

President's Message

At most planetariums, spring marks the busiest season of the year lots of school kids, field trips, and this year, the added demand brought about by Comet Hale Bopp! None of us should complain about this situation, since it provides us with our bread and butter. When it's over though, all of us will need a rest and a chance to recharge our batteries. What then could be better than a June conference on a Florida beach? I hope all of you have made plans to attend.

Hosts Clint Hatchett and the staff at Pensacola Junior College have lined up an exciting week of activities! If you haven't made plans, call these folks right away and get in on the fun. If you've accomplished something neat this year, consider offering a paper or workshop. Our organization is only successful if the membership plays an active role.

Speaking of conferences, the 1998 conference in Roanoke may be the start of a new era for SEPA meetings! Gary Close has proposed a cooperative approach and SEPA Council is supporting the idea. Planetariums from other facilities are moving ahead with duties that will assist Gary in making Roanoke a true group effort.

I'm pleased to announce that Patrick McQuillan has offered the Alexander Brest Planetarium as one choice for the 1999 conference site. If any of you have been considering making a bid for '99, please contact me so your presentation can be added to the business agenda for Pensacola. It's always nice when two or more groups step forward to provide the membership with options.

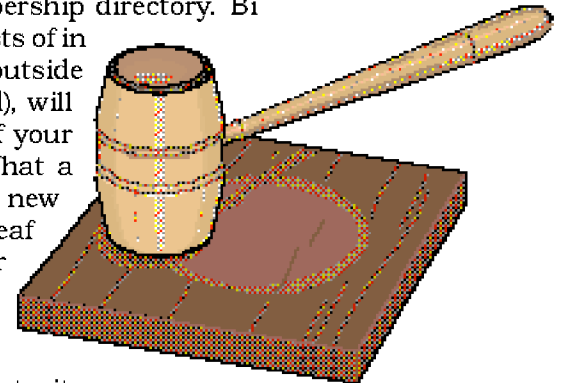
In other news, SEPA Council has been very busy and has much to announce. So that we can recognize members who have made valuable and long time contributions to this group, we are instituting a fellowship award in honor of Paul W. Campbell. I am very proud of Council's work on this item and look forward to bringing you the details at conference. In a related vein, Kris McCall has been working hard on membership benefit guidelines and we are particularly moving ahead with plans to announce nomination procedures for Emeritus membership.

Development of a member's guidebook has been approved by Council. It will use a looseleaf format and consist of several sections. In addition to by laws, current benefits, and a history, the book will feature a rather unique membership directory. Biographies, photos, lists of interests (both in and outside the planetarium field), will help you know all of your colleagues better. What a boon this will be for new members. The looseleaf format will allow for quick and low cost updating... and for those who can stand it, allowing your portrait to age with time. A dozen members have received sample questionnaires to provide a mock up of the guidebook that you will be able to look over at conference. Everyone will be asked to fill one out by the end of 1997, and distribution of the finished product will begin at the '98 conference.

George Fleenor was chosen to chair and assemble a committee to establish a Web site for SEPA and its membership. By the time this message reaches your hands, that committee will have been picked. Their plan of action will be presented at our annual business meeting. George has asked that you forward him any ideas you want the committee to consider. With the Internet being an almost indispensable tool for research and communication, it is important that our organization establish a presence on the Web. Many facilities already have their own homepages, and we hope to link these to the SEPA Web site.

Well, this issue's message turned out to be mostly a nuts and bolts series of announcements. I must say, my first four months as president have flown by. I'm glad to see that Council has been able to synthesize some very concrete projects starting from some very diverse points of view. SEPA members have always been a cooperative group, and with everyone's help, Council hopes you will reap many benefits from these improvements.

Mike Chesman
President
Bays Mountain Planetarium
Kingsport, TN



Space Jobs

From an e-mail
announcement

If you have World Wide Web access you can read space related job listings at www.spacejobs.com. Job seekers can also register confidentially with Space Jobs at no cost. When a relevant job listing is posted, a copy is forwarded by email to the registrant's account. Online listings describe the companies, so it's a good way to learn about potential employers.

This service is targeted to people interested in space. There's no searching

through massive job databases with a lot of extraneous information. Employers can target the audience they want to reach.

Space Jobs is developing a database of information about employers. Job seekers can learn more about these organizations by visiting the Space Jobs web site.

Space Jobs is at www.spacejobs.com. Email John Criswick, who runs the site, at criswick@conveyor.com. He could provide you with more information, art, etc.

IPS Report

IPS Representative
John Hare

I would like to remind you of the dates for the International Planetarium Society Conference at The New Connaught Rooms and the London Planetarium. They are June 28 July 2, 1998

Highlights will include a supper in the presence of the (wax figure) Royal Family, a boat trip down the Thames River to the Greenwich Meridian, the Old Royal Observatory and National Maritime Museum, and a day long trip to Stonehenge and Avebury.

The conference registration fee is likely to be in the neighborhood of £250 £300, plus accommodation (which will range from about £50 upwards). Costs may come down some, depending upon the success of attaining some sponsorship monies. The final costs will be announced next summer.

Don't forget, there is also an optional Post Conference Tour from July 3 7, which will include the Jodrell Bank Radio Observatory and Science Centre, the Armagh Planetarium and Eartharium, the 19th century telescope built by the Earl of Rosse at Birr Castle in Southern Ireland, and the ancient site of Newgrange. The tour will end up in Dublin, Ireland with its museums, bars and crack (Irish for a distinctive form of animated conversation!) Hopes are that the final dinner will be in Trinity College's 18th century dining hall. Fees for this tour will be in the region of £550.

Confirmation of your attendance will be at the end of January 1998, so there is plenty of time to start saving.

The off year Council meeting will be held on June 23 in Strasbourg, France. Please bring any issues or items of business you want discussed to my attention. I will be in Pensacola for SEPA 97, and I will depart for France on June 20. Be sure to contact me before then.

IPS Publications Chair, Undine Cannon of the London Planetarium, is compiling an IPS Resource Directory. You should be listed in this directory if you, your business, or your facility offer hardware, software, or other services to the planetarium community. Contact Undine as soon as possible at:

London Planetarium
Marylebone Road
London NW1 5LR
United Kingdom
Phone: 011 44 171 935 6861
Fax: 011 44 171 465 0862

THE DEADLINE FOR THE NEXT ISSUE OF SOUTHERN SKIES IS JULY 1. SEND YOUR SUBMISSIONS ON A 3.5 DISKETTE OR VIA EMAIL ATTACHED FILE TO STARMANTNG@AOL.COM OR TO STARMAN@NETTEN.NET

Arm Twisting Doesn't Work! Threats to Follow!

I had one response to my request for technical and educational articles to be published in Southern Skies. Thank you new member Sherm Kanagy. I see that arm twisting does not seem to work, so threats follow. If more SEPA members don't respond to our organization's needs, then I'll have to resort to going outside the membership to obtain material for our journal. Is that what you really want?

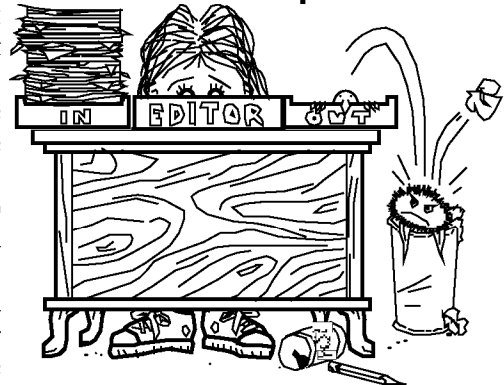
We are in need of a new associate editor for software reviews. Mike Cutrera is leaving the Bishop Planetarium for a more financially rewarding position, and we need someone to take over submitting material for the Digital Cosmos feature. If you're willing to be responsible for reviews of computer software for publication in Southern Skies, please volunteer for this important position. Otherwise, I threaten to have my planetarium interns do this job in lieu of our professionals. We have lots of software to review, and, at the risk of repeating myself, if you want to turn over this job to non-SEPAs, so be it.

I repeat a previous announcement: you'll find information on obtaining the slides Space Telescope Science Institute makes available for us to distribute to our members. This is being handled by DT Publishing so you don't pay sales tax on items sent out of Tennessee.

Once again we're memorializing the life of a SEPA member. Tony Jenzano passed away on March 22, 1997.

Finally, when you send in your articles, please don't put quotation marks around anything except direct quotations. Also note that quotation marks go outside punctuation. Thanks for your careful attention to this matter not of typography but of grammar. It will save me a lot of time. Next deadline is July 1.

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



Mike Cutrera

Send your \$15.00 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		

Craigmont Planetarium Memphis, Tennessee

Dave Hostetter
Featured Planetarium Ed.
Lafayette Natural History
Museum & Planetarium
Lafayette, LA

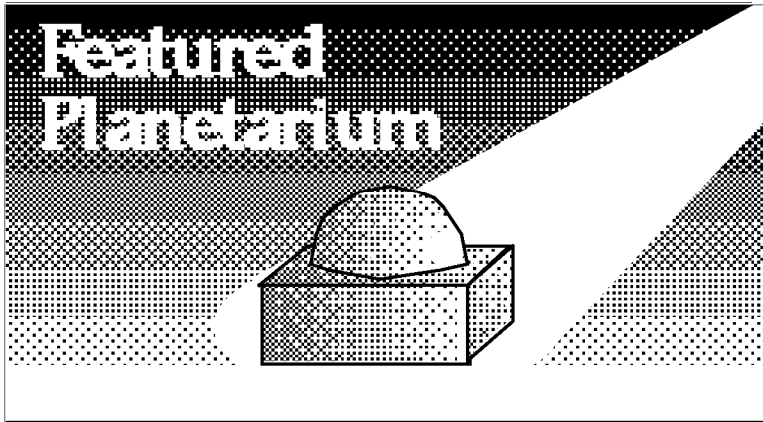
Craigmont High School opened in the fall of 1973, a year before it was supposed to. The building wasn't finished. The ROTC armory, gymnasium, radio station, and planetarium weren't completed. Teachers used moveable chalkboards. There

year. We borrowed slides from the Memphis Astronomical Society, the Memphis Chamber of Commerce, and individuals. We produced our own square format slides with a Kodak VisualMaker, a device that held an instamatic camera in a stand while you shot with a flash. Well, I wanted to learn my trade. The word ulcer entered my vocabulary.

Our planetarium's existential moment occurred at the 1975 SEPA conference in Miami, Florida. I got to view a dozen or so star shows produced by master craftsman Jack Horkheimer and several other individuals or companies at that meeting. It was an eye opening experience, and I learned how to communicate with my audience rather than lecture to them, thanks to being able to steal ideas from SEPA members. What an exciting bunch we are!

The ideas I gleaned from that first experience with SEPA made me bold. I learned how to ask people for stuff. All they could do is say no, right? I got 16mm NASA movies from the local CBS affiliate and directly from NASA, and I incorporated them into my star shows. I developed the philosophy, due in no small part from the influence of Jack Horkheimer and then current IPS (nee, ISPE) President Tom Gates, that I wanted our audiences to know something about space missions before they happened. I wanted them to understand why we were spending taxpayer money to send a robot machine to a world millions of miles away.

The first really exciting project we did that utilized that philosophy was in producing a star show for the NASA Ames Research Center for the Pioneer Venus mission in 1978. I requested a copy of a 16mm film produced at JPL with James Blinn's superb animation. The Public Information Office at NASA Ames was intrigued that we planned to produce a star show before the mission. They had hired someone to produce a slide tape program after the missions. We produced the star show *On the Shoulders of Giants: the Story of the Pioneer Venus Missions* and distributed it to a number of planetariums around the country more than a month



Mike Cutrera

Duncan Teague
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were numerous portable buildings on the campus. The Memphis City Schools had planned for 1500 students eventually to attend Craigmont. When grades 7-10 showed up for the opening day of classes, 1600 students had already registered. Craigmont High was badly overcrowded, and we still had two more grades to add in subsequent years.

The Community was interested in having some really unusual, innovative, feature in the comprehensive school. The final two choices were between an Olympic sized swimming pool or a planetarium. Perhaps the Powers that Be realized more people would be able to utilize a planetarium than a pool.

Craigmont Planetarium opened in October, 1974. The theatre had 130 directional seats; a two channel stereo sound system with a proprietary Spitz feature called flying sound; that brand new innovation in noise reduction, Dolby; several Sky Skan special effects projectors; and the entire Talent, Inc. catalog of special effects. It was an overwhelming array of new toys to play with for planetarium novices Duncan Teague and Ruth Lewis.

The first year of our operation I wrote a new show each month of the school

before the December 1978 mission arrived at Venus.

The next summer the NASA Ames Research Center contacted me.

This time we produced, in a matter of four weeks, the star show Saturn: Gateway to the Stars, the Story of Pioneer 11's mission to Saturn. Again we distributed the show to a number of planetariums prior to the Saturn encounter, and I got to go to the Pioneer 11 Encounter educator conference at Moffett Field.

In subsequent years we received grants to produce several live stage plays in the star theatre, Bram Stoker's Dracula, the Vampire, Isaac Asimov's Nightfall, and Sir Fred Hoyle's The Black Cloud. The Memphis In May International Festival organization gave us grants to produce several star shows about countries their month long slate of activities was honoring. We produced star shows about the astronomical cultures of Egypt, Mexico, and Australia. Badour, Inc. helped fund star shows for the developmentally delayed, the visually limited, and the hearing impaired.

Six years ago our staff changed, and some new equipment substantially improved our theatre. Ruth Lewis retired, and Lisa DuFur became our new Instructor. We got a wonderful new sound system, and we decided to go with JHE's controls for our slide projectors, video projector, pan system, AZP zoom, X Y mirror, and some special effects.

Our superordinates bought us new Macintosh computer equipment, a scanner, a laser printer, a film recorder, and magneto optical drives for offline storage of files. We began to produce study guides, curriculum guides, and two newsletters, Twinkles and Skylights. Our attendance went from

25,000 a year to 43,000 a year.

We developed a good relationship with the Memphis Astronomical Society who always chose to support our observing events in preference to two other groups in town. Lisa became a SPICA agent and was invited to participate in the Mid South Regional Star Gaze by conducting educational workshops. We participated in nine Harvard Smithsonian interactive teleconferences and an electronic field trip to Fairfax, Virginia. Our student interns were national finalists in the Thinkquest competition. Could life be any better?

In a word, yes.

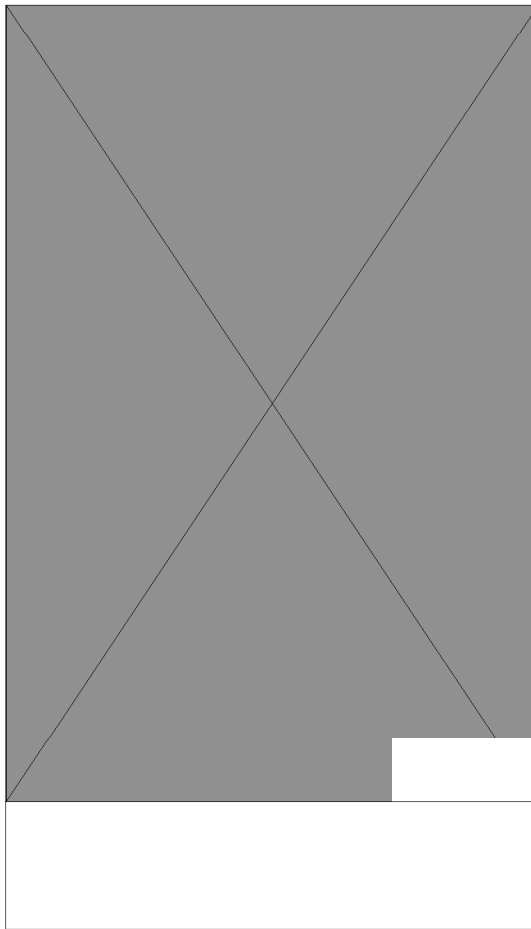
We hope to get our own satellite dish to continue participating in live video tele-

conferences. After seeking grants from our parent organization, we learned that a planetarium is neither a classroom, nor are we disadvantaged, so we do not qualify for many of the grants our school system receives. We are seeking an adoptor or adoptors who will be able to support what we consider to be a compellingly good idea, one which would benefit the entire community and not just our school system.

Although our planetarium strives to improve our educational program by staying on the frontier of technological advances, communication with our patrons is our primary goal. We don't

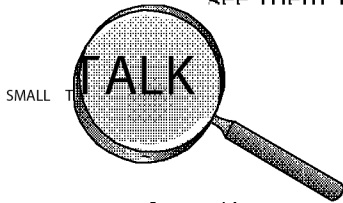
need the latest special effect to do that. We do need educators who can relate to our patrons.

Some of the nicest comments we ever receive from teachers is that all our programs are right on the grade levels of our audiences and that the concepts we cover in our star shows are precisely what they have been studying in their classrooms. We take great pride that our attendance



Small Talk

Elizabeth Wasiluk
Small Talk Editor
Berkeley County Plan-
etarium



Comet fever! It is about to repeat. When I was very small, I would read books about comets which would describe huge comets that were so brilliant that you could see them in broad daylight. Also they depicted comets with many tails in woodcuts and drawings of comets looked magnificent. Yet even though comets are supposed to visit us every so often, grow up as a child in Buffalo, New York, I had never seen any comet, let alone any that were described in such awesome terms.

The seventies were marred by promises of Comet Kohoutek which never materialized. Comet West made its entrance when I was a freshman in college. Despite some publicity, I never ventured out to look for it. Finding a light free, clear, eastern horizon was practically impossible where I lived, and I was never much of an early morning person, so I never bothered. For ever afterwards I would be reminded of what an amazing comet it turned out to be! The spectacular photos of it attest to how beautiful it became and they reappear every time another comet is predicted to grace our skies.

The first ever comet I did see was Comet Austin. Not the one of 1990, but the one of 1982-83 fame. It appeared near the handle of the Big Dipper and after learning about its position from the local weather guy on tv, I borrowed an Astroscan telescope from the astronomy department where I was a teaching assistant, and went out to my backyard in Sloan, NY and swept it up near the handle of the Big Dipper. It was just where the guy said it was. It was a big fuzball, type of object, kind of like an unresolved star cluster. I followed it across the sky until it was lost in horizon haze. I even wrote a song about it, stealing the tune of Tony Kosinec's Raymond Austin (I hope he forgave me!)

Comet Austin, lost in Boston.
Got too close to the Sun...

Then came Comet IRAS Araki Alcock. This comet got everybody looking, and there were many busy nights at the ob-

servatory at Buffalo State College. Back in my backyard I borrowed the Astroscan again to watch it move through the Beehive cluster. That little comet was trucking!

Comet IRAS Araki Alcock almost got to be naked eye and maybe it was third or even second magnitude, but it never really could be called bright.

Since that time, I've lost track of all the comets I have seen. Most of them were dim and needed a telescope to view them.

Then last year there was Comet Hyakutake. I had heard of many sightings before I actually did get to see it, and they were saying it was very bright. There was a public star party scheduled the night of an unseasonably blustery, cloudy evening. I opted to see the local theater perform On Golden Pond instead. On my way home, the clouds parted for a fifteen minute period, and I caught sight of it for the first time, right in the heart of downtown Martinsburg, WV, across from St. Joseph's church.

There were many public star parties scheduled over a short period of time, and many more people just went out in their backyards and looked up. West Virginia public radio played late night new age music to greet comet Hyakutake. My car gets stuck in the mud on the way to the Shenandoah Astronomical Society's observatory and I lock my keys in the car when I go to wash off the mud. Maybe there is something to this association of comets with disaster? Maybe it is more like, when there is a bright comet in the sky, people pay too much attention to it and don't pay attention to what they are doing.

Before Comet Hyakutake leaves I spend a night watching it on a beautiful, warm, clear night in Martinsburg while a total lunar eclipse was going on and Venus was moving through the Pleiades. The next day I drive to New York. It snows (of course) and a day later I see Comet Hyakutake guiding me northwest on the Queen Elizabeth Way to Hamilton, Ontario, and I stop to see it off of Lake Ontario. I tried to watch it every clear night it was visible from a greenhouse on Tuscarora Pike, near my home in West Virginia, until one night, while it was sinking low in the northwest, someone turned

their highbeam headlights on me and that was the last time I saw the comet.

Now Comet Hale Bopp greets me every morning out of my bathroom window as I get up for work. It is very bright, but so far, very dinky looking compared to Comet Hyakutake. I was far from the first to see it. Many reports from both the Tri State Astronomy Club and the Shenadoah Astronomical Society came in regarding its brightness. I'm no stranger to Comet Hale Bopp, having seen it in binoculars and telescope last summer at the Mason Dixon Star Party in York, PA and Fremont Peak in California. Staff astronomer Conrad Jung from the Chabot Observatory in Oakland, California says when he looks at it with the 20" refractor there, he sees shells of gas around the nucleus.

Needless to say I've been making comets on local cable, appearing on the weather outside, and doing radio spots. At first the general public were having trouble finding it, despite its brightness. Comments made to me about it, mentioned its looking like a star with two beams coming from it. Another person said it looks like a cartoon version of a comet. Looking across a well lit parking lot in the wee hours of the morning, I swear I see a tail. Students have come up to me in the halls and asked if there is a comet visible in the evening sky, because they believe they've seen one, but hadn't heard one was supposed to be in the sky. And, yes, I did hear a former student say, "Comet? I haven't heard anything about any comet. Is there a comet currently in the sky? There is one in every crowd."

I see it for the first time in the evening on the way home from seeing the Maryland Symphony perform Mozart's Jupiter and Holtz The Planets with members of the Tri State Astronomy club.

But despite travelling to dark sky, non town Cherry Run, clouds and a bright Moon ruin my chances of seeing it under ideal conditions.

Anyway we've yet to know the excitement it will generate. March is once again an exciting astronomical month, what with the total solar eclipse occurring half a world away, Mars in opposition, a partial lunar eclipse and Comet Hale Bopp approaching us, there is plenty to do. I've been running

a program on the total solar eclipse, recreating the sky from a place called Chita in Mongolia, complete with Hale Bopp in the sky. Radio Canada International reported that Chita had clear skies on March 9th, and people were treated to seeing the comet in an eclipsed sky, the rare few who braved the cold temperatures. I also gave a walk through the two eclipses segment where people model the two eclipses that are happening in March and why we can only see one of them. I know this will be a busy time for you, but do take time to write, phone, or fax me with what you have done or are doing. Hope your comet watching was happy!

Small Talk from the Winter 1997 issue of Southern Skies, continued

I know when I worked at Bishop Planetarium in Bradenton, FL, the place was a little strange. That was confirmed when I drove up one morning to find a SWAT team on the roof. A nearby bank was being robbed and the roof of the museum/planetarium complex was high enough for the SWAT team to get into position. Let's face it, if a SWAT team wants up on your planetarium roof, would you stop them?

Finally, here's a tale from the deep, dark, swamplands of Louisiana. You know, I've heard some stories from my students who claim that their grandfather believes that the Moon landings in the 70s were made up in some Hollywood studio and didn't really happen. Wouldn't you know that Dave Hostetter of the planetarium at the Lafayette Natural History Museum in Lafayette, LA would have a story to top that?

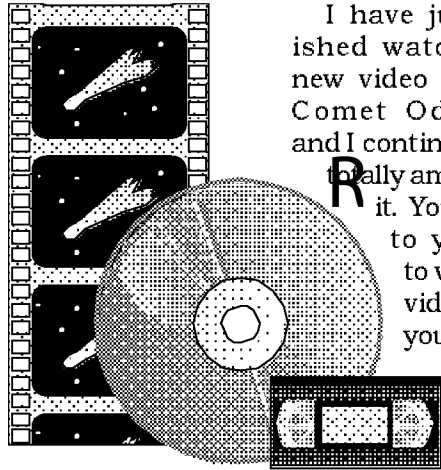
When our planetarium was closed, we built an 18 foot foam core dome for public shows using a Starlab projector. One volunteer was a Cuban on a work release program for a local halfway house. He served in the Cuban army in the 70s and was absolutely sure there were no Moon landings by Americans only Russians. That had been part of his indoctrination as a soldier.

So if you have any strange stories occurring in your place over the holiday, jot them off to me via fax or letter or call on the phone and I'll share them with the rest of the readers. Until next time... .

Astro-Video Review

Comet Odyssey

Astro-Video Review Editor
Mike Chesman
Bays Mountain Planetarium
Kingsport, TN



I have just finished watching a new video entitled Comet Odyssey, and I continue to be totally amazed by it. You owe it to yourself to view this video; and you owe it to the producers to purchase this video. The tape is, most importantly, a time lapse record of a comet's passage across the sky. However, just as thrilling is the story of how this footage was produced. The whole story is contained on this 45 minute VHS tape.

The project was the idea of Canadian amateur astronomer Peter Ceravolo. After dabbling in astrophotography for a little over a year, he decided to make a time lapse record of Comet Hyakutake.

Peter's skill in optical design produced the equipment to undertake the project, but it was the team effort with three other friends that resulted in a totally unique and scientifically valuable film. The tape documents the entire project from development of the astrograph system, through on site field work, to recognition by professional astronomers.

Doug George, was the group's computer guru writing specialized software for various phases of the project. Glen LeDrew had the astrophotography experience and had done time lapse sequences before, particularly of the Milky Way from the southern hemisphere. Paul Boltwood conducted CCD imaging of the nucleus.

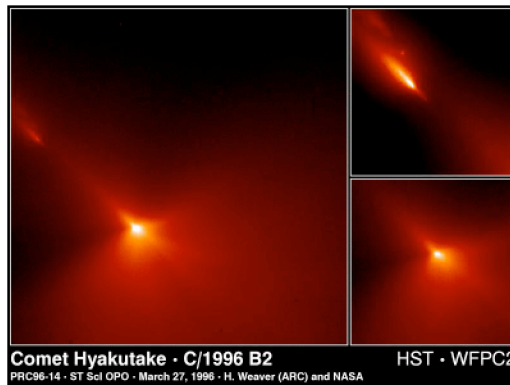
After some initial brainstorming sessions in Canada and an outlining of goals for each team member, the film takes us on a journey to Arizona where the crew sought clear skies at an overlook, 7,000 ft up, in the mountains of the Chiricahua National Monument in Arizona. The group attempted to take photos of the comet every four minutes for 10 hours each night. They were able to keep up that pace for nearly 10 days before exhaustion and running out of funds ended the field trip. The resulting 900 photos were composited into a film using electronic scanning and enhancement. The results are breathtaking. With the comet's motion across the sky you can see the fast streaming of gases in the purplish ion tail. As dust erupts from the coma into the yellowish dust tail, you can actually see the slower movement of dust in the tail. If that weren't enough, the 2,000 close up CCD images by Paul were masked to show clearly the jetting of gases from the nucleus. The time lapse film produced from this work is totally different from the group's wide field images. I've never seen anything like it! It really makes clear the idea of gases venting off a comet as it nears the Sun. Just beautiful!

The tape finishes with the group being invited to a meeting of the American Astronomical Society to show their film to professionals. Comet Odyssey is well produced and features an original score and professionally done animations. For \$29.95 this tape should be in every planetarian's library. It is available from Cyanogen Productions, Inc., 25 Conover St., Nepean, Ontario, Canada, K2G 4C3. Fax them at 613 225 9688. Substantial discounts are available on quantities of ten or more. The producers are currently working on a CD-ROM version to complement the videotape. It's called Comet Explorer and is due out in June so it can include materials on

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Mars Rocks!

A little rock is stirring up scientific controversy. A 4.5 pound meteorite called ALH84001 is a piece of Mars. Introduced to the world formally on August 7, 1996, it showed evidence shows there might be... life on Mars.

The rock formed 4.5 billion years ago when Mars became the fourth rock from the Sun. Scientists at Houston's Johnson Space Center think that 3.5 billion years ago surface water on Mars seeped into the rock through fractures. When the water entered the rock, it formed deposits with carbonates, and single cell organisms got trapped in the deposits.

Then 16 million years ago a six mile wide object impacted on Mars. This collision was as powerful as a million hydrogen bombs. The force of the impact threw surface material so high it escaped Mars's gravitational pull. Debris started a journey through the solar system.

Earth's gravity captured ALH84001. It hit Antarctica more than 13,000 years ago, but the fun really began just 13 years ago. Meteorites in Antarctica are easy to find because they stand out in stark contrast on the white ice. It's like hunting for easter eggs in your own basket.

In 1985, a thin slice of ALH84001 was used to discover its mineralogy and classify it. Nine years later a geochemist found the rock was misclassified as a diogenite. Diogenites are not supposed to have oxygen in them, but this one did.

Gases in the rock matched samples from the Viking spacecraft, which landed on Mars in 1976. There are eleven other meteorites from Mars, but none is as special as this one. This one is from Mars crust, the surface of Mars, and it might prove there is some type of life on Mars.

An electron microscope showed a segmented structure that appeared to have a tail and a head and was fat in the middle. Carbonate globular structures had an amber color in the center with black and white rims. Minerals coexisted in the rings which don't normally appear together. Scientists found iron and oxygen grains (magnetites) and iron and sulphur grains that are similar to what bacteria produce on Earth.

A chemistry professor at Stanford used a dual laser mass spectrometer, the most sensitive molecule detector on Earth, to test the meteorite. He found polycyclic aromatic hydrocarbons (PAHs). These can be found in some types of exhaust fumes, but the fact that they were found underneath the surface of the meteorite ruled out the possibility of terrestrial contamination.

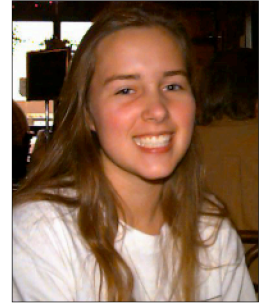
After two years of collecting evidence, Johnson Space Center scientists were ready to report their findings. They were secretive because the press might sensationalize anything about Mars.

The 1965 Mariner Orbiter found that there were dry stream beds but no canals, thought to exist by earlier scientists. Canals suggested engineering works by a race of intelligent Martians. The Viking Lander's search for life in 1976 came up empty. It found positive chemical reactions that did not indicate life.

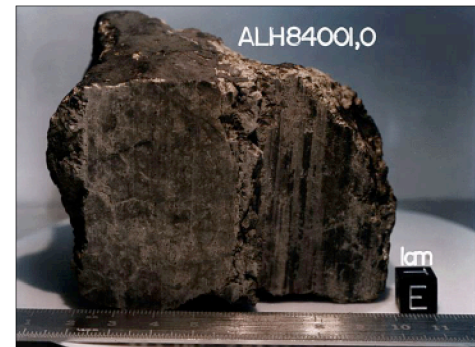
The scientists sent their findings to Science. After reviewing the evidence for three months, people at Science agreed to publish the findings. NASA administrator Daniel Goldin found himself in the Oval Office at 8:30 a.m., briefing the President. In early August news began to leak.

The announcement at a news conference stirred a sensation all over the world. Bookies in London lowered the odds on the existence of extraterrestrial life from 500 to 1 to 25 to 1. Scientists compared ALH84001 to the Rosetta Stone, which revealed mysteries of ancient cultures.

One scientist who headed the meteorite missions in Antarctica thinks there's a chance the hydrocarbonates formed when there was too much heat for life to exist. Maybe we will find more evidence on the Pathfinder and Surveyor missions to Mars. Carl Sagan's succinct comment on the possibility of life on Mars was that Extraordinary claims need extraordinary evidence.



Kismet Kerley,
Sophomore Intern,
Craigmont Planetarium
Memphis, TN



News from SEPA States

Bishop Planetarium, Bradenton

George Fleenor reports life at the Bishop continues to be very busy. Comet Hale Bopp continues to draw heavy crowds for starshows and observatory programs even on cloudy nights! The recent partial lunar eclipse was also a success.

George Fleenor
Bishop Planetarium
Bradenton, FL

The planetarium presented a much smaller agenda compared to the festivities of September 96. Visitors received reduced admission for two special planetarium presentations. The starshow Comet Tales, a joint production of the Bishop Planetarium and Bays Mountain Park, was presented at 7:30 p.m. The first of many scheduled comet observing sessions was to follow the starshow. A special presentation of Pink Floyd's Darkside of the Moon followed at 9:00 p.m. Although the eclipse was completely clouded out, the planetarium shows were completely SOLD OUT! The museum store also profited from above average sales.

Currently the starshows Comet Tales and Comets Are Coming! are presented daily at 1:00 p.m. and 4:00 p.m. Encore presentations of Comet Tales are also presented each Friday and Saturday evening at 7:30 p.m. The evening starshow is followed by a live star identification lecture and rooftop observing at the Bishop Observatory.

Special comet observing sessions are scheduled for the evenings of April 8-11. Comet Tales will be presented nightly, followed by an observing session (comet and weather permitting). The planetarium, in conjunction with the Local Group of Deep Sky Observers, will celebrate National Astronomy Day on April 12. Special presentations will be held throughout the day, followed by observing in the museum's north parking lot.

The current matinee laser show features Cosmic Classics. The presentation features some of classical music's greatest composers. One word of caution: if you run a classical music lasershow, beware of possible speaker damage. The 1812 Overture really takes its toll on subwoofers as well as tweeters! Small children are sometimes found pressed into the perforations of the dome!

The planetarium has also witnessed several changes in staffing. Recently, Brett Jacobs was hired as a Planetarium Assistant. Brett's primary responsibility will be producing lasershows, in addition to general planetarium tasks. On a sad note, we lost a very creative staff member to BIG business. Former Planetarium Specialist Mike Cutrera accepted a job (for twice the pay!) with Tropicana. How can a planetarium compete with that kind of money? Mike will be missed. However, he claims he will become one of our volunteers or part time staff members. Technical Director George Barnett will be leaving May 1. George, you may recall, is getting married and moving to England. Needless to say, two staff positions are open and interviews are being conducted. If anyone is interested in employment, feel free to call ASAP.

Hallstrom Planetarium, Fort Pierce

Jon Bell reports that his show about Comet Hale Bopp was very well received and performed to full houses from January-March. The program ended up being a live presentation because no recorded programs were available that featured a star identification section showing audiences where the comet could be found at its peak.

I liked the interviews with Tombaugh, the Shoemakers, Hale, and Bopp in the Adler Planetarium program; and I really liked the soundtrack and video in the Buhl Planetarium show. But I also wanted a comet show that would devote a few minutes to the stars of the current night sky, and that would also provide the latest news on Hale Bopp's development, so I knew that at least part of the show would have to be done live. Since I had to talk for every show anyway, I opted to do the whole thing in a multimedia live lecture format.

The automation system provided with the Spitz ATM3, coupled with JHE's remote control hook ups, allowed for a live show that

had every bit of the high visual density of a recorded program, and all the spontaneity of a conversational format. I don't ordinarily push a product, but my compliments and thanks to both the folks at Spitz and Joe Hopkins for making this kind of a razzle-dazzle, live presentation possible. And I might add, as long as compliments are being handed out, that John Hare of Ash Enterprises has done a superb job of making my stars look crisp, my coordinate systems sharp and bright, and my 512 planetarium in tip-top condition. Now, on to Mars!

To find out how you, too, can receive a plug from Jon, send all kinds of free materials to him at his facility. George Fleenor

Alexander Brest Planetarium, Jacksonville

Patrick McQuillan reports the Alexander Brest Planetarium is currently showing *Comets Are Coming!* It has been well received by the general public. *Comets Are Coming!* runs through May 9.

We hosted a comet viewing called *Night of the Comet* at the museum on March 15. It was a great success. Over 650 people came out to see the comet show, to get a sky chart for locating the comet, and to look through a telescope on the museum's roof. Unfortunately, cloud cover low in the

northwest removed any chance of observing the comet.

On April 11 the planetarium staff will be out at Little Talbot Island State Park (one of the many Florida State Parks). They have a great observation pier on the beach that has a great view of the northwest and the ocean.

A second comet night, *Comet Hale Bopp's Last Blast*, was added on April 19 at the museum due to the success of the first event.

The next public program is the updated version of *The Mars Show* by Loch Ness Productions. That program runs through the summer and will give us a great background for the upcoming landings and orbitings of Mars.

Museum of Arts and Sciences,
Daytona Beach

Roger Hoeffler reports the planetarium at the Museum of Arts and Sciences in Daytona Beach is now in the process of modernizing the automation system. Jon Franz is replacing the old DORK system with an IBM compatible system (controlled by a Dell 433 sp computer) and upgrading several of the carousel computer control systems. Also, a SONY VHP 1252Q video projector (driven by a laser disk player), S VHS tape player, and an IBM PC340 (to provide computer and CD ROM graphics) has now been installed and is being incorporated into our programming. Our current public offering is *Comets are Coming!* and will be followed in June by

Freeport McMoRan Planetarium and Observatory, Kenner

The Freeport McMoRan Planetarium and Observatory has been kept incredibly busy during this period due to all the astronomical events that are going on. The Observatory has tried to provide the public with views of *Comet Hale Bopp*, the lunar eclipse of March 23, and of the favorable views of the planet Mars. In addition to this the planetarium has tried to provide the public with understandable information on all of these events. Currently in the planetarium we are showing two in-house productions of *The Sky Tonight* and *Dark Sky Astronomy*.

Work continues to proceed on our space station exhibit, and plans have been resurrected concerning the proposed 50 facility that had been planned to open adjacent

to our current facility. Hopefully I will have more information on this by next issue.

Our facility planned a large *Astronomy Day* exhibit for April 12 and we once again worked in conjunction with the University of New Orleans on the annual program known as *Space Quest*.

Louisiana Nature and Science Center Planetarium, New Orleans

Mark Trotter and Dennis Cowles are currently running for the public the following shows: *The Sky Tonight*, *The Family Laser Show*, and a *Hale Bopp* program. Still running are *Loch Ness Productions* updated *Mars Show* and *Sudekum Planetarium's* excellent *Planet Patrol: A Solar System Stake Out*. They are also still doing laser rock concerts on Friday and Saturday evenings, which include *Metal*

News from SEPA States
continued

George Fleenor
Bishop Planetarium
Bradenton, FL

Michael Sandras
Freeport-McMoRan
Daily Living Science Center
Kenner, LA

Michael Sandras
Freeport-McMoRan
Daily Living Science Center
Kenner, LA

lica, Pink Floyd's Dark Side of the Moon, The Alternative Laser Show, The Wall Show, Led Zeppelin, Best of Pink Floyd, Rush, and LaserRave.

The powers that be have decided to bless the planetarium with money to acquire some new equipment. Mark and Dennis have purchased the following goodies thus far: a PowerMac 9500 with a video capture card for digital video and audio editing, a DOS card, multiple hard drives, and more software that we can list here. They also bought two ADAT units and the whole smash will be running through the new video projector which should be installed by mid Summer. There are also some upgrades to the laser system in the works.

Mark has been running more shows that he can count. He is still offering teacher workshops in astronomy and he is still working on his Apollo show. Dennis has added more rocks to his meteorite collection and has investigated several reports of alleged meteorite falls in the New Orleans area (no luck finding new rocks, yet, though). The Dome Gnome is still alive and well, and he has established a good working rapport with the new equipment.

St. Charles Parish Library Planetarium,
Luling

At the St. Charles Public Library and Planetarium, Spring has brought us a spectacular comet and cloudy skies to hide it. Presenting Adler Planetarium's Comets are Coming! to augment the cometary apparition, we did our best to keep up with the public's demand.

For the kids we are showing Sudekem's

Planet Patrol. It has been working well for the 6-12 crowd we get on weekends. Other programs for spring include Spring Skies (what else!) and Poverty Point Louisiana's Stonehenge. The Poverty Point show pertains itself with the archeological Indian site in northeastern Louisiana and has been a favorite in our show stable.

Wearing my other Library hat not, I report that we will be getting a new computer system for our library circulation. It seems that the system might be going in during the time of the SEPA convention! Also we will be getting a new Bookmobile. They didn't like the idea of stars and constellations all over the mobile. They wanted books. Oh well, I tried.

Lafayette Natural History Museum Planetarium,
Lafayette

Currently the Lafayette Natural History Museum Planetarium is going on line in conjunction with the local school board. This will allow children in the school system and the general public to access information from this facility. Also in the planetarium Dave Hostetter continues to present The Sky Tonight and Adler's Production of Comets are Coming!

Since re-opening, planetarium attendance has been good. The staff of the planetarium has also been kept busy showing the general public Comet Hale Bopp and the recent lunar eclipse. The museum plans on being involved with several events over the next few months. Space Week will be celebrated during the first week of March. On March 15 in anticipation of Astronomy Day the planetarium had a telescope fair. An National Aviation Week will be held during August. These events should keep the staff very busy.

Russell C. Davis Planetarium, Jackson

The Russell C. Davis Planetarium in Jackson has been showing the updated version of Loch Ness Production's The Mars Show and Adler Planetarium's Comets Are Coming! Laser shows are featuring The Dark Side of the Moon and A Part of HIStory (both original Davis Planetarium efforts) along with Jack Dunn's version of Wish You Were Here. The Alternative, a new original laser program, will premiere in May. Sky programs planned for the summer include Sudekem Planetarium's Just Imagine and Hayden (Boston) Planetarium's WSKY: Radio Station of the Stars.

Rainwater Observatory & Planetarium,
French Camp

Rainwater hosted another successful Mid South Regional Star Gaze April 2-6 despite poor weather. Michael Saba spoke about his expeditions to the Wabar Crater in Saudi Arabia with Eugene Shoemaker. Gary Lazich presented Sky Lore from Planet Earth and Growing Up with Planetariums. Cynthia Miller conducted a workshop on comets and demonstrated how to make a comet. Hale Bopp finally put in an appearance through the clouds Saturday evening; unfortunately, due to miscommunication, Gerrit Verschuur did not. (Better luck and weather next year,

Gary M. Lazich
Russell C. Davis Planetarium

In Memoriam: Tony F. Jenzano

Anthony (Tony) F. Jenzano, long time director of Morehead Planetarium at the University of North Carolina at Chapel Hill, passed away Saturday, March 22, 1997.

Tony was an electrician in the armed forces and a technician at Fels Planetarium in Philadelphia. When Dr. Roy K. Marshall became Morehead's first Director in 1949, he brought Tony, whom he described as a mechanical genius, with him. Marshall left less than two years later, and Tony became Planetarium Director. In addition to overseeing the Morehead's growth into a prominent facility, Tony laid claim to a number of special endeavors. Morehead was the first planetarium to produce an annual star theater presentation about astronomical explanations for the Star of Bethlehem.

Tony convinced NASA that Morehead would be an ideal place to train astronauts in celestial navigation. Every Mercury,

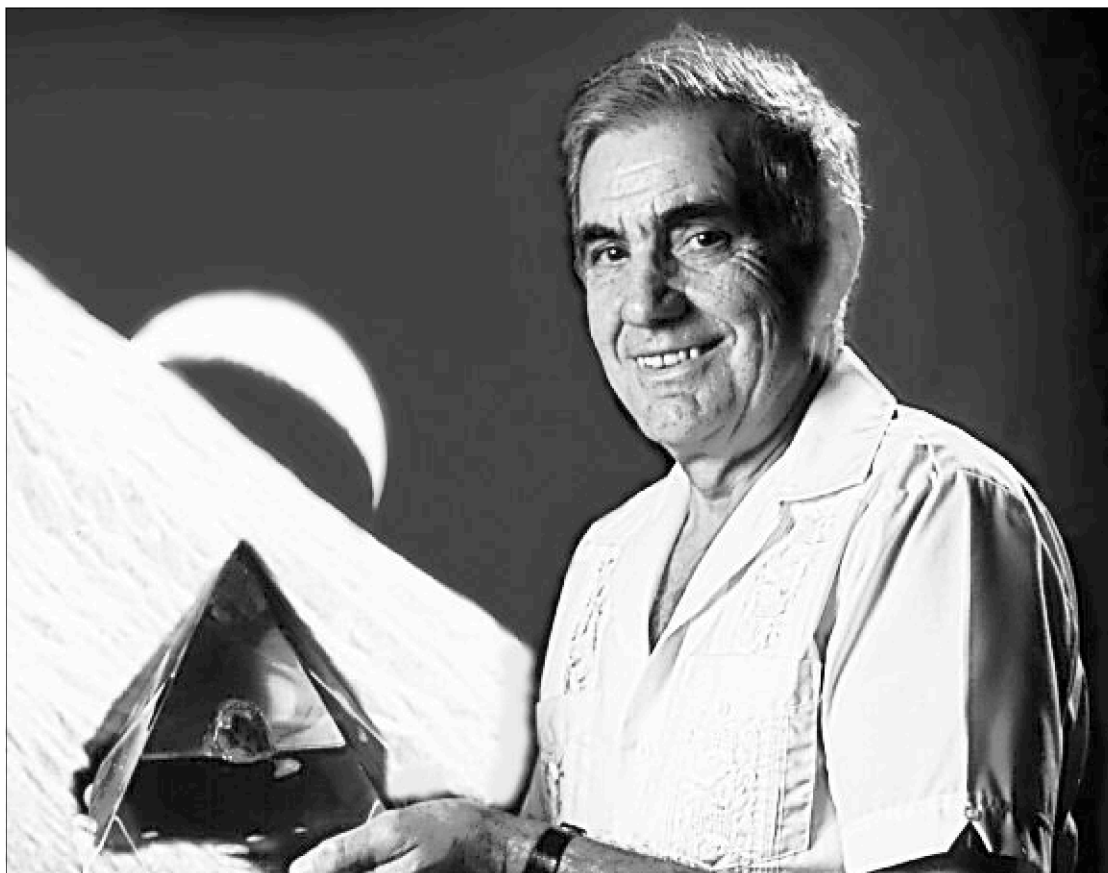
Gemini, and all but one Apollo astronaut received training at the Morehead, in addition to the Skylab, Apollo Soyuz (American), and early Space Shuttle astronauts.

Tony led the battle for American Association Museum accreditation and pioneered the accreditation program for many other planetariums and science centers. He was instrumental in the acquisition of two gifts from the Morehead Foundation—a Zeiss Model VI Planetarium projector and star theater automation equipment.

Tony retired from Morehead in 1981. He set a high standard. I was told when I was hired in 1982, that UNC only hired planetarium directors every thirty years.

Tony lived in Chapel Hill and stayed involved with planetarium for years afterwards in connection with Zeiss. He was welcomed with open arms when the six remaining Mercury astronauts (now

Lee Shapiro,
Morehead Planetarium
Chapel Hill, NC



HST's Greatest Hits of '96

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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.

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| <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>16 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 NGC2366, 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> |
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Southern Skies

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