Congratulations COBE and Compton teams!!

***COBE honored with National Air and Space Trophy**

***Compton receives Popular Science Best of What's New Award**

- Stories on both awards in December Issue

NASA
National Aeronautics and Space Administration
Goddard Space Flight Center

Goddard News

Greenbelt, Maryland and Wallops Island, Virginia Vol. 38 No. 11 November 1991

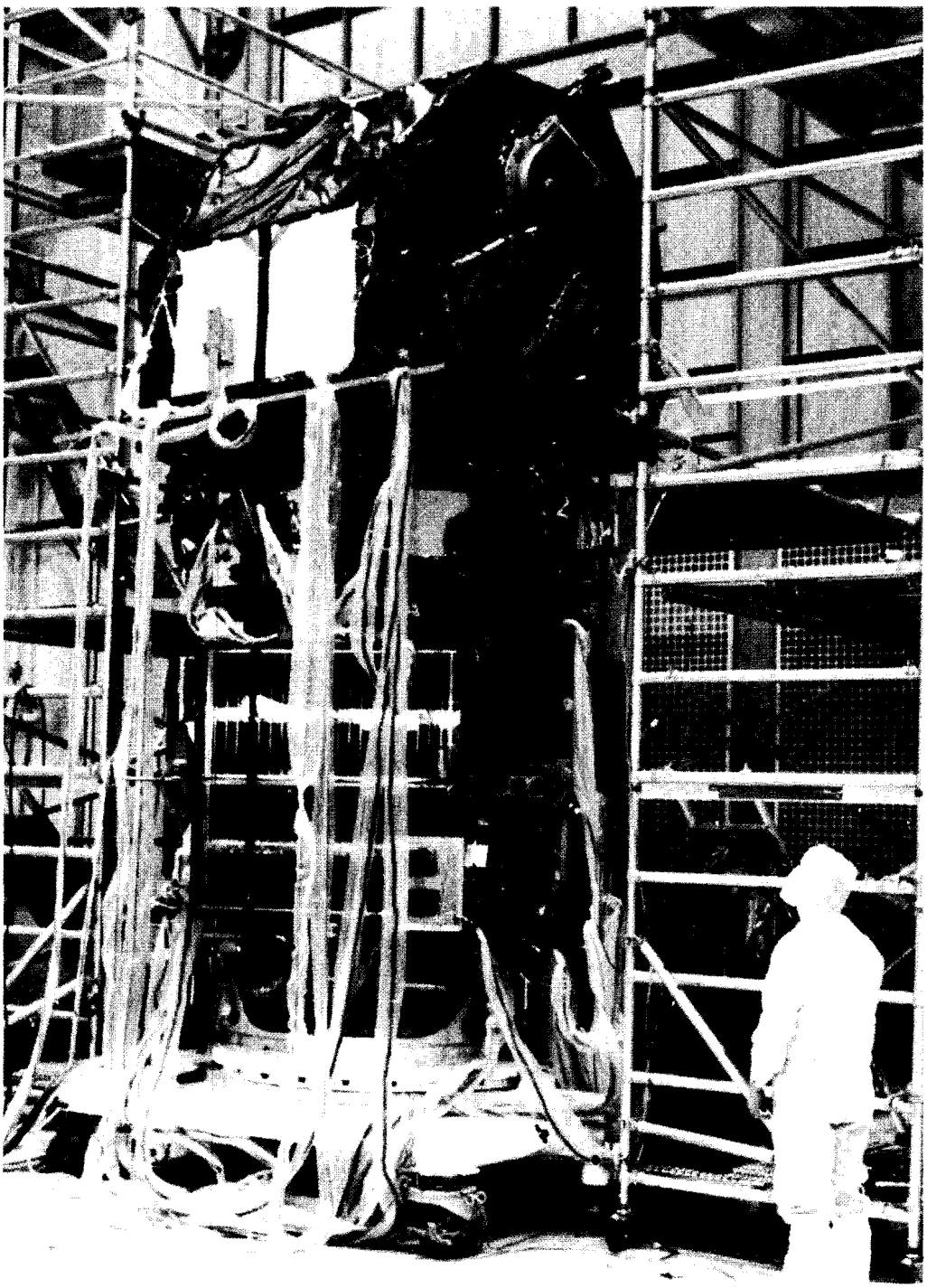

Photo: R. Frisch

This photo, taken at Goddard, shows the integrated Extreme Ultraviolet Explorer (EUVE) in a clean room in Building 7. Integration of the explorer platform to the payload module occurred in late October. Shipment to Cape Canaveral Air Force Station, FL, is scheduled for mid-December. EUVE, which is scheduled to launch in early 1992, will map the entire sky to determine the existence, direction, brightness and temperature of numerous objects that are sources of extreme ultraviolet radiation. EUVE project manager is Frank Volpe, Code 410; project scientist is Yoji Kondo, Code 684.

INSIDE

John Speer: Launch is Just the Beginning

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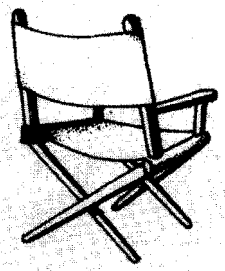


Directors' Dialogue

Q. On a recent visit to Kennedy Space Center (KSC), I became aware that on July 1, 1991, KSC instated a "No Smoking on Base" policy. What is the possibility of this type of policy being instituted at Goddard and Wallops?

A. Two important new documents related to smoking policies in federal facilities have recently been reviewed. The new NMI 1899.1, and the new GSA smoking regulation 41CFR 101-20.105.3, have been compared to our GMI 1772.1A. At the present time our GMI is at least as restrictive. Our GMI was last reviewed in November 1990 and it was decided no change was required. Our current GMI permits individual employees a lot of control over their environment with respect to freedom from smoke. More than one building has gone the final step and banned smoking in the building. Our current GMI provides a mechanism for employees, through the FOMs, to democratically make these determinations on a building by building basis.

Several actions are presently underway that may impact the smoking policy for the entire federal government. At least two agencies are considering the proposal of legislation or rules that would either severely restrict or eliminate smoking in all federal buildings. The Health and Safety Committee continues to monitor these actions for possible impact on GSFC policy. The Health and Safety Committee will review the GSFC smoking policy at the next meeting.

Sherry Foster, Director
Management Operations Directorate
Code 200

Q. Goddard is three years into the development of its composites capabilities. What vision is there of Goddard's composites capabilities five years from now?

A. It is envisioned that five years from now the project manager or scientist who wants to have components or structures made with advanced composite materials will have an in-house source. This equates to having the personnel and facilities to support the required composites design, analysis, fabrication, material, and instrument structures. These capabilities are currently being developed from the requirements of the Far Ultraviolet Explorer (FUSE) project. In five years, the FUSE prototype and flight structures will be complete, demonstrating Goddard's in-house composite competence.

Thomas E. Huber, Director
Engineering Directorate
Code 700

GIVE

On October 2, the Bloodmobile was held in the Building 8 auditorium and 204 prospective donors volunteered to donate blood. The following is a list of Goddard employees who were cited by the American Red Cross with gallon pins at the Bloodmobile.

# Gal.	Name	Code	# Gal.	Name	Code
4	Barbara Vargo	703.1	1	James Heizer	
2	Dennis Kemp		3	Peter Mule	750.2
2	Dennis Giblin	551.0	3	Leo Hill	
1	Maurice Dowdy	563.1	4	Vernon Krueger	683.3

The next Bloodmobile is scheduled for December 11 in the Building 8 auditorium. Watch *Dateline Goddard* for more details.

MU-SPIN is Closing the Education Gap

by Susie Marucci

College education can make all the difference to a bright young mind. Unfortunately, not all colleges have the same resources. This "education gap" can make a big difference to any student. Overcoming this gap is a goal at Goddard. Through a program called MU-SPIN or the Minority University - Space Interdisciplinary Network, NASA is trying to close the "education gap." MU-SPIN is a direct result of a NASA Networking Initiative with Goddard as the lead center. The MU-SPIN computer network links up Historically Black Colleges and Universities (HBCUs) and Minority Universities (MUs) to national and international computer networks such as the NASA Science Internet (NSI) and the National Science Foundation's (NSF) network NSFnet; and a variety of resources such as data centers, supercomputers and data and information systems.

With MU-SPIN, schools involved in the program have access to resources through their keyboards that they do not have at their institutions. MU-SPIN has two main uses. First, it lets users look for and order data and information. Users can tie into places like Goddard's National Space Science Data Center (NSSDC) and request and receive small data sets over their computers. Large data sets can be ordered through the computer and sent by mail.

Second, MU-SPIN also works like a distributed computer facility, with computer resources at different locations. Users can access the network and use facilities that they do not have in their institution. A school without a supercomputer can connect via MU-SPIN to a supercomputer at another school or national laboratory. The result is that students and faculty at remote minority schools without specific resources still have those resources at their fingertips.

Currently 26 HBCU and MU universities are connected to MU-SPIN with the hope of connecting 10 more during FY92. The first 36 universities identified for connections (phases 1 and 2 of the operation) were schools originally connected to SIMNET, an electronic network of HBCU engineering schools, that was started in 1980 and is no longer in operation; HBCUs with graduate programs in math, computer science and physics; and minority universities.

(Continued on page 8)

Launch Update: Get Away Specials

When Space Shuttle Discovery blasts off early next year on the STS-42 mission, 10 Get Away Special (GAS) payloads will be on board.

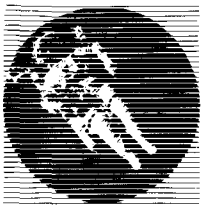
This mission will include payloads from six countries: Germany, Sweden, Japan, Australia, China and the U.S. The Chinese experiment will represent the first time a payload from China will be carried aboard a Space Shuttle.

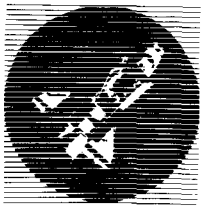
Two GAS ballast payloads will also be flown. Two of the original 12 canisters were replaced because of technical difficulties. The GAS ballast payload is flown when a GAS payload drops out and no payload is available to replace it. The weight of the ballast can be adjusted to match the weight of the payload it replaces.

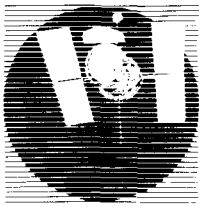
The GAS program, which began in 1982, provides individuals and organizations an opportunity to send scientific research and development experiments aboard a space shuttle for a modest fee on a space-available basis. Goddard experiments can be flown in the GAS program at virtually no cost, said Larry Thomas, GAS technical liaison officer, Code 745.2.

Photo: D. Gunning

Center Director Dr. John Klineberg spoke at the opening of the Combined Federal Campaign, October 15, at the Kickoff Rally held in the Building 3 auditorium. In addition to Klineberg's speech, videotaped remarks from NASA Administrator Richard H. Truly were shown, and musical entertainment was provided by Casual Overtime, a group made up of Goddard contractors. The audience saw the campaign film "Voice of Hope," and enjoyed refreshments in the lobby.







What's Up ?

November 6, 1991

HST -- *Days in Orbit:* 568
Number of Orbits: 8,348
Interesting Fact: HST has detected up to 10 times the expected number of hydrogen clouds near the Milky Way galaxy, creating a mystery among scientists.

COMPTON -- *Days in Orbit:* 213
Recently Observed Targets: Quasars 3C273, 3C279, and Galaxy Centaurus A
Interesting Fact: As of November 6, Compton has observed 151 cosmic gamma ray bursts.

UARS -- *Days in Orbit:* 53
Yaw Maneuver: The spacecraft was moved from a backward to forward direction on November 2.
Interesting Fact: The Microwave Limb Sounder, one of the 10 UARS instruments, started measuring ozone levels over the north and south poles less than 2 weeks after it was deployed.

Visitor Center Events for December

This December, the Goddard Space Flight Center Visitor Center counts down to 1992 with events that pique the curiosity! The Visitor Center is open to the public, Wednesday through Sunday, from 10:00 a.m. to 4:00 p.m. and will be closed for Christmas and New Year's Day. For more information, call x6-8981.

Launch Site Goddard -- December 1 and 15, 1:00 p.m. -- Did you know that almost every kind of rocket ever made, from scientific to military, can be found in your local hobby shop? For decades, model rocket makers have been reproducing all types of rockets as do-it-yourself kits. People of all ages can bring their rockets to the Visitor Center for safe, supervised launches, weather permitting. Start your model rocket hobby at the Visitor Center!

Saturday Videos -- Saturday, December 14, 1:00 p.m. -- Are you curious about gravity and orbits? The video, "Space Basics," shows, in easy to understand language and examples, how astronauts deal with microgravity, how objects are put into orbit, why they stay there, and how they come back to Earth. "Space Basics" is approximately 20 minutes long, and is suitable for anyone curious about space!

Know and Tell -- Sunday, December 22, 1:00 p.m. -- "Studying the Earth's Upper Atmosphere" -- As long as there have been humans, there has been curiosity. Until quite recently this curiosity has been focused on outer space. Now, more and more people are interested in looking at the Earth. That's what NASA's Mission to Planet Earth -- an initiative to study the global processes of Earth and Earth's atmosphere -- is all about. What is the Earth all about? Goddard's Upper Atmosphere Research Satellite (UARS) -- the first spacecraft launched in the Mission to Planet Earth -- will attempt to answer that question. Join John Donley and Dick Baker of the UARS project as they take a look at the Earth, the atmosphere and what affects both of them.

GSFC Developing In-House Composites Capabilities

By Kenneth N. Segal, Code 752.2

To meet the demanding requirements of scientific instruments of today and tomorrow, Goddard has initiated efforts to bring composites to the users -- the scientists and project personnel who need to meet these requirements.

Composites are two or more materials combined to form a new substance with superior structural properties than any of the materials alone. The goal at Goddard is an in-house base of expertise in composites design, analysis, fabrication and testing for the Goddard community to access.

Ultimately, officials say, Goddard projects will be able to meet tough structural requirements by using composite materials, and Goddard will have an in-house expertise to guide the projects from conception to operational hardware.

Development started two years ago. Preliminary results include the formation of a composites team, initial capabilities in everything from design to testing.

Making structures out of composites requires the collaborative efforts of many groups. Engineers representing materials testing, Code 313; structural design and analysis, Code 731; fabrication engineering, Code 752; and structural testing, Code 754; have been collaborating to establish composites expertise at Goddard.

A Goddard Composites Working Group provides a communication network among the many composites workers. A Memorandum of Understanding between NASA's Langley Research Center (LaRC), Langley, VA, and Goddard is in place, and a working relationship has been formed to share knowledge on composites technology between the two centers.

This initial work is a foundation to build on in the future. This foundation consists of a database that lists the properties used in the design of parts for space flight; software for design and analysis of multi-layered composite structures; a collaborative agreement with George Washington University, Washington, DC, to develop additional design software; a composite fabrication facility that includes arrangements with the University of Maryland and Martin Marietta, Essex, MD, for use of its fabrication facilities, primarily for larger jobs, where Goddard's current facilities are not adequate; and material test and evaluation capabilities including support from the University of Maryland and LaRC.

Photo: D. McCallum

The members of the composite team display a variety of items made of composites, including the Far Ultraviolet Explorer (FUSE) honeycomb core assembly, a part of the FUSE optical bench; and a variety of tubes and stiffeners. Pictured from left, all Code 752.2, except where noted: Dr. Peter Blake; Dr. Charlie Chu, Code 313.4; Nancy Jensen; Dave Puckett; Peter Rossoni, Code 754; Ken Segal; Larry Madison; and Danielle Vigneau.

There are 10 engineers and five technicians that work with composites on a regular basis.

The first composite parts made for space flight by GSFC engineers and technicians will fly on the Goddard-built Extreme Ultraviolet Explorer (EUVE), scheduled to launch in January 1992. The composite parts are the Thermal Control Louver Covers for the Attitude Control System (ACS) and Control and Data Handling (C&DH) modules on the Multi-Mission Spacecraft (MMS).

Another in-house project, the Far Ultraviolet Spectroscopic Explorer (FUSE) will have the first instrument structure that Goddard's composite workers will produce for space flight. The composite work done on FUSE will provide a basis of understanding for making large thermally-stable truss structures where accurate instrument placement is required. This realization is being pursued through all avenues -- design, fabrication, and testing -- simultaneously. Plans are for Goddard to have the ability to support many programs in all areas of composites expertise. The design group is developing software to support a comprehensive design capability, and a material database to support their designs. The fabrication group plans an expansion of equipment and building space. The testing groups are investigating evaluation equipment and techniques.

For more information about Goddard's Composites Working Group contact Ken Segal on x6-2895.

Hubble COSTAR Contract Awarded

Goddard has awarded a contract to the Ball Corporation, Boulder, CO, to complete construction of the Corrective Optics Space Telescope Axial Replacement (COSTAR).

Using a set of 10 small mirrors and mechanisms to position and support the mirrors, COSTAR is designed to correct the Hubble Space Telescope's spherical aberration. The correction is intended to restore significantly the scientific potential of the three major instruments on board the observatory--the Goddard High Resolution Spectrograph, the Faint Object Spectrograph and the Faint Object Camera.

Ball was given a letter contract to start work on the project last February. Under the contract, Ball is to have the instrument ready for delivery to NASA, with acceptance tests passed, by April 1, 1993.

This announcement brings the total contract to $30.4 million, according to Robert S. Kirk, Code 284.1, procurement manager for consolidated support projects at Goddard.

AWARDS awards AWARDS awards AWARDS

October was a month for honors and recognition. Three major awards were given to various Goddard organizations for their continuous dedication to Earth and space research. Congratulations to all recipients!

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

Goddard Space Flight Center

Special Act
Group Award

1991 Centerwide Group Awards

is hereby cited in recognition and appreciation of superior performance of a special act, service, or achievement.

October 1991

NASA

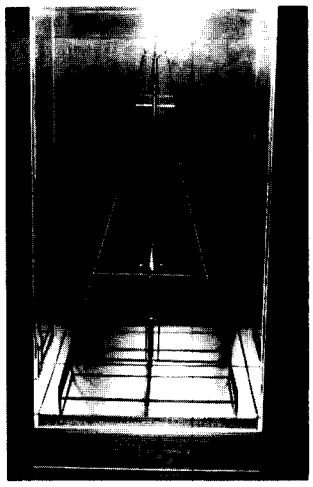
GSFC Centerwide Group Awards

On October 25, many GSFC groups earned FY91 Centerwide Group Awards. They were: Default Termination Litigation Team, Goddard NASA Personnel Payroll System Team, Secretarial/ Clerical Orientation Team, "M" Account Disbursement Group, On-Site Construction SEB, GSFC Prompt Payment Working Group, Group Data Systems Assurance, Gamma-Ray Observatory Launch Activities, NOAA-D Launch Team, Advanced Tracking Data Relay Satellite-E Launch Team, Hubble Space Telescope Corrective Optics Space Telescope Axial Replacement Procurement Team, MODIS-N SEB/ Procurement Team, HST Solar Array Jitter Team, Solar Extreme-Ultraviolet Rocket Telescope and Spectrograph Sounding Rocket Flight, Cosmic Background Explorer Transition Team, ASTRO/Ultraviolet Imaging Telescope Science Operations Team, Energetic Gamma-Ray Experiment Telescope Instrument Development Team, Space Test Payload I Integration & Operations Team, Space Technology Division Engineering Support Services, Contract Mini-SEB, Standard Power Regulator Unit Failure Review Team, Extreme Ultraviolet Explorer Payload Module Team, Get Away Special Project Team, Topex Radar Altimeter Environmental Integration and Test Team, Mars Observer Laser Altimeter, SeaWiFS SEB, and Roentgen Satellite.

National Space Club honors Code 900

On October 15, 1991, The National Space Club honored the Earth Sciences Directorate, Code 900, in recognition of its thirty years of scientific discovery and leadership in the Earth Sciences Program at NASA. The award was presented by The National Space Club President Robert Kennedy and Goddard Director Dr. John Klineberg.

The Directorate was recognized for its role in exploring the Earth System with such research satellites as TIROS, Nimbus, Landsat, Atmospheric and Dynamics Explorers, LAGEOS, MAGSAT, for the two missions launched in August of 1991 - the Shuttle Solar Backscatter Ultraviolet instrument and the Meteor-3/TOMS (USSR/Total Ozone Mapping Spectrometer) and for the Upper Atmosphere Research Satellite launched in September 1991.



Excellence Awards Finalists

Also in October, the finalists were announced for the GSFC Excellence Awards For Quality & Productivity. These two awards, one for large business and one for small business, are given to GSFC contractors based on sustained excellence and outstanding achievements in quality and productivity through customer satisfaction, human resources, commitment and communication. Last year's awards went to TRW, Space & Technology Group, Redondo Beach, CA, (large business); and General Electric, Americom, Princeton, NJ, (small business). The 1991 Finalists for large business are Cray Research, Incorporated, Manufacturing Division, Chippawa Falls, WI; Hughes, Space and Communications Group, El Segundo, CA; and Unisys, Systems Services Group, Lanham, MD; and, for small business, NYMA, Incorporated, Greenbelt, MD; and Stanford Telecom, Incorporated, Reston, VA. The 1991 recipients chosen by an evaluation committee will be announced December 1, 1991.

INSIDE

John Speer: Launch is Just the Beginning

by Jessie Katz

How does a guy from Pulaski, TN, find himself overseeing the day-to-day operation of a $500 million dollar NASA spacecraft?

You can see why when you realize John Speer, Code 430, General Electric (GE) Corporation's Flight Operations Manager for Goddard's recently-launched Upper Atmosphere Research Satellite (UARS) grew up in NASA's shadow. Pulaski sits about 40 miles north of Huntsville, AL, home of NASA's Marshall Space Flight Center.

Ever since Speer graduated from college, he's been working on NASA projects. First, he worked at Marshall. He landed his first job with GE working on the Saturn project at Kennedy Space Center (KSC), FL. "My whole career has been NASA-related," he explains in his soft southern accent. "I watched them build and test fire the initial first stage of the Saturn 5 launch vehicle when I worked in Huntsville. Then, when I moved to Kennedy, I saw them launch it."

GE brought Speer to the Washington area to work first on the Nimbus project, then the LANDSAT satellite series. After that, he came to the UARS project, but he's hardly a "Johnny-come-lately;" he's been working on the UARS project since April 1985. And now, he manages the GE flight operations team that runs the UARS Mission Operations Room (MOR), plans the operations and assesses the performance of the spacecraft.

Unlike his Saturn 5 experience, Speer didn't see the UARS launch from KSC last September 12 because he began his shift in the MOR 12 hours after lift-off. He watched the launch with the other Goddard employees in the Building 8 auditorium, went home to catch a few winks and came right back to work his assigned shift.

He went through the same routine during the UARS deployment events. "When the bolt released and the solar array popped out to its initial release position, a big cheer went up in the MOR," Speer recalls excitedly.

"Here it goes, this is where operations start. Ready or not, we've got it now," Speer thought as he watched Space Shuttle Discovery with the UARS aboard rise from its pad early that September evening. The GE flight operations team Speer manages conducts on-orbit operations for the UARS and staffs the MOR 24 hours a day, seven days a week. Speer's staff is responsible for the performance of the spacecraft, coordination of data base maintenance and coordination of command activities associated with spacecraft operations.

Photo: P. Baltzell

John Speer, Code 430, General Electric's Flight Operations Manager for Goddard's Upper Atmosphere Research Satellite waits for spacecraft performance and operations data in the UARS Mission Operations Room.

Strong Staff and Payload

The Bowie resident has a great deal of confidence in his staff. Because many of his staff members were brought on board long before launch, they've been in on some of the requirements planning, testing and data base development. "They have had experience that people normally don't get when they move from project to project," Speer explains proudly.

Speer works out of a small office just a short walk down the hall from the MOR. But he hasn't forgotten what it's like to work there. "My heritage is from an operational console position. I understand what my staff is doing. I've been there,and I can empathize with them," Speer says. But, being the boss can also be stressful. "When you're managing, you have a tendency not to walk away from it. I don't leave the job. I'm always thinking about things that need to be done."

Nevertheless, Speer can sleep at night knowing he not only has a competent crew, but also that he's working with a dependable spacecraft. "This spacecraft is well built. It pretty much is going to take care of itself although problems can still occur. It's designed well," he says confidently.

The Future

The UARS observatory carries 10 separate instruments, with a principal investigator (PI) assigned to each instrument. Each PI has his or her own instrument operations person who interfaces with Speer's operations group. Speer likes working closely with the instrument staffs. Peering into the future of spacecraft operations, Speer thinks, "We're heading to a point where the instruments will be operating independently of the control centers, and we'll just be operating the bus or platform part of the spacecraft."

Now that the initial excitement of the launch is fading, Speer hopes to settle into a normal routine. He's been too busy to practice his guitar or do any of the scuba diving he loves. Even his orchids have suffered from a bit of neglect. But, the quiet probably won't last too long. "I personally have the desire to contribute to the next bigger and better control center. I'm interested in the tools you use to operate a spacecraft. I have ideas and things I'd like to see," he says with a smile.

CLOSE-UP

Congratulations to the following employees for their recent appointments: **RONALD MOLTERE,** Head of the Photographic and Reproduction Services Section, Code 253.1 ... **DR. WILLIAM BARNES,** Associate Chief of the Laboratory for Hydrospheric Processes, Code 970 . . . **CARL POLESKEY,** Associate

POLESKEY

SIMPSON

Photos: M. Small

Chief of the Office of Public Affairs, Code 130 . . . **DR. CHESTER KOBLINSKY**, Head of the Oceans and Ice Branch, Code 971 . . . Congratulations also go out to **DR. JOANNE SIMPSON**, chief scientist for meteorology, Code 912, who was awarded The Charles Franklin Brooks Award for Outstanding Services to Society. The award was presented by the Council of the American Meteorological Society for "distinguished and imaginative leadership as Committee Chairwoman, Commissioner, and President."

Headquarters New Organization Codes (as of 10/20/91)

Headquarters Office	Mail Code
Administrator	A
Comptroller	B
Commercial Programs	C
Space Systems Development*	D
Equal Opportunity Programs	E
Human Resources and Education*	F
General Counsel	G
Procurement	H
Policy Coordination and International Relations*	I
Management Systems and Facilities*	J
Small and Disadvantaged Business Utilization	K
Legislative Affairs	L
Space Flight	M
Space Communications[1]	N
Public Affairs	P
Safety and Mission Quality	Q
Aeronautics and Space Technology[2]	R
Space Science and Applications	S
Inspector General	W
Exploration	X

* New Office
[1]Formerly Office of Space Operations
[2]Formerly Office of Aeronautics, Exploration and Technology

IN MEMORIAM

Richard "Rick" Fedorchak 1952-1991

Rick Fedorchak, Code 291.2, died September 27, of a heart attack. Fedorchak came to Goddard in 1985 and spent his entire career at Goddard in the Electrical Maintenance Section at the Plant Operations and Maintenance Division (POMD), working as an electrician. Fedorchak spent the last two years working the 11:00 p.m. to 7:00 a.m. shift. He enjoyed playing softball on the POMD team.

James "Jim" Pope 1924 - 1991

Jim Pope, Code 515.2, a mission readiness test manager, died September 30, of a heart attack. Pope came to Goddard in late 1985. He had retired from the Federal Aviation Administration before coming to Goddard. He spent a year detailed to Space Station in Reston, VA. Pope was still employed at Goddard at the time of his death, but was at home convalescing from a long illness. He was a pilot and a collector of antique automobiles.

SNOW Alert

When it snows, people wonder whether they should come to work. If work schedules change because of weather conditions, check local radio and television stations. One of the messages below is also put on the 286-NEWS number, which can accept 10 calls at a time. Beginning this year, the message will also be put on phonemail. However, phonemail messages are not instantly put on all phones. If you have phonemail, check your messages before leaving home. If you do not get a message before you leave for work, check the 286-NEWS number.

If there is a delay for reporting to work:
Because of hazardous weather conditions, the reporting time for all non-essential employees at the GSFC Greenbelt facility who are scheduled to work today has been delayed until xx:xx a.m. Only those employees who report to work will be granted administrative leave for the hours they were scheduled to work before xx:xx a.m. Essential employees are expected to report on time.

If the normal work day is cut short:
Because of hazardous weather conditions, all non-essential employees at the GSFC Greenbelt facility who reported to work today will be excused from duty for the remainder of the day beginning at xx:xx a.m./p.m.

If non-essential personnel do not report all that day:
Because of hazardous weather conditions, all non-essential employees at the GSFC Greenbelt facility who are scheduled to work are excused from duty today. Essential employees are expected to report on time.

While every attempt will be made to keep employees informed during questionable weather conditions, if there is no information to the contrary on 286-NEWS, the phonemail system or local radio and television stations, assume the Center is functioning on a normal work schedule and report to duty at the regular time.

CENTER SIDE Lines

VENUS AT GODDARD -- Getting a glimpse into the life of the planet Venus is easier than ever. Radar mapping data of Venus' surface by the Magellan spacecraft are now available. The 22 CD-ROM disks cover the first four months of mapping of roughly half the planet surface. More data will become available at the rate of about eight disks per month. The disks are available through the National Space Science Data Center (NSSDC) located at Goddard. The entire first mapping cycle of Venus should be available in February 1992, on approximately 50 disks. Software to support using CD-ROM disks is available. For more information contact the NSSDC at x6-6695.

NIMBUS-7 MORE THAN JUST OZONE -- To many people Nimbus-7 is known as the satellite that tells us about ozone. It carries the Total Ozone Mapping Spectrometer. But one of Nimbus-7's other instruments, the Earth Radiation Budget (ERB) experiment, has made a record of its own. Because the spacecraft has been in orbit since 1978, the ERB experiment has viewed two solar maximums, one in 1979 and another in the 1990/91 cycle. The Nimbus-7 solar measurements are the first which accurately showed variations in the Sun's luminosity. Earlier measurements were either too obscured by the Earth's atmosphere or too brief to measure the variations accurately, according to Lee Kyle, Code 936, leader of the ERB experiment team. Kyle also said an effort will be made to connect the Nimbus-7 measurement set with the expected solar data from the Upper Atmosphere Research Satellite (UARS). A solar sensor on UARS is expected to continue the solar measurements through the end of this century.

JOINING IN THE FUN -- The 32nd Fun Run was held on October 9 at noon. Beginning in front of Building 2, many people, not just runners, but serious walkers and those out to see the day, joined in the Fun Run; 646 people in all. The best three times for men were Ed Boggess, ST Systems Corp., with a time of 9:55; Rick Bingham, Bendix Field Engineering Corp., 10:46; and Neal Barthelme, Code 740.3, 10:49. The best three times for women were Lani Williams, Advanced Technology and Research, with a time of 13:09; Deanna Bentz, Code 271.5, 14:10; and Jackie Hoglund, Computer Sciences Corp, 14:31.

NASA
National Aeronautics and Space Administration
Goddard Space Flight Center

Goddard News

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MU-SPIN is Closing the Education Gap

(Continued from page 2)

Most of these schools are connected to MU-SPIN through a direct link, a permanent connection between the school and one of the networks that make up MU-SPIN. For other schools, MU-SPIN management is arranging for dial-up access.

While MU-SPIN is only a year old, it has come a long way, and according to Thomas, the response has been positive, both within NASA and at the universities. "People at the universities are very excited," said Thomas. "This is something to help make their schools more competitive," she added.

The Space Data and Computing Division hosted the first annual MU-SPIN Users Working Group Conference at Goddard on September 25-26, 1991. This conference, which was co-sponsored by the NSF, attracted 152 attendees from across the country from minority universities, NASA Headquarters, other NASA Centers, the NSF, two communications companies and several majority universities.

Topics at the group meeting ranged from an overview of NASA's scientific programs by Deputy Director Pete Burr to practical information on accessing and using Earth and space science data by James Thieman, Code 933; Lola Olsen, Code 934; Alan McConnell, Pixell Analysis; and Barry Jacobs, Code 934.

According to Thomas, the Users Group meeting was a great success. Thomas said, "There was a considerable amount of interest among the participating MU-SPIN universities in electronic access, learning about NASA resources, participating in NASA funded research, and obtaining hands-on experience in using the network to access the electronically available resources."

In addition to Thomas, MU-SPIN has a coordination team, which includes Nagi Wakim, on detail at Goddard from Bowie State University, MU-SPIN Coordinator; Jerome Bennett, Code 930.4, user support coordinator; Phil Sakimoto, Code 160, university programs management; Mildred Wyatt, Futron Corp., HBCU program management; Dillard Menchan, Code 120, chief of the Equal Opportunity Program office; and Daniel VanBelleghem, David Staudt and Jerry Engles from NSF.