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New Horizons Launches

NASA

After launch aboard a Lockheed-Martin Atlas V rocket, the New Horizons spacecraft set out on a journey to the edge of the solar system. Liftoff occurred Jan. 19, 2006 at 2:00:00 p.m. EST from Launch Complex 41 at Cape Canaveral Air Force Station in Florida. New Horizons is headed for a distant rendezvous with the mysterious planet Pluto almost a decade from now.

As the first spacecraft to visit Pluto and its moon Charon, New Horizons looks to unlock one of the solar system's last, great planetary secrets. The New Horizons spacecraft will cross the entire span of the solar system and conduct flyby studies of Pluto and Charon in 2015. The seven science instruments on the piano–sized probe will shed light on the bodies' surface properties, geology, interior makeup and atmospheres.

Mission Milestones

February 2007 - Jupiter gravity assist
March 2007 - June 2015 - Interplanetary cruise
July 2015 - Pluto-Charon encounter
2016-2020 - Kuiper Belt objects encounter ■

Photo credit: NASA

Caption: Workers, with the help of an overhead crane, lower the New Horizons spacecraft onto a spin table. The spacecraft will undergo a spin test as part of pre-launch processing.

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Cover: The New Horizons launch as seen from Cape Canaveral Airforce Station in Florida.

Photo 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.

"Can We Talk"

By Sharon Wong and Trusilla Steele

Photo credit: NASA

Caption: Dr. Ed Weiler

Several "Can We Talk" Sessions were held before the closing of 2005. Although some of the sessions were held in accordance with a heritage month observance, most were patterned after the regular monthly sessions with discussion on various topics.

The 2006 Fiscal Year's (FY) budget was a frequent topic at several "Can We Talk" sessions. Center Director, Dr. Ed Weiler stressed that his primary concern is to lower General and Administrative (G&A) costs to avoid any drastic changes in our workforce numbers and the work done at Goddard. Dr. Weiler also asked for employees' understanding in the reduction of certain services (such as the shuttle bus that goes to and from NASA/Headquarters). These reductions are a result of the "$700 million" deficit in the 06' budget. Despite the cut, Weiler pointed to the fact that Goddard has the third lowest G&A of all Centers which puts us in a competitive position.

In October, Dr. Weiler held a "Can We Talk" session with the New Employees Welcoming Board (NEWB). Dr. Weiler reiterated his One Goddard vision by sharing that he hopes to create more opportunities for all employees to share in and be proud of Goddard's successes.

In October which is Disability Employment Awareness Month, a "Can We Talk" session highlighted the need for employees with disabilities to self-identify as it ensures that reasonable accommodations can be made for their needs.

In addition, Dr. Weiler supports rewarding supervisors who practice diversity principles and believes that as a Center we should examine how award money is distributed in the organization to ensure support and administrative personnel are being recognized.

On that note, Dr. Weiler also believes we should be aiming for 100 percent 508 compliance as it pertains to website accessibility for the disabled.

Increasing representation of American Indians at Goddard was the topic of discussion at a November "Can We Talk" session held in conjunction with American Indian Heritage Month. Representatives from the Higher Education Office, Equal Opportunity Programs Office (EOPO) and others who have worked closely with tribal colleges and universities discussed the need to develop an integrated strategy to establish long–term nurturing relationships with tribal communities to assist in the recruitment of American Indians, an action given to the Office of Human Resources and EOPO. These relationships will contribute to greater mutual understanding between tribal communities and Goddard employees and will underscore the inherent value to both communities through collaborative research and education opportunities. In addition, Dr. Weiler suggested meeting with Dr. Laurie Leshin, Director of Science and Exploration to use Earth Science data to assist with outreach efforts.

Center Director, Dr. Ed Weiler will continue to host the 2006 "Can We Talk" discussions, in the spirit of NASA's commitment to enhanced communication.

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 Center 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.

Stay informed by visiting http://internal.gsfc.nasa.gov/canwetalk.cfm to register for the next "Can We Talk" session. ■

NASA Remembers

"Today we pause to remember the loss of all of our employees, including our Apollo 1, Challenger and Columbia astronauts, and to honor their legacy. Nearly 50 years into the space age, spaceflight remains the pinnacle of human challenge, an endeavor just barely possible with today's technology. We at NASA are privileged to be in the business of learning how to do it, to extend the frontier of the possible, and, ultimately, to make space travel routine. It is an enormously difficult enterprise. The losses we commemorate today are a strong and poignant reminder of the sternness of the challenge."

—Michael Griffin, NASA Administrator ■

Photo credit: NASA

Caption: The NASA family lost seven of its own on the morning of January 28, 1986, when a booster engine failed, causing the Shuttle Challenger to break apart just 73 seconds after launch. The crew of STS-51-L: Front row from left, Mike Smith, Dick Scobee, Ron McNair. Back row from left, Ellison Onizuka, Christa McAuliffe, Greg Jarvis, Judith Resnik.

Photo credit: NASA

Caption: On January 27, 1967, tragedy struck the Apollo program when a flash fire occurred in command module 012 during a launch pad test of the Apollo/Saturn space vehicle being prepared for the first piloted flight, the AS-204 mission. Three astronauts, Lt. Col. Virgil I. Grissom, a veteran of Mercury and Gemini missions; Lt. Col. Edward H. White, the astronaut who had performed the first United States extravehicular activity during the Gemini program; and Roger B. Chaffee, an astronaut preparing for his first space flight, died in this tragic accident.

Photo credit: NASA

Caption: This is the official crew photo from Mission STS-107 on the Space Shuttle Columbia. From left to right are Mission Specialist David Brown, Commander Rick Husband, Mission Specialist Laurel Clark, Mission Specialist Kalpana Chawla, Mission Specialist Michael Anderson, Pilot William McCool, and Israeli Payload Specialist Ilan Ramon. The crew of STS-107 lost their lives on February 1, 2003, 16 minutes from their scheduled landing.

Weatherwise Magazine

Looking to learn more about the weather? Turn to the pages of *Weatherwise* magazine, where NASA research meteorologist Jeff Halverson explains some of the most recent outstanding meteorological events…without the jargon. See below for a sampling of Halverson's columns and be sure to check out *Weatherwise* at the Goddard Library.

Hurricanes by the Numbers (Jan–Feb 2006)

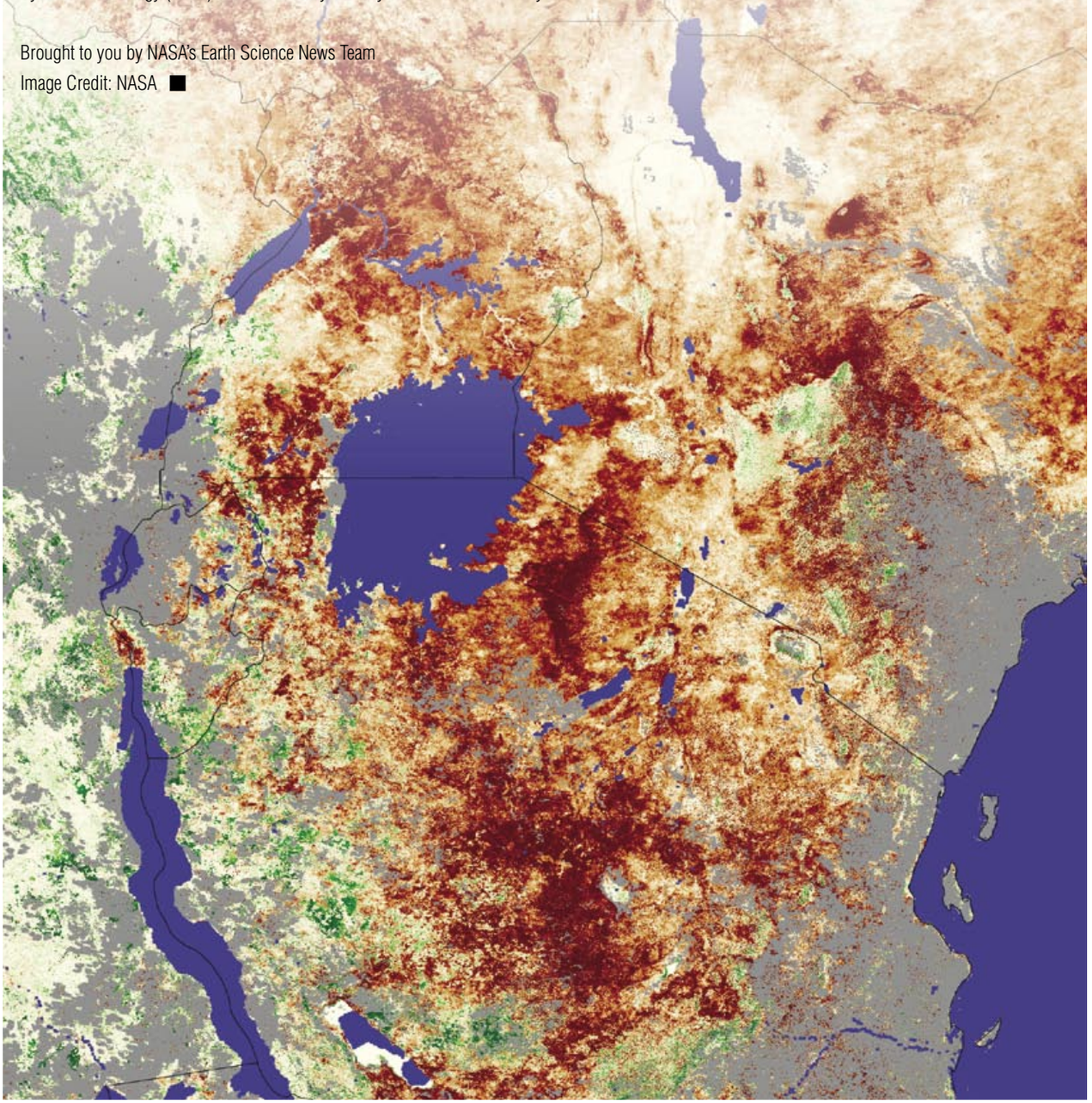
Halverson discusses the phenomenal 2005 Atlantic hurricane season and just what all the records and statistics really mean—and the causes behind them.

Fire and Ice (Jan–Feb 2006)

When hot and cold air mix, the result can be a meteorologist's dream. Halverson examines one such scenario, in October 2005, when moisture and warmth from Hurricane Wilma combined with unseasonably cold air over the Appalachians and produced record–setting snowfall.

Jeff Halverson is an education and outreach scientist for NASA's TRMM program and an associate professor of geography at the Joint Center for Earth Systems Technology (JCET) at the University of Maryland–Baltimore County.

Brought to you by NASA's Earth Science News Team
Image Credit: NASA ■

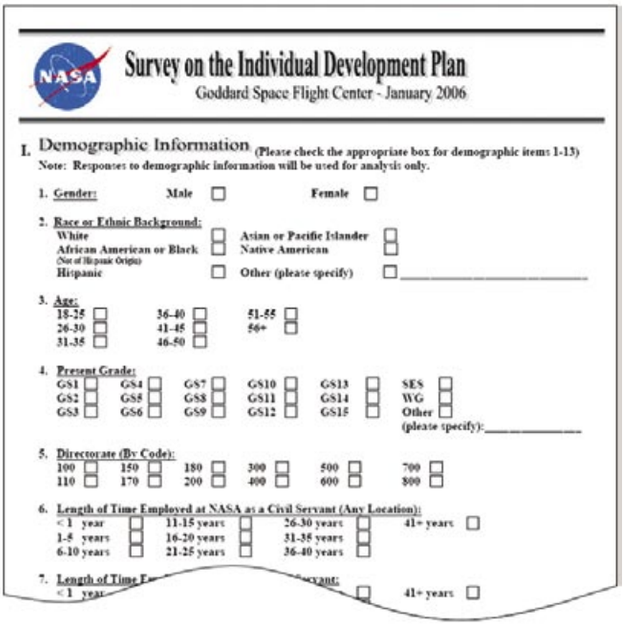


The Individual Development Plan (IDP) Survey is here!

By Natalie Simms

What is an IDP?

An IDP is a tool for employees to use in planning his or her development and a formal method of documenting the types of learning experiences that the employee wants to engage in.



Survey on the Individual Development Plan

Goddard Space Flight Center - January 2006

I. Demographic Information (Please check the appropriate box for demographic items 1-13)

Note: Responses to demographic information will be used for analysis only.

1. Gender: Male ☐ Female ☐

2. Race or Ethnic Background:
White ☐ Asian or Pacific Islander ☐
African American or Black ☐ Native American ☐
(Not of Hispanic Origin)
Hispanic ☐ Other (please specify) ☐ _____

3. Age:
18-25 ☐ 36-40 ☐ 51-55 ☐
26-30 ☐ 41-45 ☐ 56+ ☐
31-35 ☐ 46-50 ☐

4. Present Grade:
GS1 ☐ GS4 ☐ GS7 ☐ GS10 ☐ GS13 ☐ SES ☐
GS2 ☐ GS5 ☐ GS8 ☐ GS11 ☐ GS14 ☐ WG ☐
GS3 ☐ GS6 ☐ GS9 ☐ GS12 ☐ GS15 ☐ Other ☐
(please specify):_____

5. Directorate (By Code):
100 ☐ 150 ☐ 180 ☐ 300 ☐ 500 ☐ 700 ☐
110 ☐ 170 ☐ 200 ☐ 400 ☐ 600 ☐ 800 ☐

6. Length of Time Employed at NASA as a Civil Servant (Any Location):
< 1 year ☐ 11-15 years ☐ 26-30 years ☐ 41+ years ☐
1-5 years ☐ 16-20 years ☐ 31-35 years ☐
6-10 years ☐ 21-25 years ☐ 36-40 years ☐

7. Length of Time Employed at Goddard as a Civil Servant:
< 1 year ☐ 41+ years ☐

Why complete an IDP survey?

Your participation is needed to enhance awareness of the IDP. The IDP initiative can only continue to improve by receiving your comments, suggestions and survey responses.

What are the benefits of completing an IDP?

An IDP serves as a roadmap to an employee's growth and development. This deliberate planning process provides a structured framework for open discussions between employee and supervisor, ensuring that the employee will engage in developmental activities. It also provides supervisors with a valuable tool for refocusing the workforce to meet future organizational requirements and administer their training budgets equitably.

This year's goal is to reach 100 percent survey participation, so be sure to complete your web–based or paper–version survey today. The last day to complete the survey will be February 17.

Employee Testimonial:

"I testify that the IDP has truly been a gift. It has been my action plan to help in my career development. I make sure to keep it close and frequently review my developmental activities so as to achieve my goals."

For more information, contact Michelle Dubose-Williams on x6-5166 or email Marsha.M.Dubose-Williams@nasa.gov.
For more information, please visit:
http://survey.blueatlas.com/main.cfm ■

Proposal Opportunities

Research Opportunities in Space and Earth Science (ROSES)

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

Hubble Space Telescope-Cycle 15
Call for Proposals
Released: 2005-10-05

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

Discovery Program 2006 and Missions of Opportunity
Released: 2006-01-03
NOI: 2006-03-06
Proposal Due Date: 2006-04-05

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

Research Opportunities in Space and Earth Sciences - 2005
Released: 2005-01-28

Spitzer Space Telescope – Cycle 3 Call for Proposals
Released: 2005-11-01
Proposal Due Date: 2006-02-16

For more information contact the New Opportunities Office
x6-5442

Goddard Leads Mid–Atlantic Applied Nanotechnology

By Nancy Pekar

On January 23-25, 2006, NASA Goddard Space Flight Center met with key researchers from several Mid–Atlantic organizations to identify specific collaborative R&D projects to address some of its most pressing technical challenges. The event emphasized Goddard's leadership role in the Mid–Atlantic region in the area of applied nanotechnology.

"This is really an exciting time for Goddard," said Dan Powell, who heads the NASA Center's nanotechnology research. "Applied nanotech developers in the Mid–Atlantic region are poised to lead the nation if not the world in this field."

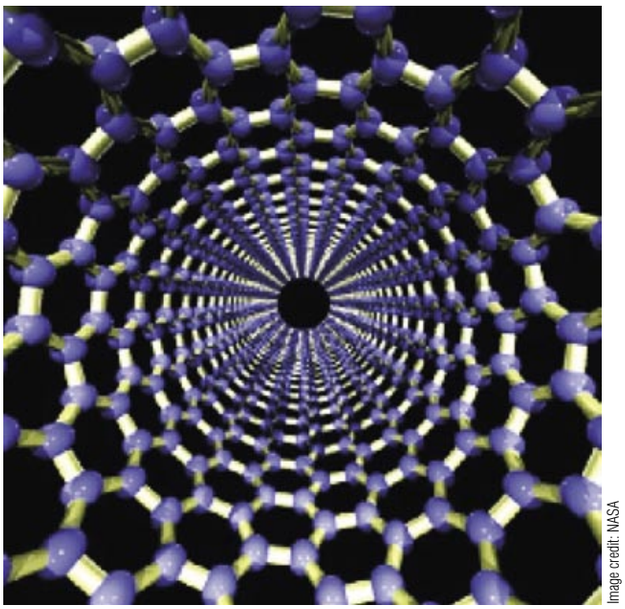


Image credit: NASA

Caption: Computer model of the inside of a single–walled nanotube

The purpose of the Inter-Organizational Nanotechnology (ION) Development Meeting was to develop an understanding of what enabling technologies are needed for NASA Goddard to pursue its missions. Local business leaders were invited to provide a practical perspective on the regional impact of these technologies, both during and after development.

"We're hoping to accelerate the collaborative development process with a focus on near–term impacts," said Mr. Powell. "This is not just a theoretical exercise. NASA has practical applications for nanotechnology that we can put to use in the near future."

Taking place at the University of Maryland's Inn and Conference Center in Adelphi, the ION Development Meeting brought together representatives from leading research institutions that are collaborating with NASA Goddard:

- Army Research Lab (ARL) at Adelphi
- Lehigh University in Pennsylvania
- The National Institute of Standards and Technology (NIST)

"These partnerships provide a framework for collaborative research," said Mr. Powell. "The door has been opened. The ION Development Meetings are helping us walk through it."

Goddard researchers also have been collaborating with their colleagues in California at NASA's Ames Research Center, and Ames scientists attended the ION Development Meeting as well.

According to Ames's Dr. Meyya Meyyappan, "It is important for us to work with mission centers like Goddard because they can take whatever we do and convert it into deployable technology. This can only happen with the partnership between a research center and a mission center."

Another Goddard partner is the State of Maryland's Department of Business and Economic Development, which hosted its third annual Regional Science and Technology Forum on January 23, as a kick–off to the ION Development Meeting.

For more information about NASA Goddard's work in applied nanotechnology, contact: Dan Powell at Dan.Powell@nasa.gov.

A video describing some of NASA's work in nanotechnology is available online at: http://techtransfer.gsfc.nasa.gov/Nanotechnology-video.html

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

Goddard Scientists Share Knowledge with Young Students

By Amy Pruett

Elementary and middle school students have access to NASA's wealth of knowledge, thanks to live JASON Expedition broadcasts from sites such as the Howard B. Owens Science Center in Greenbelt, Md. that will take place from Jan. 30 - Feb. 4. NASA scientists from Goddard, Ames and the Jet Propulsion Laboratory will present NASA science and technology to over 400 students in–house and over a million students online throughout the week celebrating the "Mysteries of Earth & Mars."

Goddard employees are encouraged to attend NASA scientist led presentations accompanying the live broadcast from National Geographic Headquarters in Washington D.C., especially those on Feb. 3 - 4, as Goddard science on Mars will be the highlight. Among the GSFC scientists giving presentations, Dr. Jim Garvin, NASA GSFC's chief scientist, will discuss Martian impact cratering, how it works, and how it affects our understanding of Earth.

"Our goal is to raise awareness about cosmic collisions in a critical age group of young people," says Dr. Garvin. "The easiest way to research Mars is through its craters. They allow us, without having to physically dig ourselves, to gain an understanding of Mars and its history and how it may or may not have once preserved life by studying the planet's layers."

The JASON Expedition is a pioneering organization dedicated to inspiring a passion for life–long learning in science through innovative, technology–rich middle–grade educational and professional development programs. Along with a year's worth of curriculum for the classroom, teachers and students have access to online chats with host research scientists, digital labs and broadcasts.

The entire year's worth of activities lead to main events held at select sites throughout the United States. They offer students special hands–on experiences, providing the youth with an opportunity to connect with scientists. The Howard B. Owens Science Center will host a JASON Expedition Broadcast in the week of Jan. 30. Goddard scientists such as Dr. Garvin will present students with the knowledge Goddard scientists have gained about the craters on Mars, how they were formed and what they reveal about the planet as well as Earth.

"JASON is important because it hooks bright girls and boys on science, starting them on the ground floor," says Dr. Garvin. "The program inspires but also brings real science to the students. Often, they see hype, but no reality; JASON makes real science accessible to them."

The JASON Project, founded in 1989 by Dr. Robert D. Ballard, is a nonprofit educational organization headquartered in Ashburn, VA and operates under the stewardship of National Geographic. Its mission is to inspire in students a life–long passion for learning in science, math, and technology through real-world scientific discovery. In 2005, 1.7 million fourth to ninth grade students and 34 thousand teachers participated in the program.

The presentations and activities of the JASON Expedition Broadcast to take place Jan. 30 - Feb. 4 at the Howard B. Owens Science Center in Greenbelt, Md. are designed for fourth to ninth grade students, but all ages are welcome. Times and additional specific information for each day's presentations will be published in *Dateline*, Goddard's e-mail bulletin.

For additional information on the JASON Project, please visit:
http://www.jasonproject.org/ ■

Did You **Know**?

Sunglasses

Gold coating and iron beam bonding were used in astronauts' helmet shields to make them more scratch–resistant and to protect astronauts' eyes from ultraviolet light and infrared radiation in space.

FIRST Offers Opportunities to Next Generation of Engineers

By Amy Pruett

High school students gathered at Capitol College in Laurel, Md. for the 2006 For Inspiration and Recognition of Science and Technology (FIRST) Robotics Competition local remote kick–off on Saturday, January 7. The event is an extension of the main kick–off, located in Manchester, N.H. at FIRST Headquarters, where the year's robotics challenge for high school students is unveiled.

Over 186 Maryland high school students gathered in a Capitol College auditorium on Saturday, January 7 to watch the telecast live on NASA TV. The telecast included an introduction and detailed discussion of the 2005 game challenge, as well as a special message from FIRST founder, Dean Kamen. Following the broadcast, each team was issued their robot kit and given an opportunity to attend several workshops on motor applications, pneumatics, and robot inspections. In addition, mentors could attend a round table discussion where they address non–technical issues. Teams will have six weeks to build their robot for participation in any of the 33 regional events across the country and will also have a shot at attending a national competition at the Georgia Dome in Atlanta, Ga.

NASA is a major supporter of FIRST and Goddard is a major player in the Chesapeake Regional Competition, which is endorsed by the state of Maryland. The center assists with sponsoring the competition as well as providing staff for the event. The 2006 Chesapeake Regional, will be held March 16, 17 and 18 at the historic United States Naval Academy in Annapolis, Md. In 2006, 60 teams comprised of more than 4,500 students and mentors throughout the state of Maryland, 11 other states, the District of Columbia and England are expected to participate in the event. Volunteers staff the Chesapeake Regional and Goddard employees are encouraged to participate.

"FIRST offers opportunities to our next generation of engineers," says Mike Wade, FIRST NASA GSFC Coordinator. "A lot of people, especially here at Goddard, look at FIRST as Educational outreach, when, in fact, it is more in the line of workforce development and inspiring our next generation to pursue carriers in technology."

FIRST assimilates teams, sponsors, colleges, and technical professionals with high school students to develop their solution to a prescribed engineering challenge in a competitive game environment. It is life–changing, career–molding and a lot of fun for all individuals involved. Volunteer to participate in the Chesapeake Regional and you will agree.

If you are interested in volunteering for the Chesapeake Regional, contact Desiree Taminelli at 301-286-8593.

For additional information on FIRST, please visit: www.usfirst.org/robotics or www.mitc.org/first ■

Space Day Invitation

By The Public Affairs Office

Enjoy working with students? Have a fun interactive student activity? Want to spend a Spring day outside in the fresh air? If your answer is YES, then how about joining us…. On Thursday, May 4, 2006, NASA Goddard Space Flight Center, in conjunction with Lockheed Martin, is sponsoring the 2006 National Space Day event.

On the first Thursday in May, people of all ages all over the world come together to inspire young people to explore careers in mathematics, science, engineering, and technology. The Space Day educational initiative is founded and supported by Lockheed Martin. Over 70 prestigious partners and associates participate in and promote Space Day efforts.

You are invited to provide either a student activity station or to be a volunteer on Thursday, May 4, at NASA's Goddard Space Flight Center, in Greenbelt, Md. Your participation will ensure a richer Space Day experience for an estimated 1,500 6th graders. All activities will take place outside, on Goddard's mall area. Activities must be hands–on, and require active participation or be demonstrative in nature. Please no publication give–away stations. It is not necessary to be a government employee or contractor to provide a student activity.

To register your activity, you must complete the Space Day Activity Registration and Logistics Form. Please complete and return this form to Kay Armstrong no later than March 3, 2006. Complete one form for each activity station. Without a completed form, your activity can not be included. Please arrange ample staff to support your activity.

Plan activity station set-up at Goddard on the afternoon of May 3rd, between 1 – 4 pm. It will be difficult to accommodate set–ups the morning of May 4. All personnel should be at their stations and ready to start by 9:00 am May 4. We expect invited school students to depart Goddard no later than 3:00 pm.

In addition to student activities, volunteers are needed to provide staffing support the day of the event. To become a Space Day volunteer, contact Leslee Cork, leslee.m.cork@nasa.gov or 301-286-0676 no later than April 5. Ms. Cork will arrange a volunteer briefing.

To access an electronic version of the Activity Registration and Logistics Form, visit: http://internal.gsfc.nasa.gov/

Please let us know if you have any questions or if there is any way in which we can help you prepare for Space Day. ■

Goddard Astrophysicist Receives Rossi Prize

By Susan Hendrix

Photo credit: Chris Gunn

Caption: Tod Strohmayer

Growing up in Long Island, N.Y. in the early 1970s this award winning astrophysicist had two hobbies—hockey and science. It wasn't very long before Tod Strohmayer decided science was his true passion.

Strohmayer's persistence and research has paid off in a big way. In early January he received a Rossi Prize, which is the top award given yearly by the High Energy Astrophysics Division (HEAD) of the American Astronomical Society.

The astrophysicist took top honors for his pioneering work on understanding the exotic environment around fast–spinning neutron stars, where matter can whirl about at nearly light speed and where space itself is warped. Strohmayer shares this year's award with Prof. Deepto Chakrabarty of the Massachusetts Institute of Technology in Cambridge, Mass., and Dr. Rudy Wijnands of the University of Amsterdam.

"Winning this prize is an unexpected honor," said Strohmayer. "The award acknowledges the folks who built, operate, and interpret data from the Rossi X-Ray Timing Explorer. Without the dedication of these scientists and engineers, none of the observations that my co-winners and I have made could have been possible."

The Rossi Prize is given in recognition of significant contributions as well as recent and original work in high–energy astrophysics. It honors Professor Bruno Rossi, an authority on cosmic–ray physics and a pioneer in the field of X-ray astronomy.

Strohmayer, who performed his research independently and at times collaboratively with Chakrabarty and Wijnands, says this recent effort represents a breakthrough in interpreting the complex signals that are emitted as X-ray light from millisecond pulsars—a type of fast–spinning neutron star in a binary system with an ordinary star. Strohmayer and his colleagues confirmed that the oscillations in emitted X-ray light can be used to measure a pulsar's spin rate and other key parameters, including verification of Einstein's theories.

"Considering this work was accomplished using data from the Rossi Explorer, and we are celebrating the mission's 10th anniversary, the Rossi prize is particularly timely," said Nicholas White, Exploration of the Universe Division Director at NASA Goddard Space Flight Center. "It's great to see Tod's work recognized and it's also a great credit to the Center."

Strohmayer, who studies the physics of compact stellar remnants, has a PhD in Physics from the University of Rochester, N.Y. Since his arrival at Goddard in 1994, his efforts have focused on observations made with the Goddard-built Proportional Counter Array instrument aboard the Rossi Explorer.

Other NASA awards for this astrophysicist include a 2005 Goddard Space Science Achievement Award, a 2002 Exceptional Achievement Medal, a 2001 Goddard Honor Award, and a 2000 Goddard John C. Lindsay Memorial Award, as well as several publicized papers. He's currently assigned to the Exploration of the Universe Division's X-Ray Astrophysics Branch.

A Rossi Explorer 10th anniversary movie, depicting 10 years of continuous monitoring of the X-ray sky and based entirely on actual data from the Rossi Explorer, is now available on the mission site at:
http://rxte.gsfc.nasa.gov/docs/xte/movies.html#science ■

Dr. Laurie Leshin "Rocks"

By Teresa Coda

Dr. Laurie Leshin has been interested in Mars rocks since she was a ten–year-old girl, when the Viking images of the Martian surface caught her attention. At the time, it was her dream to touch the Martian Rocks; today as the Director of Sciences and Exploration at NASA's Goddard Space Flight Center, she is one of the few scientists who have been fortunate enough to study and personally handle Mars rocks. In her lecture "Mars Rocks," given on December 8, at Goddard Space Flight Center, Dr. Leshin discussed Martian meteorites and the future exploration of Mars.

Since we have yet to send a human to collect samples from Mars, all of our Mars rocks come from Martian meteorites that have landed on earth. There are an estimated three–dozen meteorites from Mars. One may question how scientists are able to differentiate between meteorites from Mars and meteorites from other planets and the rest of space. Several years ago, small black particles were identified in meteorites. These particles were tested, and the concentration of the gases in the particles was a perfect match to the concentration of the gases in the Martian atmosphere. Therefore, scientists conclude that the rocks are from Mars.

These Martian rocks have enabled scientists to study three important aspects of Mars. First, since the rocks are igneous, and formed fairly recently (geologically speaking) this proves that there are active volcanoes on Mars. Therefore, Mars is geologically alive. Second, chemical analysis has revealed water crystals in Martian asteroids. Mars has a water cycle as complex as the water cycle of Earth therefore, Mars is hydrologically alive. Lastly, and possibly most significantly, some scientists speculated that they found fossils in Mars rocks.

In part because of all of the theories that the Mars rocks have generated, NASA has a Mars exploration program. Dr. Leshin is proposing to lead a future Mars mission, the Sample Collection for Investigation of Mars (SCIM). SCIM's mission involves a round trip to Mars, in which a probe sweeps up gas and dust from the Martian surface, and brings it back to earth to be examined. The proposed launch is slated for December 2011, and although the probe will be traveling at the high speed of 12,000 miles per hour, it will not return to Earth until January 2015. If all goes well, NASA is hoping to send humans to Mars in the future. Humans are much more efficient than probes; it takes a human only 45 seconds to accomplish what a rover does in one day!

"Mars Rocks" was an informative and interesting lecture. Dr. Leshin's enthusiasm about Mars rocks was contagious; that evening, the audience left Goddard with, not only fresh knowledge on Mars rocks, but also a sparked interest in them.

Teresa Coda is a junior at Greencastle-Antrim High School, a NASA Explorer School in Greencastle, PA ■

Employee Spotlight

Natalie Simms

By Alana Little

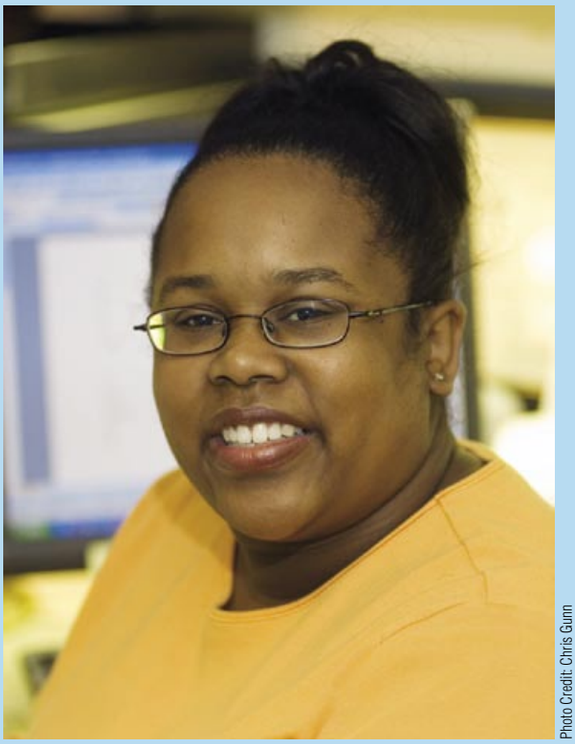


Photo Credit: Chris Gunn

Caption: Natalie Simms

When you walk into the NASA Public Affairs Office (PAO) chances are you will be greeted by the smiling face of Program Support Assistant and *Dateline* editor Natalie Simms. Natalie came to NASA in 1996 as a Cooperative Office Experience (COE) student. She originally worked in the Laboratory for Atmospheres and then went on a detail to PAO which was the turning point in her career. Natalie loved working in PAO and became such a vital part of the office during her tenure there that she became a permanent member in November.

As knowledgeable as any public affairs assistant, Natalie says that working in Public Affairs has taught her to work with a variety of personalities and management styles which is invaluable in this position.

Natalie's favorite Public Affairs project to date was coordinating the Leader Led Workshop which was a One NASA endeavor to bring all NASA centers together under the One NASA brand. Natalie oversaw the entire process from sending out invitations to coordinating the presentations.

"It was a massive job but it was very exhilarating," she said.

When asked if she had a chance to work anywhere else at Goddard where she would go Natalie said, "I would stay right here, there's no place like Public Affairs, but I would love to be editor of *Goddard View* for a day." ■