sessions. Contact April if you have any suggestions or comments regarding the '05 conference

Have you ever really thought about how supportive our vendors are? Not only do they set up exhibits that help us to keep abreast of new products and emerging technology in the field, but also they generously underwrite many of our meals, snacks, receptions, field trips, and banquet speakers. They always have some type of free goodies to share with us, and they spend many hours patiently answering our questions. Take time to tell all of our conference vendors that you appreciate their support when you visit their booths.

Sometimes we forget the special programs that SEPA sponsors. Dave Maness has worked for several years to develop a scholarship fund to benefit our membership. At present, we are still raising funds to support this program which might help someone with limited funding participate in our conferences. One of the easiest ways to contribute to this fund is by supporting the silent auction held during the social time prior to the Friday night banquet at conference.

Do you have an item for auction? It can be space-related, but doesn't have to be. It can be frivolous or beautiful, serious or silly. It would help Dave organize the event if you contact him before conference to let him know what you item(s) you will contribute. Come to the banquet prepared to browse and bid. It doesn't help the cause for us to have great items for sale if no one buys them.

The other special program that should be mentioned is our Paul Campbell Fellowship Award.



Patsy Wilson
President
Margaret C. Woodson
Planetarium
Salisbury, North Carolina

Nomination forms are in each issue of the journal. There is an up to date list of all past winners on the Website. Spend a few thoughtful moments contemplating our membership and submit a nomination.

Persons considered for this award must have been members of SEPA for ten years, must display the characteristics of integrity, service, friendship, knowledge, and vision. According to our By-laws, all nominations must be submitted to council in writing and be signed by five members. This is a high honor and a reflection of true dedication to our organization and the planetarium field.

I want to say a personal thank you to Drew Gilmore at the Sudekum Planetarium in Nashville. Drew is our Webmaster and is always willing to put information on our Website. He has always responded very quickly whenever I've asked him to make changes or additions. The other day I made a quick tour of Websites representing other planetarium organizations in the country. I decided that the SEPA site is well-organized, attractive, and informative.

There is always room for improvement, and your input would be helpful. What kind of information do you want when you visit the site? What would be useful to some potential member exploring the site? Drew or I would love to hear your opinions and suggestions.

Remember (and this has been said repeatedly) you cannot register for the conference unless you've paid your dues. Members may no longer pay their annual dues when registering. A decision was made at last year's conference to send only one dues reminder and one grace period issue of the journal after dues have expired. Old habits are hard to break, and SEPA has been very lenient about dues in the past, but explicit policies were put into place last year. Please check your status. I hope to see all of you in Atlanta in June.

IPS Report

John Hare
IPS Representative
ASH Enterprises

IPS is considering a major restructuring of the organization. Discussions at the IPS Council meeting in Valencia followed a report requested by Council and submitted by consultants Ian McClennan and Robert Balantyne that was based on their research and recommendations. Further discussion is being conducted via e-mail, and it is hoped that Council will be in a position to make some decisions at the upcoming Council meeting scheduled for Beijing in September. I have and will be continuing to add my “two cents worth” in these discussions and will be attending the Beijing meeting. The following is a list of questions set forth by IPS President Martin George.

1. Professionalism

In the broad scenarios suggested, it is mentioned that the current IPS is not a global, professional society, and that (one) scenario would ‘transform IPS into global society for planetarium professionals.’ Basically, the new scenario concentrates mainly on the provision of a Secretariat (from \$50,000 to \$75,000 per year) and an online forum (\$40 per member per year). What are your views on these statements, especially that the IPS is not a ‘global, professional society’?

2. The Secretariat

A major issue brought up in the report is the possible provision of a Secretariat, to take on some of the day-to-day mechanical tasks of the IPS. Is this desirable, given the cost, \$50,000+ per year?

3. Representation/Governance

There is a suggestion to change the governance structure. How do you feel about the current governance compared with the suggested model? In other words, should IPS change to a smaller, member-elected board?

4. Representation/Governance II

There is a suggestion of a sliding scale of IPS membership dues for small and large planetariums (mobiles/large facilities) based on the fairest possible categorization, such as size of institution. What do you think? This would, of course, impact on the budget; however, it may also promote more membership.

5. Representation/Governance III

(a) With respect to the current structure, the United States has seven regionals; the rest of world

has 15. This is suggested as being lopsided. What are your views? Is there a ‘fairer’ way of organizing representation? (b) There is a suggestion to run conferences every year, with alternate years in North America. Would this better reflect the location of the membership, or would it set an undesirable precedent?

6. Effectiveness of Committees

There is a suggestion that the Committees could be made more effective. What do you think of the current effectiveness of the Committees?

7. Membership Structure

With respect to membership structure, it is suggested that the IPS could have a wider membership to include people such as artists. Should the IPS broaden its membership in such a way?

8. Membership Promotion/Renewal

The report suggests that there is no systematic approach to membership promotion, retention or renewal. It has been suggested that these areas are handled well, through the fine work of our Treasurer and Membership Chairman. In particular, our ‘Star Partners’ program actively encourages and assists membership in certain countries. Membership promotion aimed at other planetariums or other countries, where the Star Partners program does not necessarily apply, is one of the aims.

9. Vendors

There is a suggestion that we engage the membership and the vendor/supplier sector in a ‘pro-active dialogue’ aimed at bridging the gap (both real and perceived) and make the vendors an integral part of the IPS operation. What do we perceive as the gap between planetarium operators and the vendors/suppliers? What issues do we see that need resolving here?

10. Making IPS more ‘relevant’

Through the proposed Secretariat, there is a suggestion that we institute and manage an ongoing dialogue about how to make the IPS more ‘relevant and useful’ in planetariums’ everyday professional lives. One service, recommended by the consultants, is an online forum’ (mentioned earlier). Is dome-I, however, sufficient in itself?

11. Membership Services

The report suggests that we could perhaps ‘expand our membership services,’ *i.e.* to make the

(continued on page 20)

Editor's Message:

—30—

Forty-one issues is enough. I have asked President Patsy Wilson to appoint another SEPA member to edit *Southern Skies*. I volunteered to take over as editor of this publication in 1995 after Linda Hare served in that capacity for a number of years. I hope I have lived up to her standards.

I am stepping down as *Southern Skies* editor because my personal life is becoming busier. My younger daughter got married this winter, and my older daughter is expecting our third grandchild in early fall. Life just keeps getting better and more exciting, and it provides us with more opportunities for travel.

Instead of participating in the 2005 conference, my wife Judy and I will travel to Ireland, England, and France this summer to visit with the newlyweds and to do some sightseeing. I'm looking forward to a visit to Stonehenge in England, New Grange in Ireland, and a return to Paris so see some places we didn't have time to visit on our last trip there in 2003.

Another former editor of *Southern Skies* is retiring from the planetarium field. Jack Fletcher is leaving the Hummel Planetarium at Eastern Kentucky University in Richmond. Jack has been a planetarian for the past 35 years, 28 of which were at Hummel. You can read about Jack's retirement plans on page 11.

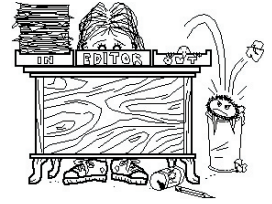
In March, the Sharpe Planetarium closed. Staff members received layoff notices. I talked with Sharpe Technical Director Roy Foppiano for quite a while on the phone that day. Roy was one of my planetarium interns when he was a student at Craigmont High School. He plans to be a stay-at-home dad for the near future.

Sharpe Planetarium Manager Jim Greenhouse has already returned to the Museum of Arts & Sciences in Macon, Georgia where he worked with Carole Helper before coming to Memphis. His contact information is also on page 11.

Jon Bell has written new space program related lyrics for an old song. Vocalize and get ready to sing the Moon Rovers Song. The words are on page 11.

Lest you think all the noteworthy information is on page 11, look in the usual places for the President's Message, the IPS Report, Small Talk, the AstroVideo Review, Scholarship Fund Update, SEPA slide library listing, and my Writers' Guidelines. I'm sure our new *Southern Skies* editor will have his or her own.

My sincere thanks to everyone who contributed as an occasional writer, a columnist, or an associate editor over the past ten years. You made *Southern Skies* a great publication.



Duncan Teague
Secretary-Treasurer
Southern Skies Editor
Craigmont Planetarium

SEPA Membership Form

Please send your check for \$25 (or \$15 if outside the SEPA geographical region) to SEPA, c/o Craigmont Planetarium, 3333 Covington Pike, Memphis, TN 38128-3902

Name _____

Organization _____

Planetarium _____

Address _____

City _____

State _____ Zip Code _____

Voice Phone _____

Fax Phone _____

E-mail Address _____

Staff Position _____

IPS Member? Yes _____ No _____

Contribution to Scholarship Award Account: \$ _____

TALK

SMALL TALK

Elizabeth Wasiluk
Hedgesville High School
Planetarium
Hedgesville, West Virginia

As I write this the spring rains are pounding down on the roof, and the school and planetarium are deserted. It is spring break. Spring brings with it many calls and bookings for the planetarium. Try as hard as I might, it is hard to convince people to book programs around the year, most people want to come in spring. Guess people tire of staring at the classroom walls, and who can blame them with the advent of good weather.

In September and October, it is too early in the school year for people to have gotten a chance to teach any astronomy. In winter, the weather is too awful and people want to avoid getting a program cancelled due to bad weather after going to all that trouble to book one. Therefore, that leaves spring as my busiest season. However, there is only one of me and only so many days in spring. Therefore, I still wish I could educate people to come throughout the school year. If you have any ideas along that line, send them to me.

One of the big excitements since my last column has been seeing the surface of Titan for the very first time thanks to the successful landing of the Huygens probe. We waited in breathless anticipation for the images, and it seems that the images came down very slowly. Amateurs took the liberty to process them and post them on the Web themselves. Is there nothing amateurs cannot do?

With my computer not capable of projecting onto the dome, and with slide projectors and slides being outdated, how does one get images they can project onto the dome? We need some images of Sedna and Quatar along with Cassini pictures being produced from the mission to Saturn to incorporate them into

solar system programs. A new solar system presentation that adds Kuiper Belt Objects and updates the images with stuff such as the debate about how Pluto maybe a wayward Kuiper Belt Object would be a great addition to any planetarium program. It would be even better if it could be distributed free to us all. Wish there were some provision in the new NASA programs that mandate them to have to make and distribute images for use in planetaria around the country.

Each year in February or March, Dr. Jason Best, the astronomer from Shepherd University, comes to speak with my first period astronomy class. We are attempting to establish a liason with Shepherd University since most of the students that graduate from our high school end up going there if they want a college education. We would want to encourage them to take upper level math and physics courses while there.

Usually my students read an article about him and develop questions about him for the visit. They were also able to do something similar with astronaut Dr. Jeff Hoffman via e-mail. He helped repair the Hubble Space Telescope and now teaches aeronautical engineering at MIT.

The sometimes rocky road with the art teacher who shares my room had at least one bright note with her borrowing an astronomy text and painting the planets outside the door to our shared classroom. Kinda makes up for her painting aliens peaking out of craters on the Moon mural on the wall outside the planetarium door and building a bridge between craters.

I kind of like the "Wasiluk" memorial, however. It is a replica of the Washington Memorial in Washing-

ton, DC on the surface of the Moon in the previously mentioned mural, only it has a projector situated in its head, projecting the constellation Cassiopedia unto the sky. Get it? The "W" in Cassiopedia is suppose to represent Wasiluk, *a la* the planetarium, kind of like projecting the bat signal into the sky for Batman.

See you next time. Until then, send ideas of interest to small planetaria. I'll do my best to incorporate them into my column.



Left: Dr. Jason Best
Professor of Astronomy
Shepherd University

Astro Video Review

Eclipse of the Century

It is mid-March, and like many of you, I have Sun on the brain. Are the scopes all in working order? Check. Are the informational flyers printed? Check. Please tell me the volunteers are really going to come? Check. Whew, now I can turn my attention to entertaining our guests while they wait a turn at a scope. Live feeds are ready to plug and play, but my search turned to what can I play on the looping monitors? I commenced to digging through our stacks. A promising little ditty surfaced, a NOVA presentation titled *Eclipse of the Century*. Perfect, I thought as I powered on the VCR for a look.

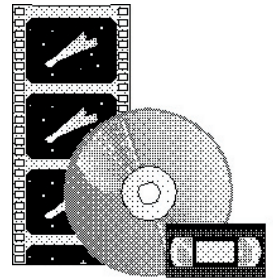
The back cover gave me hope that this was something different. Instead of 60 minutes of explaining the Sun and eclipses in mind numbing detail, this would be a presentation on what astronomers actually do to get ready for just a few breathtaking moments.

It is July 11, 1991. Scientists and astro groupies alike are flooding into Hawaii. This total eclipse is special because for the first time totality will occur directly over the Cadillac observatories of Mauna Kea. These technologically advanced telescopes will get the chance to peer behind the glare and possibly uncover a groundbreaking new discovery, that is, if everything goes as planned. As we all know, these things rarely go as planned.

The presentation follows a number of scientific teams, including a young teenager, as they prepare for totality. What follows is quite typical for those of us in the field but gives a behind the scenes peek to those unfamiliar with the antics of astronomy. There is the requisite presence of bungee cords and tape along with incompatible telescopes, temperamental equipment, and a new use for a mysterious film like substance found inside a potato chip bag. As crunch time looms, some teams are settling back to enjoy the view while others are burning the midnight oil. When all is ready, Mother Nature pulls her own stunts to keep everyone on their toes. Interspersed among the stories are short and sweet overviews about the Sun; how it works, what is an eclipse, and so on. Also mentioned are the research goals and questions that each team hopes to answer with the data they are to gather on the big day.

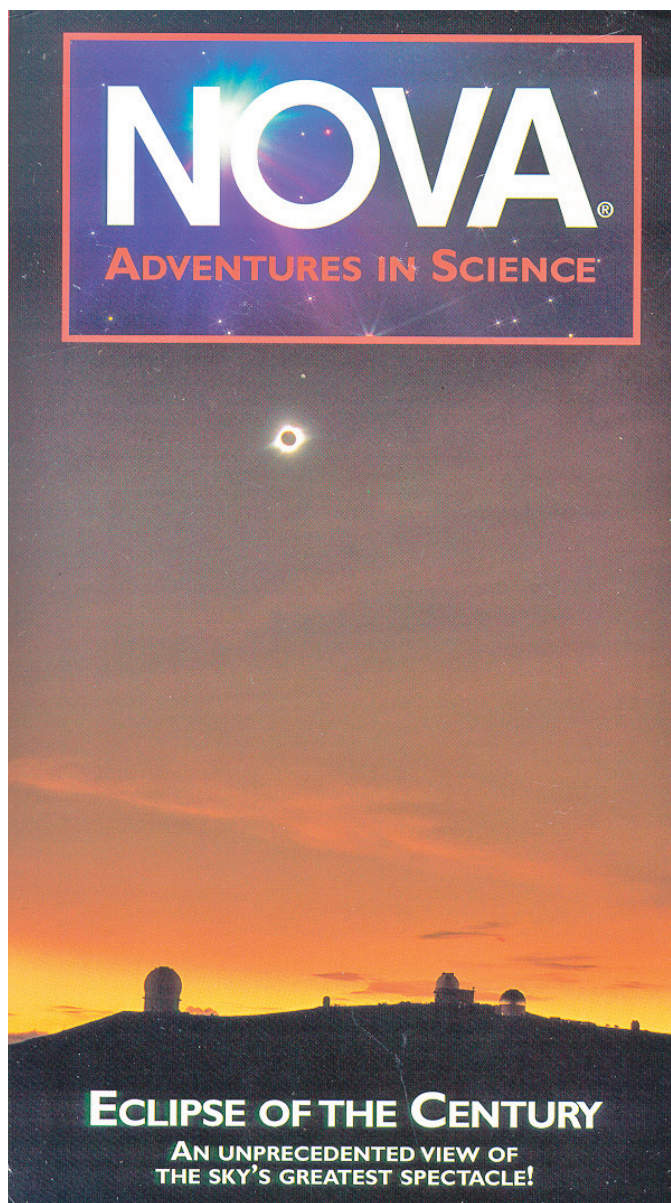
While the overall presentation isn't bad, one does have to consider that this was made in 1991, and it looks it. From the dress styles, to the background music, to the "day in the life of" format, it is definitely a flashback piece. It also leaves you with quite a few unanswered questions. While you are made aware of the research goals, you get no answers, there are no conclusions, and you are simply left to wonder about it all.

As an old VHS production for \$19.95 from PBS <www.publicvideostore.com> I am left wondering if the price would be worth it. As rental from your local library or as a garage sale find I wouldn't pass it up.



Priscilla Bernardo
Orlando Science Center
Planetarium
Orlando, Florida

Eclipse of the Century



SEPA Scholarship Fund Update and Silent Auction

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Above: A successful bidder holds up the item he won at the 2004 silent auction, a handmade belt crafted by Dave Maness

Friends and colleagues let me tell you about a fun activity that gets us all involved in helping another planetarian. This is of course the Silent Auction to benefit the SEPA Scholarship Fund. As some of you may know, we have been doing this to raise money for a fund that will someday (hopefully soon) benefit some of our colleagues in the future by help them financially to attend a professional workshop or a SEPA conference. To all those who provided items in the past, I cannot thank you enough.

As of today the fund account stands at \$762. My goal is to someday get this account to a level that we can provide a grant from the interest alone and leave the principal intact. So, we still have a long way to go. As has been tradition (if two years constitutes a tradition) we will again hold a silent auction to benefit this fund.

What we need from the membership this year are your contributions of items or services that you would be willing to provide to the highest bidder. In the past we have offered books, games, artwork, crafts (including a hand tooled, astronomy themed leather belt by me) and even an actual piece of space memorabilia. So think it over and let me know if you plan to bring something along to the conference in Atlanta. It will help me plan the space requirements if I know how many items to expect. Also let me know if you would like to help out on the Scholarship committee.

I have provided a sample form here to use for describing the item you bring for auction and for my records. As usual the auction will take place in the socialization time before the banquet. Thanks again for your participation as an item provider, bidder or both. See you in Atlanta.

SEPA Silent Auction Item

Place photo, draw a picture of item, or write a brief description in the space provided.

Item: _____

Description: _____

Offered by (Your name): _____

Preferred mode of contact information (Phone, Mail, E-mail, Fax, Pony Express, or other)

Southern Skies Writers' Submission Guidelines

It's time consuming to have to edit submissions to *Southern Skies* for issues of formatting, typography, style, and consistency before I compose each journal. Effective October 1st, unless these guidelines are followed, submissions will be returned for compliance.

- *Never* double space after punctuation or in any other instance. This is the only rule that has no exception.
- Don't use quotation marks around anything that isn't a direct quote from a speaker. The names of star shows are italicized in *Southern Skies*. Don't put star show names inside quotation marks.
- When you **do** use quotation marks, punctuation goes *inside*, not outside quotation marks.
- Italicize foreign words and any punctuation that immediately follows an italicized word.
- Use italics or bold characters to show emphasis instead of capitalizing words. *Italics* shouts a little bit. **Bold** shouts a lot.
- The general rule for whether to capitalize a word is the following: if you're not sure, don't.
- For consistency, capitalize Sun, Moon, and Earth when referring to our solar system's star, Earth's natural satellite, and our home planet.
- Do **not** capitalize seasons or cardinal directions.
- Only very rarely should one use an exclamation point and never multiple instances of exclamation points. One cannot use this punctuation mark as a substitute for good, strong writing.
- Use the typographically correct symbols for double and single quotes, not the marks that mean feet and inches. Your word processor can do it. Learn how. The typographically correct symbols are "curly," not "straight;" e-mail messages do not transmit the typographically correct symbols, so send submissions as attachments, not in the body text of an e-mail.
- Use the *en dash* for a series of events, and use a space before and after the *en dash*, e.g., Monday – Friday; September – October; 8:00 – 9:00. The **en dash** (–) is not a hyphen (-). Learn how to type the *en dash* with your word processor.

- Use the *em dash*, without spaces, to show an abrupt change of thought. The *em dash* (—) isn't two hyphens (--). Learn how to type the *em dash* with your word processor.
- Use the correct *ellipsis* character: ... This is *not* three periods with or without spaces between.
- Learn the difference between *it's* and *its*. Learn the difference between *there* and *their*. Learn the difference between *then* and *than*. Learn the difference between *from* and *than*.
- The nouns that name decades of time use a leading apostrophe to indicate the missing numerals that refer to the century. They're not possessive. '80s is correct; 80's and '80's are incorrect.
- Spell out numbers from one to ten. Use numerals for numbers greater than ten.
- Note the format for state news submissions and follow that format. Provide the name of the facility and the city. Don't include the state name after the city. It's unnecessary.
- Don't use the tab key to indent. When your text imports into my template, the template will automatically indent the first line the proper amount as long as you have merely formatted the first line of the paragraph to be *indented*. If there's a *tab* marker present in that text, the first line will indent the distance I have already established in my template **plus** the extra distance of any tabs in your text.
- Don't skip a line between paragraphs.
- Graphic files included with your article should be in a generic, cross-platform format. Don't use some file format proprietary to a special software program you use. Acceptable graphic file formats include the following: .eps, .gif, .jpg, .psd (Photoshop), and .tif.
- Text files should be created from a widely used word processor, e.g., Microsoft Word (.doc), or rich text format (.rtf), or plain text (.txt).
- If you want images to be included with your column or article, send them. Don't ask me to go to some Website and download them myself. If you don't have time, neither do I.

Duncan Teague, Editor
Southern Skies
Craigmont Planetarium
Memphis, Tennessee
38128-3902

News from SEPA States



George Fleenor
Geographics Imaging
and Consulting

FLORPLAN

The spring meeting of FLORPLAN, or sometimes known as FLOP (depending on how many people show up), met on Saturday, April 2, 2005 at the Indian River Community College Planetarium in Ft. Pierce. Upon arrival, host Jon Bell greeted delegates as he prepared their breakfast. Some 16 delegates were treated to eggs (cooked however they wanted them), sausage links, bread, bagels, muffins, juice and other assorted drinks. It was obvious, Jon doesn't only make up unique verses and songs relating to the Universe but he can also cook! GeoGraphics Imaging and Consulting sponsored breakfast.

The early morning activities included a short dome crawl followed by a public presentation of *Space Songs*, a unique show that only Jon can run correctly. Yes, the audience had to participate and join Jon in singing many astronomical hits and wonders. Recently the planetarium received an upgrade of their entire automation system. Everything, including the star projector, cove lighting (LED), slide projectors (including pans, all sky), special effects and video control systems are flawlessly controlled by East Coast Control. In addition, the planetarium installed a new console and changed its location to the front of the theater, a move that seems to work really well, especially in an educational environment. Participants then carpooled to Daryl's BBQ for lunch compliments of East Coast Control Systems. Anything on the menu was fair game and everyone walked away stuffed.

Returning to the planetarium theater, the group listened and watched presentations by Erich Landstrom (NASA Ambassador education), Laurent Pellerin (a new portable video projection system) and George Fleenor (video special effects/sequences.) The afternoon concluded with another star show, *Trip Through Space*, also produced by Jon Bell and Patrick McQuillan.

Hallstrom Planetarium, Fort Pierce

The Hallstrom Planetarium weathered two major hurricanes that made direct hits on our campus last September. The devastation left by Frances and Jeanne knocked down hundreds of trees and caused over 3 million dollars of damage. IRCC had great recovery however, and we were offering classes again within just a few days of each storm.

The Planetarium took both storms well; we lost a little of the roof flashing on the outer corridors and offices, which led to some leakage. (I have strong memories of hauling books off of endangered bookcases at 1:00 a.m. during Jeanne.) But we're pretty much okay now.

Somehow we managed to get some pretty big things done anyway. The 40 foot diameter hyper-hemisphere has been repainted by AstroTec. The original Spitz dome wasn't stained, but its reflectivity was about 38%; with the excellent repainting by Astro-Tec, we're now at slightly under 50%.

The Spitz ATM3 system served us faithfully and well for eleven years, but it finally gave up the ghost last winter and spring. Jon Frantz and East Coast Control Systems came in and installed a new console and automation system in the front of our theater, and we've been zooming along great ever since. We also had East Coast put in a new cove lighting system, replacing the 5,000 watt incandescent light bulb units with an 800 watt LED display.

Our public attendance has been holding at about 70%, but school attendance this year has dropped dramatically, thanks to the hurricanes. Schools have lost a lot of instruction days. Field trips have been curtailed or completely suspended. Now that the FCAT exams are finished, we're looking forward to a return of the school groups.

We had good views of last fall's lunar eclipse and of the partial solar eclipse of April 8. And we're looking forward to more big sky events in the future.

Below: Console
renovation at the
Hallstrom Planetarium



David Dundee
Fernbank Science Center
Atlanta, Georgia

Georgia Southern University Planetarium, Statesboro

Assistant Planetarium Director, Becky Lowder reports: We have had a very busy and exciting year bringing astronomy and space science to thousands of visitors of all ages in southeastern Georgia.

Dr. Ben Zellner retired as the planetarium director in June, with galactic astronomer Dr. Clayton Heller taking over as our new director.

In 2004 we were honored with the top *Sky and Telescope* Astronomy Day award along with the Statesboro Astronomy Club. We held a public pro-

gram and viewing of the Venus transit using various solar telescopes and solar viewers. Other events and presentations held over the past year were on the Stardust flyby, the Mars Exploration Rovers landings, Cassini, and RingWorld, the longitude prize, the lunar eclipse live, Native American skies, constellations, telescopes, holiday shows, Huygens landing on Titan, interstellar space travel, Gravity Probe B, and the 2005 Astronomy and Space Day. Star parties on the roof have been very popular following evening events where visitors were thrilled to see Saturn and more. On sunny days we set up our H- α telescope on

the walkway for everyone to enjoy viewing our closest star in action, and children can trace sunspots using the Sunspotter solar telescope.

ViewSpace from Space Telescope Science Institute is up and running 24 hours a day in our main entrance lobby. It delights university students, faculty, staff, and visitors with continuous planetarium presentations and the latest images from all the space telescopes, Cassini, Mars Exploration Rovers, and more.

Our upcoming events for April will be on the partial solar eclipse, constellations, and Hubble's 15th Anniversary. We will be taking part in the national unveiling of two new spectacular mural sized images of the Whirlpool Galaxy and the Eagle Nebula to

celebrate Hubble's 15 years of viewing the heavens.

We've added new shows to our daily school and group presentations that are free for all ages ranging from Pre-K to adults. Our Website is at <cost.georgiasouthern.edu/physics/planetariumpage1.html>. Our dedicated university student interns have done a wonderful job assisting with the public shows and events.

I'm looking forward to scouts, middle school students, and teachers during the summer months for workshops and presentations in astronomy. Most of all, I'm looking forward to attending the SEPA conference in Atlanta and seeing all my astronomy friends again.



David Dundee
Fernbank Science Center
Atlanta, Georgia

Morehead Planetarium & Science Center, Chapel Hill

March madness hit the campus as UNC advanced to the final four, even the planetarium closed early.

The staff provided a free public viewing of the partial solar eclipse on April 8th around the sundial.

The Morehead has received a NASA STSci/IDEAS grant for Project OBSERVE (Observation Based Student Experience in Research Via Exploration). They will partner with the UNC Department of Physics and Astronomy and PARI. Thirty earth and environmental science teachers from across the state will spend a week in residence at PARI this summer.

Carolinas Association of Planetarium Educators

This organization, targeting small to mid-size planetaria and science centers, will provide opportunities for peer evaluation, networking, sharing, and support. The first meeting is planned for June 24 – 25 at Robeson Planetarium in Lumberton. All persons associated with astronomy education (planetarium, science center, classroom, or other) in North and South Carolina are invited to participate. Contact Ken Brandt at Robeson, Patsy Wilson at Woodson, or Rik Zawadzki at Ingram.

Pisgah Astronomical Research Institute, Rosman

Bob Hayward reports: Things are moving along well and he is busy with the StarLab. He is seeing a significant drop in attendance numbers due to problems involving recovery from the numerous hurricanes that passed through the area last fall.

The Pisgah Astronomical Research and Science Education Center (PARSEC) was awarded \$1,000,000 in the federal budget thanks to Congressman Charles Taylor. PARSEC is the governing entity, based at UNC-Asheville, for the Pisgah Astronomical Research Institute's (PARI's) collaboration with the 16-campus UNC system. That money will be managed and distributed by PARSEC to upgrade facilities at PARI for research by faculty and students in the UNC system. None of that has anything to do directly with the planetarium but it's nice to be part of an evolving (Oops, wrong word.), growing organization.

Robeson Planetarium and Science Center, Lumberton

Ken Brandt has been actively engaged in learning as well as teaching over the last few months. In addition to serving teachers and students of this district, conventions, conferences, and grant writing have played a significant role. I've learned that NASA is trying very hard to revamp and make more useful its various outreach components. Several focus groups were convened, and he attended those at Kennedy Space Center and the American Museum's Rose Center.

At NSTA, Robeson Planetarium participated in the Lone Star Roundup, a Share-a-thon of 18 informal education venues and agencies. In addition to handing out the usual Solar System Ambassador's suite of posters, bookmarks, etc., he demonstrated how to develop a scale model of the earth-moon distance using a globe and string.

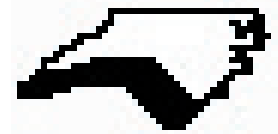
The Spitz A3P control panel (original hardware) is being upgraded and automated. NASA Langley's museum loan program has provided more exhibits, including a Viking Lander and 2001 Mars Odyssey model.

Finally, there is the upcoming CAPE conference and organizational meeting for the Carolinas Association of Planetarium Educators.

If you haven't already made plans to attend this event, please consider doing so. CAPE convenes in Lumberton on Friday, June 24, and concludes Saturday afternoon. Interactive education under both fixed and portable domes is the focus of the meeting.

Margaret C. Woodson Planetarium, Salisbury

Patsy Wilson reports: In addition to a full slate of school programs, the planetarium has hosted several scout troops, special needs groups, visitors from the NC Museum Council and others. The school system's trip to Space Camp in Huntsville, Alabama is in the final stages with departure less than two months away for the 112 students and 15 chaperones. Patsy is planning staff development for the teachers and has coordinated the logistics of this event. Space Explorers summer day camp is scheduled for the last week in June.



Patsy Wilson
Woodson Planetarium
Salisbury, South Carolina



Glenn Dantzer
Settlemyre Planetarium
Rock Hill, South Carolina

Dupont Planetarium Aiken South Carolina
April was a busy month at the Dupont Planetarium. On April 8, we sponsored a special viewing of the partial solar eclipse. We have two telescopes, an 8-inch Schmidt Cassegrain and a 90mm refractor, equipped with solar filters. A member of our local astronomy club, Jim Cadieux, allowed us to use his Sunspotter during the event. Additionally, we had a number of Eclipse Shades available for our visitors.

We celebrated National Astronomy Day on April 16 with our annual, Spring Earth & Sky Night. In honor of the 15th anniversary celebration of the deployment of the Hubble Space Telescope, we resurrected the planetarium show, Through the Eyes of Hubble. This show was produced by the Buhl planetarium in Pittsburg and was the first, full show presented in the Dupont planetarium. Prior to presenting the Hubble show, we had been presenting our opening Digistar show with audio on a cassette tape and a live star show. It was fitting to present the Hubble show to mark the 15th anniversary but also mark the 10th anniversary of the opening of the Dupont Planetarium. The planetarium actually opened in July so we will be planning other anniversary events for later this year.

On April 22, we took part in a local Earth Week celebration and set up our solar viewing scopes for people who participated. We used this opportunity to help advertise for the Hubble anniversary celebration on April 25th.

The Space Telescope Science Institute planned a special celebration of Hubble's 15th Anniversary by inviting science centers, museums and planetariums to apply for selection as a site for the national unveiling of two, new, breathtaking, mural-sized, Hubble

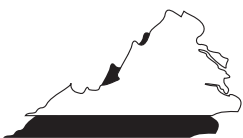
images. We were pleased to participate in this event. There was a 4' X 6' image of the well-known spiral galaxy M51 and a 3' X 6' eerie-looking tower of gas in the Eagle Nebula. The unveiling was conducted by the Honorable Fred Cavanaugh, Mayor of Aiken, South Carolina.

Finally, our public shows for April featured, Cruising Through the Constellations. This is a live show that we produced locally and you can probably imagine the main content based on the name.

Life will continue after April. In May, we will present, Explorers of Mauna Kea, which was produced by the Bishop Planetarium in Hawaii. In June we will present the very popular, Larry Cat in Space. Over the years, this has been our most popular show. Some of our presenters wake up at night humming the song and repeating special lines such as, "Haven't you ever seen a cat before?" However, we will continue presenting this show.

Settlemyre Planetarium Rock Hill South Carolina

The spring rush is upon us and summer will soon arrive. The planetarium is literally overflowing with kids! We are planning a booth and planetarium show for Earth day for the last weekend of April. Both will emphasize light pollution and wasted energy. We are currently running weekend shows such as Carolina Skies and have resurrected The Space Bus. Our weekend presenter came up with a program for younger children called Camp Fire Stories and I the pleasure of building an old fashioned special effect for the campfire. Ah the good old days! Our summer fare will include Rusty Rocket and Planet Patrol. These will be offered twice a day and are very popular with local day cares. Have a great summer.



Dave Maness
Virginia Living Museum
Planetarium
Newport News, Virginia

Virginia Living Museum Planetarium, Newport News

Another positive change has taken place here since my last submission. My assistant Dr. Kelly Herbst (whom many of you met at the conference in Richmond) and her husband Phillip are the proud adoptive parents of a nearly one year old girl from China. This means she is taking some family leave until April 2005.

We seem to be having some success with our new 16-inch Meade Schmidt-Cassegrain. It sits on a Pier-Tech mount, which I might add has been very stable and reliable. We were working out some minor bugs in the electrical wiring for the dome and later discovered some weird behaviors in the telescope. After sending it back to Meade for servicing, and a change in procedures to using "Sleep" mode instead of "Park," it seems to be behaving fairly well.

The renovations in the old exhibit building which will soon be the new Harry Wasson Education Center are coming along. Our dome received a new coat of paint to cover several stains left by old roof leaks and spot touch ups. The seats are all removed for carpet

replacement. We also replaced our lighting system with one from Joe Hopkins Engineering. I must say that it looks very much like the original Spitz lighting with the added benefit that the bulbs are available from local distributors for less than one twentieth the cost of the Lumiline type. (BTW – I have kept all the Lumilines in case anyone out there still uses them. Contact me if you are interested.) JHE also upgraded the automation computer and added a programmable DVD player, as well as wireless headset system for hearing impaired.

On March 11, Phillip Groce, Todd Mortensen, and other personnel from Konica/Minolta set up a demonstration of MediaGlobe in our theater. Although Phil lamented the fact that we now had a very bright dome, it was very impressive and I hope has sparked some interest in our Development Department to get the funding for this great all-dome digital projector for small domes.

In the planetarium theater we are running our own adaptation of *The Universe of Dr. Einstein*. Basically our copy of the soundtrack has degraded requiring

us to re-record it and mix in new music. By the time you read this we will be running an entirely in-house production called *T Minus Ten*. This is a program teaching some physics of space travel in a TV talk show format. This continues our World Year of Physics programming.

I recently converted our best copy of the original *Star of Wonder* soundtrack to digital produced by Virginia Living Museum and Bishop Planetarium. If you already own the program and want to have a CD version (for the small fee of \$30), please contact me and I will see about sending you a new CD copy.

For the summer we will bring back *The Great Dinosaur Caper: A Mesozoic Murder Mystery*. This will accompany the return this summer, of robotic dinosaurs in a new exhibit. In the past we had no choice but to set up the exhibit outdoors. But for the first time, dinosaurs will occupy our new indoor exhibit space.

Jane and George Hastings, Richmond

Jane and George reported in their Christmas letter that they have been having a great time traveling. Currently they are helping at the Science Museum of Virginia with the live Night Sky program and other duties. Jane said that they "...don't know how to program it; we're just entering one command at a time." Jane is also celebrating the grand re-opening of the Thomas Jefferson Planetarium at the Richmond

Public Schools. This is the planetarium she ran for several years until retirement. After some work to get it back into running shape, it is now being operated by Leslie Bochenski. Although she was on spring break when I called, the secretary reports that the planetarium is now up and running for elementary school programs.

Hopkins Planetarium, Roanoke

Mark Hodges writes: Hopkins Planetarium was closed the first two weeks of January for maintenance. In the Megadome we are showing *BUGS: A Rain forest Adventure* and *Pulse: a STOMP Odyssey*. These will run through June 2005.

In the Planetarium our seasonal star show is *Visions of a Spring Night*. This runs through June 10, 2005.

Other programs are available for the many school groups that come to the museum.

Chesapeake Planetarium, Chesapeake Public Schools

Robert wrote back in January: "Sorry, but my home computer had been down for over a month. I just got it working today. Sorry again for not responding to your e-mail. The only news for the Chesapeake Planetarium is we got our dome painted for the first time in over 35 years, and it looks great. We can now show Jupiter without drips and runs within its cloud belts.... I am making plans for the next solar eclipse off the coast of Tahiti. Tough work but someone has to do it.



Dave Maness
Virginia Living Museum
Planetarium
Newport News, Virginia

Moon Rovers Song

Sung to "As Those Caissons Keep Rolling Along,"
by Edmund Gruber, 1908; Audience: all ages

1. Over hill, over dale
We will hit the lunar trail,
As our rovers go rolling along.
Over rocks, over rills,
Over craters and smooth hills
As our rovers go rolling along.

CHORUS:

Then it's to the Moon
Spaceward we are bound,
Let's have a countdown loud and strong,
Three, two one!
Where'er you go,
You will always know
That our rovers go rolling along.

2. On the Moon when you go
There are rules that you must know,
As your rover goes rolling along.
On the Moon, there's no air,
Wear your helmet, don't you dare
Take it off, if you do, say so long!

CHORUS

3. You'll jump to record height
Lunar gravity is light
As our rovers go rolling along.
And you weigh five-sixths less
Than the earth weight you possess,
As our rovers go rolling along.

CHORUS; Then repeat two times:
That our rovers go rolling along!

Jon Bell
Hallstrom Planetarium
Fort Pierce, Florida

A Retirement and a Transfer

Jack Fletcher retires June 1 after 35 years in the field, the last 28 at Hummel Planetarium. Jack and June will move to Kill Devil Hills, North Carolina. His e-mail address remains <jack.fletcher@eku.edu>.

After the closing of the Sharpe Planetarium, Jim Greenhouse has returned to the Museum of Arts & Sciences in Macon, Georgia. Contact him at <jgreenhouse@masmacon.com>.

HST's Greatest Hits '96

Duncan Teague
D T Publishing
8858 Carriage Creek Road
Arlington, Tennessee
38002-8972

The Space Telescope Science Institute (STScI) provided slides of Hubble images to individuals within regional affiliates who arranged to duplicate and distribute them. At our '96 conference, I was designated to receive and coordinate STScI materials and make them available to SEPA members.

Below you'll find a brief description of all 40 images distributed in 1996. Numbers next to the descriptions are shortened versions of STScI press release numbers, *e.g.*, 21a refers to PR 96-21a.

The entire set of 40 slides is \$50.00, including postage and handling. Send your check or purchase order to the address at the left.

- 01a___Hubble's deepest ever view of the universe, revealing 1,500+ extremely faint galaxies in various stages of their development
- 01b___Sample galaxies from the same Hubble deep field
- 02___The inner region of a warped dust disk around Beta Pictoris once hidden because of the star's glare
- 03___An image of the Egg Nebula taken by WFPC2; it shows the emergence of some mysterious searchlight beams emanating from behind a dying star
- 04___The first direct image of a star other than the Sun: Betelgeuse.
- 05___In more detail than has ever been seen before, the process a star like the Sun goes through when it dies
- 09a___In clear, detailed pictures the first ever images of Pluto's surface; four views
- 09b___Pluto surface map
- 10___Gravitational lens effect captures image of primeval galaxy
- 11___Images of the globular cluster Mayall II, consisting of 300,000 old stars, in orbit around the Andromeda galaxy
- 13a___The Helix Nebula, NGC 7293 showing the collision of gases near a dying star
- 13b___Helix Nebula detail with cometary knots surrounding the dying star
- 14___A view of Comet Hyakutake that focuses on the near-nucleus region of the comet
- 15___Three layers of Uranus's atmosphere taken with infrared filters; both clear and hazy layers created by a mixture of gases
- 16___Image taken of Saturn where its rings appear edge-on because of the position of the Earth in Saturn's orbital plane
- 17___A view of several star generations found in the central region of the Whirlpool Galaxy
- 18a___A rare view of Saturn's rings seen just after the Sun had set below the ring plane
- 18b___A series of 10 images of several small moons orbiting Saturn
- 21a___NGC 1365, a barred spiral galaxy located in the Fornax cluster
- 21b___NGC 4639, a spiral galaxy located in the Virgo cluster
- 22a___The Crab Nebula and a detail of the pulsar in its center
- 22b___Sequence of three images showing changes in the Crab Nebula pulsar
- 23a___Huge, billowing pair of gas and dust clouds in Eta Carinae
- 23b___Expansion of Eta Carinae debris
- 25___Hubble's 100,000th exposure captures an image of a distant quasar
- 27___A vast nebula, NGC 604, which is known for a great starbirth region
- 29a___18 gigantic star clusters which may be building blocks for a new galaxy
- 29b___Blue sub-galactic clumps which may be galaxies under construction
- 30___Jupiter's moon Io passing above turbulent clouds
- 31___Clusters of stars and a fishhook-shaped cloud of gases found in NGC2366, a giant star forming region
- 32___Changes in Jupiter's auroral emissions
- 33___Views of weather on opposite hemispheres of Neptune
- 34___A Martian dust storm around the edge of the north polar cap
- 35a___A survey of quasar host galaxies
- 35b___A quasar caught in the act of colliding with its companion galaxy
- 36a___Supersonic comet-like objects in the Cartwheel Galaxy
- 36b___Cartwheel Galaxy composite image
- 36c___Cartwheel Galaxy illustration
- 38a___M8, the Lagoon Nebula showing giant "twisters" and star wisps
- 38b___M8, the Lagoon Nebula detail showing eerie funnels and twisted-rope structures

HST's Greatest Hits '97

The Space Telescope Science Institute (STScI) provided slides of Hubble images to individuals within regional affiliates who arranged to duplicate and distribute them. At our '96 conference, I was designated to receive and coordinate STScI materials and make them available to SEPA members.

Below you'll find a brief description of all 39 images distributed in 1997. Numbers next to the descriptions are shortened versions of STScI press release numbers, e.g., 09a refers to PR 97-09a.

The entire set of 39 slides is \$48.75, including postage and handling. Send a check or purchase order to the address at the right.

- 01___ Central supermassive black holes in galaxies NGC 3377, NGC 3379, and NGC 4486B:
- 03___ SN1987A Fireball: One tenth light year long dumbbell structure expanding at six million miles per hour in supernova 1987A
- 08___ Changes in the nucleus of Comet Hale-Bopp as it moved closer to the Sun beginning in the September of 1995
- 09a___ Transition from spring and summer in Mars's northern hemisphere; photo taken shortly before opposition
- 09b___ Three photos of Mars taken six hours apart with 90° difference between images; photos taken shortly before opposition
- 11___ The Egg nebula in which stars are born and die violently; the photo shows jets of gas being blasted into space
- 12___ A supermassive black hole located in galaxy M84
- 13___ NICMOS captures a region of the Orion nebula filled with action as a center for the birth of new stars
- 14___ Supernova 1987A: different colors represent different elements in the ring
- 15a___ A view of Mars's cloud cover
- 15b___ Seasonal changes in Mars's northern polar ice cap
- 15c___ Four views of Mars rotated 90° between images during summer in Mars's northern hemisphere
- 16___ The Cone Nebula: six baby sun-like stars surround their mother
- 17___ A collision between two spiral galaxies in the heart of galaxy Arp 220
- 18___ Fireworks near a black hole in the core of Seyfert galaxy NGC 4151
- 19___ STIS reveals an invisible high-speed collision around a supernova
- 20___ Hubble pinpoints the optical counterparts of a γ -ray burst in a distant galaxy
- 21___ Hubble captures a volcanic eruption plume from Jupiter's moon Io
- 22___ A gamma-ray burst blazes from a titanic explosion in deep space
- 23___ Hubble's look at Mars shows a canyon dust storm, cloudy conditions for Pathfinder's landing in July 1997
- 24a___ Dissipation of a large dust storm on Mars
- 24b___ Hubble shows dust and water ice clouds that exhibit substantial daily variations
- 25___ Powerful telescopes discover the largest galaxy in the universe
- 26___ Hubble separates components in the Mira binary star system
- 27___ Hubble reveals a huge crater on the surface of the asteroid Vesta
- 28___ Hubble finds a bare black hole pouring out light
- 29___ Hubble shows blobs of gas formed by some nova outbursts
- 30___ Hubble keeps track of a fading γ -ray burst
- 31___ Mars at the beginning of autumn in the Martian northern hemisphere
- 32___ Hubble sees a neutron star alone in space
- 33___ Hubble identifies what might be the most luminous star known
- 34a___ Hubble reveals some stellar fireworks accompanying galaxy collisions
- 34b___ Detailed images of colliding galaxies
- 35___ Hubble shows images of a blue straggler star
- 36a___ Hubble tracks clouds on Uranus
- 36b___ Hubble spots northern hemispheric clouds on Uranus
- 37___ Hubble shows infrared view of a moon, the ring, and the clouds of Jupiter
- 38a___ Hubble sees a supersonic exhaust from a nebula
- 38b___ Hubble's planetary nebula gallery

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HST's Greatest Hits '98

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Below you'll find a brief description of all 40 images distributed in 1998. Numbers next to the descriptions are shortened versions of STScI press release numbers, *e.g.*, 26a refers to PR 98-26a.

The entire set of 40 slides is \$50.00, including postage and handling. Send your check or purchase order to the address at the left.

- 01___ COBE's infrared view of the Universe: three maps of the full sky seen in infrared light
- 02___ Distant supernovae: light sources determine the universe's expansion rate
- 03___ Beta Pictoris: disk indicates planets, and possible brown dwarf companion
- 04___ Jupiter aurorae: a "curtain" of light extends several hundred miles beyond Jupiter's limb
- 05___ Saturn's aurorae: "curtains" of light extend 1,000 miles above cloud tops
- 08___ Supernova 1987A: a collision between the expanding blast wave and its circumstellar ring
- 10___ Serendipitous asteroids: HST images show curved trails of asteroids
- 11a___ Planetary nebula NGC 7027: a brief stage in the evolution of a medium mass star
- 11b___ The Cotton Candy Nebula and The Silkworm Nebula: phases of stellar burnout
- 12___ Star birth in barred spiral galaxy NGC 1808 possibly due to interaction with NGC 1792
- 14a___ Centaurus A: nearest active galaxy to Earth shows the turbulent firestorm of starbirth
- 14b___ Centaurus A: tilted disk of gas at the galaxy's core surrounds suspected black hole
- 15___ Stingray Nebula: Henize 1357, the youngest known planetary nebula
- 16___ NGC 1818: globular cluster of over 20,000 stars in the Large Magellanic Cloud
- 17a___ GRB 971214: γ -ray burst; most energetic event in the universe
- 17b___ GRB 971214: γ -ray burst; comparison of Keck Telescope and HST views
- 18___ Saturn: details of the clouds and hazes in the atmosphere of the ringed planet
- 19___ Possibly the first extrasolar planet ever to be imaged orbiting about a newborn binary star
- 20___ Four of NASA's proposed designs for the Next Generation Space Telescope (NGST)
- 21___ Galaxy NGC 4314: bright ring of starbirth around the galaxy's core
- 22___ NGC7052: galaxy with 300 million solar mass black hole in its center
- 25___ N81 in the Small Magellanic Cloud: a celestial maternity ward
- 26a___ Galaxy Cluster MS1054-03321: thousands of galaxies eight billion light years from the Earth
- 26b___ Supernova 1996CL: a March 1996 exploding star in galaxy cluster MS1054-0321
- 27___ Distant galaxy clusters: left, in Virgo; upper right, in Andromeda; lower right, in Taurus
- 28___ NGC7742: a small Seyfert 2 active galaxy probably powered by a black hole in its core
- 29___ Saturn: pastel yellows, browns, and greys distinguish cloud differences
- 30___ Sagittarius Star Cloud: HST peers into the heart of the Milky Way
- 31___ NGC7635, the Bubble Nebula: shows an expanding shell of glowing gas surrounding a hot star
- 32a___ Infrared views: left: faintest galaxies ever seen; right: objects 12 billion light years away
- 32b___ Deep field galaxy: left: visible light areas of starbirth; right, infrared disk structure
- 34___ Neptune: a look at the eighth planet's stormy disposition
- 35___ Uranus, August 8, 1998: its four major rings and 10 of its 17 currently known satellites; false color image
- 36___ NGC6210 planetary nebula described as looking like a turtle swallowing a sea shell
- 37___ Quasar PG1115+080 and the gravitational lens effect:
- 38___ Nebula M1-67 around star WR124: gas ejected into space at 100,000 mph
- 39___ NGC3132: southern hemisphere's "Eight-Burst" or "Southern Ring" Nebula
- 41a___ HST deep field south: thousands of galaxies in Tucana, near the South Celestial Pole
- 41b___ HST deep field south: infrared, visible light, and ultraviolet views of distant galaxies
- 42___ NGC253 galaxy: edge-on spiral galaxy just beyond our Local Group

HST's Greatest Hits '99

The Space Telescope Science Institute (STScI) provided slides of Hubble images to individuals within regional affiliates who arranged to duplicate and distribute them. At our '96 conference, I was designated to receive and coordinate STScI materials and make them available to SEPA members.

Below you'll find a brief description of all 42 images distributed in 1999. Numbers next to the descriptions are shortened versions of STScI press release numbers, e.g., 43a refers to PR 99-43a.

The entire set of 42 slides is \$52.50, including postage and handling. Send your check or purchase order to the address at right.

- 01___ M57 Ring Nebula: the sharpest view yet of this planetary nebula
- 02___ Combined deep view of infrared and visible light galaxies
- 03___ HD141569: stellar dust rings of a star in the constellation Libra
- 04___ SNH1987A: the self-destruction of a massive star in the Large Magellanic Cloud
- 05a___ Six images of a young stellar disk found in the constellation Taurus
- 05b___ Four images featuring disks around various young stars in Taurus
- 06___ NGC1316: the silhouette of dark clouds against a glowing nucleus of an elliptical galaxy
- 07___ Mars: visible, infrared light images; evidence of water bearing minerals
- 08___ Proxima Centauri: a detailed image of the Sun's nearest stellar neighbor
- 09___ GRB990123: fading visible light fire ball in a γ -ray burster
- 10___ Six images showcasing different views of spiral galaxies
- 12___ Tarantula Nebula: multiple generations of stars in the brilliant cluster of Hodge 301
- 13___ Jupiter: images of the volatile moon Io sweeping across Jupiter's face
- 14___ Copernicus: the 58 mile wide (93 km) impact crater on the Moon
- 16___ NGC4650A: a polar ring galaxy
- 18___ Rings, arcs, and crosses as seen in Hubble's top ten gravitational lens effect images
- 19___ NGC4603: magnificent spiral galaxy associated with the Centaurus cluster
- 20___ NGC3603: various stages of the life cycle of stars in a giant galactic nebula
- 21___ AB Aurigae: a swirling disk of dust and gas surrounding a developing star
- 22___ Mars: a colossal polar cyclone
- 23___ N159: a turbulent cauldron of starbirth in the Large Magellanic Cloud
- 25___ NGC4414: magnificent details in the dusty spiral galaxy
- 26___ NGC6093: a stellar swarm in a dense globular cluster
- 27___ Mars: the red planet at opposition during April – May, 1999
- 28___ MS1054-03: galaxy collisions in distant clusters
- 29___ Jupiter: an ancient storm in its atmosphere (The Great Red Spot)
- 30___ Giant star clusters near the galactic center
- 31___ HCG 87: a minuet of four galaxies
- 32___ HE2-104: small, bright nebula embedded in the center of a larger nebula
- 33a___ R136 in 30 Doradus: a grand view of the birth of stars
- 33b___ R136 in 30 Doradus: two detailed views of a highly active region of star birth
- 34a___ NGC1365: a barred spiral galaxy reveals a bulge in its center
- 34b___ Eight different views of the central bulges of spiral galaxies
- 35___ HH32: a magnificent example of a "Herbig-Haro object"
- 36___ NGC2261: Hubble's variable nebula illuminated by R Monocerotis (R Mon)
- 37___ NGC2346: a butterfly shaped nebula
- 38___ NGC2440: planetary nebula ejected from a dying star
- 39___ OH231.8+4.2: the "rotten egg" nebula
- 40___ M32: hot blue stars deep inside a dwarf elliptical galaxy
- 41___ NGC2207 and IC2163: two spiral galaxies passing by each other
- 42___ M20: Trifid Nebula reveals stellar nursery torn apart
- 43a___ M87: the jet near the galaxy's central black hole

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JPL's Best Images of '98

Duncan Teague
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38002-8972

NASA JPL has sent us the following slides for the Galileo Mission and others. Slides are \$1.25 each on both the current page and the following page.

- P-35036B _ Launch of Galileo on STS-34 Atlantis
- P-35213 ___ Deployment of Galileo and IUS
- P-37218 ___ Venus Colorized Clouds
- P-37327 ___ Moon: Western Hemisphere
- P-37539 ___ Infared Image of Low Clouds on Venus
- P-37593 ___ Earth: Ross Ice Shelf, Antarctica
- P-37630 ___ Global Images of Earth
- P-40449 ___ Gaspra: Highest Resolution Mosaic
- P-41383 ___ Gaspra Approach Sequence
- P-41432 ___ Moon: North Pole
- P-41474 ___ Earth: Northeast Africa and the Arabian Peninsula
- P-41493 ___ Earth: False Color Mosaic of the Andes Mountains
- P-41508 ___ Earth: Moon Conjunction
- P-42501A ___ South Polar Projection of Earth
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IPS more 'appealing.' What types of services could we offer that are not currently on offer?

12. Rationale for Joining the Society

There is a comment in the report that we should review 'why members would be motivated to join a professional association and align IPS accordingly.'

13. The future of planetariums

Does the IPS have a role in the future of planetariums?

14. Technical Standards

The report suggests that the IPS may wish to consider its role and responsibility in determining qualifications and promoting technical standards (we have already done the latter to a certain extent). The 'qualifications' issue is interesting. Should the IPS take a role in this area, *i.e.* professional accreditation?

15. Digital Planetariums

The question has been raised, "Is a digital planetarium really a planetarium?"

16. Website

Should we 'ask the members what they want'? The report suggests that we should perhaps engage the membership specifically in a process of defining what they are looking for in the ideal

IPS website. A good deal of work is being done on the Website in any case.

17. Electronic Publishing of the Planetarian

This is a topic currently being discussed. It has implications in other areas, *e.g.* subscription rates.

There you have it in a large nutshell. Obviously there are a number of ideas set forth by George some of which will be scrapped and others expanded upon. For anyone involved in IPS you know that the organization has ebbed and flowed over the years based on any number of factors. George is of the opinion as are others that a major restructuring of the organization is the key to growth in the long term. While I share some of their specific methodology to achieve this growth, there are aspects that concern me such as the cost-per-member, which obviously has to be passed on to the Membership in large part. For the past several decades, planetarians in the USA have been supportive of very strong, diverse, and in some cases, large Regional organizations. What I do not want to see happen is an isolation of the US planetarium community which if certain courses of action are taken could happen. I think it is to our mutual benefit to address the planetarium community on a worldwide basis and as always welcome your input to help guide my actions on Council.

See you in Atlanta!

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: _____

