



GoodardView

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It's a Bird! It's a Plane! It's a Spacesuit?

By Amy Pruett

For three solid weeks, a most peculiar satellite orbited the Earth as part of an educational mission, that satellite was SuitSat. SuitSat consisted of an unmanned Russian spacesuit pushed into space by two International Space Station crewmembers. It was equipped with three batteries, a radio transmitter and internal sensors to measure its temperature and battery power and transmit messages. Over 300 individuals from around the world reported successful reception of the messages that anyone with a HAM radio had the opportunity to tune into as the satellite passed over one's area.

"SuitSat was a Russian brainstorm," Frank Bauer of NASA's Goddard Space Flight Center explains. "Some of our Russian partners in the ISS program had an idea; maybe we can turn old spacesuits into useful satellites. The mission was a tremendous success." Schools around the world engaged in the mission, picking up audio and trying to understand the messages SuitSat transmitted. In addition, the mission has helped scientists determine the durability of spacesuits, the life of the batteries that power the suit, and the affect a tumbling suit has on the clarity of its radio transmissions.

SuitSat transmitted one of three types of messages for 30 seconds, paused for 30 seconds, and then repeated the message. The transmission began with "This is SuitSat-1, RSORS," followed by a prerecorded greeting in six languages. The greeting contained "special words" in English, French, Japanese, Russian, German and Spanish, for students to record and decipher. Awards will be given to students who correctly identified the message. The recorded voices of female students from Paint Branch High School and Eastern Middle School in Silver Spring, Md. represented the United States. The next message details SuitSat's telemetry using a voice synthesizer: temperature, battery power and mission elapsed time. The transmission ended with a slow scan television picture.

SuitSat was sponsored by an international working group called Amateur Radio on the International Space Station (ARISS). It consists of volunteers from national amateur radio societies and the internationally-based Radio Amateur Satellite Corporation (AMSAT). ■



Caption: Image of SuitSat orbiting the Earth

Photo credit: NASA

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Cover caption: SuitSat

Image Credit: NASA

GoddardView Info

Goddard View is an official publication of the Goddard Space Flight Center. It is published bi-weekly by the Office of Public Affairs in the interest of Goddard employees, contractors, and retirees. A PDF version is available online at:

<http://www.nasa.gov/centers/goddard/news/index.html>

Managing Editor: Trusilla Steele

Editor: Alana Little

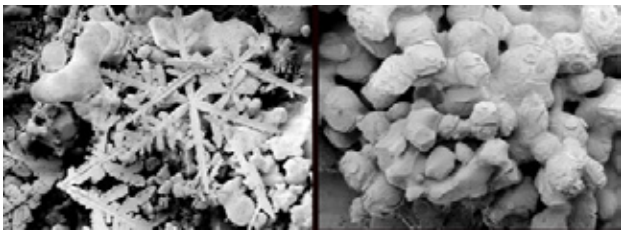
Deadlines: News items and brief announcements for publication in the Goddard View must be received by noon of the 1st and 3rd Wednesday of the month. You may submit contributions to the editor via e-mail at alittle@pop100.gsfc.nasa.gov. Ideas for new stories are welcome but will be published as space allows. All submissions are subject to editing.

NASA Scientist Looks at Olympic Ice in a Frozen Light

By Rob Gutro and Lynn Jenner

If you watched the Winter Olympics, you know, of course, that snow and ice are an integral part of the sports. There just wouldn't be a Winter Olympics without it. But did you know that snow and ice need to be different for each different sport? NASA scientist Peter Wasilewski's studies of ice using polarized light create beautiful colored pictures of the snow and ice, but they also enable people to see if the snow and ice is "right" for each type of sport.

Wasilewski, an astrophysicist at NASA's Goddard Space Flight Center in Greenbelt, Md. uses polarized light to see the colors in the ice crystals that make up the ice and snow. Light has wave-like properties, one of which is vibration. Ordinary white light vibrates in many directions, but a polarizing filter blocks all light except that which is vibrating in a single direction. For example, when light reflects off nonmetallic surfaces such as glass, water, or a road surface, the light is polarized, or just vibrating in one direction. Unpolarized light like the light emitted by the sun, by a lamp in the classroom, or by a candle flame goes in all directions.



Courtesy, Dr. Peter Wasilewski

Caption: Natural Man

The colors and patterns in the images produced by using the polarized light define the type of ice and snow being studied.

"Ice is different for the various Olympic sports," Wasilewski said. "The ice is softer for figure skaters than it is for hockey players. Figure skaters need to dig in with their toe picks for jumps. Ice hockey players want the hard ice that makes the ice fast and easier to skate on. With a microscopic look at the ice using the spectrum, I'm able to see how the ice differs."

It is also fascinating to learn about the highly technical nature of maintaining the ice arenas at the Olympics games. Since the ice is used for different venues at different times, it's important that it be the correct consistency for the sport, and that means careful analysis by the crew to either heat up or cool down the ice so that it matches what is needed to bring out the best performance by the Olympians.

Wasilewski also knows a lot about snow and the Olympics. He noted that snow that comes from snow guns are not in crystal shape, they're tiny snowballs. In fact, he said that sometimes Olympic events are cancelled whenever there is a lot of natural snow, because it tends to be too powdery. Powder snow tends to slow skiers and snowboarders down, so the preference is for the manmade (icier) snow.

Wasilewski traces his interest in ice and ice photography to his friend, Dr. Tony Gow, formerly of the U.S. Army's Cold Regions Research and Engineer-

ing Laboratory, now retired. "Tony Gow spent 45 years studying ice, and is a world-class expert. He was fascinated by how much he could learn just from the shapes and colors in ice. His enthusiasm was infectious, and I became fascinated as well," said Wasilewski. He has been fascinated with snow and ice for more than 25 years, and has been on 6 Antarctic expeditions over that time. He later developed a winter camp in Lake Placid, New York, former home to a winter Olympics of 1932 and 1980, to teach snow and ice science to science teachers. His camp is called "The History of Winter," which is in part funded by a NASA education program.

During one of his treks to Lake Placid he sampled ice at the shallow Cascade Lake. A thin section revealed petal shaped ice forms that were the result of a spiral growth pattern induced by the bubbling of methane gas that was produced by the decay of submerged vegetation present when the ice froze. At that moment, he realized that color and form could change depending on the thickness and orientation of the ice. "I started playing around, making ice crystals in my refrigerator and photographing them, and 'Frizion' was born," said Wasilewski.

The derivation of the name "FRIZION" is a fusion of frozen and vision that describes this new art form. Each piece begins as a vessel of water which is then frozen, manipulated and viewed through polarized light - the resultant image, after much trial and error, becomes a FRIZION. The special crystallographic and optical properties of ice (transparency, double refraction, and an amazing variety of crystalline forms) make it a unique medium for artistic studies.



Courtesy: Dr. Peter Wasilewski

Caption: Ice Rink Ice

For information about the artwork of Frizion, please visit:

<http://www.frizion.com>

For a related story, please visit:

http://www.nasa.gov/centers/goddard/news/topstory/2003/0508ice_photo.html

For information about the "History of Winter" science camp, visit:

<http://education.gsfc.nasa.gov/prehow2005> or <http://www.historyofwinter.org>

Volunteers Help NASA Track Return of the Dragon

By Bill Steigerwald

Amateur astronomers are helping NASA scientists on the Cassini mission track the most powerful storm yet observed on Saturn. The storm is in a similar location to the “Dragon” storm reported last year, so it may be a reemergence of that storm or a new storm.

“Right now, Cassini is in a 40-day orbit around Saturn, and we are slowly flying over the night side, so it’s difficult to see cloud features,” said Goddard’s Dr. Michael Kaiser “We know the storm is there because radio signals from lightning flashes are being detected by Cassini’s Radio and Plasma Wave Science (RPWS) instrument, in the same way that thunderstorms on Earth generate static on AM radio.” Kaiser is part of a team using RPWS to observe the storm.

According to the RPWS data, the new storm is generating lightning flashes several times more frequently than the original Dragon storm, and the lightning is as much as five times stronger. At approximately the size of the continental U.S., the storm dwarfs terrestrial thunderstorms. Apparently, it is much fiercer as well—radio signals from its lightning are more than 1,000 times greater than similar radio static from terrestrial storms.



Caption: Light and dark regions on Titan

“I know of an organization of dedicated amateurs (and some professionals) called the Association of Lunar and Planetary Observers. I contacted their director and asked him to query his troops to see if anyone saw any new bright clouds in Saturn’s atmosphere. I heard back very quickly from Erick Bondoux and Jean-Luc Dauvergne of Melun, France, two amateurs who worked together, and then later from two separate U.S. amateurs (Jim Phillips of Charleston, S.C., and Don Parker of Coral Gables, Fla.). All groups saw a new white patch of high clouds where the storm should be. Amateurs are playing an increasingly important role supporting professional astronomy research. The equipment available now is incredible, much better than when I was an amateur,” said Kaiser.

“The storm is still ongoing, with 35 consecutive episodes as of February 8,” said Kaiser. “It waxes and wanes in intensity—strongest during episode 2, weakest during episode 10 so far.” Kaiser noticed signals from the storm on January 23. Each episode—when Cassini detected radio static from the storm—lasted about half a Saturn day of 10 hours and 40 minutes when the storm system is on the side of Saturn facing Cassini. (Some episodes may have been longer, but were not detectable by Cassini when the storm is on Saturn’s day side).

According to the team, the white spot is the tip of the iceberg for the storm, like the cirrus clouds on top of thunderstorms on Earth. Visual lightning flashes in the cloud tops will be hard to observe because the actual location of the lightning is likely much deeper in Saturn’s atmosphere, where it is warm enough for water vapor to exist. On Earth, turbulent motion of water vapor in clouds separates electric charge, resulting in lightning. Something needs to separate electric charge on Saturn for lightning to occur there also, and water vapor in deeper layers of the atmosphere is a likely candidate. ■

Photo credit: NASA/JPL Space Science Institute

First Annual Safety Awareness Campaign a Success!

By Matthew Jarvis

In reviewing the results of GSFC's first annual Safety Awareness Campaign (SAC), a series of Directorate-sponsored safety activities and workshops that occurred between mid-November and mid-January, it is clear that the activity was a success—on many levels.

The SAC was designed to meet several important goals in support of the Center's overall safety mission. The primary goal, as implied by its name, was to build employee awareness in a number of safety-related areas, including the critical relationship between workforce safety and mission success; the risks and hazards associated with specific occupations and work environments; the rules, policies, and procedures designed and implemented within each Directorate to mitigate risks; the roles and responsibilities of individuals and organizations in GSFC's collective safety infrastructure and the various tools and resources available to the GSFC workforce. On the basis of the broad range of workshop topics presented; the quality of the workshops; the competency of the presenters; the high level of employee participation in the workshops; the workplace inspections that were carried out; the safety vendor contacts that were made and the overwhelmingly positive feedback received, it is clear that the SAC was successful in meeting these goals.

Judy Bruner, Assistant Director for Safety and Security and the senior management sponsor for the Center-wide activities, said, "I am very pleased by the level of participation we had and I am especially happy with the amount of feedback we received with constructive ideas about how to do better the next time." She added, "Armando Lopez, who led the Center-wide planning team, and each of the Directorate representatives on his team did an outstanding job of coordinating each of the scheduled activities. They deserve much of the credit for the success of this first effort."

Melonie Scofield, who orchestrated SAC activities for AETD, was particularly pleased with employee turnout. One of the most important contributing factors to the favorable turnout was the clear and unequivocal support for safety among GSFC's senior and middle managers. "In the Kick-Off and Wrap-Up sessions, the Division Chiefs really set the tone," Ms. Scofield noted. "Safety is our number-one priority. You need to pay attention to it."

Although tailored to Directorate needs, most activities were open to a Center-wide audience, creating opportunities for employees in different occupational areas to share common safety issues and identify best practices. As one employee wrote: "Specialists have to get enough of a big picture to be able to spot the problems in the system, and take enough ownership of that system to want to work to keep it robust. Using these workshops to learn about other groups' risks helps do both those things."

As with any first-time effort, there were also areas for improvement. The area most often noted was the need for larger meeting rooms! In many workshops, attendance exceeded the seating capacity of the meeting rooms. In response to this, electronic copies of many of the workshop handouts will be posted to the Safety 1st website.

Planning will begin soon for the next SAC, but there is still time to offer feedback on how activities could be improved. All employees are invited to submit any additional feedback by filling out the feedback form located on the Safety 1st website at: <http://safety1st.gsfc.nasa.gov/Comments.cfm> All input will be considered when planning for the next SAC gets underway in March.

Did You Know?

Baby's Breath:

A technique adapted from NASA's Skylab missions helps to relieve respiratory distress in babies. An estimated 20,000 infants' lives are saved in the U.S. every year.

NASA's Spitzer Makes Hot Alien World The Closest Directly Detected Extra Solar Planet

By Bill Steigerwald

A NASA-led team of astronomers have used NASA's Spitzer Space Telescope to detect a strong flow of heat radiation from a toasty planet orbiting a nearby star. The findings allowed the team to "take the temperature" of the planet.

"This is the closest extrasolar planet to Earth that has ever been detected directly, and it presents the strongest heat emission ever seen from an exoplanet," said Drake Deming of NASA's Goddard Space Flight Center, Greenbelt, Md. Deming is the lead author of a paper on this observation to be published in the *Astrophysical Journal* on June 10. An advance copy of the paper will be posted on the astro-ph website on Feb. 22.

The planet "HD 189733b" orbits a star that is a near cosmic neighbor to our sun, at a distance of 63 light years in the direction of the Dumbbell Nebula. It orbits the star very closely, just slightly more than three percent of the distance between Earth and the sun. Such close proximity keeps the planet roasting at about 844 Celsius (about 1,551 Fahrenheit), according to the team's measurement.

The planet was discovered last year by François Bouchy of the Marseille Astrophysics Laboratory, France, and his team. The discovery observations allowed Bouchy's team to determine the planet's size (about 1.26 times Jupiter's diameter), mass (1.15 times Jupiter), and density (about 0.75 grams per cubic centimeter). The low density indicates the planet is a gas giant like Jupiter.

The observations also revealed the orbital period (2.219 days) and the distance from the parent star. From this distance and the temperature of the parent star, Bouchy's team estimated the planet's temperature was at least several hundred degrees Celsius, but they were not able to measure heat or light emitted directly from the planet.

"Our direct measurement confirms this estimate," said Deming. This temperature is too high for liquid water to exist on the planet or any moons it might have. Since known forms of life require liquid water, it is unlikely to have emerged there.

Last year, Deming's team and another group based at the Harvard-Smithsonian Center for Astrophysics used Spitzer to make the first direct detection of light from alien worlds, by observing the warm infrared glows of two other previously detected "Hot Jupiter" planets, designated HD 209458b and TrES-1.

Infrared light is invisible to the human eye, but detectable by special instruments. Some infrared light is perceived as heat. Hot Jupiter planets are alien gas giants that zip closely around their parent stars, like HD 189733b. From their close orbits, they soak up ample starlight and shine brightly in infrared wavelengths.

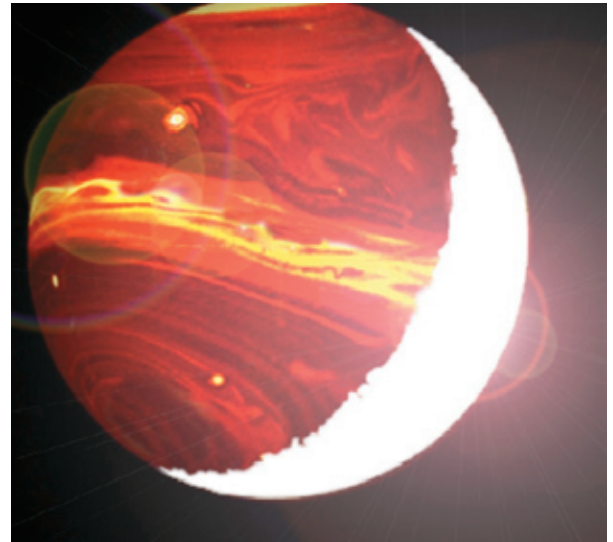


Photo credit: UCO Lick Observatory and Queen Mary University (UK)

Caption: Artist conception of the planet "HD 189733b"

Deming's team used the same method to observe HD 189733b. To distinguish the planet's glow from its hot parent star, the astronomers first used Spitzer to collect the total infrared light from both the star and its planet. Then, when the planet dipped behind the star as part of its regular orbit, the astronomers measured the infrared light coming from just the star. This pinpointed exactly how much infrared light belonged to the planet. Under optimal circumstances this same method can be used to make a crude temperature map of the planet itself.

"The heat signal from this planet is so strong that Spitzer was able to resolve its disk, in the sense that our team could tell we were seeing a round object in the data, not a mere point of light," said Deming. "The current Spitzer observations cannot yet make a temperature map of this world, but more observations by Spitzer or future infrared telescopes in space may be able to do that."

Deming's team includes Joseph Harrington, Cornell University, Ithaca, N.Y.; Sara Seager, Carnegie Institution of Washington; and Jeremy Richardson, NASA Postdoctoral Fellow at Goddard, in the Exoplanets and Stellar Astrophysics Laboratory.

NASA's Jet Propulsion Laboratory, Pasadena, Calif., manages the Spitzer Space Telescope mission for the agency's Science Mission Directorate. Science operations are conducted at the Spitzer Science Center at Caltech. JPL is a division of Caltech.

For more information on the astro-ph website please visit:
<http://xxx.lanl.gov/archive/astro-ph>

GLBTAC Open House Emphasizes Respect for All

By Liz Matzinger

On January 24, the Gay, Lesbian, Bisexual, and Transgender Advisory Committee (GLBTAC) held an Open House to celebrate its successful inaugural year. The committee was formed in January of 2005 and is sponsored by the Goddard Diversity Council. The most significant accomplishment of the GLBTAC has been to increase the visibility of gay, lesbian, bisexual, and transgender (GLBT) employees at Goddard and raise awareness on GLBT issues. The GLBTAC organized several events in June to commemorate Gay and Lesbian Pride month and spent much of the year identifying and addressing policy issues that adversely affect Goddard's GLBT employees.

The Open House was well attended, with several members of the Goddard Diversity Council and other senior managers present. Bruce Butterworth, the Deputy Director for Planning and Development of the Applied Engineering and Technology Directorate (AETD), gave a brief address, followed by remarks from GLBTAC chair Liz Matzinger. Bruce made it clear that AETD, and the other directorates, will not tolerate hostility or discrimination based on sexual orientation, and urged everyone on the Center—regardless of their personal views—to adhere to Center policy.

The event was an opportunity for the GLBTAC to give a preview of its plans for 2006 and articulate its vision for an inclusive work environment. One important message is that ending discrimination in the workplace is about fostering respect, not changing personal values or beliefs. All employees, including GLBT employees, have a right to a discrimination-free and harassment-free workplace. Additionally, the committee provided its constituents with the few forms, such as the Thrift Savings Plan (TSP) and Federal Employees' Group Life Insurance (FEGLI) Designation of Beneficiary forms, that provide protection for same-sex partners. Currently, same-sex partners of Federal employees have no access to Federal Employees Health Benefits (FEHB) health insurance and many other benefits, which directly impacts recruitment and retention.

The GLBTAC committee is currently in need of additional members, including two contractor representatives. To volunteer, contact Sharon Wong, Special Assistant for Diversity, at Sharon.M.Wong@nasa.gov.

For more information about the GLBTAC, please visit their website at <http://glbtac.gsfc.nasa.gov>. ■

Proposal Opportunities

Research Opportunities in Space and Earth Science (ROSES)

Chandra X-Ray Observatory – Cycle 8 Call for Proposals
Released: 2005-12-16
Proposal Due: 2006-03-16

Earth System Science Fellowship/06
Released: 2005-10-01
Proposal Due Date: 2006-02-01

NASA Observing Time at the Keck Observatory
Call for Proposals-2006-01-17

For more information contact the New Opportunities Office
x6-5442

Libraries Rocket into Space

By Amy Pruett



Photo credit: Deborah McCallum

Caption: Dr. Jim Garvin addresses the teachers at the “To the Moon and Beyond” lecture.

Together the Lunar Planetary Institute (LPI) and Goddard Space Flight Center (GSFC) are rocketing libraries into space, as librarians from Maryland, Pennsylvania, and Delaware recently attended the “To the Moon and Beyond” workshops at the GSFC Visitor Center. On February 2-3 and February 9-10, over 60 librarians visited Goddard for a revolutionary new public program based on the Lunar Reconnaissance Orbiter (LRO) and related science on the Earth and moon.

As NASA GSFC, LPI, and other institutions strive to inspire the next generation of scientists, they are reaching out to community organizations, such as libraries, in order to connect with today’s youth. Realizing the importance of libraries in many children’s and adolescent’s education, the NASA Explorer Institute created materials for librarians to incorporate in their regular activities. The materials focus on LRO as NASA uses it to explore the moon, pinpoint potential sites for future lunar research stations, and its relevance to developing scientists’ understanding of the Earth.

During the two-day workshops, librarians participated in many of the activities outlined in the materials as well as attended presentations from several prestigious Goddard scientists. The activities were diverse as they included throwing rocks into a box of graham crackers as it simulates asteroid impacts on the moon, to becoming a LRO themselves as they orbited around

the room in search of ideal landing and building sites for future research stations. In between activities, attendees received additional information on lunar science from Dr. Jim Garvin, NASA GSFC’s chief scientist, as well as Goddard scientist, Chris McCoy. Dr. Garvin related to the librarians the importance of NASA’s return to the moon and McCoy discussed a lunar research station and the positive impact it will have on space as well as Earth science.

The “To the Moon and Beyond” materials are a perfect fit for libraries in the state of Delaware,” says Patty Langley, Youth Services Consultant for the Delaware Division of Libraries/State Library. “Not only does it meet our state’s standards, but it is a unique program that will get more children interested in science concepts and will become a memorable part of each library community.”

“I believe that is extremely important to get kids excited about science and space,” says Maureen Miller, Youth Services Librarian of the Lewes Public Library in Delaware. “As we learned today, it is essential to get middle school students informed about space science as they will be the ones establishing and working in the NASA research station on the moon that will hopefully be operable by 2023. Generally, it is difficult to get adolescent boys into a library, but I am confident that programs such as ‘To the Moon and Beyond’ will draw them in.” ■



Photo credit: Deborah McCallum

Caption: Teachers participate in a “To the Moon and beyond” activity.

BIG Welcomes Charles Carroll Middle School Honor Students

By Alana Little



Photo credit: Deborah McCallum

Caption: Charles Carroll Honor Students and Teachers.

“I want to be a Forensic Scientist,” said one eager student. “I want to be a Pediatrician,” said another. Honor roll students from Charles Carroll Middle School who attended the February 16 Black History Month presentation hosted by the Goddard chapter of Blacks in Government (BIG), were praised for their ambition and applauded for achieving “honors” status in their current studies, but they also got an ear-full on the realities of their career choices.

Invited speaker Dillard Menchan, Deputy Education Officer, spoke to the students about the importance of taking the right classes in high school so that they could get into a college that would allow them to fully realize their ambitions. Dillard stressed the importance of taking all the upper math and science courses the students could handle because that would “make all the difference in the world” as to what career they could choose. Dillard spent some time explaining to the students all about what the scientists and engineers that work at Goddard do and ended his discussion by asking the student an important question, “what’s the difference between a lifter and a leaner?” he then read the students a poem titled “Which Are You” written by the 19th century poet Ella Wheeler Wilcox. Dillard told the spell-bound students “your success in life will depend on whether you become a lifter or a leaner in life.”

Following Dillard’s discussion Matt Keil, AESP Specialist explained to the students that Goddard is one of 20 NASA centers and that we are an Earth Science Center. Matt wowed the audience with a video presentation titled

“Moon, Mars, and Beyond” that visually depicted the NASA vision for space exploration. Matt also gave an international space station overview and answered the all-important question “how do astronauts and cosmonauts go to the bathroom?” In addition to the diaper-like garment astronauts and cosmonauts have to wear, Matt also passed around samples of the always-appetizing freeze-dried “space food.” After this demonstration, students were more than grateful for the pizza, chips, cookies and bathroom breaks provided by BIG.

Continued on Pg. 12

Which Are You

By Ella Wheeler Wilcox

*There are two kinds of people on earth today;
Just two kinds of people, no more, I say.
Not the sinner and saint, for it's well understood,
The good are half bad, and the bad are half good.
Not the rich and the poor, for to rate a man's wealth,
You must first know the state of his conscience and health.
Not the humble and proud, for in life's little span,
Who puts on vain airs, is not counted a man.
Not the happy and sad, for the swift flying years
Bring each man his laughter and each man his tears.
No; the two kinds of people on earth I mean,
Are the people who lift, and the people who lean.
Wherever you go, you will find the earth's masses
Are always divided in just these two classes.
And, oddly enough, you will find two, I ween,
There's only one lifter to twenty who lean..."*

“Can We Talk”

By Sharon Wong and Trusilla Steele



Photo credit: NASA

Caption: Dr. Ed Weiler

A record-breaking 30 employees attended February’s “Can We Talk” session with Center Director, Dr. Ed Weiler. Although the session was held in observance of Black History Month, the dialogue was patterned after the regular monthly sessions with discussion on various topics.

The discussion began with Dr. Weiler and Lori Simmons, chief of the Equal Opportunity Programs Office (EOPO), responding to questions about funding for employees attendance at special emphasis training conferences. Simmons explained that, like all GSFC organizations, the EOPO training budget has been scaled back to compensate for our reduced G&A budget. As a result, there is limited funding this year which means a much smaller number of employees will be able to attend those training conferences than in previous years but that advisory committee members would have first priority. She also suggested that interested employees should discuss their training needs with their supervisor to have it included in their Individual Development Plan (IDP) so that it may be funded through their directorate.

Having a more diverse Executive Council was another topic of discussion. Weiler stated that he is “committed to having the best diverse workforce,” and has made sure that he “walks the talk” through his recent hiring in senior management. Examples include Orlando Figueroa, Applied Engineering and Technology Director, Marcus Watkins, Director of Office of Systems Safety and Mission Assurance, Lina Savkar, Director of the Office of Human Capital Management, and Linda Curaton who was recently announced as the Director of Information Technology and Communications Directorate. Moreover, Dr. Weiler, is aware of the demographics which reveal the need for more diversity within the Flight Programs and Projects Directorate, Code 400. Dr. Weiler also mentioned that various mechanisms and training programs will be utilized in an effort to create a more inclusive workforce in Code 400. However, Dr. Weiler reminded employees to produce their best work in their present positions because performing well and demonstrating your capabilities in one’s current position is an important factor to moving forward.

Employees raised concerns about perceived difficulties in achieving promotions for professional administrative employees. They noted that due to the Class Action Settlement, validated accretion promotion criteria had been developed for Scientists and Engineers (S&E) but that no criteria existed for administrative employees. OHCM explained that due to the unique nature of S&E work at GSFC, there were many more opportunities for S&E accretion promotions than occur in the administrative field where most promotions are competitive. Employees also raised a related issue that minority administrative employees in career ladder positions do not appear to have the same rate of success as their non-minority peers. OHCM and Legal reported that OHCM has been considering whether now would be an appropriate time for OHCM to continue the development of accretion criteria for administrative employees that began a few years ago.

Attendees also expressed their perception that the Goddard culture is one in which S&E employees and their accomplishments are valued more than those coming from the Administrative and clerical employees. Examples cited included the difficulty of administrative or clerical employees competing for exceptional achievement awards with engineers who resolved a major engineering problem. Weiler stressed his objective of ensuring a greater diversity of award recipients. An action was given to the Special Assistant for Diversity and the Chief of EOPO to modify the award categories to ensure appropriate recognition of the non-S&E workforce for their endeavors. Dr. Weiler strongly believes and continues to reiterate that accomplishments of the Center would not be possible without all of our employees.

Additionally, Dr. Weiler acknowledges the need to inform supervisors about the topics brought forth from the employees’ during the “Can We Talk” sessions as they have the most input in an employee’s development. This is where “the rubber meets the road,” Dr. Weiler said, In an effort to address this issue, Dr. Weiler will hold the first Supervisor’s “Can We Talk” in March. In addition, the issues raised in the “Can We Talk” sessions are discussed at the following Monday morning’s Management Council meetings.

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> ■

Goddard's Jeff Morisette Receives NOAA Award for Earth Sciences

By Rob Gutro



Courtesy: Jeff Morisette

Jeff Morisette is an Earth scientist who works quietly in Building 32 on the Goddard campus. He's totally involved in studying his home planet with NASA satellite data, and now he's been recognized by another agency for his work.

Caption: Jeff Morisette

Code 600 at Goddard announced that Jeffrey Morisette of Code 614.5 received the National Oceanic and Atmospheric Administration's (NOAA) David Johnson Award. The award was made for Jeff's research and development efforts in the use of satellite data to map invasive species habitat, monitor active fires and support improvements in climate and carbon modeling in North America. The award will be presented at the annual Goddard Memorial Dinner hosted by the National Space Club, March 17, 2006.

The Award

The NOAA-David Johnson Award is presented by the National Space Club in honor of the first administrator of what was to become NOAA's National Environmental Satellite, Data, and Information Service (NESDIS). This award is given to young professionals who have developed an innovative use of Earth observation satellite data (alone, or in combination with non-satellite data) that is used or could be used for operational purposes to assess or predict atmospheric, oceanic or terrestrial conditions. It recognizes a young scientist who may be a future leader of his or her organization and who encourages new thinking, problem solving or applications of satellite data.

Jeff's Work at NASA

Morisette uses data from Earth-observing satellites in several ways that show its usefulness in assessing conditions on Earth. In his research and development efforts, Jeff uses satellite data to map invasive species habitat in the U.S., monitor active fires throughout the world, and support improvements in climate and carbon modeling in North America. In addition to making substantial and practical contributions to these areas, Morisette is very involved with the remote-sensing community and has an international reputation. His research and collaborations within NASA, other federal agencies and with international organizations have helped expand the use of Earth observation satellite data for operational assessment of terrestrial conditions.

Jeff is one of the key players at Goddard in the development of the joint NASA/U.S. Geological Survey Invasive Species Forecasting System (ISFS). Morisette serves as the science lead for the ISFS development work at Goddard. In that role he is leading the development of modeling techniques and

satellite data layers that will be included in the operational system.

As part of the invasives species work, he led the effort to successfully integrate satellite data and tens of thousands of field sampling points through modeling to create a habitat suitability map that is 90 percent accurate. This "suitability map" ranks areas in the lower 48 states in terms of being "highly likely" and "moderately likely" habitats for Tamarisk.

The ISFS is a collaborative effort between NASA, the U.S. Geological Survey, the U.S. Department of the Interior's Invasive Species Council, and Colorado State University, Boulder, Colo. The goal of the ISFS is to provide reliable information and advanced decision support tools for documenting, understanding, predicting, assessing, and addressing the threat of invasive species in the U.S.

Jeff's work on NASA's Invasive Species Program was the subject of a NASA media campaign in mid-February of this year. The campaign included a news release with all the partners, two web stories, and a series of live television interviews from around the country, all of which originated from the NASA-TV studios on the Goddard campus in Building 28. Jeff was also the on-camera personality for all of the television interviews.

Morisette has played an integral part in quantifying the accuracy of satellite-derived fire products. He works with the fire product team at University of Maryland using data from the Moderate Imaging Spectroradiometer (MODIS) instrument, aboard NASA's Terra and Aqua satellites, to provide information on active fires for both global change science and practical applications.

In his current fire-related research, Morisette is working with the National Park Service to explore the interaction between invasive species and fire activity. The work will be conducted throughout three major park systems: Yellowstone/Grand Teton, Sequoia/King Canyon/Yosemite, and National Parks throughout Alaska. The work will compare the fire histories of each park system with alien species invasions and their associated habitats.

Morisette is a member of the North American Carbon Program's (NACP) science steering group. NACP is a multidisciplinary research program to obtain scientific understanding of North America's carbon sources and sinks and of changes in carbon stocks needed to meet societal concerns and to provide tools for decision makers. He's one of the primary remote sensing scientists on the NACP Science Steering Group. Morisette is also an Adjunct Assistant Professor in the Dept. of Geography at the University of Maryland at College Park, Md.

For more information about the ISFS and Tamarisk on the Web, please visit: http://www.nasa.gov/vision/earth/environment/invasive_species.html ■

BIG Welcomes Charles Carroll Middle School Honor Students

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Dr. Aprille Erickson, Aerospace Engineer and the first African American woman recipient of a PhD to work at NASA Goddard, gave a presentation on the achievements of African Americans in science. She began her presentation by quoting a griot—an African story teller—she said, “I teach the Kings of their ancestors so that the lives of the ancestors might serve as an example, for the world is old, but the future springs from the past.” Dr. Erickson’s presentation centered on the accomplishments of several great astronomers, architects, doctors, scientists and inventors such as Bessie Coleman, Willa Brown, The Tuskegee Airmen, Elijah McCoy, and Garrett Morgan. She told the students that it has been said that for every math class taken after 9th grade, your salary goes up by an extra \$2,000 per year. “Take more math, make more money,” she stressed!

Presentations were also made by Janet Thomas, Environmental Project Engineering Section Head and Mark Branch, Aerospace Engineer. Janet spoke about cultivating communication skills and the importance of learning to work within a team. Mark was quick to let the students know that just because you are a scientist or engineer does not mean you are a “nerd.” He brought the point home by telling the students about his 2nd career as a D.J. and how he’s met several famous recording artists as a result of his 2nd love. “It’s cool to be smart” is his mantra.

Closing remarks were made by Sharon Wong, Special Assistant for Diversity. She said “We do a lot of different work at NASA that goes beyond the space shuttle. All different skills and talents are needed to make NASA work. No matter how different we look, how different we act it’s all really about your talents.”

The students were accompanied by Dr. Colisha Frasier, Director of the Guidance Department, Bette Simmon, Guidance Counselor and Jay Farmer, a Geometry teacher at Charles Carroll. Dr. Frasier was pleased that her students got to learn more about the contributions that African American pioneers made and continue to make to science. Joyce Brooks, President of BIG and coordinator of the event concluded the end of the day by announcing that the Computers For Learning Program, plans to donate several computers to the school on behalf of Goddard, to ensure that the learning continues at this remarkable school.



Employee Spotlight

Jahi Wartts

By Alana Little



Photo Credit: Chris Gunn

Caption: Jahi Wartts

Jahi Wartts of code 501 is a young man who knows exactly where he’s going. A graduate of Florida A&M University with a Bachelor of Science degree in Business Administration and recipient of an M.B.A. from Howard University, Jahi first acknowledges his exemplary education as the one asset he can attribute to his success as a Program Analyst. The second thing he attributes to his success is the Goddard community, which Jahi recognizes as having always embraced him in his career endeavors and provided him with additional education, training, and mentoring that has helped him to succeed. “Being surrounded by a host of good leaders has afforded me the opportunity to observe and develop the fortitude and managerial traits that groom effective leaders,” he said.

Being recently accepted into the highly competitive Project Management Development Enterprise (PMDE) program which is run through Code 400, Jahi expects to fully realize his goal of leading a team as a Deputy Project Manager of Resources (DPMR) on a development project. His position currently entails supporting the Technology Management Office, the NASA Engineering & Safety Center (NESC) and the Office of Technology Transfer. His primary responsibilities in managing the full cost budgets of those programs are resources planning, budget formulation, budget execution and cost control. Add to that his goal of becoming a DPMR and you have the makings of a challenging and successful career. “There will be a lot of training, development and mentoring activities involved,” he said. “I had to develop a very thorough Individual Development Plan (IDP). Mine is nearly 30 pages long...it’s the best way to stay focused on your career goals.”

Jahi’s hard work and focused demeanor has left an impression on those who are where he wants to be. Dorothy Tiffany, Program Business Manager for code 490 said, “Jahi is a self-starter with a lot of new ideas and great analytical skills. He brings a fresh perspective to problems and has become a vital member of the Goddard Resource Management Team.” ■