

President's Message

I love this life! No, not being President of this fine organization. I am honored you selected me as your President, and I enjoy working for you and the betterment of our organization. What I love is life as a Planetarian. Have you ever asked yourself what you'd be doing with your life if you weren't a Planetarian? I can't imagine what I could possibly be doing that could give me as much joy, satisfaction and fulfillment.

Think about it. What other career would you choose? What other profession would you do where you would put up with the continual day to day aggravations of a Planetarian and still manage to enjoy it? We have a unique profession, a profession that isn't fully understood or appreciated by many, including administrators and boards of directors. Many of them do not realize what it takes to be a Planetarian... a very special type of person, skilled in many areas.

Notice that I have not mentioned the word job. We do not have a job. A job would require us to work a specific schedule and not give us the opportunity to pour so much of our heart, soul, passion, and creativity into our work. We would not spend hours after hours producing and programming new shows late into the night just for a job, would we?

Maybe we should adopt the Army's slogan, It's not just a job (profession), it's an adventure! Wouldn't you say that our daily lives are adventures in the dark? How many educators do you know who can control a large group of students in a room with the lights turned off especially middle school students! Well?

Why do you do it? Is it the pay? I doubt it! A good salary would be nice compensation for a profession well done.

For me, and I am sure many of you feel the same, it is the sharing. In this profession I have the opportunity to share with others my excitement for the universe and express this passion in various types of media. Long before I entered the planetarium profession I was an avid amateur astronomer. I loved to explore the universe through the eyepiece of a telescope as often as possible, and I still do today.

Unfortunately, due to my professional

and family load, I don't get out to the real dark sky as much as I'd like. However, each time I step out and view the sky, night or day, I feel rejuvenated and inspired to

George Fleenor
President
Bishop Planetarium
Bradenton, Florida



tell others how magnificent it is.

Conferences are another way I get inspired. There are so many talented members in our profession and so much to be learned from them. We all share so much in common, and it is great being around others who understand our chosen careers. I regret that we have only one week to exchange our ideas with each other, live and in person. This year's conference in Winston Salem, North Carolina promises to be another outstanding meeting, and I hope you'll be there.

Duke and Karen have been hard at work, doing their best to make it a success. But, as I have mentioned before, the success of their conference also depends upon you. Participation is the key to a successful conference. SEPA members have always been willing to share their thoughts and ideas. Please make an effort to attend and share your ideas. I promise you won't be disappointed.

Southern Skies is also a great way we

can continually both share our ideas and derive inspiration from others. This is your journal, and Duncan does a fabulous job as its editor, but I'm sure he'd appreciate more input from you. I know how difficult it is to take time out of my busy schedule to write up something for publication, but it must be done. This journal is an important communication tool that needs to be utilized more by our membership.

Our Web site is becoming a powerful tool too. Several people who have discovered SEPA on the Web have contacted me. Our Webmaster Ken Moore has done an excellent job rebuilding our site. To make it even more successful please contribute information. Anytime you have a position opening or something you would like to share with others, pass it along to a council member, and we will see that it's posted on the site. This is the fastest way of getting information distributed. Once everyone gets into the habit of checking the site on a regular basis it will become an even more powerful tool.

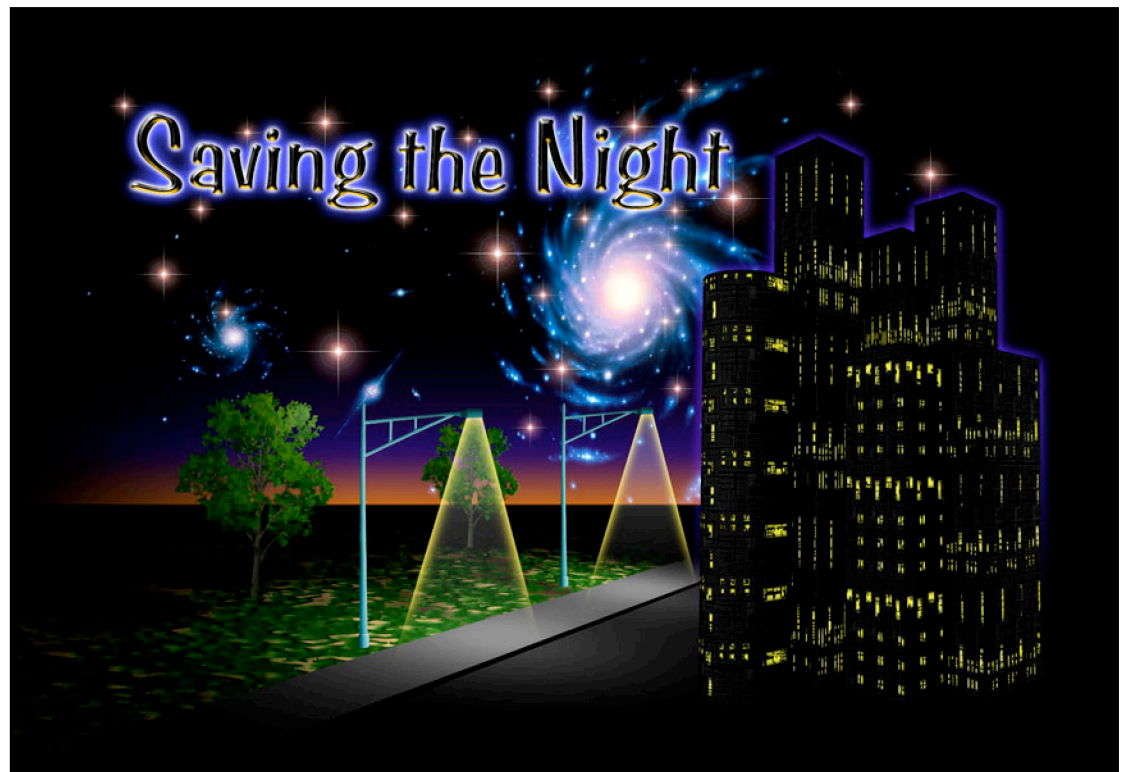
Our organization has grown signifi-

cantly over the years, and another very important tool for communication is our Membership Guidebook. Anytime I need to know something about our organization I reach for the Guidebook. Spearheaded and developed by Past President Mike Chesman, this document has become an invaluable aid in better understanding our organization, its development, and who its members are. However, it too needs your effort to be successful. Please take the time to write up your staff biographies and information about your facility, forwarding them to Mike Chesman for publication.

We have a fine organization, and I am extremely proud to be a member of it. I hope you feel the same way. If you have any suggestions concerning how SEPA can continue to grow and better serve you, please notify your council members. We are eager to listen, learn, and strengthen our organization and our profession. I look forward to seeing you in June. Clear dark skies!

Saving the Night

Saving the Night is the new SEPA produced star show. Script and narration are by David Levy; original artwork, by Edwin Faughn; and original score, by Jonn Serrie.



Something's Missing from my Sky (and from my Southern

I can hardly believe how much regular material is missing from this issue of Southern Skies. This spring must have been very busy for many individuals who usually contribute to this publication. Or perhaps the problem is related to the May 5th line up of the naked eye planets like little soldiers on the far side of the Sun.

It's just as disappointing not to receive material for publication as it is to walk outside and not be able to see any of the planets that normally bring a smile to my face when I see them in the night sky.

Are we collectively getting old? Are some of us becoming stubbornly uncooperative, testy, and downright paranoid? I'm sure it's my imagination. No, surely we're all becoming the wise and experienced sages of the planetarium we used to admire when we attended our first SEPA conference.

Thank the heavens for all of the vibrant members of our profession who pay their dues on time, contribute their expertise within the pages of this journal, and show their enthusiasm in the workshops held at our annual conferences.

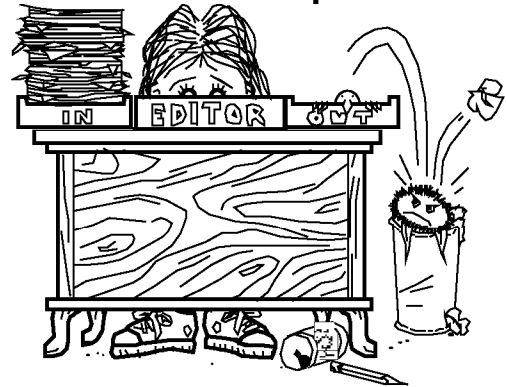
Thank the heavens also for the energy, dedication, and inspired leadership that is making the Saving the Night star show a reality. SEPA as an organization has already been paid a high compliment from another regional affiliate for the effort and hard work that went into this grand undertaking.

There's an old adage suggesting a course of action when you aren't feeling like contributing yourself:

Let George do it. Well, George did it. Next time, why not you?

With this issue of Southern Skies I'm sending a final dues notice/invoice for those who haven't yet remitted dues for calendar year 2000. Please mail me your dues before the Winston Salem meeting.

Duncan R. Teague
Secretary/Treasurer
Southern Skies Editor
Craigmont Planetarium
Memphis, Tennessee



Mike Cutrera

Send your \$25.00 check made payable to SEPA to the following address:
Craigmont Planetarium, 3333 Covington Pike, Memphis, TN 38128 3902

Name		
Planetarium		
Organization		
Address		
City		
State	Zip	
Area	Voice	
Area	Fax	
Position		
E-mail address		

Featured Vendor Inventor:

Tom Webber's Technology Wish List

Tom Webber
Featured Vendor Editor
Heritage Planetarium
Maryville, Tennessee

One of the best parts about being a planetarian is all the wonderful toys with which we get to play. There's not just the actual star projector, but also the computers, sound and video systems, telescopes, and other widgets. And who among us has not been tempted to take an afternoon nap in those wonderful reclining seats?

Sometimes, though, the problems which planetarians deal with on a day to day basis are due to all the technology we work with daily. Sometimes the problems can be serious, such as a star projector that won't project stars, or just minor irritants that cause ulcers, hair loss, and uncontrollable twitching beneath your right eye.

Just recently, for example, I had a carousel tray that refused to advance, and, of course, it decided to do this 20 minutes before a large group was expected. First, I tried to reason with it. I begged, I pleaded, I talked nice to it. I even offered it money. Nothing. I then tried being firm with it, and I swear it smirked back at me.

By this point I had ten minutes until my group was due. I can hear my pulse, I am gritting my teeth, and I am wondering why I didn't go into another, less stressful, line of work like air traffic control. I got the slides moved to another tray just as the group pulled arrived.

Oh, I got my revenge. Let's just say it is possible to flush a carousel tray down the toilet if it is repeatedly thrown against a brick wall until it is broken into small enough pieces.

So we have some unique problems in the planetarium world, and I got to thinking about what widgets I would like to see available that would make our lives easier. If any vendor out there would like to use one of the following ideas, consider them my gift to you. All I ask is that when they are available, I get the prototype for free.

Slide O Matic 2000

You have just finished programming your new show. The slides are laid out, the computer is programmed, and it is timed perfectly. But just as the feeling of satisfaction starts to consume you, you stare at the over 300 slides in the show, and realize with horror that you must now mask each

one and place it in a glass mount.

You consider faking your own kidnapping to avoid having to do this, but fear not, the Slide O Matic 2000 will save both you and your family undue stress. The Slide O Matic 2000 will take any slide, remove it from its own mount, and place it (perfectly centered) into a glass mount. The deluxe version also will mask the slide, outlining the object to within 0.1 mm all the way around. Just turn on the radio, sit back, and smile with confidence as you drop your slides into the slot.

The De Oopser LX500

Okay, perhaps you can't afford either the regular or deluxe Slide O Matic 2000, and you are faced with the task of masking all your slides. Sweat forms on your brow, and your vision becomes blurry as, one by one, you apply opaquing tape and paint.

You get to what is surely the most important slide in the show (aren't they all?), and just as you are about to put the last brush stroke of paint on, you slip, and suddenly Story Musgrave has a mohawk.

In the past all you could do was scream obscenities for several hours but no longer. Just drop the problem slide into your De Oopser LX500, and its patented microbrushes and delicate abrasives will remove the paint. Story Musgrave is back to normal, and your sanity is saved.

Nanobulbers

Inspired by the microscopic robots called nanites from Star Trek: The Next Generation, these little buggers actually reside inside bulbs. Picture this: you are about to be evaluated for a big raise. Your boss is there, with his family; a representative from Astronomy Magazine; the governor; and your mother-in-law, who is giving you this one chance to prove you are not the bum she thinks you are.

The show starts, the lights go down, the stars come on, and then pow the star bulb burns out. In the past, you would have no choice but to sneak out while the room is still dark and become a missionary in darkest Africa. But you don't have to worry anymore! The nanobulbers will instantaneously repair the bulb until you

can replace it. The show goes well; you get your raise, a great review in Astronomy Magazine, and... did your mother in law just smile at you for the first time?

Smartaleckizer

This is my personal favorite. We've all been there, doing a presentation on the planets, when we get to the name of that dreaded seventh planet. Then some kid in the crowd starts telling every conceivable your anus joke he can think of, all the while looking at you with an expression that says he thinks that you must think he is the most clever individual in the world. How could you have been so blind all those years not to have heard every joke and comment before?

Never again, for you have the new Smartaleckizer! This device attaches to the star

projector, and upon activation, directs a neural suppression laser right at the kid's mouth, rendering him silent and peaceful for the remainder of the show.

I have many other ideas, which we will address in future columns, but for now I have filled my word count quota, so I am going to stop. [Your word count target presumes that you have several photographs to include with your article. Ed.] Do you have any ideas for great planetarium inventions? I'd love to know about them. Write or e-mail me your ideas, and together we will see if we can't make our jobs just a little bit easier.

By the way, the Smartaleckizer can be adapted for use on mothers in law!

Featured Vendor
continued



Illustration by
Andrea Finley
Freshwoman Intern
Craigmont Planetarium
Memphis, Tennessee

Small Talk

Elizabeth Wasiluk
Small Talk Editor
Berkeley County Plan-
etarium



Time since the last column has flown by, and everyone's thoughts have turned to field trips. I'm pretty swamped, but I wanted to get these few words to you before I get too overwhelmed.

I enjoyed everyone's contributions to the issue of *Southern Skies*. I especially enjoyed Patrick's review of *Back To the Moon*, the sci fi contribution of West Virginia's own Homer Hickham. I received my issue of *Southern Skies* the day before he was to make an appearance at one of the three high schools in Berkeley County. Even though he has lived in Huntsville, Alabama for years, because of his previous book, *October Sky*, he's considered one of West Virginia's favorite sons.

There was a tremendous turnout for the event; even the governor of West Virginia was there. I had a chance to get reacquainted with the governor's wife, who received the 1999 Celebrate Women's Award in Public Service just before I got my award last year. Dr. Barry Morrison, an observing buddy of mine, and his wife Becky were one of the last in line to meet Homer. I gave him a copy of Patrick's review.

Shenandoah University, down the interstate in Virginia, invited Harrison Schmidt to speak. Schmidt was one of the last astronauts on the Moon and the only geologist. He had a most adventurous talk on mining the Moon for radioisotopes to use in medicine and H^3 . As Homer says, send West Virginians to the Moon. They're good at mining. He will be at the Air and Space Museum on April 25th, but I'll be in New York, so I was glad to see him so close to home.

Speaking of the Air and Space Museum, I must hold the Guinness record for most visits to the Air and Space for the month of March. On March 1st I saw a public radio commentator and author of *A Man on the Moon*, the book on which Tom Hanks' HBO miniseries was based. He is such an awesome speaker. I fondly remembered his commentary on the 30th anniversary of the Apollo 11 Moon landing on National Public Radio's Morning Edition as I grabbed my coat and hat and ran out the door for the Air and Space celebration. What other person

has interviewed all of the astronauts who walked on the Moon? He had great inside stories to tell.

He also emphasized that the Moon landings were similar to us picking an adventure from the 21st Century and placing it in the 60s. When he mentioned that this was too precious to let go of, and we need to teach our children about this, I got all misty eyed. His talk made me proud all over again to be a planetarian.

On March 4th I got to see Brother Guy Consolmagno, S.J. (Ph.D.) talk on his adventures of being meteorite curator at the Vatican. He had a fascinating talk on how he became a Jesuit brother, how he got interested in astronomy, and how he went on a meteorite expedition to Antarctica. If you are unfamiliar with Guy, he is the guy (pun intended) who wrote *Turn Left At Orion*, a beginner's astronomy book. I can't tell you how many visitors to my planetarium got turned on to astronomy by that book. Guy's new book is *Brother Astronomer: Adventures of a Vatican Scientist*.

On March 23rd Rod Martin, director of William Brish Planetarium in Hagerstown, Maryland, and I headed off to the Washington Area Astronomers Meeting for three short talks and free pizza. (That's the reason we really went.) The meeting was held at the University of Maryland's Observatory in College Park. This is a very unfortunate place for an observatory considering the light pollution from the National Research Facility next door. I had been to this facility for an open house on my birthday several years back. They have several nice sized telescopes there.

There was a talk on the NEAR Mission to 433 Eros: Getting to the Heart of the Matter, by Dr. Lucy McFadden of the University of Maryland. It was a great talk, and I want the comparison slide she used of Eros, Mathilde, Ida, Dactyl, and Gaspra. There is a special Web site for students on NEAR at <<http://near.spaceexplorers.com>>. You can call 800 965 3763 for information. You can print out a model of NEAR and put it together to hang in your office as it orbits a papier maché Eros. Pretty cool.

Also cool was the talk on FUSE in the

Classroom and in Science Museums: Capturing the Invisible Light by Dr. Scott Friedman of Johns Hopkins University. Johns Hopkins is the center for FUSE research, and you can drop in to visit the control center there in Baltimore. Also there is a major FUSE exhibit at the Maryland Science Center where you can make your own star, see how FUSE works, be a spectroscopist, and more.

We saw FUSE being launched from the Kennedy Space Center on SEPA's visit to KSC last year. FUSE stands for the Far Ultraviolet Spectral Explorer, and it looks at the ultraviolet radiation that is beyond what Hubble can pick up. See their wonderful Web site at <<http://fuse.pha.jhu.edu/outreach>>. You can download and print a color copy of FUSE, put it together, and let it fly around in your office.

A final talk at the WAAM was one on The Strange Story of Earth's Magnetism, by Dr. David Stern of the Goddard Space Flight Center. It explained the experiments done 400 years ago by William Gilbert, physician to Queen Elizabeth I of England. Check out the Web site at <<http://www.spof.gsfc.nasa.gov/earthmag/demagint.htm>>.

Dr. Stern also gave us these Web sites to check out while surfing the net: From Stargazers to Starships, a book sized Web course on astronomy at <<http://www.spof.gsfc.nasa.gov/stargaze/Sintro.htm>>; Math Refresher at <<http://www.spof.gsfc.nasa.gov/stargaze/Smath.htm>>; The History of Algebra at <<http://www.spof.gsfc.nasa.gov/stargaze/Scolumb.htm>>; and The First Table of Sines at the url <<http://www.spof.gsfc.nasa.gov/stargaze/Strig2.htm>>.

Finally it was back to the Air and Space Museum on Saturday for the talk by Bob Craddock, the Air and Space Museum geologist who talked on Landing on Mars, how the Viking, Pathfinder, and Polar Lander sites were chosen, and possible reasons why they were or were not successful. Check out the great article on NASA's recent successes and failures in the April 2000 Popular Science or go to <www.popsci.com>.

One disturbing thing, however, was to find the International Star Registry being sold in the Air and Space Book Store. Hello, say it isn't so. Why is this being sold in the most visited museum in the country? Don't they care more about the public's perceptions more than the almighty dollar? Maybe not with fund raising in full

swing at the annex soon to be opened at Dulles airport. George should fax them his lawsuit flyer from his giftshop. I talked to Sean O'Brien at the Einstein Planetarium. He said Director Cheryl Bauer and he were powerless to get it out. I've also heard International Star Registry is preparing countersuits.

Perhaps you'd like to write the staff. The new director's address is as follows:

Jack Dailey
NASM, Room 3507
MRC 310
Smithsonian Institute
Washington, DC 20560 0307
(202) 357 1400

The gift shop director's address is the following:

Maxine Nisely
NASM
601 Independence Avenue
Washington, DC 20560 0307
(202) 357 1387

The Web site is <www.nasm.edu>. I think e-mail is <si@nasm.edu>, but I am unsure. If someone were to buy me a subscription to Air and Space magazine, I think I'd hit them where it hurts and say I would cancel my membership if they didn't do something. I think selling stuff for the International Star Registry is tacky. Someone should put this on Dome L.

Speaking of articles, I came across one in Air and Space magazine on ham radio operators who converse with astronauts in space. It mentioned Norm Thagard whom we met at last year's SEPA conference. Pick up the article on pages 40-43, in the February-March 1999 issue. There is also a neat article on pages 54-61 on the Stardust mission to Comet Wild 2. Bone up on the ion propulsion drive for 2004; you may be tested. Can't you tell I'm an astronomy instructor as well as planetarium director? Catch you next time.

Digital Cosmos

Interfact Solar System CD ROM



Erich Landstrom
Digital Cosmos Editor
South Florida
Science Museum
West Palm Beach, Florida

Reviewed by
Rebecca Ann Finley
Sophomore Intern
Craigmont Planetarium
Memphis, Tennessee

PC system requirements:

386/ 33 MHz or higher; 4 Mb RAM
Windows 3.1 or later; CD ROM drive;
sound card; mouse; VGA color display

Macintosh system requirements:

68020 or PowerMacintosh; 4 Mb RAM;
System 7.0 or later; CD ROM drive;
mouse; 640 x 480 pixel color display

Interfact's Solar System package is a combination book and disk that work together to teach younger students about our solar system.

The program begins with a help screen that guides you in learning how to use the

disk. Then you can choose one of several options for exploration.

One choice is a rocket mission and a journey through space to learn about all of the planets of our solar system. Next you can look at a comet close up and try to label its parts.

Then you are ready to put your knowledge about the solar system to the test. You must try to save Alan the Astronaut from being lost in space by answering questions taken from the book and from your knowledge gained from your journey through space.

To discover more about the Space Shuttle, you can explore an interactive space shuttle and learn how its parts work by clicking on different compartments with your mouse.

If you are interested in learning more about the history of astronomy and the American and Soviet space programs, you can look at a time line of significant events from 600 B.C. to 1995. The time line will reveal how our understanding of the solar system has changed throughout the last 1,600 years.

If you still have questions about our universe, you can ask RAD, the Robot, about asteroids, meteors, and galaxies.

After you have finished all of the other exercises, you can try to save the world from annihilation by destroying a storm of comets heading toward the Earth.



Saving Alan the Astronaut is one of several games you can play on the Interfact Solar System CD ROM. The other areas for exploration include meteors, comets, the space shuttle, and the solar system's planets. To move from one area to the others, click the arrows on the robot in the upper right portion of the screen. The small icon shows you what activity you're about to explore. Instructions will appear just below the

Digital Cosmos

Discover Beyond Planet Earth on a CD ROM

PC system requirements:

386/ 16 MHz or higher; 4Mb RAM
Windows 3.1 or later; 2x CD ROM
drive;
sound card; mouse; 256 color display

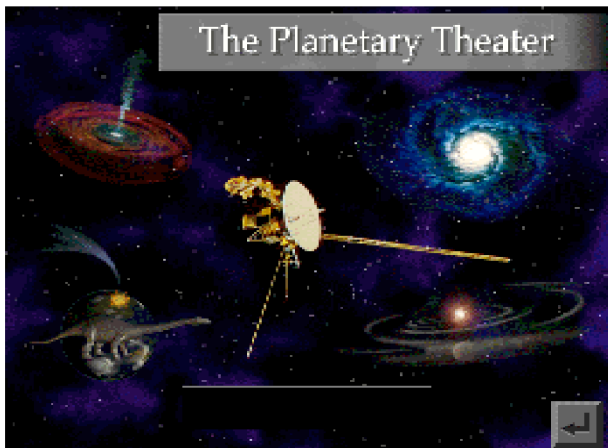
Macintosh system requirements:

68030 or PowerMacintosh; 4Mb RAM;
System 7.0 or later; 2x CD ROM drive;
mouse; 256 color display

Beyond Planet Earth is a magnificent presentation. Educational and entertaining at the same time, Beyond Planet Earth uses movies, photos, and experts to answer questions about the universe. Intriguing photography illustrates the planets from different perspectives. Videos correct misconceptions about the universe. It's nifty to get answers to questions you've already asked yourself from professionals in the field of space science and astronomy.

The main menu has four selections. In Planetary Theater you can view videos about the death of the dinosaurs and four other topics. The Solar Gallery displays photographs of different celestial bodies. In Space Experts astronauts and scientists answer questions about our solar

The Planetary Theater section of the CD ROM Beyond Planet Earth from Discovery Channel.



The book includes detailed facts and illustrations of the planets, spacecraft like Voyager and Mariner, and other solar system phenomena. The book also contains some historical background material, a complete glossary, and an index.

The Solar System CD ROM and its accompanying 48 page book are a fun and interesting way to learn about our solar system. It is intended for use by students ages seven to twelve.

Teachers can use the disk alone as a way to find out how much their students already know about the solar system. They could let students read the book and then quiz the students again to see how much

system. Mission to Mars explains how scientists one day plan to send a human expedition to land on the Red Planet.

I expected Beyond Planet Earth to be a boring, but its photos and videos are captivating. I liked best the questions Buzz Aldrin and other experts answered about life on other planets. I especially enjoyed the Mission to Mars section. Beyond Planet Earth was very specific, and I now believe we may soon land on Mars.

I really liked Beyond Planet Earth, and I would recommend its use in any 6-12 classroom. Beyond Planet Earth is available for both single users and educators. The single user price is \$34.95, and for \$39.95 you can get classroom presentation rights along with some curriculum materials. Call 800 762 2189 for more information about Beyond Planet Earth

Erich Landstrom
Digital Cosmos Editor
South Florida
Science Museum
West Palm Beach, Florida

Reviewed by
Andrea Finley
Freshwoman Intern
Craigmont Planetarium
Memphis, Tennessee

they have learned. Elementary students would enjoy Solar System.

This book and CD ROM package came from the Virtual Reality Bookstore at the Renaissance Center in Dickson, Tennessee. Solar System is one of four \$17.56 packages in a series of Interfact media.

THE DEADLINE FOR THE NEXT IS
SUE OF SOUTHERN SKIES IS JULY 1.
SEND SUBMISSIONS ON A 3.5 DISK
OR VIA EMAIL ATTACHED FILE TO
DTEAGUE2@MIDSOUTH.RR.COM NOT
TEAGUED1@TEN.NASH.TEN.K12.TN.US

Interfact Solar System
continued

Book Review

The Petroglyph Calendar

Patrick McQuillan
Book Review Editor
Alexander Brest
Planetarium
Jacksonville, Florida



There are quite a few books written about centuries old ruins and what possible connection they may have to items of astronomical importance to supposed ancient astronomers. Some of the books are based in fact; others, in speculation.

Some attempt to prove their truth by sheer number of pages from cover to cover. I have a book on Stonehenge that I understand is a very good update of the seminal 1965 Gerald Hawkins work *Stonehenge Decoded*. I have yet to tackle that book due to its 1000 plus pages.

The *Petroglyph Calendar* is only

115 pages of text and 25 pages of appendices and glossary. This made the book an easy one to attempt to read from front to back. I wasn't really all that interested in reading about a supposed ancient calendar carved on a rock found in the southwest. Lots of old carvings exist that may or may not have had astronomical significance. How much more could the book really have of value other than, I found a rock with a carving on it, and I think it's a calendar that marks the summer and winter solstice. Some ancient Native Americans may have used the carving as a calendar, and it works by watching where the shadow falls from a gnomon placed in the center of the carving. Now I'll spend 114 pages repeating everything in great detail till I get you to believe my theory

so you can put the book down.

I was wrong. From the start, the author writes in first person present tense. Each chapter describes a step in the process the author took to arrive at the conclusion that the triangular rock carving in question is a calendar used hundreds of years before digital watches and computers. Mr. Allen does a great job of telling only enough of the story to explain what he learned up to that point in the story. As you read along, you get the feeling that you too are uncovering the secrets of this ancient rock.

Each of the author's hypotheses are explained with supportive research, but even the author himself states that his theory about the rock may or may not be true. It does seem that the near perfect equilateral triangle carved in the rock probably did not get carved by the action of weathering. It's also very plausible that the rock was used as a calendar of sorts to mark summer and winter solstice (and even the equinoxes) given the very good alignments the points and the sides of the triangle have to the location of the Sun on these dates. There is no evidence of triangle shaped, carved in rock, calendars anywhere else in the Southwest.

At any rate, the book makes fascinating reading especially when you learn that an equilateral triangle calendar could only be used between 34 and 40 north latitude. (That fact is explained in the book; it has to do with the tilt of the Earth on its axis.) The calendar may have been adjusted by aligning it with the star Polaris. So go acquire a copy of *The Petroglyph Calendar* and you too can be fascinated with the thrill of discovery. Plus you can read it in a day!

The Petroglyph Calendar:
An Archaeoastronomy
Adventure
by Hubert A. Allen
Hubert Allen and
Associates.
Albuquerque, New Mexico
Copyright 1998
146 pages
ISBN: 0-9641694-5-2

Reviewed by
Patrick McQuillan



The Awesome International Space Station

What weighs 470 tons, is the size of two football fields, and takes up to six people to operate? Give up? The International Space Station is the correct answer. Nearly 130 Craigmont Middle School students eagerly absorbed these facts and more at a live teleconference on February 17 inside the star theatre of Craigmont Planetarium. The live teleconference allowed students a first hand view of space station facilities and mission goals.

Seventh grade students were able to ask questions directly to the astronauts and scientists who worked with the project. One student asked about recycling aboard the Space Station. They found out that ISS is a recycling miracle. All water, including urine, is filtered through pumps... all to be used again for drinking water. This concept drew a most interesting response from the students.

Technology is key on the space station. This orbital laboratory is equipped to study the effects on the human body and other life, including plants and bacteria, with gravity as the variable. The innovative form of water conservation and life research will, quite possibly, solve some water conservation and personal health issues here on Earth. The construction

of the space station could promote world peace. This could occur because 16 different countries have worked together on this wonder. Informed and inspired participants left the teleconference with the realization that the International Space Station will be helpful both in space and

The February 17 teleconference was the seventh in an annual series about the International Space Station. NASA sent printed materials for distribution to the educators and students who participated in the live event. Locate and download an edited version of these materials at <www.craigmont.org/skylights.htm>.

Zakiya Larry
Junior Intern
Craigmont Planetarium
Memphis, Tennessee



Left and below:
PDF

Educator Materials

Table of Contents

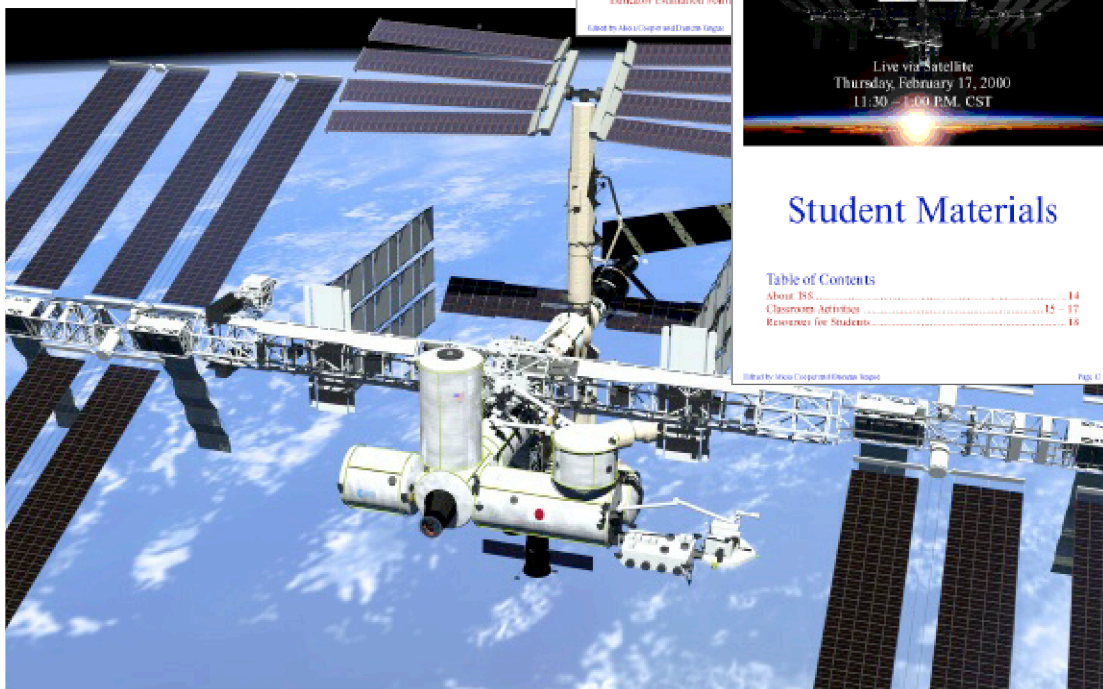
- About the Teleconference.....
- About ISS.....
- Classroom Activities.....
- Resources for Educators.....
- Educator Evaluation Form.....



Student Materials

Table of Contents

- About ISS..... 14
- Classroom Activities..... 15
- Resources for Students..... 16



News from SEPA States

George Fleenor
Bishop Planetarium
Bradenton, Florida

Alexander Brest Planetarium, Jacksonville

Patrick McQuillen reports: The Alexander Brest Planetarium is running several public programs for spring. They include Spring Skies and Through the Eyes of Hubble. Spring Skies is our live tour of the current night sky.

Through the Eyes of Hubble is a rerun of a program originally presented about five years ago. This program focuses on the Hubble Space Telescope and the first shuttle servicing mission. The program has held up remarkably well over time. The Carnegie Science Center Planetarium in Pittsburgh produced this program. Gates McFadden of Star Trek: The Next Generation narrates it.

A new addition to the planetarium show line up started in March. The popular Cosmic Concert Laser Light Shows have returned on weekend nights. We are showing Led Zeppelins Greatest Hits and Pink Floyd's Dark Side of the Moon through June 30. These programs have been very popular. Each program has had attendance numbers of 100 or more. The laser system was purchased from ECCS and was very easy to install and use. We also purchased the Pangolin production system, so look forward to us purchasing and selling laser music programs in the future.

We're still marketing our first installment of the Hundred Dollar Wonders planetarium programs. The first program is entitled A Trip Through Space. It is a 30 minute tour of the night sky, the solar system and the galaxy. This program covers all of the Florida Sunshine State Curriculum Standards for grades 1-4. Currently five planetariums in the Southeast are running this program (as a school show and a public show) and all have gotten good responses. This program costs \$100 and includes a teacher's guide, a guide to the curriculum, a digitally mastered audio CD, and a script with production notes. This program doesn't include slides to keep the cost down. You should already have slides of all the items mentioned in the program in your collection. If you're interested e-mail or call us

and we'll give you more details.

National Astronomy Day was celebrated on April 8. Activities included planetarium programs, displays by the local amateur astronomy club and camera store, Star Station One demos on the ISS, and Astronaut training hands on demos presented by our Challenger Learning Center Staff. I also presented a lecture several times on the 10th anniversary of the Hubble Space Telescope. The 10th anniversary slide set and video the STScI made available was a big help. I was able to take the slides/video and pretty much have a talk ready to go. We should encourage other NASA space projects to create similar educator sets.

In March we held an evening of telescope viewing entitled Telescopic Planetfest. We hoped to view the planets that were beginning to align, and talk about the upcoming alignments in the planetarium. This would allow us to get the word out to a large number of people that the upcoming May 5th alignment was not going to be visible from Earth. Over 120 visitors attended.

Bishop Planetarium, Bradenton

George Fleenor reports: Currently we are running The Explorers star show from the other Bishop Planetarium (South!) as our daily public show. We will be opening The Search for Life in the Universe from the Buhl Planetarium in May. During the summer we will be offering both star shows in the afternoon. The Search for Life in the Universe will be presented at 1:00 p.m. and The Explorers will be presented at 4:00 p.m. daily. Bear Tales and other Grizzly Stories is currently our children's star show presented Saturday mornings, and Lifestyles of the Stars will be featured in May followed by Loonie's Moon in June.

The matinee laser show is currently Cosmic Classics. This show features some of classical music's greatest composers and is well received by our visitors. Our summer matinee laser show, opening in May, will feature The Beach Boys. We opened a couple of new nighttime Laser Fantasies laser shows featuring Nine Inch Nails, The Wall, and ZZ Top. Attendance is slowly picking back up, and we are currently in

negotiations with a couple of radio stations for summer advertising.

February 19, 2000, astrophotographer/imager/ author Jack Newton presented a special lecture, Photographing the Universe, and had a book signing. A dessert reception followed. We had a good turnout for the event with 184 people enjoying the evening. It was not, however, one of my most enjoyable nights. The day before the lecture I had gone home early due to illness. When I came into work for Jack's talk I had a 103.5 temperature. I had no choice but to be here since I had to program the automation system for his two trays of slides. I made it through the lecture and proceeded straight to the hospital, skipping the dessert reception, and was admitted to the emergency room dehydrated with a temperature of 104 . I was diagnosed with pneumonia and was off work for over two weeks. Yuck!

On March 25, 2000 we hosted FLORPLAN. FLORPLAN is an unorganized gathering of Florida planetariums and planetarians. The one day mini conference began at 9:00 a.m. and lasted until about 6:30 p.m. with many of the attendees ending their day at the Lost Kangaroo Pub enjoying drinks sponsored by East Coast Control Systems. Special thanks to Ash Enterprises, Bowen Productions, and East Coast Control for sponsoring our day. <www.sfmnp.org>

Buzz Aldrin Planetarium, West Palm Beach

Erich Landstrom reports: The Star Trek: Federation Science exhibit from OMSI beamed out of the South Florida Science Museum on May 1st and on the away team is Light Years from Andromeda from Loch Ness Productions. Star Trek: FEDSCI aims to explain the real science behind some of Star Trek's technobabble, but Jon Bell at the Hallstrom Planetarium and I decided to take our own whack at it in co-authoring BOLDLY GO! The Science of Star Trek. Due to technical incompatibilities, I was unable to run BOLDLY GO! and installed Light Years... . Fortunately, I've been told I sound a lot like Michael Dorn, narrator for the program and Worf of Star Trek television and movies. I seamlessly blended my voiceover of constellation identification before Dorn's canned narration and ran the show.

Winter 2000 has been filled with last minute glitches. Mars Polar Lander never landed, leaving me running Destination:

Mars from the Burke Baker Planetarium with no surrounding envelope of public interest. I contracted the flu for three weeks after running around outside in the cold during the lunar eclipse. I received a surprise inspection from the Feds about our laser system. My Sony video projector blew its blue gun, and my satellite television receiver broke down. If my dog runs away, and my truck breaks down, I'm moving to Nashville and turning this all into a country song.

The Summer 2000 exhibit at the Science Museum is a biological showcase entitled Frogs: The Un toad Story, which offers no tie in to the planetarium (since there's no Prince Charming, the Frog constellation). The dome goes into re-runs with the return of The Explorers from the Bishop Museum Planetarium. This allows me to get ready for the big twilight show just after sunset; the dusk has a most amazing assembly of the outer planets in the constellation of Aries. A charmingly thin crescent moon joins the red planet Mars, white king Jupiter, and golden oldie Saturn in their bright, tight triangle about 45 minutes post sundown.

Since the Gibson Observatory at the South Florida Science Museum will be open on Friday night the 7th, the best night to view this cosmic congress had been deemed to be April 7. But we'd be April's fools if we expected these stellar sojourners to continue their conjunctions. All the naked eye planets are heading towards the Sun, which brings us to May 5th, The Day The Planets Disappeared! May 5th is Space Day at the Science Museum, and I am planning astronomy activities all day (and all night) long.

The Return of Buzz Aldrin is scheduled on Wednesday, June 7th. We're pleased to invite you to an enlightening slide lecture and book signing by astronaut Buzz Aldrin about the future of space travel and his new hard science fiction thriller The Return. Buzz will be in the Science Museum on Wednesday, June 7, from 1 p.m. - 5 p.m. Because of time limits, Dr. Aldrin will sign only copies of The Return (a Forge hard cover selling for \$25.95), available for purchase in the museum's gift store.

Buzz Aldrin, Gemini 12 astronaut, second man to ever walk on the Moon, and namesake of the museum's planetarium, wants you in space and soon. A human mission to Mars is only about 20 years away, and Buzz Aldrin is at the forefront

News from SEPA States
continued

George Fleenor
Bishop Planetarium
Bradenton, Florida

George Fleenor
Bishop Planetarium
Bradenton, Florida

of discussion and research for getting us there. Find out the details of this research from him in person on June 7 at 1 p.m. Tickets for his slide lecture, presented in the Aldrin Planetarium, are \$5.00 per person. In *The Return*, Buzz Aldrin and John Barnes explore the real space age as it may be in as little as five years from now. A technothriller about the real vulnerabilities of America's space program, *The Return* is also a novel of characters and ideas—a novel of people who are bigger, braver, smarter, and more moral than those around them.

Former astronaut Scott Blackstone has been chosen by NASA to manage Citizen Observer, a program to bring Americans from all walks of life along on selected shuttle missions. A tragic shuttle accident destroys all of Scott's plans, but it soon appears the tragedy wasn't an accident after all. Scott, along with those who share his ideas, must now take on the world of greed and shortsightedness in an effort to mount a daring rescue of the International Space Station, of the space program, and of American idealism. *The Return* is a novel in which extraordinary character serves extraordinary ideas.

In October 1963, Buzz was selected by NASA as one of the United States' three dozen astronauts. By November 1966, he established a new record for extravehicular activity while space walking during the Gemini XII orbital flight mission. Perhaps most incredible and memorable of all is the history-making trip to the Moon, where astronaut Aldrin and some other guy placed humankind's first footsteps on another world on July 20, 1969.

Looking toward the dawn of the new millennium, the Aldrin Planetarium celebrates by turning back the clock to 2001 B.C. The Science Museum of Virginia and the McDonald Observatory of the University of Texas at Austin are making available a free show kit entitled *StarDate: Ancient Horizons*. It explores astronomical and mythological beliefs of the ancient Egyptians. The show kit includes an audio CD with English and Spanish language versions of the soundtrack, 102 slides of original artwork and photos from the show, and a 3.5" PC formatted disk, which contains the script, programming notes, etc. (Adobe Acrobat Reader required). All components of *StarDate: Ancient Horizons* are Copyright 1999 Science Museum of Virginia and the University of Texas at Austin McDonald Observatory. They grant to you all rights

necessary to present *StarDate: Ancient Horizons* inside your planetarium. These rights expire June 30, 2005. For more information if you are interested in receiving a free copy of the *StarDate: Ancient Horizons* show kit, please send an e-mail with the word *StarDate* in the subject line to bhayes@smv.org and visit their website at <http://stardate.utexas.edu/radio/features/egypt/horizons.html>

Calusa Nature Center and Planetarium,
Fort Myers

Jill Evans reports they have the new Explorers program up and running and we are having a great response from school groups and the general public. We just purchased Rusty Rocket's Last Blast and will have that to offer soon. Giselle and I are working hard to replace outdated equipment and add to the special effects system. Summer camp programs are set, and because of such a great response last year, we have added another session of Spacey Science for our campers. We have also been doing many telescope viewing programs for local residents and groups, including many programs on Sanibel/Captiva Island. It's nice to see the Milky Way again! We currently have a Naturalist position available. If you're interested in working part time in our dome and part time in our natural history museum, please give us a call.

Hallstrom Planetarium, Fort Pierce

Jon Bell reports: At Indian River Community College's Hallstrom Planetarium there was a nice turnout for the lunar eclipse in January—a little over a hundred people. This wasn't a whole lot, but considering the paucity of local publicity surrounding the event, it wasn't bad. It gave the event a feeling of intimacy that's hard to obtain when you're standing in a line of 500 people trying to glimpse celestial objects through somebody's 80mm Tasco. Despite the cool of the Florida winter evening, the crowd was in fine singing form, gamely crooning out *Dark Moon*, with hardly any prompting on the Planetarium Director's part (Okay, I threatened not to restore the Moon to its former brightness unless they sang, muttered Jon Bell, but I'm pretty sure they knew I was kidding.)

After a successful run of *Boldly Go!* at the Planetarium, Jon and Planetarium Assistant Kelly Quinn are now gearing up

for Bear Tales and Other Grizzly Stories, which will be presented from April - June. The Audience reaction to Boldly Go! was mixed: Star Trek and science fiction fans enjoyed it, but there were not a few in the crowd who had for some reason or other expected more standard fare: (I thought this was going to be about bears, said one perplexed customer.)

Kelly and Jon look forward to seeing everyone and bringing clips of Boldly Go! to SEPA in June. Erich Landstrom, Director of the Aldrin Planetarium in West Palm Beach, will also talk about the show, as he co authored the script with Jon. Also, please be forewarned that will there be not only a Space Sing along (or something like that Jon forgets how he titled the workshop) at the conference, but also there will be a return of the dreaded Constellation Shootout. (Yes, I will not rest until everybody in SEPA has pointed out the dimmest, most obscure constellations in the heavens, says Jon.) So far, George Fleenor of Bishop Planetarium in Bradenton has

also agreed to help judge this competition; if anyone else is interested in judging (instead of being judged,) please contact Jon right away <jbelle@ircc.cc.fl.us>.

Orlando Science Center, Orlando

Paul Trembly reports: It is with sadness that I bid farewell to the Orlando Science Center and to the planetarium field as well. April 2nd will have been my last day at osc. I m starting a new job and a new career with an Orlando based software firm where I ll be developing database solutions. I will remain with osc for a short while on an as needed basis to assist with maintenance and production needs until remaining staff have had a chance to attend vendor training and are up to speed on all the theatre systems.

Your new contact for theater needs, will be Amy Quesinberry. Amy can be reached by telephone at 407 514 2049 or by e mail at <aquesinberry@osc.org>. For all other needs please contact Scott. After almost 12 years it s hard to say good bye to such

News from SEPA States
continued

George Fleenor
Bishop Planetarium
Bradenton, Florida

Coleman Planetarium, Dahlonga

Joe Jones reports that, unfortunately, their planetarium has been razed to make room for a new Natural & Health Sciences building. The good news is that the new building will incorporate the planetarium when it s finished. The bad news is that it will be 18 months to two years before it s finished. In the meantime they have a new off campus observatory with public viewings on Friday evenings when the university is in session. These two links will provide updates the status of the new planetarium theatre and observatory: <<http://galaxy.ngc.peachnet.edu/jjones/planetariumhome/planetarium.html>> and <<http://galaxy.ngc.peachnet.edu/jjones/observatoryhome/observatory.htm>>.

Georgia State University Planetarium, Statesboro

Becky Lowder wrote that on Saturday, March 11 she presented a stargazing workshop called Star Light Star Bright that was given in the GSU Botanical Garden with members of the Statesboro Astronomy Club. Everyone made his/ her own starfinders, identified constellations, and learned how to enjoy the hobby of amateur astronomy.

Becky also ran The Explorers from the Bishop Museum of Hawaii and NASA for a

public evening on Saturday, March 25. The audience really enjoyed the show and the live segments, especially when they had to navigate back to Hawaii on their own by using the stars. She added video segments between the slides, and they add a lot to the show.

On Saturday April 15 they presented Astronomy and Space Day. Members of the Statesboro Astronomy Club and astronomers from GSU were on hand for a very exciting day at the Planetarium. Lots of hands on activities like making craters and paper rockets, creating planets, and a lot more for kids were offered. They had safe solar viewing and Ask an Astronomer! They also had real Moon rocks on display from NASA, as well as meteorites, lots of free astronomy and space handouts and activities for families, and NASA, JPL, Stargazer, and astronomy videos showing all afternoon in the planetarium between star shows. At 5:00 p.m., Dr. Grant Denn gave a presentation on quasars.

The GSU Planetarium gives weekday school or group shows at 10:00 and 11:00 a.m. upon request. They have live shows on the solar system and the constellations, as well as offering The Explorers to groups. The GSU student planetarium interns assist with shows as part of their planetarium internship course.

Jim Greenhouse
and Carole Helper
Mark Smith Planetarium
Macon, Georgia

Patterson Planetarium, Columbus

Clay Powers bought a new DA 88 DAT player to run his audio, and he's switching his ECCS system from the Apple II to a PC. He is painting the skyline of Columbus as seen from the airport around the edge of his dome. Clay is also producing three new planetarium shows, entitled Faces of the Moon, Mountains of Fire, and Celestial Seasons, all with music produced by Lee Johnson.

Jim Greenhouse
& Carole Helper
Mark Smith Planetarium
Macon, Georgia

Mark Smith Planetarium, Macon

Carole and Jim are gearing up for the May 19 opening of the Mysteries of Egypt exhibit at The Museum of Arts and Sciences, a 7,000 square foot exhibit that is being masterfully worked into the Museum's 6,000 square feet of gallery space. The exhibition includes a recreation of King Tut's Tomb, several hundred ancient Egyptian artifacts, and some mummies. The Astronomy of the Great Pyramid from the South African Museum in Cape Town will be shown in the planetarium.

The Explorers is currently showing in Macon too. Our reel to reel tape player has been replaced with a digital recorder, and Sky Skan Special Effects Disk #8 was recently purchased. MSP will present another round of laser concerts with ECCS's equipment starting with a Halloween show on October 13 (Friday the 13th).

To keep the public from bringing broken telescopes and meteorwongs to the Museum at inconvenient times, a telescope and meteorite clinic has been started the first Friday evening of each month in the Museum Observatory. A steady stream of visitors has attended the program.

The Boy Scouts of America called Jim and asked if he would be interested in forming an astronomy Explorer Post at the Museum. He is now working on organizing the post, not only because it's a good volunteer opportunity, but also because he feels karmically obligated. Jim got started working in planetariums when he joined a post at the Discovery Center in Amarillo, Texas almost 20 years ago.

Freeport McMoran Planetarium and Observatory, Kenner

Currently we are playing our Sky Tonight presentations along with in house productions Neighbors in Space (a solar system program) and Quest for Space (a history of space travel).

We present Quest for Space as part of our space station tour. In the space station, we have added a 74 lb Gibeon meteorite and several spacecraft models to our display cases. We have also been working on information for the public on trying to calm fears that the world will end in May with all the supposed planetary alignments.

A lot of our staff's focus has been on the continued operation of our space station facility and for those of you attending the SEPA Conference, I will be presenting a paper on this subject. We have also been very busy with our Young Astronauts Program, and we are currently working on a way to help local schools and their teachers use telescopes that they have in their possession. Eventually I would like to work out something on a nationwide basis where astronomy clubs can adopt a planetarium or a school to help them with the use of one of these instruments. If you have any comments or suggestions on making this program possible, please contact me.

Michael Sandras
Freeport-McMoran Planetarium
Kenner, Louisiana

St. Charles Parish Library Planetarium, Luling

At the St. Charles Parish Library & Planetarium we seem to have won the battle of the termites. Those beasties from Formosa had invaded our building, and major steps had to be taken to win the war. Fortunately the Planetarium came through the ordeal unscathed. In preparation for the grand upgrade of our Viewlex Apollo projector, we are painting our 20 ft solid fiberglass dome. The pie segments have warped during the last 25 plus years and no longer fit tightly. Coupled with the fact that the Union Pacific mainline runs near our building and that we live on spongy ground, anything can be shaken loose in time.

Our offerings to the public for the season include Summer Skies (our venerable live sky tour), Destination Universe (from Baltimore's Davis Planetarium) and The Cowboy Astronomer.

Louisiana Nature and Science Center, New Orleans

At the Louisiana Nature Center Planetarium in New Orleans, Mark Trotter and Dennis Cowles are still running an array of different programs. For the public they are offering: The Sky Tonight, Cosmos, and The Family Laser Show. For school groups

they offer, in addition to the above, Planet Patrol: A Solar System Stake Out, Little Star that Could, a program on the seasons, a program on lasers, and a program on meteorites. On Saturday nights they offer laser shows. The current line up includes Pink Floyd's Dark Side of the Moon, Led Zeppelin, Laser Thrash, Lollapalaser, Pink Floyd's The Wall, Rush 2112, Metallica, the Best of Pink Floyd, and Laser Fest.

They continue to offer topical programs in astronomy and the physical sciences. Recent topics have included Jupiter, the Sun, meteorites, and a program on the failed missions to Mars. Dennis continues to do regular programs at local libraries in both Orleans and Jefferson Parishes (counties to everybody else!). Recent topics have included meteorites, the inner solar system, and a program on tabloid astronomy. Mark and Dennis extend warm and sincere thanks to both Duke Johnson and Karen Osterer at SciWorks Planetarium for loaning their slide set of tabloids; the program wouldn't have been nearly as complete or interesting without their contribution.

Mark and Dennis had the helium neon laser fail unexpectedly, and laser shows were down a couple of weeks while the replacement was on order. They were quite surprised by the sudden loss of this laser, which has run faithfully for a number of years without problems. It was reported that it wore out and would no longer do the job. Mark installed a new Melles Griot laser, and it works just fine.

The ISP for the planetarium's Website moved the Website to a new server without notifying Mark. He and Dennis have been busy reprinting everything with the old URL on it. The planetarium's new URL is <<http://myweb.communique.net/strotter>>.

Dennis has had to strong arm several of you during the last few months to get the Web review column put together. Thanks to all who have contributed.

Mark is busy on an inhouse production for pre school groups. Mark and Dennis analyzed group visitation statistics and determined that another pre school level program is warranted. The next in house production will be about the Moon.

Dennis continues to add meteorites to his own collection, as well as look for suitable specimens for the planetarium collection. Mark and Dennis are preparing for the conference in Winston Salem. Lafayette Natural History Museum Plan

etarium, Lafayette

This spring has been a busy. We've been running Adler's In Search of New Worlds as our primary public program, along with a live Sky Tonight. School program slots have been reduced for most of the school year to accommodate planning for our new building, but we will be running 16 school programs per week from March-May.

About 450 people visited the museum and planetarium for telescope observing during the lunar eclipse in January. We had a star party at a local school during February. On the weekend of March 11, some of the museum and planetarium staff visited Poverty Point, an archaeoastronomy site in far northeastern Louisiana to evaluate it for possible upcoming public field trips involving both archaeology and astronomy. (The sky was stupendous!) Planetarium Technician Dexter LeDoux and I judged a couple of contests in the regional Science Olympiad on March 18, and we are now helping to train the regional winners for the state contests in New Orleans. On March 25, a volunteer and I did a program about the Sun at the Wedell Williams Memorial Aviation Museum in Patterson, featuring visual and $H\alpha$ solar observing. That evening we held a small star party for aviation museum members and patrons.

Astronomy Day plans for April 8 included live visual and $H\alpha$ solar viewing at the museum during the afternoon, and an evening public telescope fair at a local park.

Bids for our building project were accepted in early March, but I have not been advised who will supply the dome and who will supply the control system. The project ground breaking occurred Friday, March 31, but the beginning of actual demolition of the building interior has been delayed to early May so as not to inconvenience the International Festival downtown every April. The Grand Opening at the downtown site is currently expected in the Spring of 2002. Plans are being finalized and funds are being raised to include a remote observatory on the building's rooftop, with live solar, lunar, and planetary images to be videoprojected into the planetarium.

Recent UFO reports in Lafayette have been positively identified as flying pigs. Better not include that in Southern Skies.

The planets lined up on May 5. Their combined gravity made ice in soft drinks

Roper Mountain Science Center, Greenville

Roper Mountain reports they have two projects going. They are working with the school district's Social Studies Coordinator to produce a History of Greenville program for use this fall. The other item will involve the Greenville Symphony in a Halloween program which is beginning to take shape.

Other great news: Roper Mountain is also in the late stages of building an observatory annex, which will include a new teaching classroom, a small telescope

deck, and a clean workshop for servicing large telescope components.

Settlemyre Planetarium, Rock Hill

Here at the Settlemyre we are preparing for our summer camps. Our cooperation with Winthrop University's Space Camp is occupying much of our time. In addition we are in the final stages of the installation of a new video system using a new video projector, Astro FX 3.1, and Virgo controllers from ECCS. This new system works well and is replacing our aging projectors and laser disk players.

Glenn Dantzer
Settlemyre Planetarium
South Carolina

Bays Mountain Planetarium, Kingsport

At Bays Mountain the current public show is Ancient Skies: The Dawn Of Astronomy. This 30 minute program is based on an old Hansen show and incorporates some nice computer graphics from Sky Skan Special Effects Videodisc #8. The show covers topics like the pyramids and Stonehenge. It has been very well received by our public audiences each weekend.

The observatory is getting one of the SBIG STV integrating CCD video imaging cameras. We expect delivery in June and are currently assembling and testing two computers and a video switcher to handle the feed from the telescope into the planetarium. The project is a joint venture between our facility and a local college. Images will be stored for daytime display, on the dome, in programs, or they can be captured in real time for use in live evening planetarium programs. We don't intend this as a substitute for looking through an eyepiece, but it offers us greater flexibility in use of the telescope. We plan to experiment with some programs for elderly and handicapped persons that would otherwise have difficulty attending programs at the observatory.

Weekend solar viewing with the public has seen some increase in attendance this year as sunspots and prominences abound. A rare (from our location) aurora was even seen one evening in April. The public is fascinated by all the amazing facts you can tell them regarding our star.

Craigmont Planetarium, Memphis

A couple of months ago our planetarium hosted a meeting for a group of students in the People to People Exchange program. In June this group of students from all over the Midsouth will travel to Australia. They

wanted to see what the southern hemisphere sky would look like at the time of their trip, so I had a good time showing off how little I know about the constellations in that part of the sky.

The demonstration consisted primarily of showing where we look to find the Sun, Moon, and planets in our home sky and what directions the sky moves as we face north and south. Then we traveled to the same latitude south of the equator and watched the same demonstration. Lo, and behold, the constellations are upside down and the sky moves backwards for sky watchers in Melbourne, Australia.

Easter break was later than normal, and it immediately followed the annual TCAP test that ties up elementary classrooms for part of a week. During that brief lull, we scheduled our annual visit from all the pre-calculus PaceSetter mathematics students in our city school system. About 800 juniors visited our star theatre for a two hour presentation.

We asked the young scholars to make some qualitative observations about the Sun's path across the sky on the equinox and solstice dates. Then we made quantitative observations, measuring the Sun's noon altitude in the sky for specific dates during the calendar year and graphing the result. It's amazing what you can deduce from drawing that graph. It's almost but not quite a sine curve. Spring and summer are more than a week longer than fall and winter. If astronomers had done this exercise centuries ago, we wouldn't have had to wait so long for Johannes Kepler to tell us the orbit of the Earth around the Sun is an ellipse.

We followed this graphing activity with Sudekum's well received Lunar Odyssey star show. These older students actually

Todd Slusher
Sharpe Planetarium
Memphis, Tennessee

understood some of the clever humor that abounds in that program.

In May our school played host to the World Championship of Airline Basketball. Yes, you read that right. Employee teams from Northwest, KLM, Quantas, and many other airlines played a tournament in our high school gymnasium, adjacent to the Hall of Flags in which the planetarium is located. We gave numerous impromptu tours of our star theatre to players and their families who had traveled with them.

We're streaking toward the end of the academic year with lots of school groups trying to use up their field trip transportation funds before their deadline for travel. For younger students we're still running Sudekum's Our Place in Space, Hansen's venerable Secret of the Cardboard Rocket, and GLPA's Solar System Adventure Tour.

Sharpe Planetarium, Memphis

The Pink Palace is caught up in the rush of spring school shows as the groups flood in. Education Coordinator Alex Eilers has had her hands full, but still has managed to hold several scout workshops during the last couple of months as well as start development on a new school show for next fall. Planetarium Artist Edwin Faughn has been busy as well creating artwork and characters for a new children's star show, Armadillo Ray, which will open at the end of May. He's also been involved on the side creating artwork for the new SEPA mini show on light pollution, Saving the Night, which you all should see soon.

In other news a humidity problem which was plaguing us and causing occasional fogging of slides and the star field has finally been tracked down by Technical Manager Roy Foppiano. It seems that when the Planetarium was constructed, a wall in a nearby utility room was not completed. This allowed the humidifier in another area of the museum to affect our air system, even though the building manager, countless air handling professionals, and city personnel swore repeatedly that our system was totally self-contained and that we didn't have a problem as if 65% humidity levels aren't a problem. Roy, through determined investigation, earns the super sleuth of the year award.

Our six yearly public Observing on the Lawn sessions resumed this spring with people enjoying views of the Moon, Sat

urn, the Orion Nebula, and other objects through a variety of telescopes. An Amateur Astronomy Workshop will be held in May for people interested in getting started in astronomy. Of course current public shows continue as well with Visions of a Spring Night, Follow the Drinking Gourd, and Egypt's Eternal Skies. Work continues on production for Armadillo Ray and The Search for Life in the Universe which open at the end of May and June respectively.

Renaissance Center, Dixon

Kevin Scott reports that they have added Sudekum's Waylena McCully as a part time staffer at the Renaissance Center. Although she maintains her full time job at the Sudekum, Kevin is really thankful of the assistance and expertise she provides. He also mentions that they are currently looking for other good operators if anybody has and recommendations they can toss his way.

Currently running in the Cybersphere theater are planetarium shows: The Explorers, Larry Cat in Space, The Sky Tonight and Carmen Sandiego. In addition 2 laser shows are being presented, The Beatles and Metallica.

Clarence Jones Planetarium, Chattanooga

At UTC's Clarence Jones Observatory and Planetarium work study student Daniel Westcott and I are putting together The Explorers from Bishop. Why is this news? We're not set up to use canned shows. We don't have six slide projectors or controls. Our home built \$10 star projector doesn't move.

We do have video and sound. We have rebuilt old kodak projectors and borrowed a control and coder from Walker County Science Center. We just completed the panoramas. Daniel manually aligned the masks in the original mounts. We did our first show on May 3rd, when our visitors will be 55 students and teachers from the New Friends School from North Carolina. This should stop our Hawaiian friends from bugging me about attendance.

I would like to thank George Fleenor for showing me how the experts do it on my recent visit to Bishop in Florida. I got to hear how he fights light pollution. Also neither a BB gun nor rocks will penetrate Lexan lights, see Sky and Telescope for the full story. Once we get dark skies again, do you think we can get Batman to show

News from SEPA States
continued

Todd Slisher
Sharpe Planetarium
Memphis, Tennessee

Dave Maness
Virginia Living Museum
Planetarium
Newport News, Virginia

Thomas Jefferson H. S. Planetarium, Alexandria

Lee Ann Hennig reports on the annual battle for funds: We re fighting the budget battle again this year so we re busily engaged in that issue.

Chesapeake Planetarium, Chesapeake

Robert Hitt reports: Time goes buy so quickly. I have not had time to do much writing for anyone. I have just finished defending my dissertation on public school planetaria. Some very interesting facts have surfaced on public school owned and operated planetarium facilities, and I will try to write a summary of my findings for a future issue of Southern Skies.

The planetarium will be closed for the month of August to install new equipment. A new Barco video projector will be added to complement the Sony video projector currently in use. Another addition will be an expansion of the Spice automation system to control the additional video projector along with several other slide projectors and special effects projectors. The planetarium building which is now 38 years old will also be upgraded with additional wiring and lighting. Plans for an addition to the building are still under review but no additional funding has yet been found.

Virginia Living Museum Planetarium Newport News

Our current offering is Galaxies from the Hansen Planetarium. This is a pleasant program written by Timothy Farris. He uses his mellow voice to give the show a reverent tone. For those customers who maintain consciousness it becomes a nearly spiritual experience.

We also do our live guided tour through our current night skies called What s Up. For a week in June the tall ships will be visiting our area. In concert with this OpSail 2000 event, the live show will take on a decidedly nautical theme with a discussion of early navigation techniques. I am tempted to pull out my guitar and torture... uh... entertain with a song or two about the sea. In addition, our observatory is open for solar viewing through a H α filter during some clear days and for stars, planets, clusters, and nebulae on Thursday nights.

Plans for building a new theater and museum are still being formulated. Fund raising continues. If there is something

about your theater that works especially well, I would like to hear about it. Also, if there is some aspect about your theater that you think could have been done better, I would also like to hear about that. We would all benefit from others mistakes. Work has begun on our new and improved entrance road. With the great deal of rain we ve been having it may take longer than planned.

In April, we began another Backyard Astronomy class for beginners.

In case you would like to see our Website point your Web browser toward the URL <<http://www.valivingmuseum.org>>.

Ethyl Universe Planetarium, Richmond

Eric Mellenbrink says theater renovations are complete, but other museum renovations and new office construction continues. Those should be ready for occupancy by April of 2000.

The new IMAX Dome film Dolphins has opened to spring time crowds.

The public planetarium show is a new in house program created with cooperation of WGBH TV. It is based on the Zoom educational program and is called Zoom on the Moon.

Starlab, Mathematics & Science Center, Richmond

George tells me the STARLAB Planetarium at the Mathematics & Science Center in Richmond, was ten years old in September. We have presented programs now for over 55,000 students, teachers, and parents at grades K, 1, 3, 5, 6, 9, and 12. That s a lot of stepping and crawling through the cloth entrance, and last year Learning Technologies did a major refurbishment for us, replacing the entrance tube and repairing frayed edges.

Now we re ready for another ten years of high demand in the 223 elementary, middle, and high schools of the seven school districts that fund our consortium.

Planetarium at the Edge of the Universe, Richmond

After a successful review day for 9th grade Earth Science classes, students are gearing up for the dreaded SOLs (Standard of Learning) tests which the state of Virginia produces and administers. The state has in mind to use these end of course tests to pass or fail students.

The Astronomy part of the Earth Science course was taught first semester; the Science Supervisor and Jane Hastings, planetarium director at Jefferson, came up with the idea of the review day. The planetarium lesson, given in April and May, used 1½ hours to cover phases and eclipses of the Moon and Sun, rotation and revolution of heavenly bodies, the current night sky, the solar system, the H R diagram, solar nebular theory, Big Bang theory, the Milky Way galaxy, and galaxies. Oh, I forgot, circumpolar constellations and the significance of Polaris. Whew. Ever seen a hamster running around in a little wheeled device in the cage? That's how Jane Hastings feels.

Hopkins Planetarium & MegaDome Theatre, Roanoke

Leslie Bochenski reports: April and May have been very busy, with the usual increase in school group visitation at this time of year. On April 29, we opened a new MegaDome film, To Be An Astronaut and the planetarium show Worlds in Motion (from Sudekum). These shows, along with the film Whales will continue through the end of June.

From May 11-14, the Artrain will be in Roanoke; it's hosted by the Arts Council of the Blue Ridge, the Virginia Museum of Transportation, and The Science Museum of Western Virginia. The exhibit on space art is housed in railroad cars and travels around the country. In conjunction with the Artrain's visit, Dr. Eugene Trinh, NASA Payload Specialist who flew aboard the Space Shuttle Columbia for STS 50/United States Microgravity Laboratory Spacelab mission, will be in town May 12. Dr. Trinh will be speaking at Lucy Addison Aerospace Magnet School, the Hopkins Planetarium, and the Transportation Museum.

On July 1 we will open our summer MegaDome film, Alien Adventure. This film features state of the art computer animation of amusement park thrill rides, and it is purely for fun. We will also have planetarium shows on Mondays throughout the summer. After Labor Day, Alien Adventure will become the B film as we resume a school year schedule of planetarium shows and educational films.

On a personal note, I just received my new personalized car tag MGADOME. Do you suppose I could get reimbursed from the museum's advertising budget?

News from SEPA States continued

Dave Maness
Virginia Living Museum Planetarium
Newport News, Virginia



Berkeley County Planetarium, Hedgesville

Elizabeth S. Wasiluk's tiny dome was packed for three programs at the time of the upcoming conjunction of Mars, Jupiter, and Saturn. This event was tied in with a Messier Marathon sponsored by the Historic Long Branch, a home on a large, dark estate, and also by the Shenandoah Astronomical Society of Virginia.

Also tied in was the Astronomy Day Celebrations at the historic Antietam Battlefield in Sharpsburg, Maryland. This was sponsored by the Tri State Astronomers with members in the states of Maryland, West Virginia, and Pennsylvania.

Elizabeth Wasiluk
Berkeley Co. Planetarium
Hedgesville, West Virginia

Left: George Hastings mesmerizes students inside his STARLAB Planetarium

HST's Greatest Hits of '96

Duncan Teague
 DT Publishing
 3308 Bluemont Drive
 Memphis, TN 38134-8454

The Space Telescope Science Institute (STScI) provides slides of Hubble images to individuals within regional affiliates who arrange 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, including postage and handling. Send your check or purchase order to the address at left.

- | | |
|--|--|
| <p>01.a Hubble's deepest ever view of the universe, revealing 1,500+ extremely faint galaxies in various stages of their development</p> <p>01.b Sample galaxies from the same Hubble deep field</p> <p>02 The inner region of a warped dust disk around Beta Pictoris once hidden because of the star's glare</p> <p>03 An image of the Egg Nebula taken by WFPC2; it shows the emergence of mysterious searchlight beams from behind a dying star</p> <p>04 The first direct image of a star other than the Sun: Betelgeuse.</p> <p>05 In more detail than has ever been seen before, the process a star like the Sun goes through when it dies</p> <p>09.a In clear, detailed pictures the first ever images of Pluto's surface; four views</p> <p>09.b Pluto surface map</p> <p>10 Gravitational lens effect captures image of primeval galaxy</p> <p>11 Images of globular cluster Mayall II, consisting of 300,000 old stars, in orbit around the Andromeda galaxy</p> <p>13.a The Helix Nebula, NGC 7293 showing collision of gases near a dying star</p> <p>13.b Helix Nebula detail with cometary knots surrounding the dying star</p> <p>14 A view of Comet Hyakutake that focuses on the near nucleus region of the comet</p> <p>15 Three layers of Uranus's atmosphere</p> | <p>taken with infrared filters; both clear and hazy layers created by a mixture of gases</p> <p>16 Image taken of Saturn where its rings appear edge on because of the position of the Earth in Saturn's orbital plane</p> <p>17 A view of several star generations found in the central region of the Whirlpool Galaxy</p> <p>18.a A rare view of Saturn's rings seen just after the Sun had set below the ring plane</p> <p>18.b A series of 10 images of several small moons orbiting Saturn</p> <p>21.a NGC 1365, a barred spiral galaxy located in the Fornax cluster</p> <p>21.b NGC 4639, a spiral galaxy located in the Virgo cluster</p> <p>22.a The Crab Nebula and a detail of the pulsar in its center</p> <p>22.b Sequence of three images showing changes in the Crab Nebula pulsar</p> <p>23.a Huge, billowing pair of gas and dust clouds in Eta Carinae</p> <p>23.b Expansion of Eta Carinae debris</p> <p>25 Hubble's 100,000th exposure captures an image of a distant quasar</p> <p>27 A vast nebula, NGC 604, which is known for a great starbirth region</p> <p>29.a 18 gigantic star clusters which may be building blocks for a new galaxy</p> <p>29.b Blue sub galactic clumps which may be galaxies under construction</p> <p>30 Jupiter's moon Io passing above turbulent clouds</p> <p>31 Clusters of stars and a fishhook shaped cloud of gases found in NGC 2366, a giant star forming region</p> <p>32 Changes in Jupiter's auroral emissions</p> <p>33 Views of weather on opposite hemispheres of Neptune</p> <p>34 A Martian dust storm around the edge of the north polar cap</p> <p>35.a A survey of quasar host galaxies</p> <p>35.b A quasar caught in the act of colliding with its companion galaxy</p> <p>36.a Supersonic comet like objects in the Cartwheel Galaxy</p> <p>36.b Cartwheel Galaxy composite image</p> <p>36.c Cartwheel Galaxy illustration</p> |
|--|--|

HST's Greatest Hits of '97

The Space Telescope Science Institute (STScI) provides slides of Hubble images to individuals within regional affiliates who arrange 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 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

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

Duncan Teague
DT Publishing
3308 Bluemont Drive
Memphis, TN 38134-8454

HST's Greatest Hits of '98

Duncan Teague
 DT Publishing
 3308 Bluemont Drive
 Memphis, TN 38134-8454

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

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

JPL '98 Slides

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

P 35036B	Launch of Galileo on STS 34 Atlantis	P 47935	Io Glowing in the Dark
P 35213	Deployment of Galileo and IUS	P 47961	Ganymede s Nippur Sulcus
P 37218	Venus Colorized Clouds	P 47970	Ganymede Color Global
P 37327	Moon: Western Hemisphere	P 47971	Io in front of Jupiter
P 37539	Infrared Image of Low Clouds on Venus	P 47972	Changing Volcanoes on Io
P 37593	Earth: Ross Ice Shelf, Antarctica	P 48035	Stereo View of Ganymede s Galileo Region
P 37630	Global Images of Earth	P 48040	Natural and False Color Views of Europa
P 40449	Gaspra: Highest Resolution Mosaic	P 48063	Thunderheads on Jupiter
P 41383	Gaspra Approach Sequence	P 48112	Ganymede Uruk Sulcus High Resolution Mosaic Shown in Context
P 41432	Moon: North Pole	P 48113	Ganymede Galileo Regio High Resolution Mosaic Shown in Context
P 41474	Earth: Northeast Africa and the Arabian Peninsula	P 48114	Jupiter s Great Red Spot
P 41493	Earth: False Color Mosaic of the Andes	P 48122	Two views of Jupiter s Great Red Spot
P 41508	Earth: Moon Conjunction	P 48127	Ridges on Europa
P 42501A	South Polar Projection of Earth	P 48145	Io: Volcanically Active Regions
P 42964	Asteroid Ida: Five Frames Mosaic	P 48188	The Main of Ring of Jupiter
P 44130	Asteroid Ida: Limb at Closest Approach	P 48231	Callisto Crater Chain at High Resolution Shown in Context
P 44131	Ida and Dactyl: Enhanced Color	P 48236	Europa: Ice Floes
P 44297	High Resolution View of Dactyl	P 48293	Callisto: Scarp Mosaic
P 44520	Asteroid Ida Rotation Sequence	P 48294	False Color Mosaic of Jupiter s Belt Zone Boundary
P 44542	Comet Shoemaker Levy 9 Fragment W Impact on Jupiter	P 48299	Asgard Scarp Mosaic
P 47058	Ganymede: Comparison of Voyager and Galileo Resolution	P 48445	True Color Mosaic of Jupiter s Belt Zone Boundary
P 47065	Ganymede: Mixture of Terrains and Large Impact Crater in Unuk Sulcus Region	P 48496	Color Global Mosaic of Io
P 47162	Full Disk Views of Io (Natural and Enhanced Color)	P 48526	Europa Ice Rafts
P 47179	Three Views of Io	P 48527	Closeup of Europa s Surface
P 47182	Jupiter s Great Red Spot	P 48532	Mosaic of Europa s Ridges, Craters
P 47183	Dark Bands on Europa	P 48584	Io s Sodium Cloud
P 47194	Live volcano on Io	P 48698	E4 True and False Color Hot Spot Mosaic
P 47196	False Color Great Red Spot	P 48700	Jupiter Equatorial Region
P 47903	NIMS Ganymede Surface Map	P 48952	Jupiter s White Ovals, True and False Color
P 47905	Five Color Views of Io	P 48954	Ancient Impact Basin on Europa
P 47906	Europa In Color	P 48956	Active Volcanic Plumes On Io
		P 48439A	The Mars 98 Lander
		P 48440A	The Mars 98 Lander
		P 48494A	The Mars 98 Orbiter/Lander
		P 48495A	The Mars 98 Orbiter/Lander
		P 48567	Dr. Peter Tsou holds Aerogel
		P 48589	Stardust Spacecraft
		P 48691	Deep Space 1 Spacecraft

Duncan Teague
DT Publishing
3308 Bluemont Drive
Memphis, TN 38134-8454

HST's Greatest Hits of '99

Duncan Teague
 DT Publishing
 3308 Bluemont Drive
 Memphis, TN 38134-8454

The Space Telescope Science Institute (STScI) provides slides of Hubble images to individuals within regional affiliates who arrange 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 set of 42 slides is \$52.50, including postage and handling. Send your check or purchase order to the address at left.

- 01 M57 Ring Nebula: the sharpest view yet of this planetary nebula
- 02 Combined deep view of infrared and visible light galaxies
- 03 HD 141569: stellar dust rings of a star in the constellation Libra
- 04 SNH1987A: self destruction of a massive star in Large Magellanic Cloud
- 05.a Six images of a young stellar disk found in the constellation Taurus
- 05.b Four images featuring disks around various young stars in Taurus
- 06 NGC 1316: 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 fireball in a gamma 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 NGC 4650A: a polar ring galaxy
- 18 Rings, arcs, and crosses as seen in

- Hubble's top ten gravitational lens effect images
- 19 NGC 4603: magnificent spiral galaxy associated with Centaurus cluster
- 20 NGC 3603: 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 Large Magellanic Cloud
- 25 NGC 4414: magnificent details in the dusty spiral galaxy
- 26 NGC 6093: a stellar swarm in a dense globular cluster
- 27 Mars: the red planet at opposition during April-May, 1999
- 28 MS 1054-03: 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 HE 2-104: small, bright nebula embedded in the center of a larger nebula
- 33.a R136 in 30 Doradus: a grand view of the birth of stars
- 33.b R136 in 30 Doradus: two detailed views of a highly active region of star birth
- 34.a NGC 1365: a barred spiral galaxy reveals a bulge in its center
- 34.b Eight different views of the central bulges of spiral galaxies
- 35 HH 32: a magnificent example of a Herbig Haro object
- 36 NGC 2261: Hubble's variable nebula illuminated by R Monocerotis (R Mon)
- 37 NGC 2346: a butterfly shaped nebula
- 38 NGC 2440: planetary nebula ejected from a dying star
- 39 OH 231.8+4.2: the rotten egg nebula
- 40 M32: hot blue stars deep inside a dwarf elliptical galaxy

JPL '99 Slides

JPL 19 12	NASA/ JPL	P 48045CC	Ready for transport
JPL 25125	Model of Sojourner	P 48154Bc	Pathfinder mated to rock et
JPL 27089AC	Cassini arrival and orbit	P 48155Ac	Launch 12/ 4/ 96, 2: 11 a.m.
JPL 27089BC	Cassini interplanetary trajectory	P 48155Bc	Petal closing at KSC
JPL 27748	Thermal vacuum testing	P 48156	Full stack mated to booster
JPL 28046BC	High gain antenna	P 48313BC	Cassini in the space center
JPL 28162AC	Cassini assembly	P 48505AC	Huygens probe
MGS 001	Scientists assemble MGS	P 48505BC	Huygens probe
MGS 002	Scientists assemble MGS	P 48565	Titan IV launch
MGS 003	MGS configuration	P 48597	Cassini ready for shipment
MGS 004	MGS orbit around Mars	P 48630	Saturn tour trajectory
MGS 005	Launch of MGS	P 48664	Cruise stage at KSC
P 23062	Saturnian clouds	P 48702	Pathfinder on Mars
P 23209	The Saturn System	P 48707	Cruise stage, spacecraft
P 23925	Saturn ring spokes	P 48753	E.D.L. sequence
P 41101	Huygens descent profile	P 48824	Sojourner and Pathfinder
P 42810AAC	Huygens, exploded view	P 48827	The airbags by Sojourner
P 42810AC	Huygens probe interior	P 48841	Sojourner touchdown
P 43538	Saturn: Rings and Moons	P 48842	APXS studies Barnacle Bill
P 43560	Mars global view	P 48845	Twin Peaks
P 43836	Scientists home countries	P 48847	The rock Yogi
P 43862	Pathfinder landing	P 48866	Barnacle Bill mosaic
P 43966AC	Spacecraft, country flags	P 48871	Rover s APXS at work
P 44233	Mars landing area	P 48877	Wedge and Flattop
P 44293Ac	Cruise stage	P 48878	Near Barnacle Bill
P 45424	Hugens probe release	P 48889	Barnacle Bill and Yogi
P 45893AC	Saturn, Titan s landscape	P 48891	360 b&w panorama
P 46225AC	Mapping Titan	P 48893	Yogi and rover tracks
P 46278	The Cassini mural	P 48894	Sagan Memorial Station
P 46356	Cassini with Huygens	P 48901	Sojourner wheelie on Yogi
P 46427	Petal deployment, Mars Yard	P 48902	Rover s view of rocks, lander
P 46428	Airbag inflation test	P 48908	The Rock Garden
P 46506AC	Saturn as seen from Rhea	P 48909	Martian terrain, Wedge
P 46507	Saturn orbit insertion	P 48911	Sojourner, Wedge
P 46507AC	Cassini enters Saturn orbit	P 48912	Forward ramp Twin Peaks
P 46586	Cassini orbital tour	P 48913	The Rock Garden
P 46620	Pathfinder landing	P 48914	A closer view
P 46655	Science targets	P 48915	The rover petal
P 46656	Enceladus and Iapetus	P 48916	Twin Peaks
P 46898BC	Cassini s trajectory	P 48917	Martian terrain
P 47340AC	Propulsion module	P 48918	Barnacle Bill, Yogi, Couch
P 47936CC	Huygens probe installation	P 48919	Sojourner, Barnacle Bill
P 47991	Pathfinder arrival at KSC	P 48920	Couch on the horizon
P 47992Ac	Cruise stack arrival at KSC	P 48921	The rock Yogi
P 47992Bc	Sojourner checking at KSC		
P 48012DC	Transporting Cassini		
P 48045BC	Cassini fully assembled		

Duncan Teague
DT Publishing
3308 Bluemont Drive
Memphis, TN 38134-8454

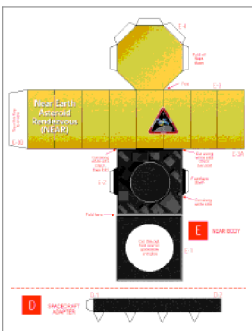
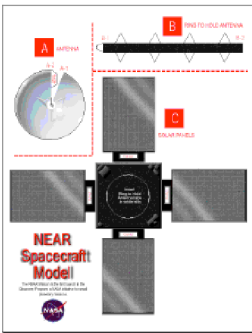
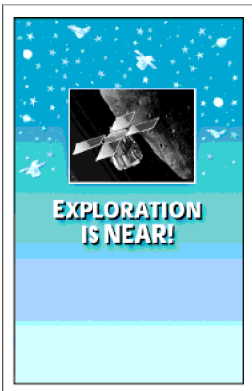
NASA JPL has sent us the following slides for the Mars Pathfinder and Cassini/Huygens missions. Slides are \$1.25 each

Web Review

NEAR Shoemaker Mission

Dennis Joseph Cowles
Web Review Editor
Louisiana Nature Center
Planetarium
New Orleans, Louisiana

NEAR Shoemaker Mission
<<http://near.jhuapl.edu>>



Top to bottom: in PDF format, the NEAR activity guide and the two parts of the NEAR spacecraft model, suitable for downloading, printing, and assembly; right: artist's conception of the NEAR spacecraft orbiting asteroid 433 Eros.

I should probably not be editing this column, since I have very strong biases about what I review. I have been waiting for the NEAR Shoemaker mission to begin since I first heard Andy Cheng (Program Scientist for the NEAR Shoemaker mission) discuss it way back in 1995 at the Lunar and Planetary Science Conference in Houston. I anticipated that I would review the Website when the mission got underway, and I also knew that I would really enjoy the site because it deals with one of my favorite topics related to the solar system: asteroids.

The Site

This site is rich and thorough. There is lots of stuff to see here. The site has images, news, spacecraft trajectory information, press kits, movies, links to other sites, an education section, and information about mission operations. There is a lot of information scattered around the site, so plan to explore it for awhile.

The site is well organized and divided into sections on the index page. This is a convenience for Web surfers that I always appreciate. I'm always happy to see an FAQ and a site index link on the main page; it tells me that the Webmaster is trying to make things easy for us, and making things easy for us is usually a pain in the you know what for the Webmaster.

The education section is, on the whole, good. Available online are an activity guide (in PDF format), an educator's guide (unfortunately not in PDF format; frames are a ROTTEN substitute for a printable PDF book), a PDF sheet model of the spacecraft, and even a coloring book for younger students. There is a

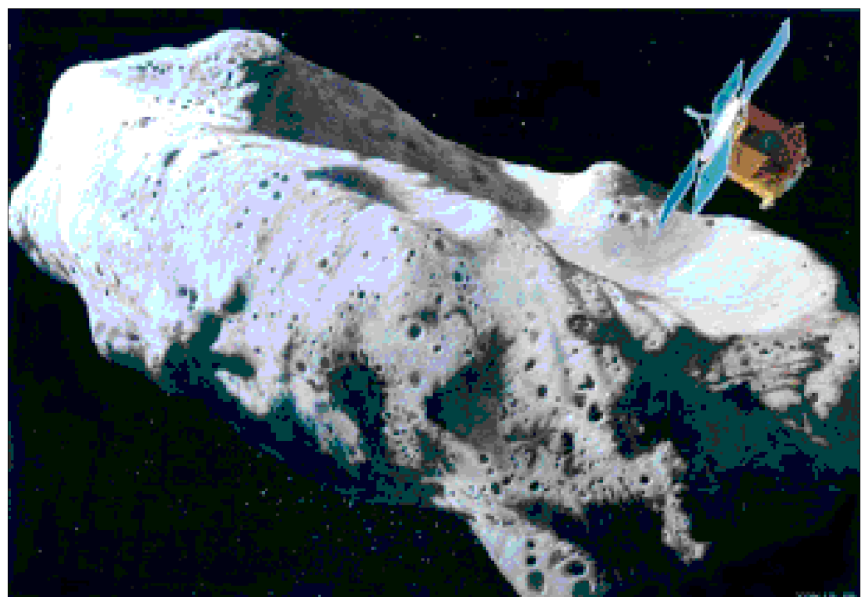
good laboratory project on identification of meteorites and asteroids; I wish this were in PDF format too.

There just aren't enough images posted on this Website. They add one image per day, called (originally enough) the Image of the Day. These images are terrific, but I want more of them. I would much rather have to wade through hundreds of thumbnails than to be limited to a single image each day. Most of the images are mosaics and the Webmaster provides reference numbers to the specific images, but I haven't found a way to examine those images personally. (Will someone tell me how to find image 0127229466, please?)

Go check out this site. This mission will run for awhile, so there will be lots more to see over the coming months. Hopefully they will start adding more than just a single image per day in the near future (pun intended). Happy surfing!

Arm Twisting Time

If you've seen an interesting site or a real stinker and you want to tell your colleagues about it, write a review, and send it to <DCowles@auduboninstitute.org>. Please include the date of the review. Sites have a way of changing quickly, and we want to be fair to the Webmaster of the site. After all, a site that stinks one week could be fabulous the following week.



Dealing with the Media: A Primer

Most of us get news coverage from time to time, but there are ways to enhance your media visibility and improve media relations. This article will give some guidelines about working with the media and discuss public service announcements, talk shows, and how to host media friendly events.

General Tips on Dealing with the Media

News is whatever they say it is. The news media is in complete control of the situation, and the best that we can hope for is that our view be presented fairly. Trying to think like a reporter or an editor helps. They ask themselves questions like: Is this item news? Why should people care about this? The mere existence of a product or service or event is not news, nor is an internal matter like giving an award to an employee. For something to be news, it must be interesting to a relatively large number of people in the potential audience. Something rare or unique is far more likely to get coverage than something that is perceived as mundane.

Reporters have a different agenda from the one we have. We're usually looking for wide distribution and exposure, while they are looking for a unique, exclusive angle. Try to give them that unique angle. If possible, tie your item to something current, preferably something in the news. For example, when Columbia returned to Earth after deploying Chandra, its flight path to Kennedy took it right over New Orleans. A landing is spectacular at night because of the plasma trail, and Columbia had been in the news, both for the first female shuttle commander and the hydrogen leak on launch. We sent out a press release and turned the fly over into a major event in the local media. Fly overs had happened before, of course, but this mission was in the news already.

Credibility matters. Never lie to or mislead a reporter. You'll do irreparable harm not just to your reputation but to the credibility of your organization too. Perception is everything. Credibility is very important to the media, too. Their livelihood depends on it. Always be forthcoming and friendly to the members of the press.

Reporters always ask a lot of questions

to make sure that they are not risking their own credibility. Don't do anything to damage their public image. If you give out any incorrect information or make a mistake, by all means tell them about it. They'll appreciate your honesty, and they'll remember that you were looking out for their credibility as well. It also makes you look more trustworthy.

Make yourself available to the press. They need to know you're accessible. You are a source of specialized information to them. Be friendly and forthcoming with them, because you want to build a long term working relationship with these people.

News coverage gives you advertising that money cannot buy. Advertising is a known form of manipulation, and news is more believable than advertising. The news media is perceived to be competent and honest. Some of the credibility will transfer to you if you get coverage. You have been deemed worthy, in other words. Don't forget that. Never forget that media condemnation can destroy you, and it takes many, many years to recover from a loss of credibility.

Build good working relationships with the media. They are useful as sources of coverage, and we are useful to them as sources of information. A good relationship benefits everybody.

One useful contact is a meteorologist. Most are interested in astronomy, and many will mention astronomical events on the evening news, if time permits. Planetary conjunctions are good topics for meteorologists, as are eclipses. Take one of your local meteorologists to lunch. They are very useful contacts.

Public Service Announcements

Public service announcements (PSAs) are announcements made by the media for free in the public interest. Most states require that the media run a certain number of PSAs each week. Most of us can benefit from this, since what we do generally falls within the area of public interest. PSAs are completely free, and competition for the few spots available is fierce.

Identify what media outlets you want

Dennis Joseph Cowles
and Mark Trotter
Louisiana Nature Center
Planetarium
New Orleans, Louisiana
DCowles@auduboninstitute.

handling your PSA. Find out whether your particular announcement or event is consonant with the formats of the media outlets that you have chosen (i.e., don't advertise a planetarium body piercing contest on the local gospel station!).

Identify the people who handle PSAs at the various media outlets in your community. The best way to do this is call them. Secretaries and receptionists know almost everything, and they are the ones to ask first. If they don't know, they always know whom to ask. Specifically ask for the person's name, title, and telephone and fax numbers. Send your PSAs directly to that person. Most stations get dozens of PSA requests each week, and you want to make sure yours gets to where it needs to go.

Since most media outlets receive a large number of PSA requests each week, you must make yours appealing. Here are some rules: Always type them on letterhead, at the top always include run dates (both beginning and end) and the name and phone number of a contact, and keep them short (less than one page).

Official letterhead adds to your credibility: a news editor may not know your name, but he or she probably knows your organization. The run dates are very important. A PSA is no good if it runs three days after an event. The contact name and number is equally important, because someone may have questions about the PSA or want to follow up with an interview.

If possible send the PSA from a month to two weeks before the event. It can take some time to schedule a PSA, and the media will appreciate the lead time.

After you send the PSA, follow it up with a phone call a day or two later to confirm that they received it. They may not know whether they are going to run it, but they will know that you are interested. Do not, however, expect to receive a return call from them. Most people in the media are extremely busy, and they do not have time to call generally. A friendly message left on voice mail is good, too.

Always write the PSA. This protects both you and the station in case of an error. Most stations won't accept PSAs if they are not written. You can send them in via mail or fax. If you mail it in, include a business card. This helps them expand their contacts, and may help you out later.

Don't bother recording your own PSA. It is a virtual certainty that it will not be used. Save yourself the trouble.

Keep PSAs short and to the point. Five things which you have to include are as follows: who, what, why, where, and when. Never write a PSA that is longer than one page. In fact, if you can keep it to half a page, do so.

Find out the list of priority issues for each station in your area. Many radio stations have such a list, and revise it on a yearly basis. Call and ask them for a copy. When you have it, identify where you fit into their list of priorities. (You are probably in education).

You do not have control over when a PSA is run. If you want control, then buy advertising time. Also, a PSA is not an advertisement; they are not selling your event. If you want an ad, then buy one.

Send thank you notes when they run your PSAs. It shows appreciation of their efforts on your behalf.

Don't get discouraged if they don't run your PSA. Competition can be intense, and they cannot possibly honor all the requests. If you get one, don't expect to get another one the following week. The media outlets try to be fair in how they divide PSAs amongst the various local organizations.

Even if you follow all of these guidelines, there is no guarantee that your PSA will run. Sometimes you can do everything right, but it doesn't work out. Don't get discouraged.

Talk Shows

Talk shows are a great way to promote activities and events. Surprisingly enough, getting on a talk show isn't that difficult. If you send out requests for news coverage, make sure that you send them to producers of talk shows, too. (Call the radio or television station, and ask the secretary or receptionist who the producer is.)

Identify what programs are likely to want you as a guest. You can call the producer of a talk show, and he or she will tell you what the general theme of the program is. If you can see how your event or activity can fit into what they have chosen to focus on, then by all means approach them.

Your message must be focused. When you send them a request, they will ask themselves a couple of questions: Why do you want to be on my talk show? Does this fit into what we normally do? Try to answer those questions for them at the outset.

Talk shows generally feature some kind

of call to action. What do you want listeners to do with the information that you are providing? Hint: The answer is not, Attend our event so that we can be successful, even though that is what you want. If you get onto the show, do not mention your organization's name every other sentence. You will never be invited to return.

If your event is news, then they are more likely to want you as a guest. Try to relate what you are doing with something in the news.

Since each talk show has a different focus, your approach may have to change depending on what show you are pitching to. Target accordingly.

Make your subject innovative, intriguing, new. Make them curious. Astronomy and the space program are generally popular with the media. Take advantage of that.

Be pushy let them know that you are out there.

If you get onto a show, here are some words of advice. Be conversational. Any nervousness is easy to spot. Ordinarily you will have a conversation with a single interviewer. Speak to that person. They are probably already interested in what you have to say. (That's why you are on their show in the first place.)

Share a personal story. It will make you more credible if you relate something about yourself. Laugh a little, it will help you to relax. Listeners or viewers will relate to you better too.

Avoid any overtly political positions unless that is why you were invited to the show. (This is very unlikely).

Correct any mistakes you make. It will help your credibility.

Most importantly, tell the interviewer why he or she should care. In general, people are interested in astronomy and the space program, but make sure that your audience knows why whatever it is that you are talking about is important.

Send a thank you note.

Staging Media Friendly Events

Event planning can be torturous. But doing a little extra work to make the event media friendly can be worthwhile. First, make sure the event is actually newsworthy. Ask yourself, why would anyone else be interested in this?

Make your event stand out. There are lots of people who want air time for their stories, too, and you are competing against

them all. Make the event current and intriguing. Again, if you can tie it to a recent item in the news, so much the better.

Producers hate talking head shots, like the ones that we get from NASA news conferences, because such images are generic. Try to find some way to make the event seem personal. Children are always good media shots.

If possible, time events in the mid to late morning or early afternoon to make it more likely that a news crew will be available. Live coverage at 5 or 6 P.M. is very rare.

Don't be shy about following up with a phone call or two. Be persistent and friendly.

If they do give you coverage, send a thank you note.

There are never any guarantees of media coverage. Sometimes you get bumped because of another, more important, news item. If it happens, don't get discouraged. You did the best that you could.

You might be surprised, though. The Columbia landing that we mentioned above turned into a major media event. We had five live spots on the news, two more at 6 P.M. and three more at 10 P.M. when Columbia flew over New Orleans. We would never have predicted that such massive coverage would occur, but things like this do happen all from a press release and a handful of phone calls.

[One thing Craigmont High's WQOX FM radio station staff taught me about PSAs is how to write a release that's supposed to last for a specific length of time. Twenty five words takes approximately ten seconds of air time to read. Ed.]

An Astronomical Anagram Exhortation

Author
Erich Landstrom
Aldrin Planetarium
West Palm Beach, Florida
<starlite@gate.net>

RESOLUTION. That is an important word to stargazers like you and me. There is the astronomical definition of **RESOLUTION** which refers to the degree to which fine details are separated, or the smallest details that can be discerned in an image. Pluto is far away, and distortions produced by the motions of the Earth's atmosphere give little **RESOLUTION** to surface features on maps of the marginal planet. Even with a **RESOLUTION** of 0.1 arcseconds, the best the Hubble Space Telescope can do is determine the albedo, or brightness, of different Pluto parts as it rotates. So, stargazers desire better **RESOLUTION**, whether to cut down on the twinkling of the stars, or to see a storm on Jupiter better or the divisions in Saturn's rings, or the tendrils of a planetary nebula, or the arms of a spiral galaxy.

I was referring, however, to the virtue of **RESOLUTION**, as in stick to it. It keeps us looking up with our eyes, or a pair of binoculars, or a telescope even if the night is partly cloudy, or the bugs are biting, or we need to get up early the next day. Our steadfastness keeps us up so late, our mind starts to play word games that can scramble the letters of **RESOLUTION** into anagrams!

That **RESOLUTION** is the sort of single minded dedication that can make a person a **LONE SUITOR**, in solitary contemplation of the cosmos. Snowbirds to Florida are Sun worshipers, but what **LOTION USER** experiences the thrill of basking under millions of suns in continental America's southern most night sky? Our low latitude allows us to see some southern hemisphere stars that would otherwise require star hopping like a kangaroo and plane hopping to Australia to use an astronomical **ROOUTENSIL**.

When Baltimore's baseball team seeks sunnier climes for spring training, how many **ORIOLE NUTS** lift their eyes from the night game to look at the Moon, planets, and stars? Even when it's apparent by the seventh inning that the next day's sports page will scream **Birds LOSE IN ROUT**, their eyes stay on the infield, not outer space.

What a show they miss, our venal

vernal visitors! After sunset, over in the East a curved sickle shape of stars is rising. It's the constellation Leo. As a sign of the zodiac, we can watch the Moon some evenings moving through its phases down the **LION ROUTES**, from the stars Regulus, the lion's heart, to Denebola, the lion's tail. Actually, Denebola is all that remains of the lion's tail, as the original constellation tail was trimmed to make another hairy constellation, Coma Berenices.

We look to the North, where returning again to her familiar place in the arctic abode is the constellation Ursa Major, the Big Bear. With the stars of the Bear's back, stomach, and tail (better known as the Big Dipper), we can find our way to the North Star if we head up from the open end of the Dipper along Merak and Dubhe, the two stars at the far end of the bowl.

Going straight out the open end of the Dipper's bowl, they point to Polaris; the distance is five times their separation. Polaris, in the constellation Ursa Minor, is the north hemisphere's pole star. We can also descend to the star Regulus in Leo as we travel down the bottom of the Dipper's bowl.

Find Leo by following Merak and Dubhe in the Big Dipper the other way, away from Polaris, and down towards a sickle shape of stars. The western end of Leo looks like a reverse question mark. Denebola is the easternmost end of Leo, in its small triangle.

We turn to the southeast. Follow the bend of Dipper's handle as it arcs to Arcturus, then spikes south to the star Spica. Spica is depicted as an ear of wheat held in the hand of a rather shapeless virgin maiden. Now we've found the constellations Bootes (with Arcturus) and Virgo (with Spica). Knowing our way around the Big Bear makes this star pattern a useful **URSINE TOOL**.

As night goes on, the constellation of the Hunter is setting in the West when the star Vega is rising in the East. Vega is the brightest star in the constellation Lyra the Lyre, but since the instrument is coming up as the belted bull fighter is going down, it's clear that Lyra is not **ORION'S LUTE**.

Thus inspired, my enthusiasts of aster

Southern Skies

VOLUME 20, NUMBER 2

JOURNAL OF THE SOUTHEASTERN PLANETARIUM ASSOCIATION

SPRING 2000

In This Issue

President's Message.....	1
Editor's Message: Something's Missing from my Sky.....	3
Featured Vendor Inventor: Thomas Webber's Technology Wish List.....	4
Small Talk.....	6
Digital Cosmos: Interfact Solar System CD ROM.....	8
Digital Cosmos: Discover Beyond Planet Earth CD ROM.....	9
Book Review: The Petroglyph Calendar.....	10
The Awesome International Space Station.....	11
News from SEPA States.....	12
HST's Greatest Hits of '96.....	22
HST's Greatest Hits of '97.....	23
HST's Greatest Hits of '98.....	24
JPL '98 Slides.....	25
HST's Greatest Hits of '99.....	26
JPL '99 Slides.....	27
AstroWeb Review: NEAR Shoemaker Mission.....	28
Dealing with the Media: A Primer.....	29
An Astronomical Anagram Exhortation to Rearrange your Thinking.....	32

Southern Skies is the quarterly journal of the Southeastern Planetarium Association published for the purpose of communicating association news, reports, reviews, and resources to its members. Contents © 2000 by the Southeastern Planetarium Association and individual authors. Permission is granted to reprint articles in other planetarium, astronomy, or science related publications under the following conditions: 1. Attach a credit to the article stating, "This article was originally published in Southern Skies, journal of the Southeastern Planetarium Association;" and 2. Send courtesy copies of your publication to the Southern Skies editor and the author.

Officers

President

George Fleenor
Bishop Planetarium
201 10th Street West
Bradenton, FL 34205
Voice: (941) 746-4132
Fax: (941) 746-2556
Email: Jetson1959@aol.com

President-Elect

David C. Maness
Peninsula Planetarium
524 J. Clyde Morris Boulevard
Newport News, VA 23601
Voice: (757) 595-1900 x31
Fax: (757) 599-4897
Email: Pegasus321@aol.com

Secretary/Treasurer

Duncan R. Teague
Craigmont Planetarium
3333 Covington Pike
Memphis, TN 38128-3902
Voice: (901) 385-4319
Fax: (901) 385-4340
Email: teagued1@ten-nash.ten.k12.tn.us

Past-President

Mike Chesman
Bays Mountain Park Planetarium
853 Bays Mountain Park Drive
Kingsport, TN 37660
Voice: (423) 229-9447
Fax: (423) 224-2589
Email: baysmtn@tricon.net

IPS Council Representative

John Hare
3602 23rd Avenue West
Bradenton, FL 34205
Voice: (941) 746-3522
Fax: (941) 747-2556
Email: jlhare@aol.com

Southern Skies Editor

Duncan R. Teague
3308 Bluemont Drive
Memphis, TN 38134-8454
Voice/Fax: (901) 388-3266
Email: dteague2@midsouth.rr.com

Associate Editors

AstroVideo Review

Paul Lewis
Dept. of Physics and Astronomy, UT-Knoxville
401 Physics Building
Knoxville, TN 37996-1200
Phone: (423) 974-7815
Fax: (423) 974-2858
Email: gplewis@utk.edu

AstroWeb Review

Dennis Joseph Cowles
Louisiana Nature Center Planetarium
10601 Dwyer Road, Box 870610
New Orleans, LA 70127
Phone: (504) 243-3385
Fax: (504) 242-1889
Email: CowlesD@aol.com

Book Reviews

Patrick McQuillan
Alexander Brest Planetarium
1025 Museum Circle
Jacksonville, FL 32207
Phone: (904) 396-7062
Fax: (904) 396-5799
Email: PatAstro@aol.com

Digital Cosmos

Erich Landstrom
Aldrin Planetarium
4801 Dreher Trail North
West Palm Beach, FL 33405
Voice: (561) 832-1988
Fax: (561) 833-0551
Email: starlite@sfsm.org

Small Talk

Elizabeth Wasiluk
Berkeley County Planetarium
Rt. 1, Box 89
Hedgesville, WV 25427
Phone: (304) 754-3354
Fax: (304) 754-7445

Featured Planetarium

Kelly Quinn
Hallstrom Planetarium
3209 Virginia Avenue
Fort Pierce, FL 34981
Phone: (561) 462-4888

Featured Vendor

Thomas Webber
Heritage Planetarium
Maryville, TN 37804
Phone: (423) 984-8548
webbert@blount.k12.tn.us