

## Changing Goddard's Future from Within

by Susie Marucci

A map is a necessary tool when traveling a road never taken before. It can show the current location, the ending destination and how to get there. Any business or organization needs a road map to understand exactly where it is, where it wants to go and what areas of the organization are most important for a focused and successful future. But having the road map in your hand doesn't help unless you are willing to use it. Similar to five years ago, Goddard is building its own road map, and this road map is being built by Goddard's best resource -- the people who work here -- to make the best road map, leading to the brightest future; but unlike five years ago, this road map is going to be a "living document," to be used regularly and updated yearly.

In the next decade, Goddard will evolve, taking on new projects and new dimensions. With the coming of NASA's Earth Observing System (EOS) and other new projects and challenges, what changes in direction will Goddard need to take to meet the future successfully? We will know the answers soon.

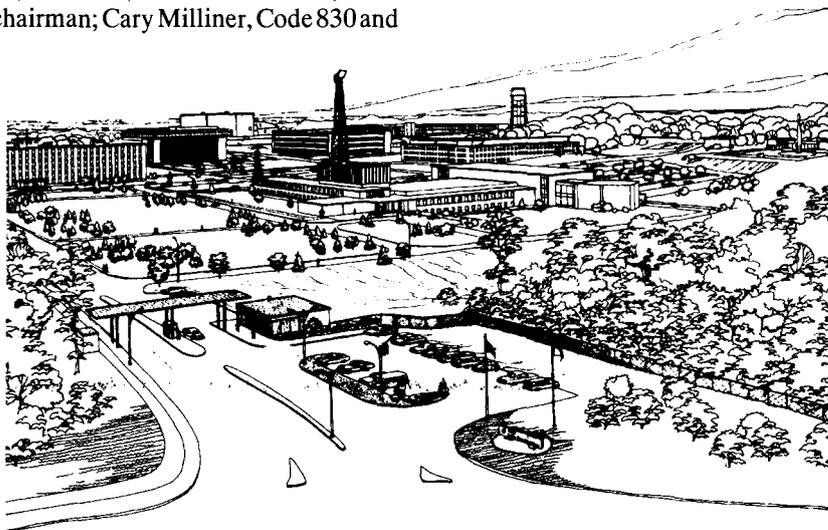
### The Beginning

Last November, at the request of Center Director Dr. John Klineberg, a strategic planning committee was formed to create a plan for Goddard which will guide the development of the Center, in its projects, people and operations for the next ten to fifteen years. While at NASA's Lewis Research Center, Cleveland, OH, Klineberg helped put together and implement their strategic plan, so he knew what he wanted done, and he knew that he wanted it to be created by the people at Goddard. "I think it's critical that any organization as large and as diverse as this one, have some kind of idea what the issues are facing it and where it wants to go in the future. That's what a strategic plan is and that's what we're doing," Klineberg said. "The strategic plan has to be two things. One, it has to be a template, against which we evaluate or assess those things that we're doing, and those things we might do. We don't have that, yet....The other thing is to help us understand ourselves better in order to manage the Center, that's people management and facilities, as well as the programs themselves. It will guide us. And I think we will have a better sense of ourselves."

This plan is not being created by a team of experts from outside Goddard, but by Goddard personnel. "We have to build this thing from the inside," Klineberg said. "It has got to be something we believe in, not something I tell people," he added.

The nine-member strategic planning committee is made up of one person from each directorate. They are: Wayne Boswell, Code 110; John Scully, Code 200; Brian Keegan, Code 300; Dr. Dale Harris, Code 400; Bill Dickinson, Code 500; Dr. Mike Hauser, Code 680; Dr. Allan Sherman, Code 700, chairman; Cary Milliner, Code 830 and

this as the part where they "identify and analyze the critical issues facing the Center." Seventeen critical issues were agreed upon by the committee and currently they are working on getting more information and possible solutions to these issues. Seven of the critical areas are being looked at by the committee itself. These areas include Headquarters relations and other items that define Goddard's values and how we do business. The other ten have gone out to independent task groups. Some



Goddard today -- how will it look in the years to come?

Chuck Cote, Code 910. The committee's goal is to develop a statement of Goddard's mission now, what direction the Center will take over the coming years and how it will get there.

### The First Step

The first step for the committee was information gathering.

This began last December and took three months. This process included talking to a lot of people, very honestly about Goddard's strengths and weaknesses. The committee listened to people from many sources, including Headquarters, the space science community, the National Oceanic and Atmospheric Administration (NOAA) and Goddard itself to find out what people think about Goddard. At the end of this process, a draft mission statement was formed.

The second phase of creating a strategic plan is strategic analysis. Sherman defines

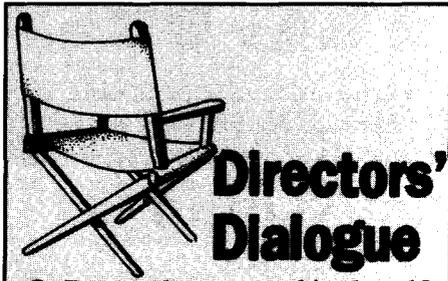
of these issues given to the task groups include the role of science on Center, itemizing and prioritizing technology on Center and the role of operations. This part of the planning involves a lot of Goddard people. Currently there are more than 85

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## Directors' Dialogue

**Q:** For months now, my friends and I have watched with dismay as the trees behind Building 28 were felled. Now we see what appears to be a road leading to the Perimeter Road. What's happening that's cost us so much of the wonderful green space that the Center once had in this area? We certainly hope that the Perimeter Road which is enjoyed by so many walkers and runners is not about to become a thoroughfare.

**A:** The extension of the Northern Loop Road is necessary to alleviate traffic pattern inadequacies. With the gradual increase in Center population as evidenced by the addition of the Customer Data Operations Facility to Building 28, the construction of the Spacecraft Systems Development and Integration Facility, Building 29, and the additions to Buildings 15, 5 and 10, we are trying to provide the infrastructure to keep up with the increased population and demand. The woody area along the Perimeter Road itself is not significantly jeopardized by this construction activity. The loss of trees is an unfortunate but necessary manifestation of Goddard's need to accommodate the overall program growth.



**Sherry Foster, Director  
Management Operations  
Directorate  
Code 200**

## NASA Trivia

Space Shuttle missions use a curious numbering system. They are numbered STS (Space Transportation System) 1 through 9 then, mysteriously jump to STS 41B through STS 51L, then continue STS 26 through the current STS 39. Why?

*Trivia Answer*  
They were numbered 1 through 9 for the first nine missions, then, when it was thought that Vandenberg Air Force Base might be used as a launch site in addition to KSC, a new numbering system was adopted. The new system used the last number of the year, followed by a 1 to indicate Vandenberg, followed by the letter that sequenced the mission for that year. For example, mission 41B was the second mission planned for 1984 and was designated to launch from KSC. This system was abandoned for return to flight when it became clear that Vandenberg would not launch the space shuttle.

## Goddard's "Satellite Doctor" Does it Again

by Susie Marucci

Henry Hoffman believes in Santa Claus. He has good reason -- he spent most of the weeks in late November and early December telling anyone who would listen, that Santa Claus was going to bring a very special present around Christmastime, 40 million miles out in space, and the problem plaguing the Ulysses spacecraft would disappear. It did, eight days before Christmas.

On November 11, 1990 -- about four weeks after the Space Shuttle Discovery was launched carrying Ulysses -- a long boom antenna, used for an experiment that measures electronic fields in space, was deployed from the spacecraft and the trouble began. Within hours the joint European Space Agency (ESA)/NASA spacecraft designed to study the polar regions of the Sun developed a wobble. Hoffman, Code 712, head of the Guidance and Control Branch, described the problem as similar to a feature in a child's toy. "If you've ever spun a top and touched it, it wobbles." That wobbling is called nutation. No one knew exactly what was causing the nutation, but it was getting worse. It was not known if the spacecraft was in danger, but it rocked so strongly, that the X-band antenna, the one relaying information back to Earth, was not usable.

Frank Carr, deputy director, Solar Systems Explorations (Code EL), NASA Headquarters, called Hoffman shortly after the problem began and asked for his help. Based on phone conversations with people at ESA in Noordwijk, The Netherlands, and NASA's Jet Propulsion Laboratory (JPL), Pasadena, CA, Hoffman thought the problem was caused by the boom antenna. "Since it was quiet for four weeks, then four hours after you put out the boom its in trouble, that doesn't prove the boom caused the problem, but circumstantial evidence is pretty strong," said Hoffman. Hoffman was convinced very early on, and later was proved right, that the culprit in this case is the Sun reacting on the long boom. In order for the nutation to be thermally induced, the antenna must have the proper angle to the Sun and must have sufficient sunlight to heat up the boom. The spacecraft must also have a slight movement to it already, a little motion to get the nutation started. Thermally induced nutation is not a very common problem, but it has occurred before, and Hoffman concluded that it was the offender. His theory was not immediately accepted by anyone. But Hoffman remembered back

to when the Small Scientific Satellite (S<sup>3</sup>) was in orbit, almost 20 years ago. It suffered from a similar problem.

The more Hoffman looked at the data, the more he was sure he understood the Ulysses problem. Soon, he was briefing NASA Administrator Richard Truly and telling people world-wide on the weekly Ulysses teleconferences that the problem would disappear before Christmas. The location of the Sun and the angle of sunlight on the long boom were changing and the nutation would be reduced and finally stop. When pressed for a date, by the NASA Headquarters program manager, Hoffman said the nutation would disappear December 17. The nutation disappeared one hour before midnight on December 17, Greenwich Mean Time.

Hoffman says the success in quickly defining the problem was because he had a good team working with him: Dr. Tom Flatley, Code 712.3, developed the equations of motion defining how the nutation would occur and Sam Placanica, Code 712.3, generated the computer curves, showing the possible problems for Ulysses in the future.

There are two potential times for problems with Ulysses remaining, both of them at the most critical times of Ulysses' mission -- when it will pass under the South Pole and over the North Pole of the Sun -- around September 1994 and August 1995.

In February and March of this year there was another potential problem period for Ulysses. But the project, when moving the spacecraft tried to be very careful not to induce nutation. It did not reoccur. That's good news, but Hoffman was hoping to see the nutation again, in order to better predict the behavior of Ulysses during the two periods of prime science in 1994 and 1995. Hoffman says, "This opportunity has now been lost and we will not know if a potential problem exists until after the fact."

Hoffman is not too worried about the Ulysses mission, because if all else fails, Ulysses can still send data to Earth by damping the nutation with Conscan. Conscan is a control technique on board Ulysses that can automatically track Earth and suppress the nutation. It cannot be used continuously because of fuel consumption, so the Conscan is only a last resort. Hoffman thinks Conscan can probably be used if required. But whether the nutation does reoccur and if it impacts on the mission is something we will now have to wait to 1994 to find out.

## Launch Update: NOAA-D

The National Oceanic and Atmospheric Administration (NOAA)-D meteorological satellite is scheduled for launch from Vandenberg Air Force Base, CA, no earlier than May 14, according to Charles Thienel, Meteorological Satellite project manager at Goddard.

The launch, aboard a US Air Force Atlas-E launch vehicle, is planned for 11:52 a.m. EDT.

The spacecraft, which will become NOAA-12 in orbit, will be launched into a 450-nautical-mile near polar orbit. Goddard is responsible for the procurement and development of the spacecraft as well as the launch of NOAA-D. Once it is in orbit, Goddard personnel are responsible for checking out the satellite for hand-over to NOAA. The spacecraft was built by General Electric Astro Space Division, and the prime contractor for the Atlas-E is General Dynamics Space Systems Division.

## Earth Observing System Instrument Contractor Selected

Goddard has selected Hughes/Santa Barbara Research Center, Goleta, CA, to negotiate a cost-plus-award-fee contract for the Moderate Resolution Imaging Spectrometer-Nadir (MODIS-N) instrument for the Earth Observing System (EOS) program. The Hughes proposed estimated cost is \$156 million.

EOS is the centerpiece of NASA's Mission to Planet Earth Program, a coordinated program of ground-, airborne- and space-based research designed to study the Earth as an integrated environmental system.

The MODIS-N is the cornerstone research facility instrument that will fly on a series of EOS unmanned polar spacecraft. Over a 15-year period, it will measure terrestrial, oceanographic and atmospheric parameters to assess changes in the global environment.

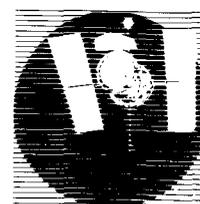
The proposed initial effort will require delivery of the MODIS-N instruments needed for the EOS-A series observatories. In addition to the instruments, the contract will provide for storage, testing and field support from spacecraft integration through 90 days after launch.

## NASA Pipeline

**JET PROPULSION LABORATORY, Pasadena, CA** -- Venus may be venting interior heat through giant hot spots on the surface of the planet. Magellan geologist Dr. Ellen Stofan says these hot spots called coronae, and other circular and oval-shaped features found on Venus, are all associated with volcanism. Coronae are as much as a mile or more high surrounded by a ring of ridges and troughs. They range in size from about 100 miles to more than 600 miles in diameter and are seen in many low-lying plains regions on Venus.

**MARSHALL SPACE FLIGHT CENTER, Huntsville, AL** -- Engineers tested an advanced space shuttle main engine for 170 seconds recently. Marshall technical assistant Dan Dumbacher said they had a "full-duration test and an initial look at the computer data indicates it was a successful test." It was the 21st test firing at the Technology Test Bed facility at Marshall's West Test Area since testing began in September 1988.

**LYNDON B. JOHNSON SPACE CENTER, Houston, TX** -- The 39th annual National Science Teachers Association (NSTA) convention was held in late March at the George R. Brown Convention Center in Houston. NASA committed a large number of resources to support this meeting. There were daily tours of the Johnson Space Center for teacher groups. The LASER Mobile Teacher Resource Center was on hand outside the convention center. More than 60 NASA scientists, engineers and technicians representing the agency's field centers were at the convention and staffing exhibits to demonstrate and discuss their work. NASA also presented special sessions on a large number of the agency's scientific and education programs, including the Hubble Space Telescope and the International Space Year. NASA astronaut Mae Jemison was also a guest speaker at the NSTA 39th Annual Banquet.



## Greenbelt Visitor Center Events for May

The Visitor Center is open to the public five days a week, Wednesday through Sunday from 10:00 a.m. to 4:00 p.m., closed all federal holidays. There is no admission charge and parking is free. Outdoor tables are available for a picnic lunch on a beautiful spring day. For more information call x6-8981.

**Launch Site Goddard** -- Sunday, May 5 and 19, 1:00 p.m. What makes people, young and old come out to the Visitor Center to launch rockets? It's lots of fun! If you've never been to a model rocket launch, spring is the perfect time to start. See what's made people come here for more than 16 years to launch rockets.

**Saturday Videos** -- Saturday, May 11, 1:00 p.m. View "Hurricane." This documentary tracks an actual hurricane from its tame beginnings in the Atlantic to its violent landfall at Galveston, TX, in August, 1983. Using sights and sounds from Hurricane Alicia, this video reports the drama

of hurricanes from the point of view of forecasters and rescue workers.

**Know and Tell** -- Sunday, May 26, 1:00 p.m. "The Impact of Increasing Carbon Dioxide on Our Climate" -- Join Dr. Albert Arking, Head of the Climate and Radiation Branch of Goddard's Laboratory for Atmospheres as he assess the impact of carbon dioxide, methane and other trace gases and their direct effects on our planet. Arking will also show how climate models predict a large warming by the middle of the next century will increase the global average temperature by five to 10 degrees Fahrenheit.

**Star Watch** -- Saturday, May 11, 8:00 p.m. to 10:00 p.m. Come see the spring sky through a telescope set up on the Visitor Center grounds, or bring your own telescope or binoculars. Spring nights offer some of the best viewing of the year. Star Watches will be cancelled in the event of inclement weather.

# The Cosmic Background Explorer's Scientific Legacy

by Susie Marucci

Since NASA's Cosmic Background Explorer (COBE) was launched in November 1989, it has broken new ground in seeing the early Universe as well as our own galaxy, with images like the now-famous, unprecedented view of the Milky Way. On March 25, COBE's legacy began a new phase, when the Cosmology Data Analysis Center (CDAC) opened in the Commerce Center II Building in Greenbelt, MD.

The ribbon-cutting took place in front of more than 100 invited guests. There were four ribbon-cutters: Dr. Charles Pellerin, director, Astrophysics Division, Office of Space Science, NASA Headquarters; Dr. John Klineberg, GSFC Center director; Dr. Steve Holt, Code 600, director, Space Sciences; and Dr. Ashok Kaveeshwar, executive vice president, ST Systems Corporation.

Dr. Klineberg spoke before the opening of the center about the new facility. "One of the big problems at the Goddard Space Flight Center is trying to get our people together, and this marvelous facility which will allow the folks working on COBE to get together will be just tremendous," Klineberg said.



PHOTO: D. MCCALLUM

**ON YOUR MARK, GET SET, CUT!** - Synchronizing their scissors to open the new Cosmology Data Analysis Center are, from left to right: Dr. Steve Holt, Code 600, director, Space Sciences; Dr. Charles Pellerin, director, Astrophysics Division, Office of Space Science, NASA Headquarters; Dr. John Klineberg, GSFC Center director; and Dr. Ashok Kaveeshwar, Executive Vice President of Systems Corporation.

Dr. Pellerin talked about his first introduction to COBE -- as an announcement of opportunity in the mid '70s. He's had management responsibility for COBE as the director of the Astrophysics Division at Headquarters since 1982. He was very enthusiastic about COBE and said, "I think it could very well be one of the most important scientific missions ever accomplished." During the ceremony, Dr. Klineberg recalled how COBE had to be restructured for launch from a Delta launch vehicle after the Challenger accident. Dr. Pellerin remarked about it saying, "We had some hard times,

but it was really Goddard's 'Can Do' attitude, in Codes 600 and 700 that pulled this thing off."

The new CDAC will allow approximately 80 scientists and computer specialists working on the production of COBE data to be housed in one building, along with the computers and the data to be analyzed. For the scientists this will provide easier access to all data and more efficient operation. Dr. Nancy W. Boggess, Code 685, COBE Deputy Project Scientist for Data, said the project knew that the

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## Changing Goddard's Future

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people outside of the original committee working on the task groups. These groups have a committee member to contact for guidance, but the groups' conclusions about the critical issues are their own. The task groups will be reporting their findings to the committee in mid-April. All of the people working on these task groups are volunteering their time to ensure Goddard has a bright future. The strategic planning committee will assess the results of the task groups and formulate a Center strategy which will be discussed with the Executive Council.

Once that is completed the third part of the planning process is defining the objectives, the how-to-get-where-we-want-to-go part of the process. After that, all the pieces of the puzzle will be put together and the committee will present its draft form of the strategic plan to the Executive Council for comments. Then the plan will go out for review. This should happen in June. When the comments come back, the plan will be put into final form.

Sherman sees the plan as a blueprint for Goddard's future that Klineberg can use to guide the Center over the next few years,

but Klineberg sees it as more than that, "We don't even have a document we can use to tell our people how it [the Center] works and what we're about and the things that are important to us...I think we need that." Klineberg says the new plan will be given to everyone. "It will give all of us who are already on board a better sense of what the Center is about. And we will be able to tell the people who come on board, 'Now here are the things that are important.'"

While Sherman says the best part of being on the committee is creating a good document that can be used as a guide in years to come, there are other benefits. "It's a lot of extra work, understanding Goddard as a whole...but everyone's taking it seriously, putting forth an effort. It's a rewarding experience," he said. "We have a team of people trying to wrestle with these complex, ambiguous issues. But I think we are working as a team well, I'm very happy with that. This plan is not going to come up with a shopping list of what everyone wants to do. What it will do is create a clearer vision of where Goddard is going," Sherman added.

For Goddard, the future holds the promise of a lot of work and a lot of change. "There is a universal feeling on the committee, Executive Council and other people we talk to that Goddard has a lot of work..." said

Sherman, then he added, "It is very clear that we have a plate that is very full and that we may have to make some hard decisions soon. The committee will face that. It's not our decision, but we will make recommendations to the Executive Council about what we think."

Sherman said that before the committee started meeting, Klineberg told him that "he wanted line managers to be on the team. He felt the people who have to operate the Center and implement these ideas should be the ones who generate them."

Being a part of the strategic planning committee is very time-consuming, according to committee chairman Sherman; one recent session lasted 12 hours. "I've been here 24 years and I've always been a crisis manager, going from crisis to crisis. This is giving me a chance to have an input into the future," he explained.

Klineberg is very pleased with the way the committee is working and with the results he knows the committee will deliver. "They've addressed the right issues, they've raised the right questions. We've already made tremendous progress. This process will make us a single entity with the same shared ideals and goals. We have a great destiny."

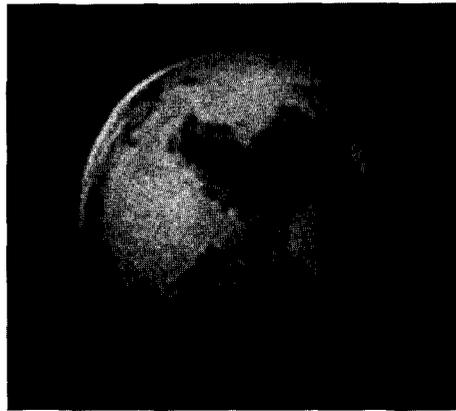
**CDAC Scientific Legacy***(Continued from page 4)*

team analyzing the data would be moved. "It was always in the plan to move off Center after launch, out of the facilities we used during development and the first year of flight." She added, "This opening officially puts us on the map. The entire COBE family, all of us associated with data analysis, is now together."

Scientists from Goddard will spend time at the new center to confer with those creating the system and to validate data with them. The data analyzed will become available to the international scientific community. Eventually, guest investigators will be able to use the new facility. In addition to providing one central work location for analysts, the new center has one main computer system in place of the two separated systems previously used at Goddard.

The CDAC is operated by the ST Systems Corporation under a contract to NASA. Space is provided for staff scientists from General Sciences Corporation, Applied Research Corporation and the Universities Space Research Association.

## Hubble Space Telescope Celebrates One-Year Anniversary



**HUBBLE SEES RED** --- This composite image of Mars, originally a color composite and reproduced here in black and white, is the latest Hubble Space Telescope (HST) image released and its first image of the Red Planet. The images were taken with HST's Wide Field/Planetary Camera. A thick canopy of cloud covers the icy north polar regions, where it was martian "winter" at the time of the observation.

**W**hen the Space Shuttle Discovery lifted-off on the STS-31 mission, it was making history. Secure in the payload bay, NASA's Hubble Space Telescope (HST), was beginning a trip that has brought unexpected challenges and dramatic results. Since HST was deployed on April 25, 1990, information from the first Great Observatory, has brought startling new images of Saturn and its "Great White Spot," fascinating spectra of hot, massive stars and many other images and new data. This year has been a test for HST, with the spherical aberration of the primary mirror, but the information and images HST has provided in its first year prove that it is still a "great observatory". On April 25, 1991, a special colloquium will be held at Goddard to commemorate HST's first anniversary. Dr. Riccardo Giacconi, director, Space Telescope Science Institute, Baltimore, MD, will be the guest speaker. See *Dateline Goddard* for details.

## Dynamite Dynamics Explorer Retires

by Cheryl Madison

The Dynamics Explorer (DE)-1, which acquired the first global images of the Aurora, was officially retired by NASA on March 15, 1991, after nine years of collecting scientific data. Designed to live three years, DE-1 performed nearly a decade in space! Fred Gordon, Code 602, spacecraft operations manager, reported that no further spacecraft operations were planned.

According to Project Scientist Dr. Robert Hoffman, Code 696, the DE-1's cameras, in a single view from high altitudes, could see an entire Auroral zone, a ring of light encircling each polar region. These images, taken 12 minutes apart, have proven invaluable in studies of "Auroral substorms," when the Aurora suddenly brightens and expands, and when electric currents flowing between the magnetosphere and ionosphere greatly increase in intensity, Hoffman explained. The DE-2 spacecraft, at much lower altitudes, simultaneously measured these currents and their effects on the upper atmosphere.

The Dynamic Explorers Program was designed to study the coupling or interchange of energy, electric currents, and mass between the upper atmosphere, ionosphere, and the magnetosphere.

According to Hoffman, the quality and

quantity of data returned from the two spacecraft far exceeded the expectations before launch. Scientists associated with the program will continue to analyze for many years the large volume of scientific data accumulated by the satellites.

The DE-1 spacecraft and its companion

spacecraft, DE-2, were launched together on August 3, 1981, from Vandenberg Air Force Base, Lompoc, CA, on a Delta rocket and placed into polar elliptical orbits. DE-2 ceased operations on February 19, 1983 and re-entered the Earth's atmosphere the next day.



PHOTO: P. BALTZELL

**A DYNAMIC TERMINATION** -- From left, Fred Gordon, Code 602, Goddard spacecraft operations manager; Dr. Robert Hoffman, Code 696, project manager; Jim Barkus, OAO operations manager; and Dr. Paul Pashby, Code 602, seated, project manager, Orbiting Satellites Project; gathered in the Dynamics Explorer Operations Control Center at Goddard when all flight operations for the long-lived Dynamics Explorer (DE)-1 were terminated on March 15, 1991.

INSIDE

## Angela Ewell-Madison: Keeping Up with her Goals

Contractors and civil servants are both part of the fine tapestry that makes up Goddard. Part of Angela Ewell-Madison's job is being aware of issues important in the contractor community. As industrial relations officer, Ewell-Madison, Code 201, is the focal point for all labor-management issues as they relate to contractors. Her duties include keeping current with collective bargaining agreements, enforcing regulatory labor requirements and overall responsibility for administration of the industrial relations program for the Center. "The goal of the program is to minimize the impact of contractor labor-management problems at GSFC," she said.

### Goddard Intern

Ewell-Madison came to Goddard in 1986 as a graduate intern from Howard University, Washington, DC. Her first position was in the Equal Opportunity (EO) Office where she performed a variety of duties including writing event reports for Performance Evaluation Boards where she evaluated contractor's recruiting efforts as community outreach programs. She also developed the EO summary report for 1986.

"Working on the summary report gave me the opportunity to talk to various program directors," she said. "It was a good starting point for me because it gave me a good feel for the Center."

One of Ewell-Madison's proudest accomplishments during her time at the Equal Opportunity office was the initial implementation of the Spelman College "Women in Science Scholarship" program where she contributed to the recruitment, interviewing and the selection of participants for the program from this Atlanta, GA, institution. "That was a very fulfilling exercise for me," she said. "To know that my efforts resulted in deserving young women having the opportunity to further their education makes me feel good."

As a Public Service Intern (PSI) under the Howard University program, she worked in Code 246 in the institutional facilities/procurement branch. In 1988, she received dual Master's degrees in Business Admini-

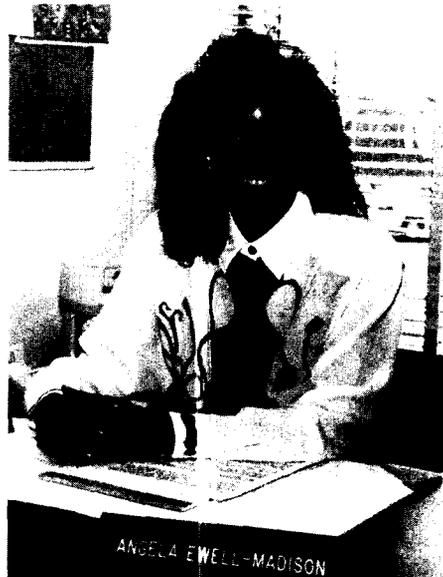


PHOTO: J. SEMERARO

**SITTING IN STYLE** -- Angela Ewell-Madison, Code 201, new industrial relations officer, says, "The goal of the program is to minimize the impact of contractor labor-management problems at GSFC."

stration and Public Administration from Howard and was hired full-time as a contract specialist, performing procurement planning, as well as negotiating, writing, awarding and administering government contracts.

"Procurement was an excellent background," she said. "It afforded me the opportunity to develop relationships with people across the Center and allowed a lot of interaction with both contractors and civil service employees."

Ewell-Madison considers herself an advocate of the PSI program, "I think it is a worthwhile program. It allows students to come and experience public sector work," she said. "The program has contributed to Goddard in a lot of ways. It gives graduate students an opportunity to see what public service is about and then they have [more] choices to make.

"A lot of my counterparts accepted jobs in private industry," she continued. "But after being at Goddard, I just wanted to stay.

"I've been fortunate enough to work with highly skilled managers who have shared a lot of their knowledge with me. It was important to me to like what I was doing, so I hung around."

Her current position began February 25. "I loved procurement and left only because I saw this as another opportunity to contribute to the goals of the Center," she said.

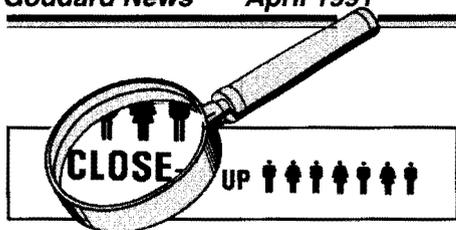
One of her immediate goals in her new position is to establish good working relationships with contractors and union representatives. "We're all here at Goddard and we all have one common purpose and one goal," she said. "Regulations dictate to us what is and what is not allowed [in contractor/civil service relations], and there has to be some separation," she said, adding, "But that doesn't mean we can't work together."

### Big Adjustment

A native of Opelousas, LA (for the uninitiated, it's in southwest Louisiana, about two hours from New Orleans), Ewell-Madison said it was a big adjustment moving to the DC area in 1983. She visits her family at least once a year. "I may live here, but my heart is in Louisiana," she said.

Ewell-Madison, is slightly built, but admits to having a hefty appetite. "I love cajun cuisine," the Louisiana native said. Her hobbies include playing the piano and clarinet, reading, bowling, tennis, sorority (Delta Sigma Theta, a public service sorority) activities, the theater and aerobics. At Goddard she is a member of the Black History Club, the Tennis Club and has served as a mentor to high school students and on a number of committees within her code. She and her husband Charles, a research engineer, live in Annapolis. "Annapolis grows on you," she said. "It's quaint and it's a nice place to just walk around."

She said she likes the work ethic at Goddard, the pace and the professionalism. "Coming to Goddard was a good move," she said. "It's been a good match. I like the fact that quality is the driver in the work that's done here. It's a very professional and challenging environment."



Congratulations to the following employees on their recent appointments: **ANN DERBY**, newly assigned Head of the Wallops Office, which is now under the Personnel Management Branch, Code 111.3...**JUDY BRUNER**, Head of the Control Center Systems Branch, Code



BRUNER



CZARNECKI

511...**SUSAN SPARACINO**, Procurement Manager for the Satellite Servicing Project, Code 284.3...**DONALD JAMISON**, Head of the Systems Planning and Requirements Section, Code 532.3...**JOHN CELMER**, Head of the Control System Software and Simulation Section, Code 712.1 ... **WILLIAM EICH-HORN**, Head of the Optical Test Section, Code 717.3...**JEFFREY TRAVIS**, Head of the Detector Systems Section, Code 724.3, he replaces **PETER SHU**, who is acting head of the newly established Advanced Packaging Section, Code 724.2...**CECILIA CZARNECKI**, Head of the Business Management Branch, Code 703.2...**KELLY McENTIRE**, Head of the Structural Loads and Analysis Section, Code 731.1...**FREDERICK HUEGEL**, Head of the Payload Design Section, Code 743.1...**SUSAN REISING**, Head of the Business Management Branch, Code 903.2...**ROBERT KIRK**, Head of the newly established Sea Wide Field Sensor (SeaWIFS) Project Office, Code 970.2. Other changes in the Earth Science Directorate are: the Severe Storms Branch was realigned to the Laboratory for Atmospheres, Code 912, the Computing Systems Office was established, Code 920.2 and the Geology and Geomagnetism Branch was disestablished. Affected employees have been reassigned to other organizations within Code 920. Congratulations to **TIMOTHY A. KLEIN**, Code 430, Upper Atmosphere Research Satellite (UARS) project support manager. Klein recently received the Astrid E. Merget Public Service Award, which is presented annually by George Washington University to a recent alumnus for outstanding achievement in Public Service. Klein was nominated primarily for his work with UARS.

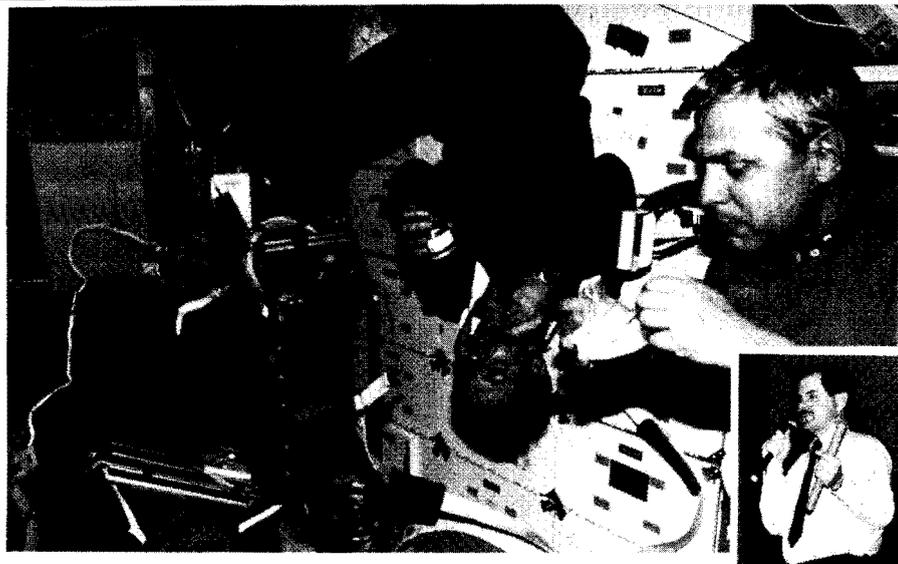


PHOTO: J. SEMERARO

**LIFE IN SPACE** -- Goddard/Computer Science Corporation (CSC) Astronaut Dr. Ron Parise (inset right and upside down) stood before more than 300 people on March 19, in the Building 8 auditorium talking about shuttle life. Parise showed slides and a movie of life in the space shuttle, including eating upside down. "When it comes down to it, you can eat right side up anytime," Parise joked. In addition to the work and the science, Parise talked about some of the fun and interesting things that happened on the nine-day STS-35 ASTRO-1 mission. "Fluid dynamics in space are really amazing. Playing with a blob of water is almost the most fun you can have," he said, referring to a point in the movie when several of the astronauts were experimenting with floating bubbles of water. Parise also answered questions from the audience about what it was like to sleep in space, what went wrong with the plumbing, and what his favorite part of the trip was, "Looking out the window. I could've done it the whole mission," he said with a smile.

## Goddard Employees Honored

On March 26, 1991 more than 140 awards were presented at the 1991 Joint NASA/Goddard Honor Awards. Presentation of the awards took place in the Building 8 auditorium and was broadcast over Goddard's closed circuit television system. Congratulations to everyone who received an award.

### NASA Award Winners

Public Service Group Achievement Award: Communications Link Analysis & Simulation System (CLASS) LinCom, STel, and Bendix Field Engineering Corporation, Hubble Space Telescope (HST) Payload Operations Control Center (POCC) Operations Real-Time Support (PORTS) Computer Team Loral Corporation, NASA/Goddard's Aerospace Education Services Program Team (Spaceobile) Oklahoma State University, Orbital Verification Implementation Team Space Telescope Science Institute, Broad Band X-Ray Telescope (BBXRT) Relief Valve Development Team, Cosmic Background Explorer (COBE) Optics Team, Cosmic Background Explorer (COBE) Science Working Group, Combined Supercomputing Acquisition Team, Earth Science Procurement Office, Equatorial Ionospheric Studies (EQUIS)/Combined Release and Radiation Effects Satellite (CRRES) Sounding Rocket Campaign Support Team, Flight Telerobotic Servicer (FTS) Engineering Test Bed Team, Goddard Black History Club (BHC), Hubble Space Telescope (HST) Compatibility Test and Simulations Team, Hubble Space Telescope (HST)

Mission Operations Team, Hubble Space Telescope (HST) Project Scientific Instrument (SI) and SI Control and Data Handling (C&DH) System Management, Medium Expendable Launch Vehicle Services (MELVS) Source Evaluation Board (SEB), Moderate Resolution Imaging Spectrometer-Tilt (MODIS-T) Engineering Definition Team, Roentgensatellit (ROSAT) Team, Space Telescope Observatory Management System (STOMS) KSC Test Team, and Transportable Applications Environment (TAE) Plus Development Team. Public Service Medals: James W. Barcus, OAO Corporation; James H. Crocker, Space Telescope Science Institute; Larry Dunham, Jackson and Tull; John W. Gerdes, Smithsonian Astrophysical Observatory; and Robert H. Oertly, Bendix Field Engineering Corporation. Exceptional Achievement Medals: Helen F. Burritt, Code 903; Deborah A. Clark, Code 730; William B. Johnson, Code 840; Myron L. Kemerer, Code 243; Stephen P. Maran, Code 680; Grace M. Miller, Code 732.5; Dorothy J. Pennington, Code 405; Paul A. Villone, Code 152; and Donald E. Williams, Code 916.

Exceptional Service Medals: Nancy W. Boggess, Code 685; John H. Campbell, Code 440; Stephen H. Castles, Code 713; Harry Chernikoff, Code 311; John E. Decker, Code 731.1; Bobby J. Flowers, Code 841; J. Keith Kalinowski, Code 600; Thomas Kelsall, Code 685; John G. Lesko Jr., Code 440; Robert B. Lively, Code 513; Margaret A. Luce, Code 731.1; James B. Mason, Code 720; Raymond W. Melcher, Code 683; William L. Mocarisky, Code 733.3; James V. Moore, Code 400.6; John L. Parks Jr., Code 824.1; Robert Petre, Code 666; G. Ernest Rodriguez, Code

(Continued on page 8)

**Goddard Employees Honored***(Continued from page 7)*

711; Arthur P. Ruitberg, Code 711.4; Joseph E. Ryan, Code 440; Frederick B. Shaffer Jr., Code 931; Alfred K. Stober, Code 683.2; Margaret M. Stubbs, Code 100; Albert R. Toft, Code 717.1; John B. Webb, Code 730.1; and William W. West, Code 822.3.

Exceptional Engineering Achievement Medals: S. Harvey Moseley Jr., Code 685; Walter Squillari, Code 712.2; and Allen L. Tyler, Code 716.1.

Exceptional Scientific Achievement Medals: Melvyn Goldstein, Code 692; Samuel Gulkis, Jet Propulsion Laboratory; Michael G. Hauser, Code 680; Arlin J. Krueger, Code 916; Ronald P. Lepping, Code 695; John C. Mather, Code 685; Mark R. Schoeberl, Code 916; Jack D. Scudcer, Code 692; George F. Smoot, University of California, Berkeley; Rainer Weiss, Massachusetts Institute of Technology; and David T. Wilkinson.

Outstanding Leadership Medals: Dale L. Fahnestock, Code 500; Stephen S. Holt, Code

600; William J. Kneval, Code 300; and Paul A. Mowatt, Code 400.

Distinguished Public Service Medal: Rodger E. Doxsey, Space Telescope Science Institute.

**Goddard Award Winners**

Group Achievement Awards: Antarctica Balloon Campaign Team -- 1990-91 Austral Summer; ASTRO-1 Investigators Group; Broad Band X-Ray Telescope (BBXRT) Payload Development and Operations Team; Cosmic Background Explorer (COBE) Attitude Control System Team; Delta II 10-Foot Fairing Development Team; Goddard Space Flight Center Advanced Supercomputer Acquisition Team; Goddard Space Flight Center Small Business Innovation Research Program Procurement Team; Hubble Space Telescope (HST) Faint Object Camera Development Team; Hubble Space Telescope (HST) Goddard High Resolution Spectrograph Development Team; Hubble Space Telescope (HST) Wide Field/Planetary Camera Development Team; Hubble Space Telescope (HST) High Speed Photometer Development Team; Mission Operations and Data Systems (MO&DS) Procurement Office; NASA Ground Terminal (NGT) Automation Team; Pacific Ocean Rainfall Mission Team; Parts Analysis Laboratory, Unysis Corporation; and Ultraviolet Imaging Telescope (UIT) Image Motion Compensation (IMC) Team.

Community Service Awards: Herman M. Hines, Bendix Field Engineering Corporation; Donald C. Rau, Code 210.1; and Barbara L. Scott, Code 735.3.

Equal Opportunity Award: Janice L. Buckner, Code 303; Gregory L. Robinson, Code 303; and Simulations and Compatibility Test Branch Management Staff.

Productivity Improvement and Quality Enhancement Awards: Michael C. Backert, Code 210; William M. Davenport, Code 522.1; Regina W. Dorsey, Code 212.1; Nand Lal, Code 664; Jorge Otero, Code 212.2; ASTRO-1 Near-Realtime Thermal Analysis Team; Contractor Resource Tracking System Team; and Institutional Assurance Working Group; Winzen International, Inc.

Exceptional Achievement Awards: Richard A. Austin, Code 420; John D. Baniszewski, Code 285; Clarence David L. Barrett, Code 831.3; Timothy M. Carnahan, Code 725.1; Richard D. Carper, Code 563; Melvin C. Clark, Code 513; Prabhakara Cuddapah, Code 913; John A. Ferguson, Code 110.2; John E. Firmin, Code 261; Thomas W. Hamilton, Code 903; Peter M. Hughes, Code 522.3; Sandra M. Irish, Code 725.1; Keith M. Jahoda, Code 666; George N. Kambhouris, Code 301; Steven E. Koch, Code 973; William K. M. Lau, Code 913; Francis E. Marshall, Code 666; Dillard Menchan, Code 120; Frank V. Moore, Code 200; Richard L. Moore, Code 440; Janet D. Ormes, Code 252; Kelly L. Pecnick, Code 900; Rebecca B. Ratliff, Code 801; Edward O. Ruitberg, Code 440; Joseph P. Schepis, Code 716.3; Rajeev K. Sharma, Code 716.3; Jerry W. Simpson, Code 111; Lawrence P. Skiscim, Code 534.1; Teresa R. Spagnuolo, Code 205; Bradford Torain, Code 541.2; and John M. Vranish, Code 714.1.

Awards of Merit: Theodore R. Gull, Code 680; Roger A. Mattson, Code 460; Chester L. Parsons, Code 972, (Posthumously); and Peter J. Serlemitsos, Code 666.

**CENTER Lines**

**GODDARD LANDMARK TO BE REMOVED** -- The AT&T microwave relay tower atop Building 3 will be dismantled sometime in April or May. The tower, 160-feet tall from ground level, was constructed in the early '60s for the purpose of providing line-of-sight communications between Goddard and relay stations in Suitland, MD, Garden City, VA, and Washington, DC. The system provided voice, data and video services that linked NASA Communications (NASCOM) with its worldwide communications network supporting projects Mercury, Gemini, Apollo, space shuttle and a myriad of scientific and deep space missions and video services supporting NASA public affairs. A new fiber optics system was recently installed by AT&T to replace the old system.

**WAR UPDATE** -- With an easing of tensions in the Gulf, Threat Condition (Threatcon) 3 was terminated on March 26. NASA/GSFC badges will no longer be required to be displayed upon entering Center gates during normal duty hours. The security force is recognizing GSFC vehicle decals/passes for access to the Center. Several measures implemented during Threatcon 3 will be retained: the gate on Soil Conservation Road, leading to the East Campus/Building 25 area, will continue to be manned; a gate on Good Luck Road has been opened for employee and visitor access to the Rec Center and the Metrobuses will continue to pick up and discharge riders outside the Main Gate on Greenbelt Road. During the months of Operation: Desert Shield and later Operation: Desert Storm thousands of men and women were called up to serve our country. Only one Goddard employee was called up, Mark Flaming, Code 460, instrument manager for the Orbiting Solar Laboratory (OSL). Flaming who is in the US Army Reserves, was called up shortly before the war ended, so he did not have to go to Saudi Arabia. Flaming is due back at Goddard sometime in April.

**NASA**  
National Aeronautics and  
Space Administration  
Goddard Space Flight Center

**Goddard News**

The GODDARD NEWS is published monthly by the Office of Public Affairs,  
Goddard Space Flight Center, Greenbelt, MD 20771.

Deadline for submitted material is the fifteenth of each month. For additional information contact Code 130, (301) 286-7504.

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