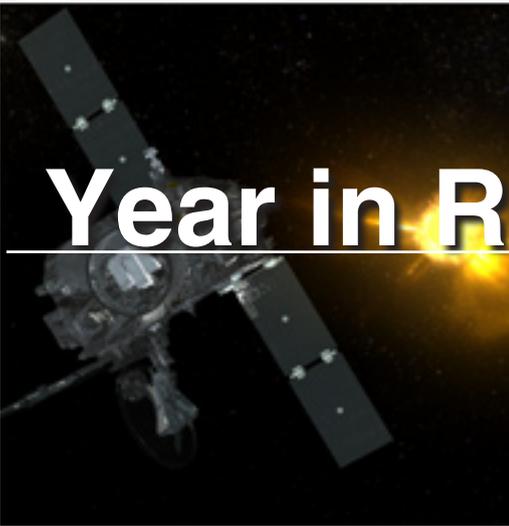
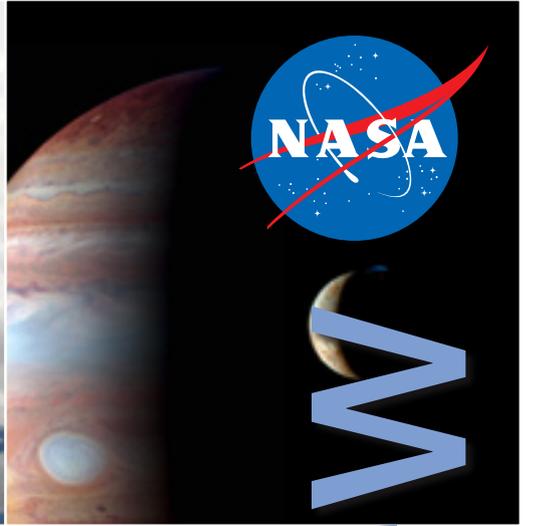


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Year in Review 2007

World Standard

## Royal Visit 2007

Excerpted from Dr. Weiler's "Thank You" letter to all Goddard organizations



Photo credit: Paul Ales

*Caption: Her Majesty the Queen and His Royal Highness the Duke received a special token of appreciation from Senator Barbara Mikulski and Majority Leader, Congressman Steny Hoyer.*

On May 8, Her Majesty Queen Elizabeth II and her husband Prince Philip, the Duke of Edinburgh, visited the Goddard Space Flight Center (GSFC). For nearly two hours, NASA and GSFC were on center stage representing our country and our Agency to the world. I am very proud to say that we came through with flying colors representing the best of the present peaceful use of space and the future of exploration.

Joining us for the Queen's visit were members of our Congressional delegation, led by Senators Barbara Mikulski and Ben Cardin, as well as House Majority Leader Steny Hoyer, and Congressmen C.A. "Dutch" Ruppersberger and Roscoe Bartlett.

The NASA delegation was led by Administrator Mike Griffin who was joined by a number of the Agency's senior leaders. Throughout the day, NASA shared examples of our missions and science, from *Hubble* to the *Solar Dynamic Observatory*, to operations and communications capabilities, to science and education with the Queen and Prince Philip.

Many, many people contributed to the day's success. The GSFC Security staff did a marvelous job in planning and coordinating the efforts of at least six different security organizations and in supporting the Secret Service in keeping our guests safe. It is hard to overstate how complex an operation this was and how well it was executed. ■

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*Cover Caption:* This past year—2007—marked another great year of innovation, exploration, and discovery from the talented employees of NASA Goddard Space Flight Center. From 3D images of the Sun, to stunning images from the highest-resolution satellite data products ever realized, to a visit from the Queen, it has definitely been a year to remember.

## GoddardView Info

*Goddard View* is an official publication of the Goddard Space Flight Center. It is published biweekly 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

**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 [Trusilla.Y.Steele@nasa.gov](mailto:Trusilla.Y.Steele@nasa.gov). Ideas for new stories are welcome, but will be published as space allows. All submissions are subject to editing.

# Royal Visit 2007

Continued from Page 2



Photo credit: Warren Case

Caption: Winners of the Queen's Visit Lottery await the arrival of our "special guests" in the Building 8 Auditorium.



Photo Courtesy of a Goddard Employee

Caption: The British flag on a processional car.



Photo credit: Bill Ingalls

Caption: The Queen greets the Maryland Congressional Delegation: Senator Barbara Mikulski, Majority Leader Congressman Steny Hoyer, Senator Ben Cardin, and Representatives Roscoe Bartlett and C.A. "Dutch" Ruppersberger.



Photo credit: Debbie McCallum

Caption: Goddard employees and their children wait on the lawn for the arrival of the royal guests.



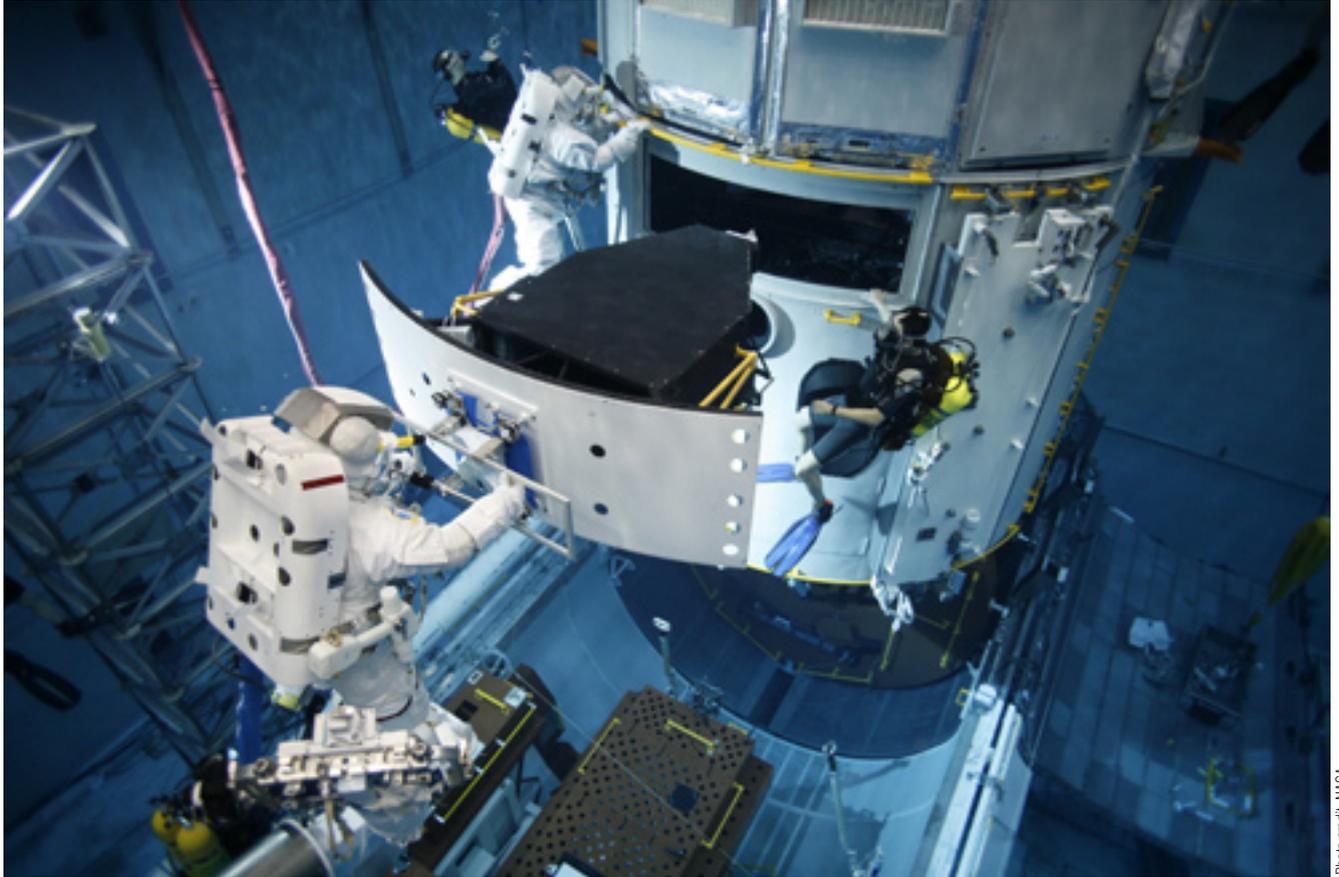
Photo credit: Bill Ingalls

Caption: British Astronaut Michael Foale introduces the Queen to the crew of the International Space Station.

\*The Full Commemorative Issue (Volume 3 Issue 8) detailing the Royal Visit can be downloaded from the *Goddard View* archives at: [http://www.nasa.gov/centers/goddard/news/gnews\\_detail.html](http://www.nasa.gov/centers/goddard/news/gnews_detail.html)

## 2007 Mission Review

Edited by The Office of Public Affairs



Caption: SM4 astronauts practice underwater installing the Wide Field Camera 3 at the Neutral Buoyancy Laboratory at NASA's Johnson Space Center in Houston.

### **Hubble Space Telescope**

Rarely a day passes that doesn't include some news about NASA's *Hubble Space Telescope*. In 2007, astronomers continued to bid for time with this amazing observatory for observations of the cosmos, resulting in more than 17 science stories.

Google, the company that hosts the popular Internet search engine, teamed with the Space Telescope Science Institute in August 2007 to produce 'Sky in Google Earth.' This popular new feature allows folks to cruise the heavens right from their desktop computer.

"This is a fun program for amateur astronomers, scientists, educators, and the public to explore space," said Carol Christian, an astronomer at the Space Telescope Science Institute and one of the developers of the Sky in Google Earth project. "It's like having the heavens at your fingertips, or your own planetarium."

On the home front, Goddard engineers were in full swing, continuing preparations for Servicing Mission 4 (SM4)—the fifth and final shuttle mission to *Hubble*.

Specialty tools and crew-aids the astronauts will use to upgrade and repair the telescope were crafted and reworked here at Goddard. Components and science instruments were vigorously tested and retested in our state-of-the-art facilities, and the astronauts honed their techniques on a mock up of *Hubble* in the cleanroom at Goddard. Even the thermal blankets, which help protect the telescope from extreme on-orbit temperature swings, were cut and sewn at a blanket-making facility located onsite.

Astronauts will have only five days during their 11-day Shuttle mission to perform several painstaking tasks. They will outfit *Hubble* with two new science instruments, gyroscopes, batteries, and a Fine Guidance Sensor. The crew will also attempt the first-ever on-orbit repair of two existing science instruments, wrap certain parts of *Hubble's* exterior with new layers of insulation, and install a docking ring for safe rendezvous with a future spacecraft.

It's an ambitious schedule, but the *Hubble* team has been here before and they have their sights firmly set on a summer 2008 launch. Looks like this will be another exciting year for the *Hubble* team. ■

## 2007 Mission Review

Continued from Page 4



Photo credit: Daryl Pederson

*Caption: The THEMIS spacecraft were up and running just in time to pinpoint the location of the magnetospheric substorm that produced these beautiful auroral displays over Alaska's Kenai Peninsula on March 23 and 24, 2007.*

### THEMIS

A fleet of NASA spacecraft called the Time History of Events and Macroscale Interactions during Substorms (THEMIS), launched in February 2007, has made three important discoveries about the spectacular eruptions of Northern Lights that occur during "substorms" and the source of their power.

The THEMIS satellites observed the dynamics of a rapidly developing substorm that occurred on March 23, 2007 as vivid auroral displays, which lasted for more than two hours, erupted over Alaska and Canada. The energy released by the two-hour substorm was estimated at 500 thousand billion joules—equivalent to the energy of one magnitude 5.5 earthquake. A dedicated network of ground cameras organized to support THEMIS photographed the display from below, while the satellites measured particles and fields from above.

The spacecraft also confirmed the existence of giant magnetic ropes connecting the Earth's magnetic field to the solar wind and observed a number of small explosions at the Earth's magnetic bow shock, where the solar wind first feels the effects of Earth's magnetic field.

THEMIS is the fifth medium-class mission under NASA's Explorer Program, which provides frequent flight opportunities for world-class scientific investigations within the heliophysics and astrophysics science areas. Scientists from the US, Canada, Western Europe, Russia, and Japan are contributing to the scientific investigation over the next two years. The Explorer Program Office at Goddard manages the NASA-funded THEMIS mission.

The University of California, Berkeley's Space Sciences Laboratory is responsible for project management, science, and ground-based instruments, mission integration, and postlaunch operations. ■



Photo credit: Yenes Viktor of Budapest, Hungary

*Caption: This image shows one of the first ground sightings of noctilucent clouds in the 2007 season.*

### AIM

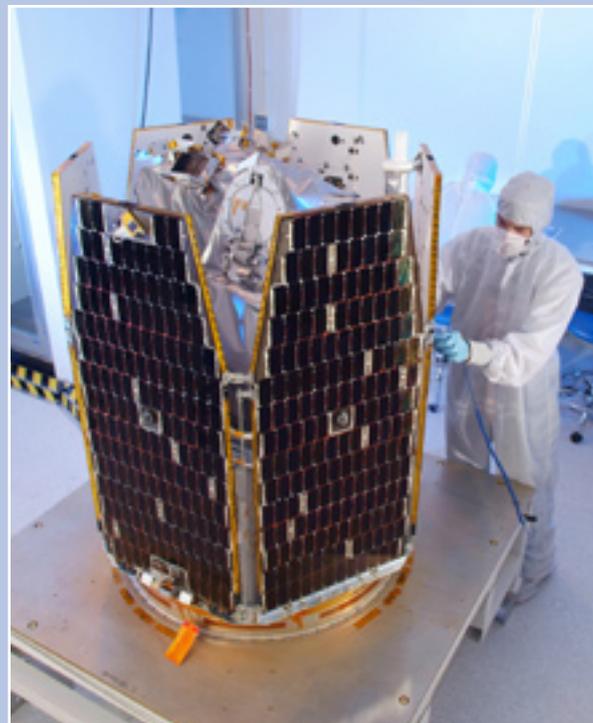
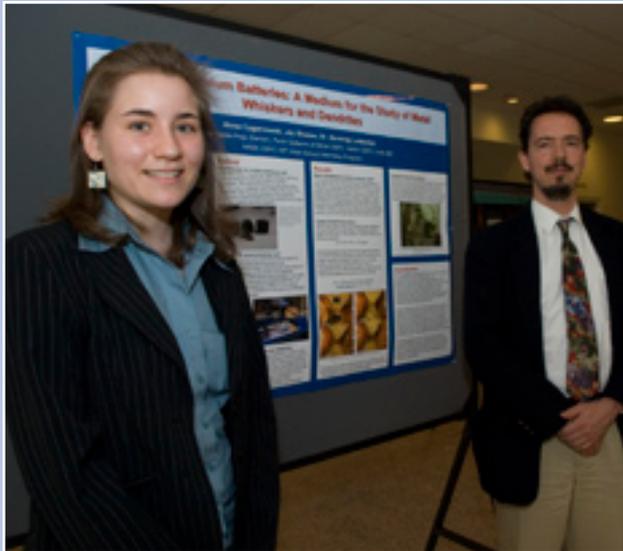
NASA's Aeronomy of Ice in the Mesosphere (AIM) satellite has provided the first global-scale view of the iridescent polar clouds that form 50 miles above Earth's surface for the entire 2007 Northern Hemisphere season with an unprecedented horizontal resolution of 3 miles by 3 miles. Launched in April, the AIM mission is the first satellite dedicated to the study of these noctilucent or "night-shining" clouds, also called Polar Mesospheric Clouds.

"The AIM mission has changed our view of Polar Mesospheric Clouds and their surroundings after only one season of observations," stated AIM Principal Investigator James Russell III of Hampton University, Hampton, Va. "The measurements show the brightest clouds ever observed with more variability and structure than expected, signifying extreme sensitivity to the environment in which the clouds form. They also show that the clouds exist over a broader range in height than was believed to be the case before AIM was launched. The unprecedented sensitivity has revealed for the first time the presence of very small ice particles believed to be responsible for the mysterious radar phenomenon known as "Polar Mesospheric Summertime Echoes."

The AIM mission coincides with the two-year worldwide International Polar Year and the mission is expected to make unique contributions to the objective of advancing polar research.

AIM is a NASA-funded Small Explorers mission managed by the Explorers Program Office at Goddard. The principal investigator for AIM is James Russell from the Center for Atmospheric Sciences at Hampton University in Virginia. Instruments were built by the Laboratory for Atmospheric and Space Physics (LASP), University of Colorado, Boulder; and the Space Dynamics Laboratory, Utah State University in Logan. LASP also manages the AIM mission and is controlling satellite flight operations. ■

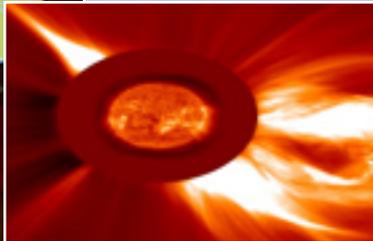
# Goddard Space Flight Center: The Year in Pictures



# Goddard Space Flight Center: The Year in Pictures

Continued from Page 6

# Goddard Year in Review 2007



## Can We Talk: A Year of Conversations with Dr. Weiler

Edited by Trusilla Steele and Sharon Wong

Center Director Dr. Ed Weiler continues to hold the monthly "Can We Talk" sessions that are open for all employees to attend. The sessions provide a venue for constructive dialogue that both respond to specific concerns of GSFC employees, and provide information to the general workforce regarding NASA and Goddard missions, work, events, and activities.

The 2007 "Can We Talk" sessions began with a general session in February. There was a discussion regarding the challenge of matching skills with employees and determining skills needed in the future. Dr. Weiler expressed the importance of passing communication down the management chain in order to increase information sharing and overcoming such challenges.

In March, a special session was held in recognition of Women's History Month and a second session was held for supervisors to dialogue with Dr. Weiler.

The April session focused on new employees and members from the New Employee Welcoming Board. The topics of discussion included institutional cutbacks, which were due to budget reductions, the hiring status, low morale of younger employees, and lab usage by projects that do not provide funding.

In recognition of Asian Pacific Heritage Month, the May "Can We Talk" session focused on Goddard's Asian Pacific American community.

The first "Can We Talk" session to focus on personnel and human capital was held in July. Among the many topics were the Center's strategy for addressing future workforce needs and career transition, term appointments, leadership programs, and the hiring of college graduates. A second session in July provided our summer students an opportunity to meet with Dr. Weiler.

In September, a "Can We Talk" was held in recognition of Hispanic Heritage Month. A second session was held for participants of the Graduate Researchers Program and Jenkins Fellows (Harriett Jenkins Pre-doctoral Fellowship Program).

Three "Can We Talk" sessions were held in October, one of which was held in recognition of National Disability Awareness month. The 2007 "Can We Talk" sessions ended in November with a session held in recognition of American Indian Heritage.

Dr. Weiler concluded the year's discussions by reiterating the importance of all employees becoming aware of the type of work that is done at Goddard. Knowing such information will enable employees to communicate the great accomplishments that impact people's lives on a daily basis.

A big Thank You goes out to all of the employees who participated in the 2007 "Can We Talk" sessions. Your participation and insight is very much appreciated and has a direct impact on the improvements we make to our infrastructure, programs, and policies. We look forward to seeing you in 2008. ■

## A Year of Education Activities Provide Footpaths for Next Generation

By Dwayne Washington

In 2007, education was again a high priority as Goddard continued a legacy of providing educational footpaths for our next generation to follow in.

The year of excitement included a visit by Queen Elizabeth II of England and Prince Philip, the Duke of Edinburgh, among local students during an Education Workshop conducted at the Goddard Visitor Center.

Goddard education staff members visited schools in Vermont, Connecticut, and New Jersey to celebrate their selection as NASA Explorer School's in the Goddard region.

The popular Family Science Nights, coordinated by Emily Drobnes of the Solar Dynamics Observatory (SDO), were held at the Visitor Center to inspire discovery and generate enthusiasm in the wide variety of science and engineering research conducted at Goddard.

Members of the Goddard community, along with the NASA Robotics Academy, supported the 2007 FIRST Robotics Chesapeake Regional competition in Annapolis. "The NASA Robotics Academy was created to offer graduating seniors of the FIRST; Botball; and Boosting Engineering, Science, and Technology (BEST) Robotics, Inc., high school programs an opportunity to continue developing their expertise and enthusiasm in robotics," said Dave Rosage, Manager of the NASA Robotics Academy.

A highlight of the 2007 Robert H. Goddard Memorial Symposium was the recognition of student participants for their valuable contributions to NASA science. This first-ever opportunity allowed students to display their research work before a gathering of aeronautics and space experts.

The Goddard region was directly involved in the STS-118 flight of Educator Astronaut Barbara Morgan last summer. Eleven-year-old Tapasya Das of Mount Laurel, New Jersey, came up with the winning pennant design, "Education 4 Exploration," which was flown aboard Space Shuttle *Endeavour* during the mission.

Over the summer, Goddard recognized another great recruitment year of our nation's best and brightest for the Goddard internship programs.

"The Goddard education staff is here to support the formal and informal education efforts of the Goddard community and our neighbors throughout the northeastern United States," said Dr. Robert Gabrys, Goddard Chief Education Officer. "We also want to solicit your help in engaging and inspiring the next generation by volunteering your time in support of our educational outreach efforts. Together we can engage and inspire today's students to become tomorrow's explorers to the Moon, Mars, and Beyond." ■

## 2007 Yields Many Accomplishments for the Innovative Partnerships Program

Courtesy of the IPP Office

Goddard's Innovative Partnerships Program (IPP) Office achieved many accomplishments in 2007. By infusing external technology into Goddard R&D through innovative partnerships, effectively managing Goddard's intellectual property (IP), and transferring that IP to new applications, the IPP Office helped strategically position Goddard as the "technology partner of choice." What follows are some of the year's highlights.

### IPP Seed Fund: Progress for 2006 recipients, selections for 2007

IPP at NASA Headquarter's Partnership Seed Fund enables broader partnership and development efforts for the benefit of NASA missions. Last year, Goddard's four 2006 projects made great progress on the collaborative research spanning a wide variety of research goals, from optics to exploration planning.

In 2007, Goddard's IPP Office coordinated and supported proposal efforts for the Center, garnering five wins:

- Extremely High-Performance, Ultra-Low Power, Radiation-Tolerant Processor (PIs: Michael Johnson, Ken LaBel, and Wes Powell)
- SpaceWire Plug-and-Play-Capable GPS Receiver (PIs: Glenn Rakow and John Carl Adams)
- Mission-Enabling, Lightweight, Ultra-Bandwidth Inverse Synthetic Aperture Radar (PIs: Manohar Deshpande, Dave Smith, Damon Bradley, and Paul Racette)
- Replacing Multiple Fiber Amplifiers with One for Mapping Lidars Featuring Multiple Frequency-Doubled Beams (PIs: Jeffrey Chen and David Harding)
- Integrating Space Weather Model and Event Data into Decision Support Systems (PIs: Stephen Talabac, Michael Hesse, and Jack Trombka)

More on the Seed Fund appeared in the Fall 2007 issue of *Goddard Tech Transfer News* <http://ipp.gsfc.nasa.gov/news/tr-archive.html>.

### Goddard's IPP introduces Innovation Fund

In 2007, the IPP Office launched its Innovation Fund, creating an opportunity for Goddard technologists to foster innovative ideas that fall into a "funding gap," yet are essential for future NASA missions:

- Vacuum Pyrolysis (PI: Eric Cardiff)
- A MEMS-Based Micromechanical Magnetic Refrigerator for Cryogenic Cooling (PI: Harvey Moseley)
- Application of Commercial Communication Services (PI: Wayne Powell)

- Composite Material Engineering Technologies Advancements (PI: Kenneth Segal)
- Mid-Infrared Single-Mode Semiconductor Lasers for Trace Gas Detection (PIs: Anthony Yu and Michael Krainak)
- Dual Computer-Generated Holograms Metrology for Nonfocusing Optics (PI: William Zhang)

### Goddard Technologies Receive R&D100 and Nano50 Awards

For the second year in a row, a Goddard technology received an R&D100 Award—this time it was the Adaptive Sensor Fleet (ASF) technology. ASF employs a unique, simple interface to remotely control vehicles (e.g., boats, rovers) to work collaboratively in support of multiple scientific goals. For more information, please visit: <http://ipp.gsfc.nasa.gov/NWS-RD100-2007.html> for details.

Also in 2007, Goddard's "Method for Manufacturing High-Quality Carbon Nanotubes" was named a Technology winner in the third annual Nano50 Awards, presented by *Nanotech Briefs* magazine. This technology gained much recognition in 2007 not only through this award, but also through three license agreements. For more information, please visit: <http://ipp.gsfc.nasa.gov/NWS-Nano50Award-2007.html> for details.

### Many Agreements Signed with Innovative Partners

Last year saw many agreements signed with both infusion and technology transfer implications. Besides those noted above, the IPP Office executed an additional 15 agreements that will benefit NASA missions and the partners' goals. One innovative partner is Enduro Medical Technology, which signed a new field-of-use license in 2007 for Goddard's cable-compliant joint technology, extending its physical therapy walker to horses. For more information, please visit: <http://ipp.gsfc.nasa.gov/SS-SAM.html> for details.

### Growth in New Technology Reports (NTRs)

In the past five years, the IPP Office has driven considerable growth in the number of new technologies reported. Last year was no exception, with 182 new technologies reported during FY07—that's double the number reported in FY02. Such growth in NTRs is significant not only because technology reporting is a requirement under Federal regulations and NASA policy, but also for Goddard's future. Report new technology using the online eNTR system at: <http://entre.nasa.gov>, or contact the IPP Office for more information 6-5810 or [techtransfer@gsfc.nasa.gov](mailto:techtransfer@gsfc.nasa.gov).

The IPP Office thanks the many innovators, technology program managers, and partners who made these and other 2007 achievements possible and looks forward to many more successes in 2008. ■

## Goddard Was the Place for Awards in 2007

Edited by Alana Little

### Presidential Rank Award Winners

Each year, the President of the United States honors a select group of career members from the Senior Executive Service (SES), Senior Level (SL), and Scientific and Technical (ST) corps who are selected for their outstanding leadership accomplishments and service over an extended period of time in some of the Nation's most critical positions in the Federal Government.

#### Dr. Michael G. Ryschkewitsch (Distinguished SES Award Recipient)

Dr. Ryschkewitsch's technical contributions and management expertise are widely recognized and he has been awarded the NASA Exceptional Service Medal, the NASA Outstanding Leadership medal, the Robert Baumann Award for contributions to mission success, and the NASA Engineering and Safety Center Leadership Award.

#### George W. Morrow (Meritorious SES Award Recipient)

Mr. Morrow's attention to detail, accountability, and integrity facilitated the successful launch and on-orbit checkout of the Space Technology-5 (ST-5) mission, the Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation (CALIPSO) and CloudSat missions, and the Geostationary Operational Environmental Satellites (GOES-N) mission during 2006.

#### Thomas J. Wagner (Meritorious SES Award Recipient)

Mr. Wagner's efforts have been essential in providing the continued leadership to a vast array of technical and management challenges. For his Directorate, he brought a number of technical issues to closure, such as the flight use of field programmable gate arrays and electrically erasable, programmable read-only memory used by GSFC missions.

#### Dr. David S. Leckrone (Meritorious ST Award Recipient)

Under Dr. Leckrone's scientific leadership, the HST has developed into one of the most important scientific and technical achievements of our time. It is scientifically the most productive mission in NASA's history. It has also had the greatest positive impact on the public's awareness of science of any NASA mission.

### Swift Team Awarded AAS Prize

The team of scientists on the Swift satellite mission, led by Dr. Neil Gehrels, Goddard scientist and a resident of Berwyn Heights, Md., was awarded the Bruno Rossi Prize from the AAS for their discoveries. This is an annual award given by the High Energy Astrophysics Division of the AAS.

### Graduate Student Wins AAS Award

Amber Straughn was a summer student working at Goddard in 2006. During the recent AAS annual meeting in Seattle, Amber won the Chambliss medal for a poster at a meeting by a graduate student.

### AAS Award for Astronomers Presented

Dr. Ann Hornschemeier (Cardiff), scientist at NASA Goddard, and adjunct faculty member at The Johns Hopkins University, Baltimore, Md., was recently awarded the Annie Jump Cannon Award for her research in astronomy and astrophysics. Her hometown is Georgetown, Ohio, and currently resides in Odenton, Md.

### Robinson Prize in Cosmology Awarded to Dr. Mather

Nobel Prize winner and NASA Goddard Astrophysicist, Dr. John Mather was selected for the Robinson Prize given by the University of Newcastle in England.

### Alumni Recognition Award for Work in X-ray Astronomy

Dr. Kimberly Weaver received an Alumni Recognition Award from the Eberly College of Arts and Sciences at West Virginia University on Feb. 3, 2007.

### NESC Honors Goddard Employees and Partners for Technical Excellence

Goddard was the only NASA Center recognized in each of five award categories during ceremonies at a recent NASA Engineering and Safety Center (NESC) leadership meeting held at NASA Langley. Individual Goddard recipients were Daniel Polis, Jeffrey Stewart, Paul Guy, and Michael Hagopian. Industry partner recipients represented ATK Space and Genesis Engineering.

### Daniel Glavin Wins Center's First IRAD Innovator of the Year Award

Goddard technologist Daniel Glavin, who is developing an instrument concept that could determine the abundance of water and other volatiles in the permanently shadowed areas of the Moon's polar regions and reveal clues as to their origins, has won the first-ever 2007 "Internal Research and Development (IRAD) Innovator of the Year" award. Glavin, along with his 13-member Volatile Analysis by Pyrolysis of Regolith (VAPoR) team, received the award at the IRAD Poster Session November 13, sponsored by the GSFC Chief Technologist.

### The OMNI Project

A team of Goddard engineers has been working since 1998 on the Operating Missions as Nodes on the Internet (OMNI) project, which aims to develop ways for probes to use standard Internet protocols for communication.

For the team's pioneering work, France-based Fédération Aéronautique Internationale/International Aeronautics Federation (FAI) and its U.S. member, the National Aeronautic Association, presented the OMNI group with the FAI Honorary Group Diploma at the end of October. OMNI testing on the UoSAT-12 and CANDOS missions also resulted in the award from FAI. ■

## NASM 2007 Inspiration, Creativity, and Perseverance: A Look Back at an Evening with Dr. John Mather

By Leslee Cork



Photo credit: Pat Izzo

*Caption: Dr. Mather speaks to a crowd of spectators inside the Lockheed Martin IMAX Theater.*

thing from the Wright Brothers to Einstein to *Apollo* to Cosmic Background Explorer (COBE), etc... Then he touched upon the next 50 years of missions, mentioning the Laser Interferometer Space Antenna (LISA), Joint Dark Energy Matter (JDEM), and *James Webb Space Telescope* (JWST)." This presentation was so dynamic, enlightening, and compelling guests remained glued to their seats until the end of the program.

Preston Cobbs, a ManTech employee and attendee at the event commented that Public Affairs' "thorough work resulted in a logistic flow that looked flawless." As the night came to a close, attendees left the museum feeling inspired by NASA's past accomplishments and excited about Goddard's future. ■

On Wednesday October 3, 2007 NASA Goddard Space Flight Center (GSFC) hosted their annual fall lecture and reception at the National Air and Space Museum (NASM) in Washington, DC.

This year's event—sponsored by the Maryland Space Business Roundtable—marks the eighth year for this annual invite-only gala which proved to be one of the most popular, well attended events to date. More than 700 invitees and guests were present, mingling and networking and eager to hear guest speaker and Goddard's own Senior Project Scientist for the *James Webb Space Telescope* (JWST) and 2006 Nobel Laureate in Physics, Dr. John Mather.

As diverse as a coed college campus, the main reception hall was filled with attendees from various ethnicities, educational levels, and occupations. Congressional representatives, NASA employees, and senior officials, former presenters, and STS-118 astronauts were some of the individuals present for the evening.

Despite the accolades and prestige that goes along with receiving a Nobel Prize, Dr. Mather remains humble and approachable, and was seen socializing with guests prior to the start of the 8 o'clock program, which also included remarks from NASM's Director, General John R. Dailey (Ret.); NASA's Deputy Administrator, The Honorable Shana Dale; House and Science Technology Committee Chairman The Honorable Bart Gordon; and Goddard's Center Director, Dr. Ed Weiler.

A presentation featuring Dr. Mather was given in the Lockheed Martin IMAX Theater. Those who weren't able to make it inside the theater watched the presentation via the large overflow area that was set up just outside the theater. Television producer Liz Smith, who was responsible for putting together Dr. Mather's multimedia presentation, stated that "[Dr. Mather] gave a history of amazing achievements in astrophysics (and NASA in general) spanning the year 1900 to the present day. The riveting presentation included every



Photo credit: Pat Izzo

*Caption: This image, taken from above on a skywalk, captures a small percentage of the actual turnout for the evening.*

## In Memoriam: Goddard Feels the Loss of Fallen Colleagues

Edited by Alana Little

### **Joe Vitale—February 2, 2007**

Joe Vitale worked as an engineer at NASA Goddard, in Code 596 where he designed software used to support satellite missions since 1993. On February 2, 2007, Joe, 41, passed away from brain cancer in his Gambrills home. Joe's memories and his work continue to surround us, from the hearts of those he knew, to the engineering work he helped put into space.

### **Andre Harrison—March 12, 2007**

On March 12, 2007, Eurest Dining services and the Goddard Space Flight Center lost a dear friend and co-worker when Andre Harrison, grille cook in the Building 21 Cafeteria, passed away due to a massive heart attack. Harrison was loved by many and is survived by a son, Terrell (18), and a daughter, Andrea (16), as well as his mother, Eva Mae Harrison, of Washington, D.C., four sisters, and several nieces and nephews. Harrison will be met in heaven with open arms by his deceased twin brother and a deceased sister. Harrison was 41-years old.

### **Barbara Blom—May 12, 2007**

Barbara Blom, assistant to the Deputy Director in the Office of the Director, died on May 12, 2007 from a long fight with breast cancer. Despite her illness, Barbara was determined to fight the battle. Her strength and perseverance allowed her to enjoy as much solace and happiness as she could in her final days. Barbara was loved by many and is survived by her son and daughter. She was 54.

### **Michael (Mike) Wade—May 12, 2007**

Michael Wade, Senior Aerospace Engineer Technician in the Advanced Manufacturing Branch, died of a massive heart attack at age 53 during the night of May 12, 2007 while visiting his mother and sister in Ohio. Mike leaves behind wife, Sherry Wade; son, Michael James Wade Jr.; daughter, Jennifer Spampinato; mother, Gladys Lilley Wade; sister, Jill Baer; and grandson, Vincent Michael Spampinato.

### **Dr. Robert S. Cooper—July 2, 2007**

Robert S. Cooper, 75, former Goddard Director from 1975–1979, died of prostate cancer July 2 at his home in Easton, Md. In addition to his time spent at Goddard, Dr. Cooper led the Defense Advanced Research Projects Agency (DARPA) from 1981–1985, testifying repeatedly before Congress on such matters as the Stealth bomber and supercomputers. His job put him in the middle of some of the most contentious political battles of the period, particularly the Reagan administration's Strategic Defense Initiative, popularly known as Star Wars, a ground- and space-based plan to protect the United States from attack by strategic nuclear ballistic missiles. Survivors include his wife, Benita Cooper of Easton; two sons from his first marriage, Jonathan Cooper of Ashburn and James Cooper of Lexington, Mass.; a sister; and five grandchildren.

### **Sgt. John S. Janny—July 17, 2007**

Goddard lost a true officer and a gentleman when family, friends, and those special people who honor the "home going" of soldiers, laid to rest 42-year employee, Retired Army Master Sgt. and Goddard Armorer, John S. Janny. He is survived by his wife Nina P. Janny, who he could never stop talking about. Rhonda McCarter, co-worker and friend of Janny said he would pull out a picture of his wife to anyone and say "Come and see my sweetie." Janny was also survived by one son, Johnny Janny.

### **Dr. John H. McElroy—Former Deputy Director**

John H. McElroy, engineer, educator, scientist, born June 27, 1936, died of a heart attack in his home in Las Vegas, Nevada on September 14. He earned a Bachelor of Science degree in Electrical Engineering from the University of Texas at Austin, and Master's and Doctoral degrees from the Catholic University of America. He is survived by Ellie McElroy, his wife for 51 years. His remains were interred at the Veterans Memorial Cemetery in Boulder City, Nevada. ■