National Aeronautics and Space Administration
Goddard Space Flight Center

Goddard News

Greenbelt, Maryland / Wallops Island, Virginia

April 1995 Vol. 42 No. 5

INSIDE

Goddard Director to leave NASA

Photo by NASA

John Klineberg, Center Director (1990–1995)

Dr. John M. Klineberg, Director the Goddard Space Flight Center has announced he will retire after nearly 25 years with the Agency.

Dr. Klineberg has not set a specific date for his retirement. He intends to explore opportunities in private industry or a university and will leave Goddard within the next several months.

"This is one of the most exciting jobs in the world. But the time is right for me to try something different," Klineberg said. "I look forward to new challenges, and take with me fond memories of my NASA experience."

As GSFC Director, Klineberg has been responsible for planning, organizing and directing the day-to-day activities required to accomplish the missions assigned to one of NASA's most diversified centers. GSFC is engaged in extending the horizons of human knowledge not only about our Earth and its environment, but also about the solar system and the universe.

Dr. Klineberg has been very involved in the community. He created the Goddard Contractor Association, establishing a strong partnership between Goddard and its contractors. He is a member of the University of Maryland Chancellor's Advisory Council and the Maryland Economic Growth Task Force; is on the board of directors of

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New Goddard Deputy Director named

Photo by Pete Baltzell

Joseph Rothenberg

by Jim Sahli

Joseph H. Rothenberg has been selected the new Deputy Director of the Goddard. His appointment, announced earlier this month by NASA Administrator Daniel S. Goldin, was effective April 24.

Rothenberg served as executive vice president of Computer Technology Associates, Inc., Space Systems Division, Lanham, Md., a position he held since leaving Goddard in February 1994.

From 1990 to 1994, he was associate director of flight projects for the Hubble Space Telescope (HST). In that position, he directed the development and execution of the successful first servicing mission of the HST.

In making the announcement, Goldin said, "Joe Rothenberg is one of the people who deserves much of the credit for the repair and continuing outstanding success of Hubble. In that endeavor and others, Joe has proven himself again and again as an able

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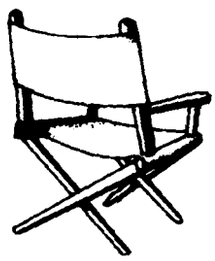

Director's dialogue

Q: What is the policy on employees dating employees? Specifically, a branch head or assistant branch head dating a member of his or her branch.

A: The Code of Federal Regulations prohibits a public official advocating one of his or her *relatives* for appointment, employment, promotion, or advancement to a position in his or her agency or in... (a position)... over which he or she exercises jurisdiction or control. Other than these prohibitions regarding relatives, no law or regulation is written governing supervisor/employee personal relationships, nor is there NASA or Goddard policy overseeing personal relationships of employees.

Supervisors and employees are responsible for using good judgment in all official and personal relationships. Further, any supervisor has the responsibility to ensure that the performance of his or her official duties do not create the *appearance* of *misconduct* or *conflict* of interest.

Roger Jenkin, Director, Human Resources, Code 110

Goddard cybrary, help for everyone

What do you call a library in cyberspace? A cybrary! Being an idea rather than a place, a cybrary does not have the usual books and journals on shelves, rather information is held in cyberspace, in electronic form so that accessing it is not limited to walking in the door.

The Goddard library is only 1 of 4 federal libraries to be on the World Wide Web, along with the Library of Congress, National Library of Medicine and the National Archives.

The GSFC library is in the forefront of this development, and as NASA is pushing the frontiers of space, the library is pushing its own frontier, bringing needed information to the users at their desktops, electronically.

The Goddard cybrary, began with the development of the Goddard Library Online Bibliographic Locator (GLOBAL), which consolidates access to all library information into a simple point and click interface. Then, to spread the word about electronic Internet resources, a panel discussion entitled surfing the Internet was held, quickly followed by a second. Following up these successful introductions, a series of Internet workshops are being held for groups of six to eight.

Meanwhile, an interface system to allow remote access to DOS-based CD-ROMs from multiple platforms via TCP/IP is being tested and installed, and a World Wide Web server was established with the library's own home page.

The home page provides information on hours of operation, schedules for interlibrary loans and library cards, new book lists, and the journal holdings list, as well as access to abstracts from 2,700 current scientific and technical journals from the "Current Contents" database, the library's catalog and other databases. The library home page also facilitates access to many other collections of information at physically remote locations. The hot list provides automatic linking to other World Wide Web resources selected by library staff.

What's next? Users will be able to search current contents and other databases, select, order and receive an article, all electronically from their own desktop. A new graphical user interface for ARIN, the library's online catalog, is planned to provide better search methodologies, and the capabilities for pictures and computer programs to be imbedded in the catalog record. This opened the possibility of displaying the tables of content and indexes of books in addition to the author and title.

Remote library access is through the Internet by a Web Browser (Mosaic, MacWeb, etc.). Open the location using a uniform resource locator (URL); the Goddard library's URL is: http://www-library.gsfc.nasa.gov. If you have problems once you are in the home page, consult the support pages.

Deputy Director

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and effective manager, and I'm especially proud to welcome him back to the NASA family."

Goddard Center Director Dr. John M. Klineberg stated, "Joe's appointment as Deputy Director is very good news for the Center. He is a wonderful engineer and manager. We are very pleased to have Joe back with us."

The new Deputy Director began his career with Grumman Aerospace in 1964, where he managed the development and operations of the aerospace ground equipment for the Orbiting Astronomical Observatory series of Goddard spacecraft. While at Grumman he served as staff project engineer to the director of engineering for test, and operations and as project manager for Goddard's Solar Maximum Mission.

From 1981 until 1983, Rothenberg was with Computer Technology Associates where he managed all of the ground system test and operations systems engineering projects. These projects included the HST, Solar Maximum Repair Mission and Space Tracking and Data System Architecture projects.

In 1983, Rothenberg joined Goddard as operations manager for the HST. As operations manager, Rothenberg led the NASA team responsible for developing and conducting orbital operations of the HST.

In April 1987, he was appointed chief of the Mission Operations Division under the Mission Operations and Data Systems Directorate, Code 500. In September 1989, he was appointed deputy director of Mission Operations and Data Systems, followed by his appointment in 1990 as associate director for flight projects for the HST.

Rothenberg holds a bachelor of science degree in engineering science and a master of science degree in engineering management from C.W. Post College of Long Island University. He is a member of the American Institute of Aeronautics and Astronautics (AIAA) and past president of the Long Island Section of the Instrument Society of America. He was the recipient of the AIAA's Goddard Astronautics Award and also of the National Space Club Goddard Memorial Award in 1994.

Goddard's Ultraviolet Imaging Telescope captures M101

Astronomers at Goddard this month released this image of the giant spiral galaxy, M101, as photographed on March 9 with the Goddard built Ultraviolet Imaging Telescope (UIT) during the Astro-2 mission of Space Shuttle Endeavour. It is the first photograph in far-ultraviolet light ever obtained of M101, a spiral galaxy located about 16 million light years from the Earth in the constellation Ursa Major (the Great Bear). The region shown in the photograph is about 130,000 light years in diameter at the distance of M101. [One light year, the distance that light travels through space during one year, is approximately 5.9 trillion miles.]

"The image reveals regions where new stars are forming at a rapid rate," said Theodore P. Stecher, Code 680. At lower left, outside the main body of the galaxy, the image shows a bright blob called NGC 5471, which is the brightest of all the new-star forming regions. An ultraviolet-sensitive electronic image intensifier was used together with a special photographic film to record the image as a 22-minute time-exposure, taken on the night side of Endeavour's orbit.

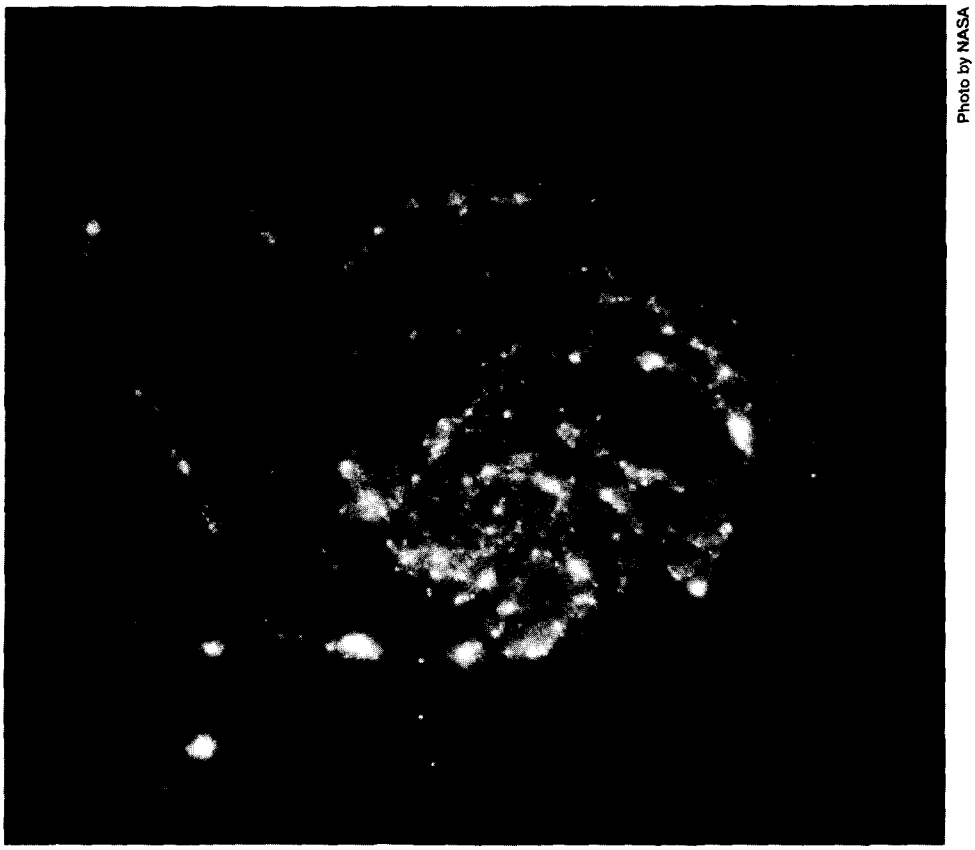

Photo by NASA

What's Up? April 1995

International Ultraviolet Explorer (IUE)
Days on orbit: April 1, marked IUE's 6,275th day in orbit

During March, International Ultraviolet Explorer (IUE) obtained many coordinated observations for the Space Shuttle's Astro-2 mission, in particular supporting the Wisconsin Ultraviolet Photo-Polarimeter Experiment (WUPPE). IUE's scheduling flexibility allows for straightforward coordination with the evolving timetable of Shuttle observations, as shown by the success of such tandem observations during both this past March and the 1990 Astro-1 mission.

WUPPE obtained ultraviolet spectropolarimetry of hot stars, meaning it measured the amount of alignment (polarization) in the UV light emanating from these stars at different UV wavelengths. If light rays are very much aligned then the light is highly polarized. In space, gas molecules and elongated dust particles, which can be aligned due to magnetic fields, polarize starlight. The polarized UV starlight that WUPPE observed provides information concerning the distribution of dust around hot stars, the nature of the dust particles between the Earth and these stars, and the structure of disks of gas and winds associated with the observed stars. The higher resolution IUE data are a powerful complement to the WUPPE data and have been crucial in the past in establishing evidence for proto-planetary systems around two young, hot stars.

Compton Gamma-Ray Observatory (CGRO)
Days on orbit: April 1, marked CGRO's 1,457th day in orbit, April 5 marked its fourth year on orbit.

The Energetic Gamma-Ray Experiment Telescope (EGRET) instrument onboard the Compton Gamma-Ray Observatory (CGRO) recently detected the sixth gamma-ray pulsar. This rapidly rotating neutron star, named PSR1951+32, spins on its axis 25 times per second, sweeping its beam of gamma-ray radiation across the Earth with each rotation. While several hundred pulsars are routinely detected by radio telescopes, the more rare and energetic gamma-ray radiation is typically detected only from relatively nearby, young pulsars. Consequently, each gamma-ray pulsar reveals invaluable information about these objects, which are ultimately powered by the gradual spin-down of the neutron star.

Unlike more well-studied gamma-ray pulsars known as Geminga and the Crab, PSR1951+32 was largely obscured by background gamma-ray emission from the plane of the Milky Way. Detecting this source required careful analysis of data from observations spread over three years.

John Klineberg, a look back

by Ernie Shannon

In early April of 1990, Dr. John Klineberg accepted an offer to assume Center Director duties at Goddard and leave the Lewis Research Center where he had been serving as Center Director for three years. The decision was not an easy one.

"I had worked at Lewis for eleven years either as the Deputy Director or as the Director and I could see a lot of accomplishments. Lewis was stable and strong in a number of areas including aeronautics, Space Station, and research and technology. But Goddard offered a new and exciting challenge, particularly with the heavy emphasis on space science."

Thus inspired by Goddard's broad and versatile mission, Klineberg prepared for a smooth transition from Lewis to Goddard culminating in an official July 1, 1990 appointment. Meanwhile, scientists discovered the Hubble Space Telescope's spherical abberation. Goddard, and much of the Agency, quickly became embroiled in the intense pressure and controversy that surrounded the giant telescope's anomaly during the spring and summer of 1990. So much for smooth transitions!

Perhaps Klineberg should not have been surprised. His career hasn't exactly followed a straight and narrow course.

Early on, he attended Princeton University where he graduated with a bachelor of science degree in engineering. After spending a summer vacation in California, Klineberg found the climate, the people and the opportunities very much to his liking and before very long he was pursuing a master's degree in aeronautics at the California Institute of Technology.

"I really loved California, especially the California of the early sixties which wasn't as crowded or as developed as today. When I was at Princeton, I worked at the Grumman Aircraft Company during the summer of my junior year. Later, for various reasons, I began to seriously consider a career in law. I was so serious in fact that I took the LSAT and did very well on the exam. What a different course my life would have taken."

Instead, while contemplating his next move, Klineberg began working for the Douglas Aircraft Company in Santa Monica and became forever attached to the aerospace industry.

"My experience at Douglas was a good one. I found people who loved their work; who enjoyed getting up in the morning and going to work. What's more, I found that I enjoyed that environment too."

John Klineberg, Princeton University Graduate (1960).

Shortly after earning a master's degree, Klineberg began work toward a Ph.D. He continued his association with the Douglas Aircraft Company but eventually moved to Caltech permanently, accepting a research position in line with his doctoral studies. He later entered a retrospective period which saw the young engineer travel in search of his niche only to find it, once again, in California.

"I think I grew bored with things. I had been working hard toward earning my degree for years and I wanted a change of pace." And a change of pace he got. A trip to Washington, D.C., netted Klineberg a job offer, but not what he really wanted to do. Finally, he traveled to Japan, Australia and the South Pacific ending up in Tahiti and "playing the guitar for a band. Can you believe it?"

But hot on his trail was his Caltech advisor who encouraged the wayfarer to return to his studies and earn his Ph.D. "He agreed to let me minor in political science. But I think what really convinced me was when my mother said, 'If you don't get that Ph.D., you'll always be telling people you nearly earned it and they won't believe you.' For that and many other reasons, I decided to settle down and finish my work."

Coincidental to Klineberg's decision to return to Caltech was an encounter in Pasadena with a young woman from France, Anne-Marie, who eventually became his wife. They would later have three sons.

Photo by Jane Semeraro

Dr. Klineberg and Princess Maha Chakri Sirindhorn of Thailand take a walking tour of Goddard.

Photo by Pete Baltzell

Ukrainian President Leonid Kuchma (r) accepts an award presented on behalf of Goddard by Dr. Klineberg during the President's official state visit to the Center.

With a Ph.D. in hand and once more growing bored with academic life, Klineberg was about to discover his life's work, or at least, a good portion of it.

"One day, I heard a talk being given by the Director of the Langley Research Center. The low-key nature of his presentation, his use of color view graphs, was unusual for Caltech. He later explained that he wanted to describe the work going on to spark students' interest in NASA," Klineberg said. "I did some checking around and found out about NASA Ames Research Center just outside San Francisco. In short order I had a letter up there regarding hiring opportunities and soon after I was invited up to give a lecture." In the back of the room, Klineberg explained, an individual kept asking questions on his lecture. "I began to think this guy was trying to give me a hard time." It turned out to be the Ames Director, Dr. Hans Mark. After the presentation, the Director introduced himself and eventually Klineberg was offered a job. His career with NASA was launched.

"What has transpired during these 24 years has been both memorable and exciting," Klineberg said. Following four years at Ames, he moved to NASA Headquarters and advanced to Deputy Associate Administrator for Aeronautics and Space Technology. In 1979, Klineberg accepted an appointment as Lewis Research Center Deputy Director. Six years later, he was named Director and in three more years, he came to Goddard.

Photo by Mark DeBord

Dr. Klineberg with Senator Barbara Mikulski (D-Md.) on a visit to NASCOM.

Photo by Mark DeBord

Senator Christopher "Kit" Bond (R-Mo.), NASA Administrator Daniel Goldin and Dr. Klineberg share a humorous moment in the NASCOM facility. Vaughn Turner (far right) of NASCOM toured with the group.

"When I came to Goddard, I didn't know how long I'd be able to remain. As I said when I addressed the employees last month, this isn't the kind of job you can stay in for years and years. Yet, if I could, I would stay here a long time. On the morning I had decided to make my announcement, I was eating breakfast with Anne-Marie and I said, 'Why am I doing this? I love my work. This is the job I've always wanted, the best one I'll ever have. I love the people, I love the challenges here at Goddard. Why should

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A look back

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I go?' You know what she said? 'You're leaving because you can't stay here forever.' And she's right."

Klineberg's tenure at Goddard has seen the Center through thick and thin. Things can't get much thicker than the period immediately following the Hubble launch. "Obviously, I had to drop everything in Cleveland and rush to Greenbelt to oversee the early stages of preparing to resolve the mirror problems. We had very capable people available, but they needed someone to step in and give some direction. That's what I did. But, let me say that I found some of the best minds in the business right here and they were very willing to drop other activities to bring their expertise to bear on Hubble," Klineberg said.

By September of 1990, the day-to-day operations and the plans for the repair of the Hubble Space Telescope had become a Goddard-focused effort. The rest is history and the telescope's ongoing historic discoveries are a testament to the "best minds" both here and elsewhere.

Today might best be characterized as "thin." Not at Goddard, necessarily, but throughout the rest of the Agency. "We are really quite healthy here," Klineberg said. "We have a wealth of projects, exciting projects I might add, to keep us challenged and busy for years to come. The Agency is undergoing a period of transition and that's never easy. But I'm optimistic that the climate will settle down. As for Goddard, let's change what we need to change and not worry about the rest."

As for Klineberg? He likes to talk about his father, who after a long and distinguished career at Columbia University found himself nearing the retirement age for most professors. Rather than finish his career at the university, the elder Klineberg promptly moved to Paris and fulfilled another 20 very distinguished years teaching and doing research. Then, in his 80s, he returned to New York City to work yet another ten years.

One gets the idea that John Klineberg, only 56 years old, is prepared to march in his father's footsteps. He envisions another decade or so of challenging work in the aerospace industry, perhaps followed by some few years in an academic setting. Then Klineberg mentioned as an aside that he might even return to Goddard someday, "it's been done before," he reminded, "it just might happen."

Director retires

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the Prince George's County Chamber of Commerce, the World Trade Center Institute and Leadership Maryland; is on the advisory board of the Prince George's County Community College Science and Technology Resource Center; and is Vice Chair of the Executive Committee for the Suburban Maryland Technology Council. In addition, he is a member of the Maryland Economic Development Commission, established by executive order by Governor Parris Glendening to examine ways to strengthen the state's economic development.

"I want to congratulate and thank John for his outstanding leadership and service to NASA," said NASA Administrator Daniel S. Goldin. "He has shown exceptional leadership in heading several of NASA's most important programs, including Mission to Planet Earth and the Hubble Space Telescope. Goddard and all of NASA have benefited from his remarkable vision and leadership."

"Not only has John overseen the launch of the next generation of U.S. weather satellites, but his Center is leading the way in environmental research," said Dr. Charles Kennel, Associate Administrator for Mission to Planet Earth. "Under Klineberg, Goddard has been helping to create an interdisciplinary approach to studying our environment that will bear fruit into the next century. The Mission to Planet Earth community has nothing but affection and respect for John, and we wish him well."

"NASA's greatest accomplishment in recent years? The successful Hubble Space Telescope servicing mission is due in large part to the vision of Dr. Klineberg, whose Center manages the project," said Dr. Wesley T. Huntress, Jr., NASA's Associate Administrator for Space Science. "This high-stakes mission was critical to the future of the agency, and it was a stunning success. As we have seen during the past year, Hubble is revolutionizing space science as a result of what was accomplished during the servicing mission."

Dr. Klineberg came to GSFC as Center Director in July 1990, from the Lewis Research Center in Cleveland, Ohio, where he had served as Director (May 1987 - July 1990) and as Deputy Director (July 1979 - May 1987).

Dr. Klineberg went to Lewis from NASA Headquarters, Washington, D.C., where he had been Deputy Associate Administrator for the Office of Aeronautics and Space Technology. His NASA career includes positions at the Ames Research Center, Mountain View, Calif., where he did research in transonic flows, and at NASA Headquarters as head of the Low-Speed Aircraft Branch.

Before joining NASA, Klineberg worked on aircraft aerodynamics at the Grumman Aircraft Company, Inc., Bethpage, N.Y., in 1959 and at the Douglas Aircraft Company, Inc., Santa Monica, Calif., 1960-1962, on lifting reentry vehicles and ballistic missiles. He performed fundamental research on fluid interactions at supersonic speeds at the California Institute of Technology, Pasadena, as part of his thesis work and while employed as a research engineer.

Dr. Klineberg's accomplishments have earned him many prestigious awards, including NASA's Distinguished Service Medal and Outstanding Leadership Medal, and the U.S. Government's ranks of Distinguished and Meritorious Executive. He was a member of the Flight Mechanics Panel of NATO's Advisory Group for Aerospace Research and Development and a participant in Purdue University's Old Masters Program and Leadership Cleveland. He is a member of Sigma Xi and a Fellow of the American Institute of Aeronautics and Astronautics (AIAA). He also is a member of the National Space Club Board of Governors, the advisory board of the Rotary National Award for Space Achievement, and the AIAA Honors and Awards Committee; is subcommittee coordinator for the AIAA Fellow Grade Selection Committee, and chairman of the Advisory Council for Princeton University's Department of Mechanical and Aerospace Engineering.

Dr. Klineberg is the also the recipient of the 1995 Goddard Space Flight Center Award of Merit.

GOES-J ready for launch

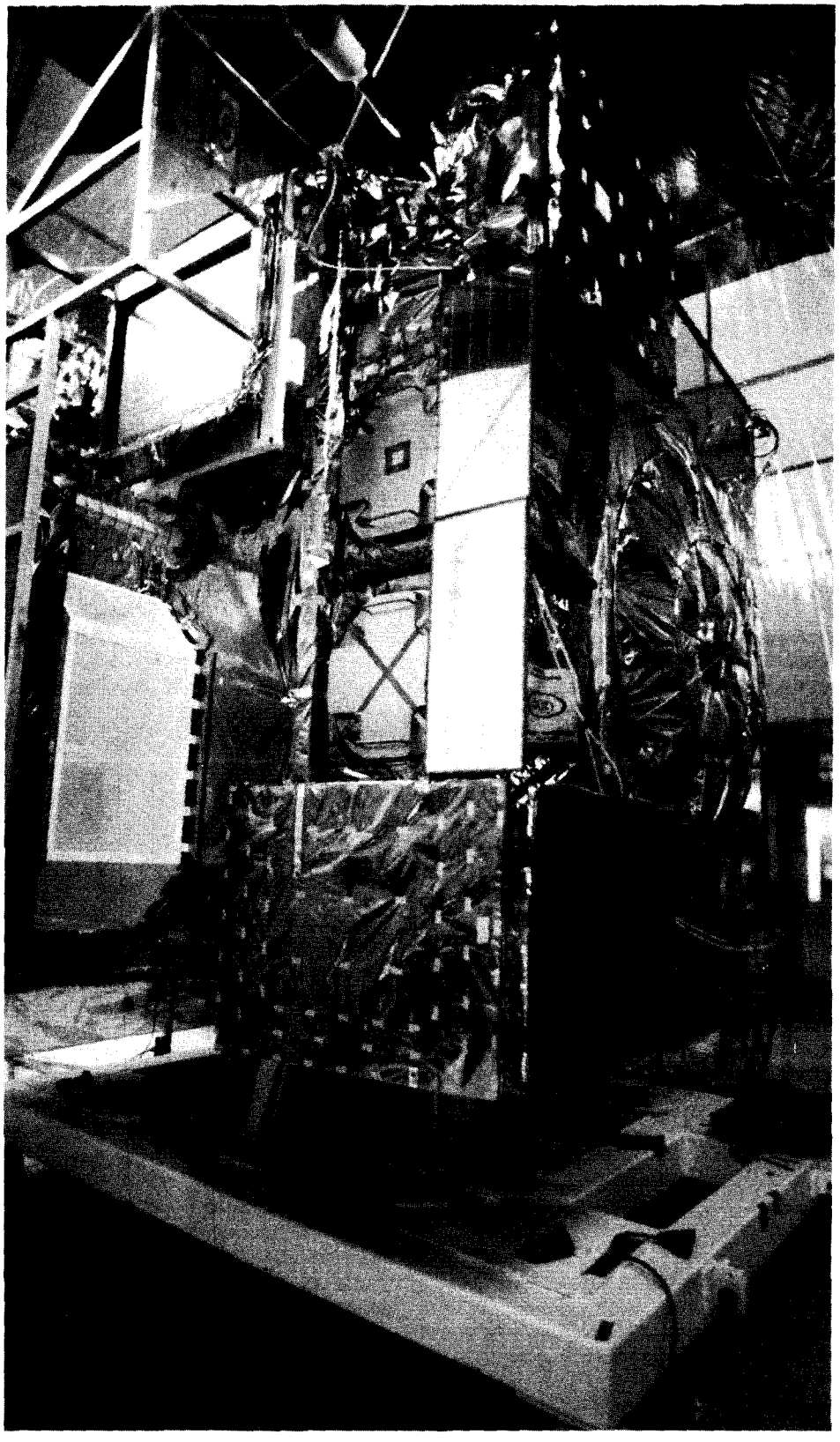

Photo by NASA

The **GOES-J** advanced weather tracking satellite undergoes prelaunch testing at the Kennedy Space Center. Here, the imager cooler door, center foreground, has been manually deployed for checkout. The two primary instruments, the imager and sounder, are seen here in the center section marked by an 'X' and a square. GOES-J is scheduled for launch May 19 from Launch Complex 36, Cape Canaveral Air Station. Launch will be on an ATLAS-1 expendable vehicle.

Recent appointments

Diane Williams

Diane Williams has been appointed deputy director for Business Management, Flight Projects Directorate, Code 400.

Williams serves as the principal operating official for the directorate in the areas of fiscal responsibility and the management of all resources. Her responsibilities include organizing, managing, directing and implementing each of the directorate's business activities, as well as developing an effective management and reporting system to keep all levels of Goddard and NASA management informed.

Before her current appointment Williams served as chief, Engineering and Space Technology Resources Management Office, Code 703 since May 1990. Williams began her career at Goddard in June 1966 in Code 400.

Krista Paquin

Krista Paquin has been appointed assistant to the director, Management Operations Directorate, Code 200, sharing responsibility for the business and institutional support and staff services necessary for the successful accomplishment of the Center's main mission activities. Her appointment was effective March 5.

Prior to this assignment, Paquin was the chief of the Institutional Support Office, Code 201 serving as the principle program analysis, planning, and resources officer of Code 200. Before that, she was a program analyst in the Program Analysis Office of the Office of the Comptroller, Code 150. Paquin received a bachelor of arts degree in Urban Planning and a master of arts degree in Urban Management from the University of Maryland, in 1982 and 1984, respectively.

Research associates picked for the 1995 NASA Goddard Academy

by Tammy Jones

NASA has selected 23 Research Associates (RAs) to participate in the 1995 NASA Academy program at Goddard. The intent of the 10-week intensive summer institute is to help guide potential future leaders of the space program. The program will be held from June 4 through Aug. 11.

All RAs were selected competitively from a pool of more than 100 applicants. Potential RAs must be current undergraduate or graduate level students majoring in science, math, engineering, computer science, or other areas of interest to the space program.

The academy provides insight into all of the aspects that make the NASA mission possible, while at the same time assigning the RA to one of the most innovative and creative researchers at Goddard as a mentor. In addition, the RAs get a unique view of the space program through interactive lectures, tours, and special projects with the leaders and motivators of the space program.

The program is co-sponsored by GSFC and the National Space Grant College and Fellowship Program consortium in each state. Forty-three RAs have participated in the program since it began in the summer of 1993. Additional information on the NASA Academy program can be accessed through the World Wide Web at http://university.gsfc.nasa.gov/SA/academy.html.

1995 Research Associates selected:

Shawn Kuehl, University of Alaska at Fairbanks

Tonya Felix, Hendrix College, Conway, Ark.

Eric Jackson, University of Arizona, Tucson

Azuka Ugwonali, Howard University, Washington, D.C

Susan Welsh, University of Florida,Venice

Jacob Lopata, Illinois Institute of Technology, Skokie

Jon Sims, Purdue University, West Lafayette, Ind.

Miquel Leon, University of Kansas, Lawrence

Karen Bottom, Louisiana Tech University, Ruston

Charlotte Brown, Massachusetts Institute of Technology, Cambridge

Holly Offerman, University of Maryland, College Park

David Vaughan, Michigan State University, East Lansing

Laura Sachi, University of Minnesota, Minneapolis

Neil Beaudry, Montana State University, Bozeman

Derek Carlson, University of Nevada, Reno

Stephen Mascaro, Clarkson University, Potsdam, N.Y.

Jimmy Talbot, York University, Ontario, Canada

Marjorie Thorpe, Pennsylvania State University, State College

Enectali Figueroa, University of Puerto Rico, Mayaguez

David Goldstein, Brown University, Providence, R.I.

Eric Anderson, University of Virginia, Charlottesville

Max Ullrich, The University of Vermont, Burlington

Grant Bromhal, West Virginia University, Morgantown

Engineering Colloquia schedule for May

On tap for May are three engineering colloquiums. Each begins at 3:30 p.m. and will be held in the Building 3 auditorium.

May 1: Bernard Seery, Code 710.2 presents "Adaptive Optics for Astronomy."

May 8: Dr. Lowell Beineke, Department of Mathematical Science, Indiana-Purdue University presents "Through the Lurking Graphs."

May 15: Mary Henderson, Department of Art and Culture, Smithsonian Air & Space Museum presents "Science Fiction and Popular Culture."

Goddard News — NASA

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 first of each month. For additional information contact Michelle Mangum (301) 286-8956, TDD (301) 286-8955.

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