

Goddard Experiments Take Wing On Discovery

by Dolores Beasley and Susie Marucci

The Sun and the Earth—changes in either can alter our lives. When the Space Shuttle Discovery lifted-off for the STS-41 mission on October 6, GSFC had two instruments on board; one was looking out to our nearest star, the Sun, the other with its eyes toward Earth, our home.

Plasma-Wave Experiment

The STS-41 scientific payload, Ulysses, consists of nine instruments which will collect information about the Sun's poles, the heliosphere and cosmic rays that stream into the solar system from among the stars of the Milky Way.

The principal investigator for one of those instruments—the Unified Radio and Plasma-Wave Experiment—is Goddard's Robert G. Stone, Code 690. The experiment manager is Bernie Klein, Code 721.

The Unified Radio and Plasma-Wave Experiment is both a remote-sensing and a local-measurement instrument. It senses the longer radio frequencies that originate at great distances and the shorter plasma-

wave frequencies as they move past the spacecraft. The radio-wave observations will be used to diagnose the space medium between the Sun's polar regions and Ulysses.

Observations of the locally generated waves will provide information about the internal workings of the polar wind—particularly the instabilities that transfer energy between the waves and their constituent particles.

SSBUV

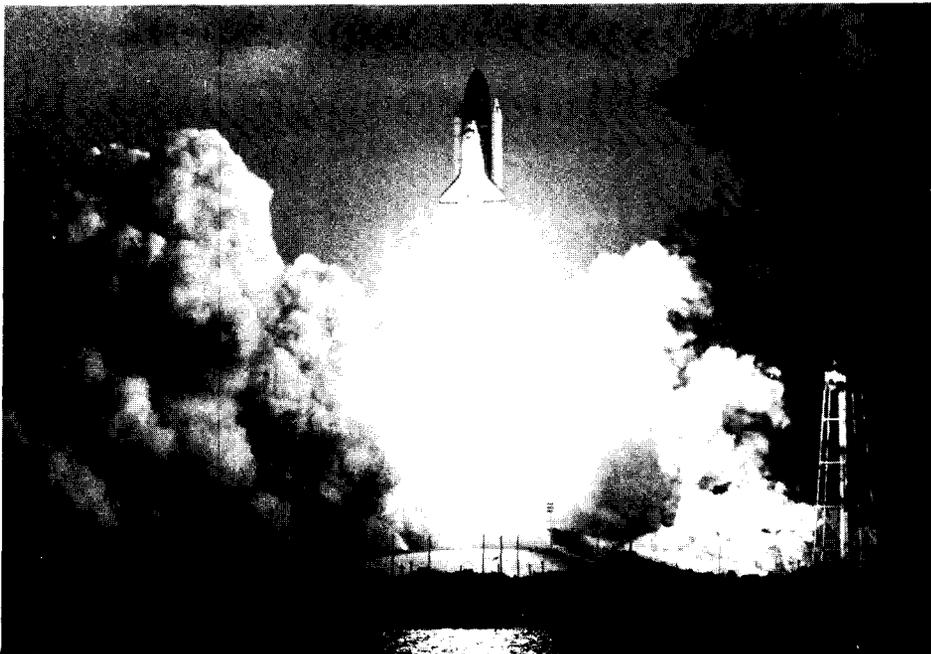
Another STS-41 instrument, the Shuttle Solar Backscatter Ultraviolet (SSBUV) instrument is concerned with one of today's major challenges—changes in the ozone. Ernest Hilsenrath, Code 916, is the SSBUV principal investigator. Donald Williams, Code 916, is the experiment manager.

Accurate satellite ozone measurements are crucial for detecting global ozone trends. Satellite-based instruments measure the amount and height distribution of ozone in the upper atmosphere.

The SSBUV will help scientists solve the problem of data reliability caused by calibration drift of Solar Backscatter Ultraviolet (SBUV) instruments on orbiting satellites. The SSBUV uses the space shuttle's orbital flight path to assess instrument performance by directly comparing data from identical instruments aboard the TIROS spacecraft, and the NIMBUS-7, as the shuttle and the satellite pass over the same Earth location within a one-hour window. These orbital coincidences occur 17 times a day.

The SSBUV instrument flew for the first time on STS-34 in mid-October 1989. Once its mission was successfully completed, the SSBUV was refurbished, recalibrated and reprocessed for flight on STS-41. This makes the SSBUV the first science payload from Goddard Space Flight Center, and the first science payload operated out of the shuttle cargo bay, to fly twice in one year.

The solar probe Ulysses carrying the Unified Radio and Plasma-Wave Experiment was deployed from the Space Shuttle Discovery on October 6, at 1:38 p.m. The SSBUV returned to Earth when the Discovery landed on October 10, at 9:57 a.m., completing a near perfect mission.



THE WAIT IS OVER—The Space Shuttle Discovery heads skyward at 7:47 a.m., Oct. 6, ending a four-month suspension in space shuttle missions. Discovery carried Goddard's Shuttle Solar Backscatter Ultraviolet (SSBUV) instrument and the Unified Radio and Plasma-Wave Experiment, Goddard's contribution to the solar probe Ulysses.

Ken

Sizemore:

**Piecing ISTP's
Puzzle Together**

INSIDE

Page 6

Happy Thanksgiving



Dr. Klineberg Reports on Retreat

The Goddard Management Council met from Sunday evening through Tuesday afternoon, October 28-30, at a retreat in Fredericksburg, VA. We decided to go off-site to take a good look at our future, plan our next steps and discuss some of the urgent issues that affect our lives every day at work. I am the newest member of this Council; the oldest member has been part of the group for only seven years. The vitality of the council was very evident to me, and I believe we have an enthusiastic and dedicated management team that cares about NASA's and Goddard's long-term goals and the process that gets us to our objectives.

We spent a lot of time talking about our goals and about how we will perform as a senior management team in handling decisions that impact the entire Center. First, our goals: The final script is not complete yet, but let me assure you our vision will emphasize a commitment to excellence in research and development in expanding our knowledge of the Earth, the solar system and the universe. We want to ensure that we maintain our leadership in space and earth sciences and technology. The

factors that tie closely with these thoughts include maintaining a dedicated work force, continuing to implement in-house projects, enhancing the NASA-contractor team, providing an open and creative environment and continuing to seek diversity in the projects we do and in our work-force skills and capabilities.

We reached these conclusions as a team and that is, perhaps, the most important message I want to share with you. In our retreat we took large steps forward to create the process that not only allows for, but also stimulates what some people call participative management. I think of it as simply a down-to-Earth way to do business that draws out the best of every individual. In this process, we hope to develop a strategic plan for Goddard that will serve as a template against which decisions will be made and problems solved. Participative management is an evolving process that will include everyone and will undoubtedly take time to establish throughout the Center. It is a style and approach that promotes clear decision making.

What issues did we discuss? The top contenders were office and laboratory

working space, the inadequate size of our work force and our limited travel funds. I know that many employees are working in cramped quarters and that our commitment to more work in the pipeline is contributing to a sense of being overwhelmed. The Management Council will be meeting to discuss in greater detail these and other issues during the next several months. We will make some tough decisions and we will make them together.

I have heard from many people, "Goddard is a great place to work." I believe that; I also think we can make it even better. The work we do at Goddard today will have a significant impact on our Country's future. We have a great opportunity to be part of history in the making.

I will keep you posted from time to time and I encourage you to share your thoughts. I'd like to hear from you.



John M. Klineberg
Center Director

National Space Club Honors Code 600

by Susie Marucci

Take some of the top professionals from space-related industries, add members of the government space program, including people at Goddard, then mix in some educators and a smattering of private individuals. If it sounds like a recipe for success, it is. The National Space Club is known as a gathering of top professionals in fields related to space research and space exploration, business and government. October 2, the National Space Club honored Goddard's Space Sciences Directorate, Code 600, for the key role Goddard has played in the exploration of space over the last quarter century.

More than 500 people attended the Goddard reception. President of the National Space Club John Ballance, Goddard's Center Director Dr. John M. Klineberg and NASA's Associate Administrator from the Office of Space Science and Applications Dr. Leonard Fisk all spoke at the affair.

Dr. Steve Holt, director of Code 600, said the award was "to honor all the people who have gone into making

Goddard the space science center of NASA."

The Space Sciences Directorate's many successes include both the experimental development and scientific management of more than 100 space programs. These include earth orbiting satellites like the Orbiting Geophysical Observatories (OGO), the International

Ultraviolet Explorer (IUE) and the Cosmic Background Explorer (COBE), and investigations of interplanetary space and the planets from Mercury to Neptune with experiments mounted on interplanetary space probes, including Galileo and the Mariners, Pioneers and Voyagers.



Dr. Steve Holt, Director of Space Sciences, Code 600, presents the National Space Club award to the President of the Space Sciences Directorate, John Ballance, on October 2, 1990. Also present are NASA's Associate Administrator, Office of Space Science and Applications, Dr. Leonard Fisk, President, National Space Club John Ballance; Holt; and Goddard Center Director Dr. John M. Klineberg.

Launch Update: Shuttle Schedule

The following is a brief listing of the next five space shuttle launches planned through May 1991:

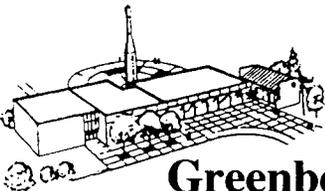
STS-38/Atlantis: As this issue of Goddard News goes to press, this mission, which is solely for the Department of Defense, is expected to launch on November 15.

STS-35/Columbia: The next planned mission following the STS-38 launch will be Astro. Two of the four instruments, the Ultraviolet Imaging Telescope (UIT) and the Broad Band X-ray Telescope (BBXRT) were developed and are managed by Goddard. Columbia completed a successful hydrogen/oxygen tanking test on October 30. Pending the outcome of the Flight Readiness Review, the launch is expected to take place in late November or December.

STS-39/Atlantis: Scheduled for February 26, 1991, STS-39 will carry the Infrared Background Signature Survey (IBSS) payload. It is also a mission for the Department of Defense.

STS-37/Atlantis: Launching in April 1991, STS-37 is carrying Goddard's Gamma-Ray Observatory (GRO). GRO's mission is to study gamma-ray sources including supernovae, pulsars and quasars. Goddard was involved in the development of the Energetic Gamma-Ray Experiment Telescope (EGRET). Goddard is managing the entire GRO project and providing ground system and various supporting elements and personnel.

STS-40/Columbia: With a proposed launch date of May 1991, STS-40 will carry the Spacelab Life Science (SLS-1) payload.



Greenbelt Visitor Center Events for December

The Visitor Center is open every Wednesday through Sunday from 10:00 a.m. to 4:00 p.m., closed all federal holidays. All events are free. For more information about Visitor Center programs, please call (301) 286-8981.

NASA Pipeline

LEWIS RESEARCH CENTER, Cleveland, OH—Scientists in Lewis' Structures Division are working with medical specialists at Case Western Reserve University to design prosthetic devices which can be custom fitted to patients, increasing by three times the expected life of the prosthesis. Lewis scientist Dr. Christos Chamis is modifying computer programs designed for aerospace analysis to assist in the design of prosthetic knee joints.

MARSHALL SPACE FLIGHT CENTER, Huntsville, AL—Government and industry engineers met recently at Marshall to discuss low cost manufacturing concepts for the proposed joint Department of Defense-Air Force/NASA/Advanced Launch System. Discussion at the conference touched on a variety of topics, including use of high-temperature metallic plasmas to manufacture combustion chamber structural elements, the use of powder metallurgy in manufacturing hot-gas liners and the reduction of the number of steps needed to manufacture thrust chamber components.

HEADQUARTERS, Washington, DC—The 1990 George M. Low Trophy, until recently known as the excellence award, was presented to Rockwell International, Space Systems Division, Downey, CA, and Marotta Scientific Controls, Inc., Montville, NJ. The George M. Low Trophy recognizes NASA prime contractors, sub-contractors and suppliers for outstanding achievement in quality and productivity improvements and total quality management. NASA Deputy Administrator J.R. Thompson, Jr., announced the selection October 24 at the Seventh Annual NASA/Contractors Conference, Grenelefe, FL. Nominees were judged on performance achievements and improvements in customer satisfaction, quality and productivity levels.



A FUN RUN, RIGHT TO THE FINISH—Left to right, Scott Glubke, Code 713.2, Fred Shuman, Code 401.1, Frank Reeves, Code 562.6, and Richard Weiss, Code 410, poured it on in the home stretch during the Goddard Inter-center two mile Fun Run. More than 500 employees of the Goddard Space Flight Center shed wing tips and heels October 10, in favor of athletic shoes to take part in the NASA semi-annual inter-center run. The event, which pits NASA centers against each other in friendly competition, involves a complicated system tallying the number of participants and winning times to determine the top center. Winning the men's division at Goddard, was Mark Baugh, Code 727, with a time of 9:36, the women's winner was Robin Kinna Cuddahee, Code 408, with a time of 13:36.

PHOTO: D. McCALLUM

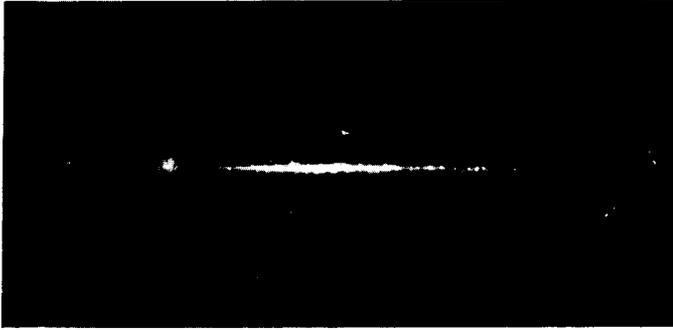
Launch Site Goddard — Sunday, December 2 and 16, 1:00 p.m. Join in the excitement and fun of model rocketry. Enjoy the day with the family at the Visitor Center by bringing a rocket, or just watch the fun.

Saturday Videos — Saturday, December 8, 1:00 p.m. View "The San Marco Project," the story of an Italian/American satellite project. Its objective is to explore the possible relationship between solar activity and meteorological phenomena.

Know and Tell — Sunday, December

23, 1:00 p.m. "What is SAMPEX?" — Gil Onlon, mission manager for the Solar, Anomalous and Magnetospheric Particle Explorer (SAMPEX) of Goddard's Small Explorer Projects Division, will give a presentation about the spacecraft. The SAMPEX mission is to conduct studies during the declining phase of the solar peak cycle, detect solar energetic particles, interplanetary particles and galactic cosmic rays. It is to be launched on a Scout rocket in 1992 and several different experiments are planned during the mission.

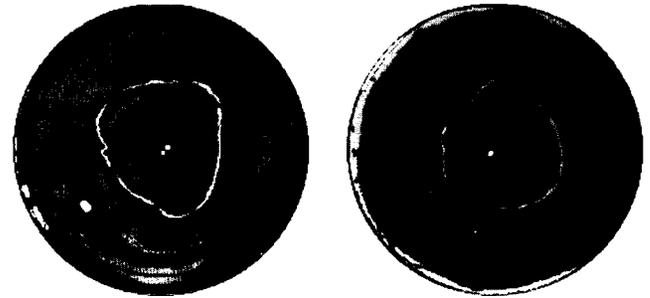
COBE/TOMS — New Images of Earth and Sky



COBE IMAGE OF THE INFRARED SKY — The above all-sky image was constructed from preliminary data obtained by the Diffuse Infrared Background Experiment (DIRBE) on the Cosmic Background Explorer (COBE). This image was presented on October 17 at an international workshop on cosmology held at the University of Maryland. The plane of the Milky Way Galaxy is horizontal across the middle and the galactic center is at the center. The dominant feature is the cold dust located in gas and vast clouds of dust between the stars in our galaxy. This image was taken in the far infrared wavelength.

Goddard scientists will continue to study these data in determining the content, energetics and large scale structure of the Milky Way, as well as the nature and distribution of the dust within the Solar System.

In addition, the data will be studied for evidence of a faint, uniform infrared background, the residual radiation from the first stars and galaxies formed following the Big Bang.



TOMS LOOKS AT THE OZONE HOLE—The above photo displays two Total Ozone Mapping Spectrometer (TOMS) images. Originally in false color, they have been converted into black and white for the Goddard News. These images show a comparison of the ozone holes, located in the center of each image on October 3 during the last two years. (1989, left and 1990, right.) The area and depth of the holes in 1989 and 1990 are nearly equal, as evidenced by the dark area in the center of each image.

Ozone, a molecule made up of three atoms of oxygen, comprises a thin layer of the upper atmosphere that acts as a shield against harmful ultraviolet radiation from the Sun. The ozone hole is a large area of intense ozone depletion over the Antarctic continent that typically occurs between late August and early October.

Goddard's ITC Celebrates its 5th Anniversary

by Susie Marucci

Did you work at Goddard in 1975? If so, perhaps you remember the planetarium in Building 16W, next to a room with typewriters and audiotape equipment where employees updated their skills or learned something on their own. There were a few directorates that had computer training, but that was all. When Goddard's Learning Laboratory closed in the late 1970s, there was no other center-wide facility to take its place.

In 1985, all that changed. The Information Technology Center (ITC) recently celebrated its fifth birthday and opened its doors to everyone on Center to show what five years of good work can bring. There were tours of the facility, guest speakers, demonstrations, and refreshments. Demonstrations were conducted in the Building 8 auditorium by several different vendors each day. Interested participants saw the latest products from IBM, Compaq, and Apple, among others.

Wallace O. Keene, NASA's Assistant Associate Administrator for Information Resource Management (IRM) Headquarters, gave a speech about IRM at NASA, in the Building 26 auditorium.

A special ceremony was also held to celebrate all the hard work that went into making the ITC a reality. Center Director

Dr. John M. Klineberg was among the many people present, including some of those who created the ITC and keep it going, such as Carolyn Casey, Code 703.2, whose Professional Intern Program project on the need for a self-paced learning center (SPLC) brought the SPLC to life.

The ITC offers a forum for office automation product demonstrations and technical hardware, software and local area network support, as well as the SPLC. The SPLC resources include computers, videotapes, audio tapes and interactive video for civil servants and contractors wanting to learn about almost anything from stress management to basic math to computer languages. The main goal of the ITC is to promote greater user self-sufficiency making the Goddard community, as a whole, more productive.

Some Goddard employees may think the ITC is only used by new employees, but that is not the case. Many employees use the ITC to brush up on current technology. During the special ceremony, Mark Walther, then head of the Automation and Planning Branch, Code 251, said one of the reasons for the celebration was "to recognize five years of quality service." But he noted that, "despite our success, we know there are still pockets of people



PHOTO: D. McCALLUM

REASONS TO GIVE THANKS—Mark Walther, Code 251, then head of the Automation and Planning Branch, and Carol Eakins, Code 251.6, manager of the Information Technology Center, commend the people who created the ITC five years ago, those who are running it now and those who are planning for the ITC's future. About 35 people were present at the special ceremony.

on Center who don't know we are out here to help them."

The ITC is open from 8:00 a.m. to 5:00 p.m. Monday through Friday. If you could not make it to the anniversary celebration, or you've never been to the ITC in Building 18, call X6-7285 or stop by and see what the ITC can do for you.

Facility Tests Parts to Keep Spacecraft Flying

What can cause a multi-million-dollar satellite floating quietly in space to suddenly change its internal instructions and self-destruct? Not aliens, not hostile earthlings, but radiation from the natural space environment that can penetrate fragile electronics and wreak havoc with our spacecraft.

In 1985, Dr. E.G. Stassinopoulos, Code 902, head of the Radiation Physics Office, Dr. O. Van Gunten, National Security Agency, Dr. Ed Petersen, Naval Research Laboratory and Dr. Richard Dudney, U.S. Army Strategic Defense Command, formed a consortium to design a facility solely for the purpose of testing electronic parts with heavy ion particles simulating cosmic ray radiation.

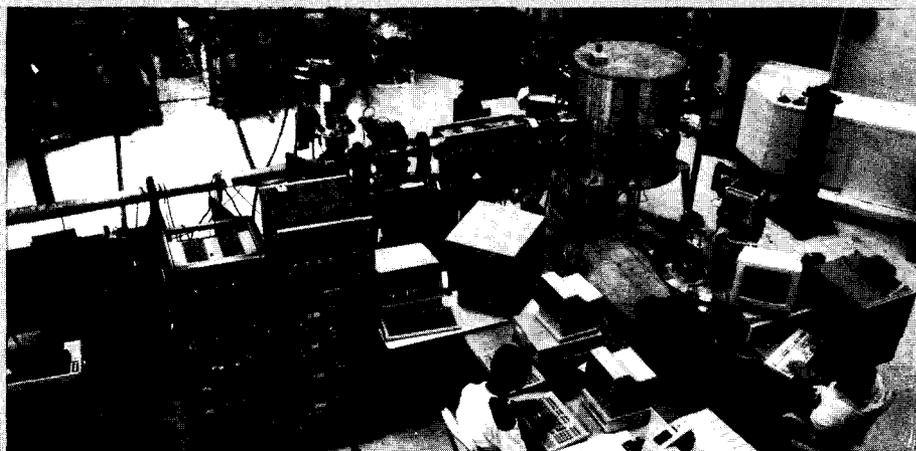
In 1988, the dedicated Single Event Upset (SEU) Test and Research Facility, located at Brookhaven National Laboratory in Long Island, New York, opened its doors.

Stassinopoulos is the chairman of the consortium, and, with Van Gunten, was the driving force on this project. The facility was developed to be extremely user-friendly. Before the establishment of this facility, testing a part took an average of several days, and the cost was exorbitant. "To test one part, it might cost anywhere from \$80,000 to \$150,000. As we had to test hundreds of parts, the cost became totally astronomical," said Stassinopoulos. At that time, there was only one place in the United States capable of testing parts for SEU, and that facility was not even designed for it. In order to test a part,

this facility had to be specially set up, equipped and staffed.

The new facility is one of a kind and is dedicated solely to SEU testing and research of parts. It uses very advanced technology that is also simple to use. The SEU facility, which uses the Department of Energy's Tandem Van De Graaff accelerator, can be operated by only one person. Anyone can learn how to run it in about a half hour. It no longer takes a staff of highly trained and highly paid specialists to test one part. No prior training or experience is required. The facility was created with state-of-the-art technology, but all of it was already in existence, none of the equipment was custom made. And except for the help of one computer programming contractor, all the work was done by the four partners.

Stassinopoulos says the facility has been more successful than they ever imagined. "People are now coming to this facility from all over the United States, even from overseas." He also notes that Goddard personnel, both civil service and contractors who provide parts, use the SEU facility more than the old system. But it is not just Goddard personnel; more than 90 percent of the facility's time is booked. "The facility we have today is the best in the world. Every time you test something, and you get results that are reliable, that can help you when designing a system or purchasing parts, that is a great advantage." He adds that the current facility "is 100 percent successful, far exceeding even our highest expectations. It couldn't be any better."



A NEW WAY TO TEST PARTS—The key to the Single Event Upset (SEU) facility's success is this room, which houses the SEU set-up, located at Brookhaven National Laboratory in Long Island, New York. The round object in the upper right corner is the vacuum chamber where the actual testing of parts occurs.

Expansion Brings More Children on Center

by Susie Marucci

On almost any morning, walking through the Center, you may hear the sound of laughter, lots of it. In fact, the laughter is getting louder. That's because the laughter is coming from the Goddard Child Development Center (GCDC) and suddenly there are more children than ever, a lot more.

The sudden population explosion is the result of an expansion of the GCDC. According to Barbara Karth, Code 200.9, director of the GCDC, the center began with a group of parents meeting to find a way to get better child care. That was in the early 1970s. In the almost 20 years since then, the center has been through several moves and expansions, including the expansion that was completed several weeks ago.

The most recent expansion increased the number of students from 65 to, eventually, 122. The number of staff doubled from 11 to 22. The number of classrooms also doubled; now there are eight. For the first time there is a class of two-year-olds, with children in diapers. Because of the special needs of this group, there are three staff members with them; all other classrooms have two. There is a classroom of older two- and three-year-olds. Then there are five classes of three- and four-year-olds and there is still one kindergarten class.

Not only has the number of students increased but also the center itself. The building is now more than twice its original size. The new side, affectionately called the "East Wing" by center staff, holds four new classrooms, the administrative offices and the food preparation area where snacks and drinks are prepared. There is no kitchen because children bring their own lunches. Each of the new administrative offices does double duty, providing space where a child having a rough day can spend some quiet time. They can play with puzzles and spend a little while relaxing until they are ready to go back to the sometimes difficult task of socializing. There is also enough room to hold a cot, for a child who is not feeling well.

Until this summer, Karth was the sole administrative person in the GCDC. Today she has two people aiding her in the administrative duties; Sue Ready, one of

(Continued on page 8)

INSIDE

Ken Sizemore: Putting ISTP's Puzzle Together

by Barbara Kessler

The project is one of the most international projects ever to come down the pike at Goddard, and Kenneth O. Sizemore, Code 407, is the man in charge.

Sizemore, as project manager for the International Solar Terrestrial Physics (ISTP) project, is responsible for providing direction for program planning, technical activities and cost and schedule activities; or to put it another way, virtually directing all phases of the program which is projected to be more than \$1 billion for the portion funded by the United States.

The ISTP project includes six spacecraft, and involves scientists and technicians from 18 countries working to develop a comprehensive, global understanding of the interactions in the Sun-Earth system.

“I’m Having Fun”

Surprisingly enough, with all his responsibilities, an adjective Sizemore uses to describe what he does is fun. “As long as I’m having fun, I’ll stay,” he said. “I can’t wait to get to work. I love it.”

Sizemore, 53, came to Goddard in 1962 as a battery engineer in the power systems branch. He has worked in various management positions since 1966 including the Small Scientific Satellite (S3) project, the Multimission Modular Spacecraft (MMS) project and the Cosmic Background Explorer (COBE) project. Also, from 1972 through 1978 Sizemore was spacecraft manager for the International Ultraviolet Explorer (IUE), which he described as “probably one of the most successful scientific satellites NASA ever built.”

In 1983, Sizemore was selected to participate in NASA’s Senior Executive Service Career Development Program, and was detailed to the Space Station Task Force at NASA headquarters. Halfway through the program, he was chosen to go to Johnson Space Center as part of the Level B program start-up process (known as the Skunk Works) for the space station program. Sizemore was the GSFC Source Evaluation Board (SEB) chairman for the execution and definition phase of the space station.

Sizemore worked on the space station until 1988, when he was assigned as project manager of ISTP.

Sizemore’s involvement with the project began even earlier, as spacecraft manager, deputy project manager, then project



PHOTO: D. McCALLUM

IT’S VERY INTERNATIONAL—Virtually directing all phases of the International Solar Terrestrial Physics (ISTP) Project, Kenneth Sizemore, project director, Code 407, says, “I can’t wait to get to work. I love it.”

manager of Origins of Plasmas in the Earth’s Neighborhood (OPEN), a precursor to ISTP.

Because of the international nature of ISTP, there is frequent travel by project members. Sizemore’s recent trips have included Japan, the Soviet Union, France, Italy and Holland as well as several US cities.

“I’ve traveled more than I’d like to,” he said. “I go when it’s absolutely necessary.” He added that it’s part of his management style to delegate travel assignments to his staff who he said were bright and hardworking.

Focusing on Issues

Sizemore’s management style is demanding, but with an eye toward people. “I try to focus in on issues, and focus in on problems and work them quickly,” he said. “And I also try to communicate well with the people.”

“ISTP is currently on schedule, Sizemore said, with the first spacecraft—Geotail—to be launched in July 1992. “ISTP is going at a fast, hectic pace,” he said. “We’re working extremely hard to maintain an ambitious schedule.

“I have enjoyed being on the frontier of something new and exciting and being on the cutting edge of technology,” he continued. “If I were born a few years later or earlier I might have missed it.”

“Strong Roots”

At first glance, Sizemore’s large frame build may strike some as an imposing figure, but his polite, unassuming manner and a ready smile quickly put one at ease. Sizemore was born in Washington, D.C. and graduated from Anacostia High School and American University. He remembers riding the streetcars to school as a young boy and using the Smithsonian museums as a playground. “I have strong roots in this area,” he said. “I’ve been here the whole time.”

Sizemore resides in Silver Spring, MD with his wife, Charlotte. He has two children, Brenda and Bryan and one grandson, Christopher. He also has a place on the Eastern Shore which he describes as his biggest hobby. He built that house himself. “During the last several years I’ve probably put in over 300 trees and shrubs,” he said. “There’s just not enough time [to do more],” he added somewhat wistfully.

At Goddard, Sizemore is a member of the board of the Manned Flight Awareness Council, which recognizes an individual’s outstanding performance in the area of manned space flight through awards like the Snoopy awards. “Goddard as an institution is important to the country and important to NASA,” he said. “Goddard has the reputation of being a strong NASA center. We should strive to maintain Goddard as a center of excellence and always need to remember we have an obligation not to let the public down.”

**BECAUSE
YOU CARE...
HELP IS
THERE.**



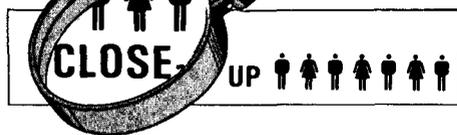


PHOTO: M. SMALL

Congratulations to the following employees on their recent appointments: **ARLENE PETERSON** Project Manager, Work Package 3, Code 406...

MICHAEL F. OBEN Head of the Systems Development Engineering Section, Code 512.2... **MARK STOKRP** Head of the Network Operations Branch, Code 534... **PETER K. SHU** Head of the Solid State Device Development Branch, Code 724...

KALEEM KAWAJA Head of the newly established Engineering and Contract Support Office, Code 290.1, which replaces the Resources Ad-



PHOTO: M. SMALL

KAWAJA

ministration Office, also Code 290.1... and **CHARLES A. GLASSER**, Assistant Chief of the Laboratory for High Energy Astrophysics, Code 660. The following organizations have recently experienced changes: The Delta/Orbital Launch Services Project, Code 470, was retitled the Orbital Launch Services (OLS), remaining Code 470. The Tracking and Data Relay Satellite (TDRS) Project, Code 405, was retitled the Advanced Tracking and Data Relay Satellite (ATDRS) Project, remaining Code 405. The Systems Engineering Office, Code 705, and the Telerobotics Engineering Office, Code 706, were disestablished and their functions merged into the Office of Technical Management, Code 701.



PHOTO: D. McCALLUM

A HARD DAY'S WORK, AND THEN SOME—Goddard relies on the dedication of many volunteers to help visitors and inform the community of the importance of Goddard's work. On October 16, Goddard said "Thanks for all the help" to thirty-two volunteers at an appreciation luncheon at the Recreation Center. The volunteers are members of the Goddard Speakers Bureau or volunteer tour guides at the Visitor Center. All of those honored volunteer hours giving presentations about NASA or escorting groups through the Visitor Center. Certificates of appreciation were presented by Dr. James Trainor, Code 100, Associate Director of Goddard. From left to right: (front row) Jacques Aimi; David Thompson, Code 962; Raymond Pages, Code 513; Janice Buckner, Code 303; Valerie Thomas, Code 933; Janette Gervin, Code 400.6; Anne Thompson, Code 916; Barbara Scott, Code 735.3; Harold Geller; Claudia Brevard, Code 662; Kathy Pedelty; Darlene Ahalt, Code 130; George Griffin, Code 754.1; (back row) Gerald Gaffney; Robert Wilson; Donald Friedman, Code 702; Jeffrey Elliott, Bendix Field Engineering Corporation (BFEC), Code 543; David Manion, Computer Sciences Corporation (CSC), Code 550; Carol Jo Crannell, Code 982; James Trainor (presenter); William Webster, Code 922; Paul Lowman, Code 922; U. Joseph Walters, Code 253; Sanford Hinkel, Code 400.6; Thomas Russell, BFEC, Code 534.1; Nathan Block, NSI Technology Services Corporation (NSI), Code 750.5; Elissa Levine, Code 923; Frank Bauer, Code 712.4; David Skillman (hidden), Code 400.2; James Garvin, Code 922; Roland Van Allen (hidden), Mark Erganian; Robert Ball, Code 503 and John Barker, Code 925.



On October 3, the Bloodmobile was held in the Building 8 auditorium and 203 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.

# Gallons	Name	Code	# Gallons	Name	Code
1	Margaret Antonopulos	511.2	2	Daniel Junker	553.1
1	Robert Calvo	310.1	1	Stephanie Price	562.7
1	Caren Corbett		3	Michael Raynor	310.1
7	Thomas Cygnarowicz	713.4	1	Ellen Salmon	932.0
5	Thomas Delaney	750.5	1	William N. Smith	751.1
5	Rex Elliott	284.2	2	Deborah Southan	562.7
9	Michael Forman	513.0	1	Dorothy Zukor	900.0
4	Charles Hunter	470.0			

The next Bloodmobile is scheduled for December 5 in the Building 8 Auditorium. Watch Dateline Goddard for more details.

Health Benefits Open Season

The Federal Employees Health Benefits (FEHB) Open Season has begun. During this Open Season, which ends on December 10, 1990, employees have the opportunity to change from one health plan to another, or to move from a self only enrollment status to a family status. Eligible employees, who are not presently enrolled in the FEHB program, also have the opportunity to enroll. All changes will become effective on January 13, 1991.

Space Travel Trivia

by John J. Loughlin II

Here's some easy trivia to keep your spirits high.

He was one of the original 7 astronauts. He made no Mercury flights, no Gemini

flights but did make the last flight in an Apollo spacecraft.

1. Name him.
2. Name the mission.

Trivia Answers
1. Donald K. "Deke" Slayton
2. Apollo-Soyuz

If you have any questions concerning Open Season, contact Christina Reed or Linda Ledman at X6-7918. Wallops Flight

Facility employees should contact Tommye Sue Thornton at X7-1141.

CENTER SIDE Lines

GSFC AND BARC HOLD TALKS ON GLOBAL CHANGE RESEARCH—GSFC and the Beltsville Agricultural Research Center (BARC) began holding talks this past summer on how GSFC and BARC can work together on the issues surrounding global change, especially how it affects crops and future food production. One future plan, at this point, is to study crop areas from satellites, using remote sensing, to see how food production may change. Dr. Vince Salomonson, Director of the Earth Sciences Directorate, Code 900, sees this as a long-term project that will someday include all of NASA and the US Department of Agriculture. Said Dr. Salomonson, "The Department of Agriculture can make use, in a practical way, of the information that we will get out of studies of global change."

MAGNETIC TAPE CERTIFICATION FACILITY CERTIFIES 2,000,000th TAPE—The Magnetic Tape Certification Facility, Code 560, which began in 1962, recently certified the 2,000,000th tape to come through its doors. The facility checks the quality of analogue and computer tapes to see if they are in good enough condition to be used again. Each tape put back into circulation saves the government \$3.50.

GODDARD PLAYS MAJOR ROLE IN SPACE INFORMATION SYSTEMS SYMPOSIUM—John Dalton, Chief of the Data Systems Technology Division, Code 520, recently went to Pasadena, CA, to chair the Second International Symposium on Space Information Systems. Dalton, who served as co-chairman of the symposium's Program Committee along with Robert Tausworthe of NASA's Jet Propulsion Laboratory, Pasadena, CA, spent much of the previous year planning for the conference. The symposium provided a forum for more than 400 managers and developers of information systems for space missions from government, industry and universities to present and hear papers on current projects and future technologies. While the majority of the presenters came from NASA and U.S. industry, the symposium received an excellent response from the international community with presenters from Europe, Japan, Brazil and the Soviet Union. More than 18 people from Goddard presented papers at the three-day symposium. Dalton was very pleased with the results of the conference and expects the next symposium to be held in the Washington, DC area in 1992.

Child Care

(Continued from page 5)

the former teachers, who has been promoted to assistant director, and Barbara Penn, a part-time office aide. Karth is very glad for all the help. "We don't want to be so busy with paperwork that we lose sight of our real purpose—which is to be here for the children." That does not seem very likely. Karth is wrapped up in what is going on at the Child Development Center, dispensing the new equipment, talking to the children in the halls, and planning a few special projects.

Adopt-A-Grandparent is a new program that Karth is hopeful will start this winter. The idea is to have some older volunteers come in for one or several days a week and spend time with the children. This will give the children individual attention, and a new voice to read them a story. The program also will give the volunteers a chance to spend some time with young children, time that should benefit both sides. To make this work, Karth is hoping to tap into the Goddard community. She wants to get volunteers from the Goddard Retirees and Alumni Association, and anyone else connected with Goddard who might be retired and interested. Ideally, Karth would like to have between eight and 16 individuals come to the center once a week and spend about four hours. Unfortunately, it would not be possible for anyone to drop by; interested volunteers would need some training, and so would the children. Karth wants both sides to have a chance to learn a bit more about each other before they start spending time together.

Adopt-A-Grandparent is not the only thing that makes the Goddard Child Development Center special. Part of it is being at Goddard. Karth, who came to Goddard in 1977, says the traditional turnover rate of 42 percent each year for child care workers is much lower at Goddard. They also have the help of GEWA, which is putting up a large portion of the new shelving throughout the center. The staff of the GCDC feel that they are giving something special to each child, a sense of fun, the development of the imagination, a chance to learn math and socializing skills, and a love of literature. Many of the children also feel they come to work with Mom and Dad, and that gives them the sense of the Goddard community that so many grown-ups feel here.

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 first of each month. For additional information contact Code 130, 286-7277.

The GODDARD NEWS staff is:

Executive Editor

Randee Exler

Managing Editor

Susie Marucci

Contributing Editors

Dolores Beasley

Keith Koehler

John J. Loughlin II

Cheryll Madisor

Editorial Assistant

Wanda Powell