

GoddardView

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NASA Watches Total Eclipse from Libya and Turkey

By Nancy Neal Jones

For the first time, NASA and Libyan scientists partnered to observe the March 29 total solar eclipse. A second team of scientists observed the solar eclipse from Turkey. The event was carried live on NASA TV.

The Libyan government extended an invitation to NASA, other U.S. institutions and several other foreign countries to observe the solar eclipse from Libya. Libya provided the best location to see the solar phenomena; the expansive Sahara Desert. Scientists were allowed to bring solar viewing equipment and to perform experiments on how to observe the sun.

Another team of scientists, technicians and educators was located in Side, Turkey, where an educational webcast was created. The team had representatives from the San Francisco Exploratorium, the University of California Berkeley, as well as NASA and provided a streaming webcast to schools, museums and anyone connected to the internet worldwide. Viewers were also able to see and hear the team's experiences via podcasts. Live webcasts and NASA TV coverage from Turkey began at 5 a.m. EST March 29.

In addition to Libya and Turkey, people within a narrow corridor stretched across half of the Earth were able to observe the event. The eclipse path began in Brazil in the morning hours, and extended across the Atlantic Ocean, northern Africa, and Central Asia where it ended at sunset in northern Mongolia. A partial eclipse could be seen within a much broader path which included the northern two-thirds of Africa, Europe, and Central Asia.

Total solar eclipses are of special interest to astronomers, because it is the only time the sun's corona can be seen from the Earth's surface. Observers can detect and measure properties of the sun's outer atmosphere, such as temperature, density and chemical composition when the light of the disk is blocked by the moon.

During the eclipse, scientists wanted to detect the direction and velocity of flows of matter in the corona that are organized by the sun's magnetic fields. Careful measurements and experiments during a total eclipse can help unravel the enigmatic connections between the Sun and Earth.

The eclipse coverage was part of Sun-Earth Day, celebrated every year to help everyone better understand how our sun interacts with the Earth and other planets in the solar system. This year's theme, "Eclipse: In a Different Light" shows how eclipses have inspired people to observe and understand the Sun-Earth-Moon system. Goddard scientist, Dr. Jim Thieman, saw the eclipse with the group in Turkey and said, "I don't know of a more awe-inspiring sight on Earth. Hopefully the webcast and podcasts will provide a measure of excitement for those who could not be there."

For a replay of the webcast from Turkey please visit:
<http://www.exploratorium.edu/eclipse/2006/index.html> ■

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Cover caption: The sun's corona, or outer atmosphere, is visible during totality -- when the sun is totally obscured by the moon's shadow.

Photo Credit: Fred Espenak

GoddardView Info

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How Do You Catch a Total Solar Eclipse?

By Rani Chohan

Catching a Total Solar Eclipse is extremely challenging. First, you have to know where it will happen. Then you need electricity and a satellite dish to transmit the picture. You also need telescopes or special cameras to view the sun because most cameras are not designed to view the sun. Hotel accommodations and easy access to transportation are a plus. But even with all those things in place, NASA TV only had about a 50 percent chance of catching the eclipse...because weather can always foul things up. March 29, 2006, NASA TV caught two total solar eclipses.

The eclipse began in Brazil and extended across the Atlantic Ocean, Northern Africa, and Central Asia where it ended at sunset in Northern Mongolia. A partial eclipse path, within the much broader path of the moon's penumbral shadow, included the northern two thirds of Africa, Europe, and Central Asia.

NASA scientists and TV personnel positioned themselves in Libya and Turkey to catch this rare solar event and transmit it to the world.

NASA and the San Francisco Exploratorium set up inside an ancient Roman Coliseum in Side, Turkey. Side was relatively easy to get to because its close to an airport and there was pretty good accommodations.

The Exploratorium used three telescopes to view the eclipse and to send a live feed back to Goddard. The Exploratorium also transmitted a live educational broadcast. Side's community was extremely supportive of the event. Side's mayor participated in the educational webcast.

The team flew from the U.S. to Tripoli (12 hour flight). After a couple of days of meetings and presentations in the city, they took a 2-hour jet ride to an airstrip in the middle of the Sahara desert (Waw al Kabir). From there, they boarded a helicopter and flew one-and-a-half hours to a camp called Eclipse City deeper inside the desert (Waw an Namos). The NASA team spent two exciting nights in the camp. "They (Libyan Government) went out of their way to make sure we were comfortable," said Dwayne Brown, senior Public Affairs Officer, NASA Headquarters

Meanwhile, back at Goddard, engineers reconfigured Goddard TV to bring in the feeds, record programs and transmit back out to the media, museums and other audiences eager to watch a total eclipse. At the same time, Goddard scientists gave live interviews to morning news programs around the country.

"The engineering for this event was tricky. Goddard TV reconfigured their systems to handle the requirements for this event," said Patrick Kennedy, Goddard TV Production Manager.

For the last three years, Building 28 housed Goddard TV in a temporary facility in the basement. In order to make changes in satellite feed, engineers had to connect and reconnect dozens of cables. Currently, Goddard is building a new master control that should be ready by the next space shuttle launch.

Also, last year NASA TV split their signal analog channel into three channels. There is a public channel, media services channel and education channel. This digital environment allows NASA TV to transmit three different programs at the same time - the education webcast, the telescope feed from Turkey and Libya, and to do live interviews with clients across the country.

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Photo credit: Courtesy of NASA TV

Caption: James French, freelance camera operator or Lybia TV, sets up the shot the day before the eclipse.

The Quality of Worklife Committee: Helping GSFC Employees Balance Work and Family

By Alana Little

Today our lives are filled with more challenges than ever before and sometimes we may wonder how we can handle it all. The Goddard Quality of Worklife Committee, a center-wide committee composed of representatives from each of the directorates and championed by the Associate Center Director, is here to serve as a team to facilitate the improvement of the quality of work life for GSFC employees and to develop initiatives to provide a balance between work and personal time.

It is the goal of the committee to work with partner organizations such as the Office of Human Capital Management (OHCM), the Goddard Employee Welfare Association (GEWA), the Management Operations Directorate (Code 200) and Goddard Advisory Committees to design activities and to start new studies and initiatives to improve quality of work-life.

In response to employees expressed interest in an on-site infant day care, one such study was initiated by Administrative Services Inc. (ASI), at the request of the Quality of Worklife Committee. The study began on April 29, 2005 and ended July 15, 2005. The main question to be addressed by the study was "is it feasible to expand the current array of child care services at Goddard to include infant care?" Over 90 percent of GSFC employees who participated in the survey wanted an infant care center located at Goddard. Respondents were willing to pay between \$200-\$250 per week for a full-day infant care center. Fifty percent of younger workers indicated that an on-grounds infant care center would positively influence their decision to stay at Goddard. All thought that an infant center would make Goddard more attractive in recruiting and retaining the best technical staff.

In the end, budgetary constraints, and other considerations eliminated the prospect of an infant care center at Goddard, however the Quality of Work Life Committee is still working hard to give employees with infants more options to help them take care of their families and one of those options is utilizing the Worklife 4 You Program.

Worklife 4 You is a comprehensive resource and referral program administered from the Office of Human Capital Management (OHCM), Code 110. The program is geared towards helping employees deal with major life events such as having a baby, going to college, caring for an aging loved one, or planning for retirement. For example, if you are looking for quality child care, you can call the toll-free Worklife 4 You number and that will get you in touch with a specialist that will help you locate resources by customizing a search based on your needs and location. They will research all of your options based on the information you give them and send you a detailed report of nannies, and child care centers in your area. You can even specify the price range you are willing to pay for child care services.

While the Worklife 4 You program does not endorse any particular service, it can save you valuable time by compiling a detailed listing of the resources in your area so that you can get down to the business of researching what service would be right for you.

Goddard understands that trying to manage work and family in this dynamic work environment can be a challenge and collectively, management and employee groups are doing all they can to provide employees with the tools and resources they need to take care of themselves and their families while being continuing to be productive employees.

For more information about Worklife 4 You Program please visit: <http://www.Worklife4You.com> or call 800-222-0364 or 888-262-7848 (TTY), or Ms. Khrista White at 301-286-9059.

For more information about the Quality of Worklife Committee please visit: <http://qwl.gsfc.nasa.gov> or contact Ms. Tomi Cox at 301-286-3246. ■

How Do You Catch a Total Solar Eclipse?

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News outlets, like CNN, WJZ-Baltimore, or WJLA- Washington D.C. used NASA's media channel all through the morning to show their audiences the eclipse.

The shadow of a total solar eclipse passed over Libya at about 5:15 am ET. About 45 minutes later, NASA's audience heard cheers roared from Turkey while watching another total eclipse. ■



Caption: Libya TV in the Sahara

Photo credit: Courtesy of NASA TV

Goddard's Space Technology 5 (ST5) Mission Successfully Launched

By Lynn Chandler

Goddard's Space Technology 5 (ST5) spacecraft successfully launched in the early morning hours on Wednesday, March 22 over the Pacific Ocean. The modified L-1011 jet took off at 8:04 EST and approximately an hour later launched the Pegasus XL rocket. Beginning 10 minutes after launch, the three spacecraft were deployed one at a time in a spinning (Frisbee-like) motion.

"The long hours and the effort put in by the team all paid off with a flawless deployment from Pegasus. It was very exciting to make first contact and know that we have three healthy spacecraft," said Art Azarbarzin, ST5 Project Manager.

ST5's three objectives are to 1) design, develop, integrate and operate a full service 55-lb class spacecraft; 2) demonstrate the ability to support accurate research quality science; and 3) design, develop and operate multiple spacecraft to act as a single constellation rather than as individual elements.

ST5 will test new technologies that will be used in future space science missions. ST5 is the first step in developing missions of tens or hundreds of small spacecraft that would look at phenomena such as the space weather that can interfere with our communications, navigation and power systems. ST5 will demonstrate this capability by utilizing the Magnetometer carried onboard all three spacecraft.

The ST5 spacecraft are in a near-Earth polar elliptical orbit that will take them anywhere from 300 to 4600 km from Earth. The micro-satellites are placed in a "string of pearls" formation to perform coordinated multi-point measurements of the Earth's magnetic field using a highly sensitive miniaturized magnetometer built by University of California, Los Angeles.

This type of measurement is useful for future missions that will study the effect of solar activity on the Earth's magnetosphere, the magnetic "bubble" that surrounds our planet and helps protect it from harmful space radiation.

During the course of the 90-day mission, the new technologies will be validated for use on future science missions. Even though these spacecraft are about the size of a small microwave oven, they are out to prove that micro-spacecraft are capable of providing big science. They will demonstrate the same power, propulsion, communications, guidance, navigation and control capabilities found in larger spacecraft.

"The future of space science is dependent upon the continual development of new and ever more powerful space-borne technologies," said Dr. James Slavin, ST5 Project Scientist. "The lessons learned from the development and flight of ST5's three full-service micro-spacecraft constitute a major step toward the use of 'constellations' or 'swarms' of small spacecraft to accomplish science that cannot be done with a single spacecraft, no matter how capable," he said. "We will also be demonstrating automated operations techniques that will be useful to larger constellations of spacecraft in the future," according to Candace Carlisle, ST5 Deputy Project Manager.

ST5 was built and tested at Goddard and is part of NASA's New Millennium Program (NMP). NMP provides a critical bridge from initial concept to exploration-mission use. Highly advanced technologies are key to more capable, powerful, and efficient spacecraft and science instruments. The goal of NMP is to reduce the risks to, as well as the costs of, future NASA space science missions.

For more information on ST5 please visit: <http://www.nasa.gov/st5> ■



Photo credit: NASA

Caption: ST5 spacecraft in Pegasus rocket prior to fairing installation.

Impact of Climate Warming on Polar Ice Sheets

By Alana Little

Climate warming is a big deal.

Fifteen thousand years ago, huge ice sheets covered much of North America and parts of Eurasia. As climate warmed during the end of the last ice age, sea level rose about 125 meters (0.07 mile) at an annual rate of 2.5 cm (.98 inch) per year for 5000 years. Why is this important to anyone but a scientist? Because for one thing, sea-level changes can affect how future generations live along coastal areas.

“The major player in sea-level change is the ice sheets,” said Dr. Waleed Abdalati, Cryospheric Sciences Branch Head at Goddard. “As climate warms, the ice melts, which causes ice sheets to shrink. But at the same time, it also snows more, which makes ice sheets grow. We want to find out what that balance is now, and what it is likely to be in the future.”

At present, snowfall equal to about 8 mm (0.3 inch) of water from across the surface of Earth’s oceans accumulates on Greenland and Antarctica each year. However, for a long time it has not been known whether the amount of water returned to the oceans in icebergs and meltwater runoff from ice sheets and glaciers balances or exceeds the snow accumulation. If the ice sheets are indeed shrinking by an amount equal to 30% of their annual accumulation, they would be contributing 2.4 mm (.09 inch) /year to sea-level rise.

Large-scale measurements of polar ice have only been possible since the satellite era, but by looking at a number of different satellite estimates, scientists have been able to observe ice sheet changes and gain remarkable insight into their behavior. These observations have shown us that contrary to conventional wisdom, these vast ice sheets can respond fairly rapidly to changes in climate.

From space, we have watched as the 10,000-year-old Larsen B floating ice shelf in Antarctica collapsed in a matter of a few weeks, and we have watched the glaciers that fed that ice shelf accelerate in response to the removal of this floating ice barrier. We have also observed ice growth in East Antarctica and central Greenland, as accumulation appears to have increased in a warmer climate. Satellites have also revealed widespread acceleration of outlet glacier flow in much of southern Greenland and parts of Antarctica as ocean waters have warmed, melting the floating ice that fringes parts of both continents.

In the most recent study to come out of Goddard, NASA scientists have explored these changes in great detail using radar altimetry from the European Space Agency’s (ESA) ERS-1 and ERS-2 satellites. These studies have shown growth in the colder more central regions of the ice sheets, while the edges appear to be shrinking. This shrinking is consistent with some of the recently observed speeding up of major outlet glaciers on both ice sheets, and is consistent with predictions associated with a warming climate.

The survey, published in the Journal of Glaciology, combines new satellite mapping of the height of the ice sheets from two ESA satellites. It also used previous NASA airborne mapping of the edges of the Greenland ice sheets to determine how fast the thickness is changing.

The newest and most powerful tool for understanding how the ice sheets are changing is NASA’s ICESat (Ice, Cloud, and land Elevation Satellite). It is the benchmark Earth Observing System mission for discovering whether the ice sheets are growing or shrinking by measuring ice mass balance over the Greenland and Antarctic ice sheets. By providing highly precise and accurate measurements of the elevation changes of the ice sheet surface, particularly in the rapidly changing margins, where other altimetry systems don’t work, ICESat is helping scientists at Goddard and in the broader community unravel some of the mysteries of these complex and vast reservoirs of ice at the far reaches of the Earth.

In Greenland, the survey saw large ice losses along the southeastern coast and a large increase in ice thickness at higher elevations in the interior due to relatively high rates of snowfall. This study suggests there was a slight gain in the total mass of frozen water in the ice sheet over the decade studied, contrary to previous assessments.

This situation may have changed in just the past few years, according to lead author, project scientist on ICESat, Dr. Jay Zwally of NASA Goddard. Earlier this year NASA scientists at the Jet Propulsion Laboratory, Pasadena, Calif., reported a speed up of ice flow into the sea from several Greenland glaciers. That study included observations through 2005; Zwally’s survey concluded with 2002 data.

“We need to learn more about the relationship between climate and the changing ice cover,” said Dr. Abdalati. “Satellites, in particular ICESat, are helping us to paint a picture of how the ice sheets are changing and why. This will help us predict what the future holds for us. If oceans rise very slowly, say 1 inch over a century, most coastal societies can adapt to that. But if they rise fast, a few feet in a century for example, coastal communities will be at great risk.” ■

Did You Know?

Athletic Shoes:
Shock-absorbing material used in Moon boots helped astronauts walk safely on the Moon and makes today’s athletic shoes lighter and more stable.

SAP Version Update (SVU)

By Felicia White

What is SVU?

SVU stands for SAP Version Update. Coming this fall, the Agency will be updating the current SAP Core Financial system production environment, "SAP R/3 4.6C," to "mySAP ERP 2005." Updating to "mySAP ERP 2005" will help NASA improve system capability and performance while addressing data integrity and audit concerns resulting from the shortcomings of the current version. In addition to the technical upgrade, SVU will also include several business process improvements as recommended by the Agency's Financial Integration Team (FIT).

What are they Key Benefits to NASA?

- Improves NASA's ability to achieve a clean audit option
- Provides the capability to track funding from budget distribution through invoice payment
- Streamlines the process for high-level funds distribution
- Improves timing of commitment and obligation postings
- Streamlines Year-End closeout activities by consolidating and automating current processes (starting with FY2007 year-end processing)

When will SVU be implemented?

The SVU Project recently completed its Blueprinting Phase. Outcomes of the Blueprinting Phase provide a system design roadmap to implement the required functionality as determined by the Agency. Throughout the Blueprinting Phase, GSFC's Process Team served as members of the Agency's "Core" and "Extended" teams and participated in many workshops to help create the roadmap.

Starting in April 2006, the SVU Project is scheduled to enter the Realization Phase, which will last until the first half of September 2006. During this phase of the project, the required functionality will be developed and tested end-to-end. Training activities will commence in September. The SVU project will move into the Final Preparation Phase by mid-October and conclude with an Agency-wide implementation by the end of October 2006.

Who will SVU Impact?

The Financial and Resources communities will be most impacted by the SVU initiative. Classroom training is being planned for these users. Since SVU will result in a new "look and feel" to SAP screens, general SAP users, such as PR Requisitioners and Bankcard holders, will also be required to attend some level of training to acclimate them to the new software.

What are we doing to prepare users for SVU?

In February, GSFC's SVU Implementation Team conducted a series of Dialogue Sessions for a subset of end users from the Financial and Resources communities. The objectives of the workshops were to provide an overview of the project and to gain feedback on how to organize the communications and training efforts for SVU. There was significant participation from the Project's Process team members during the Dialogue Sessions to facilitate the discussion around SVU impacts.

As the Realization Phase of SVU gets underway in April, the team is planning more face-to-face sessions to continue discussions concerning process changes, impacts, challenges and training requirements.

Later this spring, there will be additional activities to introduce project information and the Implementation Team to the larger GSFC user community. The exact time and date for these events are still TBD, so stay tuned!

How can you stay connected?

Please visit the GSFC SVU website on Goddard's "myCenter" page on the IEMP i-View web portal at <https://iview.ifmp.nasa.gov/irj/portal> to receive the most up-to-date information on the project, review presentations and other pertinent documents and learn about upcoming events. If you do not have access to i-View, the site can be reached at the following url: <http://svu.gsfc.nasa.gov>.

You can also contact the following people directly if you have any questions or concerns about the SVU project:

- Dwaine Kronser
 - GSFC Implementation Project Manager, Dwaine.Kronser@nasa.gov; x4-7022
- Mike Bundick
 - GSFC Process Team Lead, Michael.A.Bundick@nasa.gov; x4-6969
- Felicia White
 - GSFC Change Management Team Lead, Felicia.M.White.1@gsfc.nasa.gov; x4-6964 ■

NASA Goddard Honors Its Innovators for Tech Transfer Contributions

By Nancy Pekar

More than 100 NASA Goddard Space Flight Center scientists and researchers gathered at the Newton White Mansion in Mitchellville, Md., on April 4 to celebrate their achievements in the field of technology transfer. The prestigious Kerley Award was presented to Goddard's Dr. James Tilton while six other Goddard innovators received awards for their patented technologies. This annual event is hosted by NASA Goddard's Office of Technology Transfer.

Presented by the Center's Deputy Director Dr. Michael Ryschkewitsch, the Kerley Award was named after the late Dr. James Kerley, a Goddard researcher who was a prolific inventor as well as a champion of technology transfer for the good of humanity. Dr. Tilton received the 2006 Kerley Award for his efforts to find new uses for a software program he originally developed for remote sensing applications. Dr. Tilton's innovation, referred to as the Hierarchical Segmentation (HSEG) software, provided a new approach to image analysis. Rather than analyzing the image on a pixel-by-pixel basis, this software automatically organizes the image pixels into regions. "Looking at the regions instead of the individual pixels allows the user to isolate specific features that otherwise are impossible to distinguish," explained Dr. Ryschkewitsch. For example, in a satellite image, the software can indicate different types of vegetation, distinguishing a golf course from a park from the woods."

The HSEG software also is useful in a wide range of non-NASA applications, most notably in medical imaging where it has been incorporated into a commercial product. The HSEG software is now being used to assist in the diagnosis and management of diseases that are imaged using digital X-rays, mammograms, ultrasounds, MRI images, and CAT scans. Other applications for HSEG include agricultural crop monitoring, identifying population densities and areas with greatest expansion, facial recognition and data mining.

Patent Awards

Also during the event, awards for Goddard innovators who had a technology patented in the past year were given to the following:

Dr. Michael DiPirro	Susan Semancik
Dr. Norden Huang.	Dr. Peter Shirron
John Kolasinski	Dr. James Tilton
James Lyons	

For more information or to attend this event, contact Deandra Raymond in the Office of Technology Transfer:

Phone: (301) 286-7960
E-mail: draymond@pop500.gsfc.nasa.gov

For more information about NASA Goddard's Office of Technology Transfer please visit: <http://techtransfer.gsfc.nasa.gov>



Caption: Dr. James Tilton (holding award) and Dr. James Kerley's family.

Photo credit: Deborah McCallum

STEREO Event a Success!

By Rachel A. Weintraub



Photo credit: Chris Gunn

Caption: The STEREO tour also stopped by the magnetic test facility 1/16th scale model.

When the STEREO project and the Public Affairs Office offered the Goddard community a tour of the spacecraft – which currently resides in the test and integration facilities in Buildings 7/10/29 – hundreds answered the call. On March 30-31, some 300 people toured the facilities and a small number were privy to a special 3-D visualization show as well.

Attendees included reporters from Baltimore TV stations WBAL and WJZ, Space News, Geotimes, Argentinian newspaper *Diario La Nacion*, Associated Press and the Australian Broadcasting Corporation (you can hear those radio reports on the STEREO web site starting next month). Thirty VIPs from NASA Headquarters and GSFC also came, as did a dozen Congressional staffers representing districts in California, Alabama, Mississippi, Missouri, Florida, Washington, Maryland, Virginia and Oregon. For some of those staffers, it was a first trip to Goddard, a testament to the allure of the soon-to-launch solar mission.

"It was great to see ... where the flight hardware gets built and tested and to share in the excitement of the upcoming STEREO mission. I think this was a real morale boost for everyone in the GSFC community who participated in this tour. It really made it feel like One NASA where I could see the exciting work being done and talk with the staff participating in a very different project from my own," said Dr. Leonard Garcia, a Goddard radio astronomer.

Augmenting the day's activities were volunteer tour guides from the 7/10/29 facilities and the Hubble Space Telescope project office. Both science and engineering representatives from STEREO were also on hand to ensure tour-goers got a very broad and complete introduction to the mission – a NASA first, set to image the sun and solar wind in 3-D with the help of two nearly identical spacecraft.

Many of the visualizations and animations shown during the events are now available on the STEREO web site: <http://www.nasa.gov/stereo> as well as two narrated videos, spin test footage and a 3-D animated view of the spacecraft. STEREO 'A' and 'B' are set to ship from Goddard to Florida later this month and launch no earlier than July 22 from the Cape Canaveral Air Force Base.

Many thanks go out to Leslee Cork of the Public Affairs Office; Robert Vernier, Branch Head for Code 549, Environmental Test Engineering and Integration Branch; and Kimberly Higgins, STEREO Support Manager, as well as to all of the volunteers who helped this unique event run smoothly. ■

A Plethora of Potential in Community Colleges

By Amy Pruett

The last thing NASA wants is for its legacy of excellence to end, which means the administration is constantly searching for its next generation of leaders. Along with scouring universities, NASA is turning to the nation's community colleges and the rich talent pool they foster. Community colleges and their role in the fields of science, engineering, and technology were discussed in detail at the 2006 National Science Foundation Community College Day on April 3 at the National Science Foundation in Arlington, Va. The keynote speaker, Adena Loston, Director of Education at Wallops Flight Facility, discussed community college's increasing importance in research and applauded and encouraged NASA's past and future recognition of the schools.

Adena Loston's presentation reiterated the importance of community colleges and what she refers to as the "rainbow of potential" in the students. Coming from all backgrounds, with extremely diverse goals and career paths, community colleges offer employers a variety of unique individuals that can not be found at 4-year universities.

Statistics reveal that of the 12 million students that attend community colleges in the United States, 33 percent are minorities, 45 percent are first-time freshmen and 45 percent are first generation college attendees. In addition, 46 percent of all undergraduate students in the U.S. attend a community college and 47 percent of all undergraduate students take their math and science course requirements at a community college. Clearly, community colleges play a significant role in the higher education of the mathematicians and scientists of tomorrow.

"I am most passionate about community colleges because everyone enrolled gets to play in the sandbox and teachers and administrators create unimagined possibilities for them," says Loston. "Many students and graduates of community colleges, such as Eileen Collins [the first female pilot and commander of a space shuttle and graduate of Corning Community College in Corning, N.Y.], make significant contributions to society. If there is one thing that we cannot determine through tests, it is determination. Community colleges offer equal opportunities to everyone and the unlimited possibility to pursue one's career goals." ■



Photo credit: Courtesy of Anne Arundel Community College

The Allied Health building on the campus of Anne Arundel community College

Proposal Opportunities

Request for Information (RFI):
 Developing a Strategy for Future Exploration of the Moon and Beyond
 NNH06RFI001R
 2006-04-11
 2006-05-12

Can We Talk?

By Trusilla Steele and Sharon Wong



Photo credit: NASA

Caption: Dr. Edward Weiler

Held in observance of Women's History Month, the March 27 "Can We Talk" centered around issues of uncovering Goddard's hidden employee capacity, promoting women to leadership positions within the organization and other organization and workforce issues.

In the spirit of Women's History Month, a discussion about women serving in

leadership positions at GSFC ensued. Krista Paquin, Associate Director, indicated that the Center as a whole was on the right track to promoting women to leadership positions. "Codes 100 and 200 are showing increases in female leadership, but within certain Codes such as 600, 500 and 400, there is room for improvement," she said. Ms. Paquin expressed that although there are leadership development programs, there is a small selection of women wanting to transition into leadership roles, an issue that appears to be more acute at Wallops. "Women at Wallops struggle with trying to move up and manage family due to its remote location," she stated. However, the Center has offered opportunities to telecommute and to create alternative work schedules to allow the flexibility of managing home and work life.

The Center's dual career track has also made the management track less attractive and the Center is looking at ways to demonstrate that management is a valuable service to the Center. In addition, Ms. Paquin mentioned that the issue of recruitment and retention and offering employees incentives for coming to and remaining at Goddard will be addressed by the Human Capital Board of Directors at its retreat at the end of the month, and will be addressed again in the FY 06 Hiring Plan.

Several actions were assigned from the discussion:

- Status of women in supervisory levels and in workforce (ACTION: Code 120 to provide data on ratio of men/women in workforce/supervisory level)
- Lack of women at project scientist level (ACTION: Code 120 to assess percent of female project scientists)
- Status of recommendations from report of impediments to women in Code 400 (ACTION: Code 400)

Nancy Abell, Chief Financial Officer along with Ms. Paquin shared their career journeys which landed them their leadership positions. Ms. Abell started at Goddard the age of 18; returning after finishing college. "I kept my eyes open, looking for opportunities to be a part of committees and took training to gain a broader perspective and knowledge of Goddard," she said. She also spoke of the challenges she faced while raising her children. Through

her perseverance and diligence, she held various financial and resource management positions at the Center, affording her a wealth of experience which contributed to her success. Ms. Abell stated that she enjoys what she does which is clear from the fact that she has been eligible to retire for some time now but chooses to remain at Goddard.

Ms. Paquin's career began as a Presidential Management Intern where she immediately began developing managerial skills. Ms. Paquin says she was "willing to take whatever job was available," to gain knowledge, serving in a two-year rotational and later serving as Chief of the Institutional Support Office with the Management Operations Directorate for years. To learn and gain experience was a prime reason for her brief departure from the government to become vice president of a small science and technology company. Upon her return, she served as deputy director for Planning and Business Management in the Flight Programs and Projects Directorate for two years and now serves as the Center's associate director. Ms. Paquin says she "enjoys what she does as she values service oriented work, having been raised by her parents to understand that public service was a noble career."

Another discussion centered on attendees stating the need for a consistent process in addressing name changes in the x500 directory. Currently when a last name is changed, the directory eliminates the previous name, preventing a query by one's former last name. Several employees shared stories of being unable to be located in the system. Code 700 was given the action to develop and communicate a consistent process for handling name changes in the x500 system.

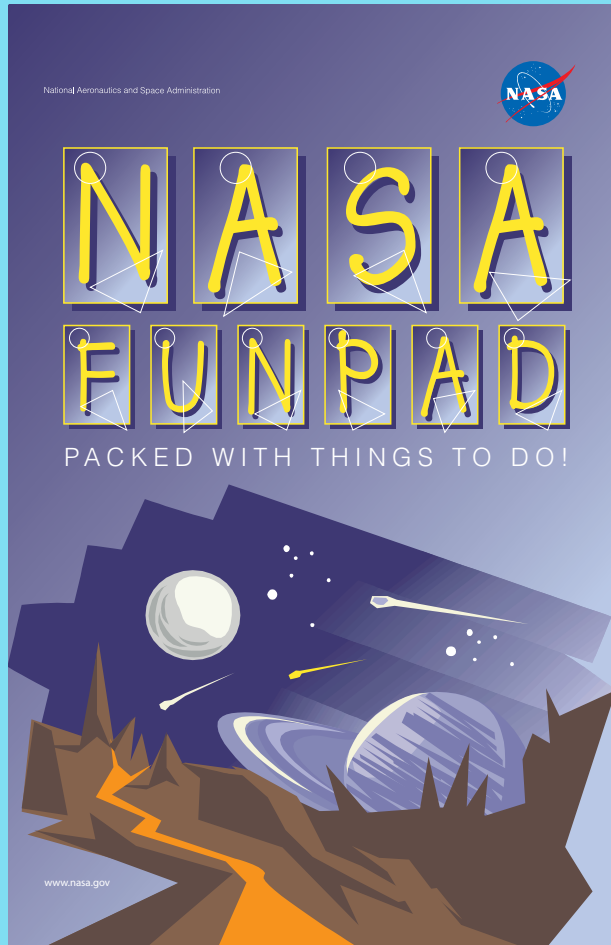
Ms. Paquin also addressed the concern about scientists and engineers who are eligible to retire in the next five years by highlighting that NASA continues to hire freshouts, (students fresh out of college) on a limited basis. Also discussed was the dearth of students seeking science and engineering degrees. Ms. Paquin agreed that this is a national concern and emphasized that NASA has recently been involved in a cabinet-level council to address this issue.

All contractor and civil servant employees are invited to attend the next "Can We Talk" dialogue. While there are additional communication channels available to employees such as the Ombuds Program, the Equal Opportunity Program, Alternative Disputes Resolution (ADR) Program and others for raising individual/personal issues and concerns, the "Can We Talk" sessions are an opportunity for employees to share with the Center's leadership what's on their minds regarding issues/concerns affecting the NASA/GSFC community. The sessions are intended to provide constructive dialogue that will respond to existing anxieties and heightened concerns of employees, and to achieve improved communication within NASA. These informal dialogues are held each month, and have no agenda or set topics. The "Can We Talk" sessions are open to all employees including contractors and civil servants.

For more information, visit: <http://internal.gsfc.nasa.gov/canwetalk.cfm> ■

Employee Spotlight: Mary Pat Hrybyk-Keith

by Alana Little



A Goddard graphic designer supporting AETD/Code 500/Infonetic has a lot of work to do. Between designing posters, exhibits, presentations, and other print material for her expanding client base, Mary Pat Hrybyk-Keith has little free time. However, the small amount of time she has hoarded over the past year has been devoted to designing and marketing the NASA Fun Pad, a booklet filled with puzzles, word plays, connect-the-dot games, brainteasers and more, aimed at inspiring K-8th graders to learn more about NASA's many facets of exploration.

The NASA Fun Pad was developed out of the minds of Mary Pat and Jenny Rumburg who one day tossed around ideas for Goddard outreach activities. The NASA Fun Pad was the fruit of this brainstorming session. When asked why there was a need for such a booklet, Mary Pat commented: "Creative imagination needs to be sparked at all ages."

Located between the fun activities in the book, students will find pages filled with interesting tidbits about NASA missions and activities. One page describes the James Web Space Telescope (JWST), while another tells students about how NASA satellites are helping to forecast the weather. All of these activities are packaged in a fun booklet that students can travel with and enjoy.

While designing the Fun Pad was fun and challenging, marketing the Fun Pad was one of the most difficult aspects of this project. This involved a lot of foot work as Mary Pat had to contact a large number of her customers and set up meetings with Public Affairs, Human Capital Management, and other departments. Her first customer was Chikia Barnes from LWS, who walked the artwork through all the design approval and printing processes. Several thousand Fun Pads have been ordered and we should see them making their way into the hands of 6th graders during Space Day on May 4th when 2,000 students will convene on the Goddard Mall as part of the celebration.

With the K-8 Fun Pad finished, Mary Pat's next project will be creating a more complex Fun Pad designed for budding scientists and engineers at the high school and collegiate levels. Since this booklet will prove to be much more challenging, Mary Pat is hoping for the help and support of Goddard Scientists and Engineers for interesting brainteasers and games. If you are planning to have a student this summer, it might be fun to enlist their help to develop some ideas. Please send any items to Mary Pat via email at Mary.P.Hrybyk-Keith.1@gsfc.nasa.gov.

The NASA Fun Pads can be ordered by contacting the TISB Print Specialists at x63000. Orders must be a minimum of 1,000 booklets and the cost will vary depending on quantities ordered.