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Goddard Space Flight Center

Goddard News

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Goddard Loans Device to County Fire Fighters



WITH OUR GRATITUDE—Center Director Dr. John W. Townsend, Jr. expresses the gratitude of the Center to Prince George's County Fire Chief Jim Estep (left) for the support the fire department provides the Center. As a token of appreciation, Townsend gave the department a thermal imaging device that will help firefighters locate victims in smoke-filled buildings.

by Jim Elliott

In what some folks think was a "nifty" idea, Goddard has provided the Prince George's County fire fighters with a device that allows them to "see" through dense smoke.

The device is a Naval Firefighting Thermal Imager, or NFTI. It's a light-weight, hand-held camera which provides thermal images. Firemen can hold the battery-operated device in one hand and accomplish two of the primary needs in firefighting: locate, identify and attack the source of the fire and rescue any people who may be trapped or hidden in the smoke.

The British-built device, which costs approximately \$10,000, has been tested by the Naval Research Laboratory (NRL) in Washington, DC, and is in service with the Navy, according to NRL officials.

Presentation of the device was made during a demonstration at Goddard in which Prince George's County firemen showed how much faster rescue could be accomplished through the use of the imager. A man with a breathing device was placed in a building that was filled with smoke. The firemen attempted a rescue without the device and then with the device.

The presentation to Prince George's County Fire Chief Jim Estep was made by Goddard Director Dr. John W. Townsend, Jr.

Dr. Townsend pointed out that the county fire department provides protection to the Center. In appreciation for that support, he said, the Center wanted to do something that not only would provide assistance to the fire fighters but also help save lives.

The device, he explained, is operated by 10 1.5-volt batteries and is sensitive to temperature changes by means of infrared technology.

Sources as the Naval Research Laboratory reported that in one test with zero visibility conditions in a smoke-filled chamber, inexperienced operators were given the camera and asked to find a "victim." The "victim," an instructor wearing a respirator, was concealed behind debris. He was located easily, according to the sources.

The demonstration at Goddard, conducted in Building 301 at the Magnetic Test Site, was organized by the Health, Safety and Security Office, headed by Ronald W. Kaese. Safety Engineers John Frey and Michael McNeill played key roles in planning the activity.



PHOTOS: R. FRISCH

SIMULATED RESCUE—Goddard Safety Engineer Phillip J. Nessler, Jr. lies on the ground outside Building 301 at the Magnetic Test Center where he was "rescued" by Prince George's County firemen. Nessler, equipped with a breathing device, served as the "victim" by staying in the smoke-filled building until rescued during a demonstration of the thermal imaging device given to the Prince George's County Fire Department by the Center.

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Talk from the Top

John W. Townsend Jr.

Note from the editor: The response to Center Director John W. Townsend Jr.'s "Talk From The Top" column has been so great and our printing space so limited, that we decided to expand the column this month to clean out a back-log of responses. Next month, we will return to our usual one column format. Keep those questions coming!

Q: Recently NASA rules have changed so that NASA employees can receive royalties on an invention even though the work might have been done partly on NASA time . . . Is there a possibility that sometime soon the policy might change to allow NASA employees to receive royalties when they write commercially viable books on topics related to their NASA work?

A: The issue you have presented concerns a matter of law rather than policy. To the extent that activities are part of one's official work, Federal law generally prohibits acceptance of additional compensation. Only if specific legislation authorizes acceptance is that possible. Legislation recently was enacted which permits Government inventors to receive royalties on Government inventions. As yet, there has been no similar legislation authorizing acceptance of book royalties.

Q: The present performance evaluation is very hard on personnel morale in my division. To maintain some "division average" several people have to be rated successful or lower. Why even bother with this time-consuming evaluation when you know every other year you will be rated successful rather than highly successful?

A: There is no Center or NASA policy which requires directorates to maintain a particular average or distribution with respect to performance ratings . . . In 1987, the Center's average rating for all employees was approximately 3.8 and about 70% of employees received ratings of "Highly Successful" or "Outstanding." I strongly believe employees should be rated as their performance warrants.

Q: I always assumed that GSFC's prohibition of annual leave in conjunction with official travel reflected a Government-wide position. I learned recently that this is not the case. . . Could this unreasonably restrictive policy be changed?

A: Goddard does not prohibit the use of annual leave while on travel. However, because employees often are required to travel to destinations many think of as vacation spots, (e.g. Florida, California, Europe) annual leave combined with travel may appear questionable to outside observers. The Center has established special approval authorities for situations where official travel is combined with annual leave. These are not and should not be viewed as distrustful of employees or their supervisors, or both, but instead as necessary to ensure management awareness of potentially controversial situations before they occur.

"The key is human understanding and cooperation. The pay-off will be a better working environment for all."

Q: In the April 1988 "Talk From The Top" column, you indicated that alternative work weeks would be considered only if the majority of the employees were willing to change . . . Usually alternative work week schedules are . . . offered as an option to employees whose work assignments allow them to take advantage of them . . . Why can't these alternative work weeks (e.g. 10 hour, 4-day or 5-4-9) be offered as options to GSFC employees rather than making it an all or nothing situation?

A: I agree that an alternative work schedule could be optional rather than mandatory for employees. However, I believe a substantial number of employees and managers would have to be interested for the Center to initiate such a program with assurance that it would work. Any alternative work schedule would require major changes in the way the Center conducts its business both internally and externally. We will keep this an open item and continue to follow the progress at other NASA Centers.

Q: This may not seem like an important issue . . . but it does affect our everyday life at Goddard. The issue is smoking . . . We now have designated smoking and non-

smoking areas [but] the issue of restrooms and corridors is left to the discretion of each building's FOM [Facility Operations Manager] . . . Goddard needs an overall policy that will better protect non-smokers, while not causing our smokers too much inconvenience. I think the designated restroom concept, with non-smoking corridors might be a good start.

A: Center management is now reviewing the existing GMI [Goddard Management Instruction] to determine if it is up to date and what our compliance history has been. You will hear more when this effort is complete. In the meantime you must remember that the present GMI allows smoking in shared offices if everyone agrees, and you must be sensitive to the fact that supervisors, team leaders, and those with seniority can unintentionally intimidate others into agreeing to permit smoking in an office. The key is human understanding and cooperation. The pay-off will be a better working environment for all.

Two employees posed questions about parking in the northeast area of the Center. Their edited questions follow with Dr. Townsend's combined answer:

Q: Is anything being done to resolve the parking problem in the Building 23/12 parking lot area? I don't think that re-issuing reserved parking spaces would be a feasible solution to this problem . . .

Q: When is GSFC going to build new parking lots? A lot of time is wasted by people looking for a parking space. This is especially true near Building 16.

A: The parking problem in the northeast section of the Center was generated by construction of Building 29 on the 7/10/15 building complex. Although additional parking space was provided, many occupants of 7/10/15 choose to park across the street at Building 16W. Building 16W is temporarily housing people in what used to be a warehouse space, adding to the parking load. Parking from Building 16 apparently has moved into the Building 12/23 lots. An additional six spaces will be created by striping the access road between Building 12 and 23. Additionally, recent restriping around the north and south sides of 16/16W created 15 new spaces. Another 24 new spaces were constructed on the east side of the 16W annex. Restriping in the Building 27 (motor pool) area created 12 additional spaces. Finally, when the Building 29 major construction is over next year, many of the parking problems in the northeast section of the Center will be solved.

Call for Nominations: Outstanding Contractor Contribution Award

During the last several years, the Agency and Center have developed new avenues for recognizing contributions made by Goddard contractors and their employees. As an additional vehicle to recognize small business contractors who are so vital to the Center's mission, Director Dr. John T. Townsend, Jr. initiated a new award, the "Outstanding Contractor Contribution Award." This award is to recognize any small business contractor who provides services or products to the Center or to Center prime contractors or subcontractors. Up to three contractors may be recognized each year.

The nomination is a self-nomination process and will follow an established format. There are four areas of evaluation; each is of equal value. Nominees should summarize their achievements and contributions in each area focusing on those most important contributions from the beginning of FY87 to the present. The areas follow:

- Achievement should identify special contributions and accomplishments and identify their significance to the relevant missions and organizations of the Center.

- Cost performance should identify the efficiency and effectiveness of the candidate in relationship to the specific contract vehicle, to the timeliness of performance, and to the business management of the company.

- Technical innovation should include innovations related to the particular products or services provided by the candidate company; these products and services do not have to themselves be "technical" to be considered under this element.

- Productivity management should demonstrate management commitment to and improvement in the quality of cost of products or services.

Nominations are due to the Awards Office by close of business, September 23, 1988. For further information or to receive a nomination form, please contact either Pat Greco, X66118, or Wayne Boswell, X65026.

NASA Pipeline

MARSHALL SPACE FLIGHT CENTER, Huntsville, AL—Marshall recently issued a request for proposals for a major new, space-based aid to understand lightning. Named the Lightning Mapper Sensor Program, it involves the development of a small, state-of-the-art optical sensor to detect and locate lightning flashes over a large area of the Earth's surface. The sensor should enable scientists for the first time to study electrical charge behavior simultaneously over the full viewable disk of the Earth down to the size of individual storms approximately six miles in diameter.

HEADQUARTERS, Washington, DC—NASA Administrator Dr. James C. Fletcher has accepted the NASA Advisory Council's report detailing strategic plans for the Life Sciences Program, a critical component of manned space missions. Chaired by Nobel Laureate Frederick C. Robbins, M.D., the study committee produced a report, entitled "Exploring the Living Universe: Strategic Plan for NASA Life Science," which focuses on the health and safety of human space crews.

JET PROPULSION LABORATORY, Pasadena, CA—JPL has announced the inauguration of its Mark III Hypercube parallel super computer, the result of a five-year research and development effort at the JPL Center for Space Microelectronics Technology and the California Institute of Technology. The Mark III represents the arrival of massively parallel supercomputing and will be used for scientific, engineering and defense research applications. Its first module contains 32 processing units which together have a peak speed of about 512-million floating-point operations per second.

AMES RESEARCH CENTER, Mountain View, CA—A new computational model developed at Ames achieves a major step towards accurately simulating the complex, fluctuating air flow within aircraft engine turbines and compressors. The model is expected to lead to substantial advances in turbomachinery analysis and eventually to smaller, more efficient, and longer-lived engines, according to Ames officials. The new computational model should generate significant savings for the aircraft engine industry when the model is ready for commercial applications.

KENNEDY SPACE CENTER, Kennedy Space Center, FL—The NASA-sponsored Rocket Triggered Lightning Program (RTLTP) has entered its sixth summer season at KSC. Triggered lightning launch activity has resumed from the pads on the shore of Merritt Island's Mosquito Lagoon, approximately eight miles north of the Vehicle Assembly Building. The program entails launching three-foot-tall solid-fueled rockets into a thunderstorm trailing a wire to the ground. In addition, a tethered balloon 1,500 feet in the air has suspended from it an instrumented lightning strike object at an altitude of 500 feet. The goal is to develop a set of data that will delineate the characteristics of the lightning strike potential in three environments; over land, over water, and in the air.

Goddard Builds "Institute Without Walls"

by **Carolynne White**

A unique forum for computer science research, the Center for Excellence in Space Data and Information Sciences (CESDIS) has been established at Goddard, according to Dr. Milton Halem, Chief of Goddard's Space Data and Computing Division.

The center will take a new approach in reaching out to universities and industry to develop a close-knit interaction to address future problems NASA faces in dealing with the expected massive volumes of space data, Dr. Halem explained.

The center has been established at Goddard in association with the University of Maryland and the University Space Research Association (USRA), a consortium of more than 60 universities. Sponsorship comes from NASA's Office of Aeronautics and Space Technology (OAST) and the Office of Space Science and Applications (OSSA).

A \$4.8-million, cost-plus-fixed-fee contract has been awarded to the University Space Research Association to manage and staff the Center for the first three

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U.S. SAVINGS BONDS

THE GREAT AMERICAN INVESTMENT

Launch Update: STS-26 Flight Readiness Firing Called Success

The three main engines of the Space Shuttle Discovery roared to life on Wednesday, August 10 at 7:30 a.m. as NASA completed the Flight Readiness Firing (FRF) test at the Kennedy Space Center, FL. Activities for this test, one of the most critical and hazardous ground tests performed at KSC, mirrored most of the operations associated with an actual launch attempt and shuttle launch countdown.

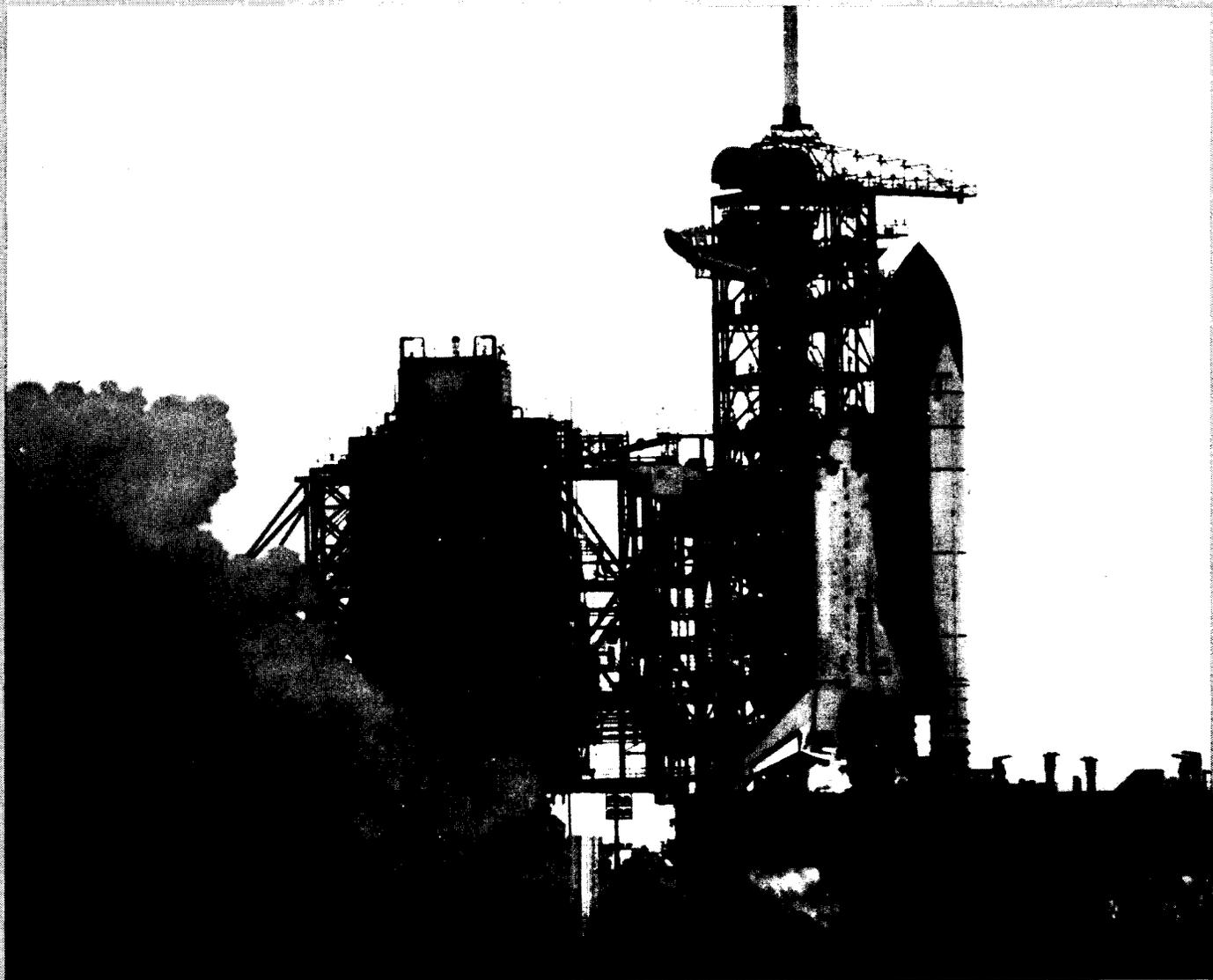
Following the test, NASA Admini-

strator Dr. James C. Fletcher told the combined government/industry team that it had done a "super job," was a "super team," and that the operation was "very impressive."

Test objectives included evaluating the performance of various components of the shuttle, as well as the launch procedures and facilities and the ground support equipment. In addition to verifying Shuttle system integrity and main propulsion system performance, the test served to verify

propellant delivery systems. Data from the FRF currently is being analyzed in preparation for Discovery's upcoming launch.

With the FRF complete, technicians will work on their next critical task—fixing a tiny leak in Discovery's orbital steering pod. Though no official target date has been set, Captain Robert Crippen, Deputy Director, National Space Transportation System, said that a September launch was still a possibility.



KENNEDY SPACE CENTER, FL—The Flight Readiness Firing (FRF) of the Shuttle Discovery's three main engines is successfully conducted on Pad 39B. Six days earlier the firing countdown was halted inside the T-10 second mark, just prior to the ignition of the engines, due to a problem in the number 2 engine propellant bleed valve. The approximately 22 second firing was conducted to evaluate the performance of various components of the shuttle, external tank and solid rocket boosters, as well as the launch facilities and support equipment which will be used during the launch of STS-26. Two of Discovery's engines have never flown before—engines in the number 2 and 3 positions. Engine number 1 has flown three times and has been through a previous FRF.



Spreading the Word

A round of applause for Goddard's "local vocals"—members of the Speaker's Bureau—who spread the word about NASA throughout the community. The Speaker's Bureau is comprised of Federal and contractor employees who volunteer their time to explain our Nation's space program to a host of audiences throughout 12 northeastern states. Following is a list of recent presentations by members of the Speakers Bureau:

Dr. Carol Crannell, Code 682	— Baltimore Astronomical Society, Baltimore, MD
Robert Ball, Code 503	— National Security Agency, Ft. Meade, MD
Joseph Walters, Code 253.1	— National Air and Space Museum, Washington, DC
Donald Friedman, Code 702	— Memorial Hospital, Easton, MD
	— United Nations, New York, NY
Jeffrey Elliott, Bendix Field Engineering Corporation	— National Air and Space Museum, Washington, DC
David Manion, Computer Sciences Corporation	— Military Order of the World Wars, Ft. Myer, VA
Carl Roberts, Code 543	— National Air and Space Museum, Washington, DC
Joseph Rothenberg, Code 400	— IBM Corporation, Vienna, VA
Dr. David Thompson, Code 662	— National Air and Space Museum, Washington, DC
	— Greenbelt Library, Greenbelt, MD
	— Clifton Precision Management Club, Clifton Heights, PA

For more information, contact Darlene Ahalt, Speakers Bureau Coordinator, x68101.

"Institute Without Walls"

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years with options for two or more years. USRA Headquarters are in Columbia, MD.

The Center will fund junior teaching faculty positions and graduate students who are conducting research in areas of relevance to NASA information science needs. This interaction will be fostered through the use of advanced high-speed computer networks allowing the involved scientists to stay at their home institutions while interacting with other scientists in CESDIS and at Goddard.

"The enormous volume of observational data collected by our increasingly sophisticated satellites and sensors will result in an immense computing and data management problem," explained Dr. Halem. "The goal of this experiment is to involve leading computer scientists in the data challenge of NASA's long-term missions."

After an extensive search conducted by officials at Goddard and the University of Maryland, Professor Ray Miller, former Director of Georgia Tech's School of Information and Computer Science, has been named the new Director of CESDIS. He also was offered a full-tenured teaching professorship in the university's computer science department.

In response to a national solicitation

for participating in CESDIS, four universities, from more than 80 proposals, were selected for initial membership in CESDIS. They are: Stanford University (G. Wiederhold, "Computer-Assisted Analysis of Auroral Images Obtained from High Altitude Polar Satellites"); Duke University (J. Reif, "Parallel Compression of Space and Earth Data"); the University of North Carolina (F. Brooks, "Image Pattern Recognition Supporting Interactive Analysis of Graphical Visualization"); and George Washington University (J. Foley, "Knowledge-Based Analysis for General Scientific Visualization").

Eventually, the Center is expected to include approximately twelve universities, plus the same number of government and industry scientists. Their research will span the areas of database systems, image processing and visualization, algorithm complexity, data compression, networking, distributed computing and information systems.

"The Center for Excellence will be an 'institute without walls' that will foster an innovative environment for research by the academic and industrial computer sciences community to develop new techniques and to apply new technologies to handle NASA's problems in the transmission, manipulation and interpretation of vast quantities of data," Professor Miller explained.

NASA Awards Gallaudet University A Grant

by Elisa Maroney, Gallaudet University

Challenge is nothing new for the seven hearing-impaired college students who enjoyed a special summer internship at Goddard thanks to a grant to Gallaudet University by Goddard's Office of Equal Opportunity.

The purpose of the grant was to provide NASA with a pool of qualified handicapped individuals eligible to enroll in the cooperative education program and ultimately be hired by Goddard, according to Dillard Menchan, Equal Opportunity Program Manager.

Gallaudet recruited seven hearing-impaired students from college and universities that historically have recruited minority students. The student interns are Eric Tomas, Sheryl Simpson, John Borkowski and Colette Barnes, of Gallaudet University; Maria Middleton, University of the District of Columbia; and David Weeks, Bowie State College.

The grant allowed the students the opportunity to have a summer work experience and earn three credit hours at their respective universities, according to Chris Rodriguez, the Equal Opportunity Specialist who placed the student with mentors in areas directly related to their computer science and mathematics backgrounds. The Goddard mentors were Peter Smith and Joe Fulson-Woytek, Code 632; Vilas Johnson, Code 554; Dwaine Kronser, Code 253; Mary Reph, Code 634; Mike Kelly, Code 263, and Pat Lightfoot, Code 514.

A 10-week sign language course was offered to supervisors, mentors, and co-workers to help integrate the students into their work units. Eleven GSFC employees participated in an orientation to deafness class, and 20 employees attended sign language training.

The students' work experience was supplemented through classes and seminars: Glenn Foley, Code 512, taught a three-week FORTRAN class for four of the students; Dave Snyder, a physics professor at Gallaudet, conducted seminars and provided individual support for the five gallaudet students, and Code 630 sponsored science seminars for the group.

The students apparently realized the value of their work/learning experience at Goddard. As Gallaudet student Joe Gurganus stated, "Working here is hard and a challenge. Learning here is a good experience."

INSIDE

New Director of Management Operations Pitches for Goddard

by Randee Exler

Goddard's Management Council signed a new player to its team roster recently. Sharon "Sherry" C. Foster joined the Goddard line-up on July 3 as the Director of Management Operations and will "going to bat" for the Center's administrative and institutional needs.

The Code 200 Directorate's newest director is no rookie. Foster was drafted from NASA Headquarters where she served as Director of Institutions for the Office of Aeronautics and Space Technology (OAST) since March 1986.

"I'm really pleased to be at Goddard," the Wilmington, DE, native said during a recent interview. "I've been very impressed with the quality of the people. It's been wonderful."

"Working at Goddard is really different than working at Headquarters," Foster explained. "At Headquarters, you're planning outyear activities and programs so there's really little tie-in to present day activities. Here it's more day-to-day operations—making things happen, working from start to finish solving problems. It's really a breath of fresh air!" she added with a warm smile.

Stellar Career

Foster's Federal career could be a story of how the Civil Service System works at its best. Upon graduation from the University of Delaware in 1972 with a B.A. in mathematics and a minor in business and economics, she moved to Washington.

"I took a job with an economic consulting firm before joining the Federal government's Bureau of Natural Gas as a mathematician," she recalled.

"At that time, the Federal government offered a qualifying test called the FSEE [Federal Service Entrance Exam] which is like a government version of the SAT [Scholastic Aptitude Test]," Foster explained.

"If you scored above a certain grade, various agencies sent you flyers about jobs," she said. "I got a flyer from NASA and thought, 'Gee this might be great!'" Thus began, her NASA career in 1973 as a program analyst in the Office of Institutional Management.



PHOTO: R. EXLER
SHERRY C. FOSTER

"I'm not the sort of person who would come in and shake things up just for the sake of shaking things up."

Since joining NASA, Foster has been moving ahead in good stride. In 1979, she accepted an Intergovernmental Personnel Act assignment with the city of Savannah, GA, in financial management. She joined OAST in 1981 as Manager of Aeronautics Program Support and was appointed Deputy Director for the OAST Institutional and Program Support Division in 1983.

From 1984-85, under the NASA Senior Executive Service Candidate Development Program, Foster served as Acting Assistant Director of the OAST Aerospace Research Division and as Staff Assistant to the Deputy and Associate Directors of the Ames Research Center. Upon her return to Headquarters, she was appointed Deputy Director of Institutions for OAST

and was later named OAST Director of Institutions.

"I obviously don't get to use my math very often!" Foster said through a laugh. On a more reflective note, she added, "I've always loved working with numbers and my education provided me with a more analytical approach to problem solving."

Team Player

When she's away from the job, one activity that keeps Foster busy is softball. She plays downtown on the Mall with a D.C. league.

"The team's been playing together for so long that we always joke about the average age of the team members which must be up to around 40 by now," the easy-going pitcher said. "We all show up with our playpens, carriages, and baby bottles!"

Goddard Assessment

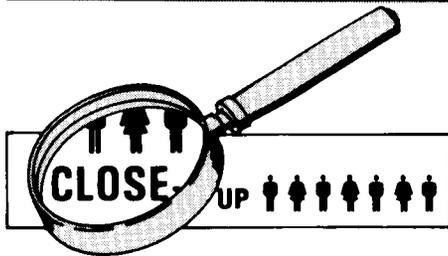
After a month on the job, Foster thinks that "everything seems to be going well," I'm not the sort of person who would come in and shake things up just for the sake of shaking things up," the manager added.

"I did not come with any preconceived notions of things that needed to be changed. I'm thinking of having a retreat at some point with the division directors and the senior staff to talk about what we want to accomplish next year, looking at how our Civil Service manpower is deployed across the directorate and making sure we've got the optimum allocation of people," she said.

"Benita [Cooper, former Director of Management Operations] had told me that this was an organization that had so many good people that it runs itself for the most part.

"So far, I have to agree with her," the Arlington, VA, resident commented.

"At Headquarters there are lots of good people," she concluded. "But here there's a layer of good people and a layer of good people under them. . . everyone's friendly and helpful. It's really very impressive."



JANET L. JEW has been appointed head of the Industry Assistance Section, Code 263.2, newly established as a result of a reorganization. As section head, she will coordinate Goddard's effort to counsel business that want to contract with NASA.



JEW

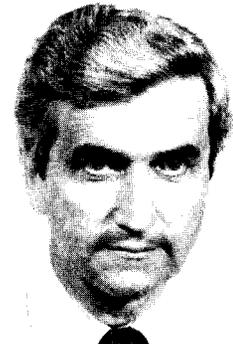
DR. STEPHEN CASTLES, formerly head of the Cryogenics Technology Section of the Cryogenics, Propulsion and Fluid Systems Branch, has been named Branch Head, Dr. Castles, along with **DR. SUSAN R. BREON**, **BRENT A. WARNER**, **DR. ARISTIDES SERLEMITSOS**,

DR. STEPHEN M. VOLZ, AND **DR. MICHAEL G. RYSCHKEWITSCH**, all of Code 713, will be presenting a paper, entitled "Cryogenic Subsystem for the X-ray Spectrometer," at the Society of Photooptical Instrument Engineers' 32nd Annual International Technical Symposium on Optical and Optoelectronic Applied Science and Engineering in San Diego, CA, this month.



CASTLES

DR. FRANCO EINAUDI, formerly a meteorologist within the Severe Storms Branch, Code 612, has been appointed head of the branch. Dr. Einaudi replaces **DR. JOANNE SIMPSON**, who has been appointed Chief Scientist for Meteorology. "I hope to maintain the same level of performance excellence the branch achieved under Dr. Simpson," said Einaudi.



EINAUDI



BEST KEPT PREMISES—Bendix Field Engineering Corporation employees at the NASA Tracking Station on Guam are shown with the First Place Award for best kept premises among government agencies. The award, originated in 1986, is presented every other year by the Government of Guam in recognition of beautification efforts by island businesses and government agencies. The NASA Station also won the award in 1986. Shown are, left to right, B. Ablao, J. Duenas, A. Fernandez, W. Komiya, E. Yamasta, T. Cruz, J. Pablo, R. Toves (kneeling) M. Duenas, D. Sundgren, Operations Manager and J. Obloy, Senior Manager.



GSFC MANNED FLIGHT AWARENESS HONOREES—Pictured is the Goddard government/industry team honored at the Manned Flight Awareness (MFA) Honoree Event conducted at the Johnson Space Center (JSC), Houston, TX, on April 12-14. The winners, recognized for their contributions to our Nation's manned space flight program, received a VIP tour of JSC and attended a reception in their honor with senior NASA/Industry management and members of the Astronaut Corps. The next MFA Honoree Event is scheduled for the fall of 1988. From left to right: Lloyd D. Goldman, Computer Sciences Corporation (CSC); Richard G. Schnurr, Code 745; Kenneth E. Sanderson, Bendix Field Engineering Corporation (BFEC), Bermuda Tracking Station (BDA); David C. Hartman, Code 532; Kenneth T. Slattery, BFEC, Merritt Island Tracking Station; Douglas A. Fogleman, BFEC, BDA; Dominick Vila, BFEC; David S. Green, CSC; Tracy L. Scagliarini, CSC; Dillard E. Boland, Jr., CSC; Candace C. Carlisle, Code 532; Gifford P. Moak, Code 284.6; Peter R. Flores, BFEC, Guam Tracking Station. Not pictured: Mark L. Imhoff, Code 415.

Blood Donors

Following is a list of Goddard donors who were cited by the American Red Cross with gallon pins at the bloodmobile on August 3, 1988.

NAME	GALLONS
John Adolphsen	15
Howard Dew	4
Cristina Doria	2
Herb Foster	10
Andy Gray	2
Buddy Gormley	2
Lon Griner	5
Mary Gum	2
Jack Hodge	3
Leonard Kayton	2
Barry Nims	1
Kathy Reardon	7
Robert Redmond	1
Susan Tokarcik	1
Patricia Vornberger	2

The next bloodmobile visit will be on October 5, from 8:30 a.m. to 1:30 p.m. in the Building 8 Auditorium. Thank you, Goddard, for your continued support of the program.

Retirees

Best wishes to the following Goddard employees who retired recently!

	Code	Years
Callas, Steve	470	26
Mason, Charles D.	674	31

To Europe and Back in Thirty Days

by Carolynne White

What does a couple do on their vacation if they happen to be the President and Vice President of the NASA Flying Club?

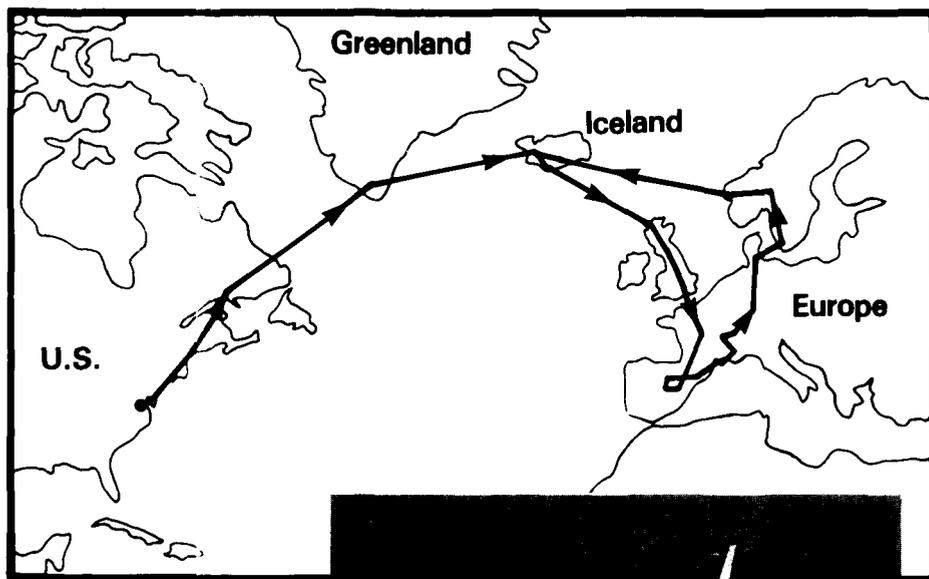
Well, for Laura and Bruce Milam—the answer is easy! They spent 75 hours last month in their Piper Twin Comanche covering the 10,000 miles from Bowie, MD, to Madrid Spain, and back—via Iceland, Greenland, and a few other stops in between.



LAURA AND BRUCE MILAM

“It’s something I’ve always wanted to do,” explained Bruce Milam, “ever since Max Conrad showed his route through Greenland to all of us young pilots at Embry-Riddle Aeronautical University [Daytona Beach, FL].” An aerospace engineer for Code 716.2, Bruce has logged more than 2,000 hours of flying time throughout the process of obtaining his commercial pilot’s license, instrument rating, flight instructor certification, and multi-engine rating.

Laura Milam, an aerospace flight systems test engineer for the Space Simula-



TO EUROPE AND BACK IN THIRTY DAYS—The Milam’s 10,000 mile route through Iceland and Greenland to England, Spain, France and Germany took them 75 hours, accomplished in 20 four-to-seven-hour legs. They flew in their Piper Twin Comanche. The plane is actually a six seater, although Bruce and Laura only have four.

tion Test Engineering Section, Code 754.4, and president of the NASA Flying Club is also a pilot and has logged more than 300 hours flying time.

The Milam’s route took them from Bowie, where they keep their plane, through Bangor, ME, to Coosebay, Canada, where says Laura, there was no sight of man for a 300-mile radius around their route.

“There were no roads—the only way to get in was by boat, plane, or snowmobile,” she explained.

From there, the Milams flew to Narsarsuaq, Greenland (population 1491), which they rated the most beautiful stop on their strip—if you happen to like glaciers, icebergs, and fjords, that is!

“We arrived in Iceland around 11 at night, but it was still light because it never gets dark up there in the summer. So everywhere we landed we’d always ask the people what time it was,” said Bruce.

After Greenland, the Milams flew on to Iceland—a flat, green, volcanic island. From there the flight to Newcastle, England took 6 hours. Other stops included London, England; Paris, France; Madrid, Spain; Nice, on the French Riviera; Monaco; Geneva, Switzerland; Amsterdam; Copenhagen, Norway, and Stuttgart, Germany, where they visited relatives before the return trip to the U.S. via Iceland and Greenland.

What’s next for this airborne couple?

“We want to fly around the world,” said Bruce. “The hardest part will be the trip from San Francisco to Hawaii, because we’ll need to buy a larger tank to hold the extra fuel necessary for the 15-hour trip.”

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