

# NASA Returns a Special Piece of History to the City of New York

NEW YORK—Giving additional meaning to Flag Day, NASA Administrator Sean O'Keefe returned an American flag recovered from the wreckage of the World Trade Center to New York City, after it had been flown aboard the Space Shuttle.

"The tradition of carrying American flags into space dates back to the very beginning of this historic Agency," Administrator O'Keefe said. "From the surface of the Moon to the unchartered regions of our galaxy, NASA has flown the American flag as a patriotic symbol of truth, honor, and justice. It is appropriate that we present this flag back to the city of New York on Flag Day."

In December 2001, to honor the heroes, victims, and families of the attacks on September 11, the Space Shuttle *Endeavour* carried the flag into space, along with commemorative badges, patches, and other items from New York City emergency response officials. The Shuttle also carried nearly 6,000 smaller American flags that will be given to the families of the victims of New York, Washington, and Pennsylvania.

Along with Administrator O'Keefe, NASA Astronauts Frank Culbertson and Dominic Gorie assisted in presenting the flown items to New York City Mayor Michael Bloomberg, New York Governor George Pataki, representatives from the New York Police Department, Fire Department, and the New York and New Jersey Port Authority. Astronauts Linda Godwin and Michael Massimino were also in attendance. Godwin was a mission spe-



Administrator O'Keefe looks on as Astronaut Frank Culbertson recounts his memories from space on September 11, as the only American not on Earth.

cialist on board *Endeavour* during the December mission, and Massimino has close ties to the New York Fire Department.

NASA Astronaut Frank Culbertson, whom O'Keefe introduced as the only American not on Earth when the attacks occurred, said that even from space, he could see plumes of gray smoke coming from lower Manhattan after the attacks. Culbertson captured dramatic images of the smoking towers from space before they collapsed.

"From space, the astronauts get a unique view of our home planet, and the destruction was clearly visible from orbit. The events of September 11 deeply affected them, as they did the entire nation," concluded Administrator O'Keefe. "We hope this campaign is seen as a fitting tribute from America's space program as the courageous people of New York move forward." " . . . NASA has flown the American flag as a patriotic symbol of truth, honor, and justice," Administrator O'Keefe said.

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# Around the Centers . . .

### **Ames Research Center**

Forty-three minority students and 61 mentors are taking part in Ames' Minority University Research and Education Program (MUREP). The program teams NASA professionals with minority undergraduates whose fields of study are mathematics, science, and engineering. The 10-week internship allows students to conduct research alongside NASA experts. MUREP is a collaboration between NASA, and Historically Black Colleges and Universities and other minority universities.

### **Dryden Flight Research Center**

Dryden supported the first flight of the Defense Department's X-45A unmanned aircraft. The X-45A, the first unmanned aircraft designed from the ground up for combat, flew for 14 minutes, reaching a speed of about 225 mph and an altitude of 7,500 feet. Controllers demonstrated the basic aspects of the aircraft's operations, including the command-and-control link between the craft and mission control.

**Glenn Research Center** 

Glenn employee Dr. Yolanda Hicks was selected as a "Technology All Star" and will be awarded a certificate at the Women of Color in Government and Defense Professional Development Seminar in Washington. All Stars are women of color who have significantly influenced the science and technology community as scientists, researchers, or technologists, and whose contributions continue to advance technical and scientific career opportunities for other young minority women.

### **Goddard Space Flight Center**

This year, the American Meteorological Society will publish *The Research of Dr. Joanne Simpson: 50 Years of Investigating Hurricane, Tropical Clouds and Cloud Systems*, dedicated to Goddard scientist Dr. Joanne Simpson for her pioneering research efforts in tropical meteorology during her 50-plus year career. The book will feature Dr. Simpson's research and other papers with findings relative to her research.

#### Johnson Space Center

Thirty of JSC's co-op students assisted in assembling the "Flags for Heroes" packages delivered to New York Mayor Michael Bloomberg by Administrator Sean O'Keefe in New York on June 14. Stuffing envelopes and organizing the contents, the students volunteered their time to share in this historic event.

### Jet Propulsion Laboratory

JPL engineer Martin W. Lo was nominated for the *Discover Magazine* Innovation Award in Aerospace for "work so revolutionary that it has changed the direction, if not completely reversed, (his) field." Lo was recognized for applying "chaos theory" to mission trajectories. The trajectory can be computed along what Lo calls an "InterPlanetary Superhighway"—paths through space that depend on balanced-gravity points between planets. This helps spacecraft fly through the solar system on very little fuel. Lo plans to map out these paths for the whole solar system.

### **Kennedy Space Center**

Kennedy Space Center Director Roy Bridges, Jr., shared some of KSC's significant recent accomplishments and plans for the future with local community leaders. Bridges addressed hundreds of guests during a breakfast at the Center. "A lot of good things have happened since then, and a lot of historical things have happened, but the one thing that hasn't changed is your steadfast support," Bridges said. "We appreciate the support of all our stakeholders."

### Langley Research Center

Langley scientists, working at the request of the National Archives, have discovered why the Charters of Freedom—Declaration of Independence, the U.S. Constitution, and the Bill of Rights—may have been in jeopardy. "We think the problem of deterioration of glass in the encasements has to do with the amount of humidity in the cases," said Joel Levine. "Some humidity is necessary to keep the sheepskin documents from becoming brittle, but too much moisture could cause them to deteriorate as well." Over the next few months, the National Archives will replace the containers.

### **Stennis Space Center**

Bruce Davis, the acting chief of the Applications Engineering Division of the Earth Science Applications Directorate, has been putting his research to work. After the events of September 11, 2001, Davis and a team of scientists responded to the Federal Emergency Management Agency's (FEMA) call for remote-sensing applications. He provided technological advice to FEMA and emergency personnel on the use of remote-sensing technology and data, including recommendations for changes in the processing of thermal imagery and the development of a formula for answering questions about debris.

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#### HQ Bulletin Submission Deadline

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## NASA's New Vision and Mission

### administrator's

corner

There have been some pretty interesting congressional hearings of late, but perhaps none as unique as one recently held by the Senate Subcommittee on Science, Technology, and Space.

In this hearing on NASA's education initiatives, senators heard the first testimony ever presented from space, as Dr. Peggy Whitson demonstrated learning tools that she and her fellow International Space Station crewmates used to instruct, inspire, and motivate students in classrooms on Earth.

Also testifying were Astronaut Jim Voss, Iowa middle school science teacher Peggy Steffen, university student Marci Whittaker, and two precocious fifth-grade science project winners, Christopher Broere and Brendon Dwyer, who "launched" a payload from their home-built balsawood launch structure to the delight of the senators. All were tough acts to follow. As Chairman Ron Wyden of Oregon said, just being close to these people generated excitement about NASA and its role in promoting education.

My testimony stressed five points: 1) Education is a core agency mission; 2) NASA accepts the responsibility of inspiring the next generation of explorers; 3) NASA education programs will aggressively reach out to minority communities; 4) NASA will also work with other government, industry, and educational partners to ensure mission success; and 5) NASA's education initiatives will reach more American students than ever before. As my concluding remarks noted, "Opening the mind of a child to unimagined possibilities is the greatest mission NASA has accepted."



Photo credit: NASA/Renee Bouchard

**NASA**news

# NOAA-17 (M) Satellite Successfully Launched

A new environmental satellite that will improve weather forecasting and monitor environmental events around the world soared into space on June 24, at 2:23 p.m. EDT after its launch from Vandenberg Air Force Base, CA, on an Air Force-launched Titan II rocket. Now on orbit, the spacecraft previously called NOAA-M has been renamed NOAA-17.

NOAA-17 is the third in a series of five polar-orbiting satellites jointly developed by NASA and the National Oceanic and Atmospheric Administration (NOAA) to provide improved imaging and sounding capabilities and will operate over the next 10 years.

Image credit: Lockheed Martin Missiles & Space/ NASA National Oceanic and Atmospheric Administration's NOAA Satellite artwork.



## Scientists Discover Planetary System

After 15 years of observation, the world's premier planet-hunting team has finally found a planetary system that reminds them of our own home solar system.

On June 13, Dr. Geoffrey Marcy of the University of California, Berkeley, and Dr. Paul Butler of the Carnegie Institution of Washington announced the discovery of a a Jupiter-like planet orbiting a Sun-like star 41 light years away. With a mass 3.5–5 times that of Jupiter, the planet orbits its sun at nearly the same distance as the Jovian system orbits our Sun.

The planet's sun, the star 55 Cancri in the constellation Cancer, is already known to have one planet, a gaseous giant with a mass slightly smaller than Jupiter. Its discovery was announced by Marcy and Butler in 1996.

Using the team's data, Dr. Greg Laughlin of the University of California, Santa Cruz, calculated that an Earth-sized planet could survive in a stable orbit between the two gas giants found so far. However, for the foreseeable future, existence of such a planet remains speculative.



Artist's concept depicts a Jupiter-mass planet orbiting the star, 55 Cancri. A possible moon around the planet is shown because such moons are thought to be common around this type of planet, but no moon has been detected. Image credit: NASA/Lynette Cook.

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### Hapersonalities Court

### Courtney Stadd





Johnson

Stadd

Title: Chief of Staff and White House Liaison Career history: Nearly half of my career has been dedicated to public service; while the other half has been associated with the co-founding and managing of various commercial, space-related ventures. Family: I have been married to Rebecca for nearly 19 years. We have been blessed with two daughters, Jessica, 16, and Allison, 14. Their support has been critical to giving me the stamina and courage to take on the responsibility of returning to public service.

Most memorable experience: On the morning of 9/11, when rumors were rampant about terrorist threats to the Nation's Capital, I walked with the previous Administrator to every office in HQ. Nearly every one of our fellow colleagues were calm and courageous. It was a humbling experience and served as a reminder of how honored I am to be associated with such wonderful people.

Activities/hobbies: When I had a life, I greatly enjoyed reading widely on subjects including biographies, the history of science and technology, film; videotaping and editing family-related vignettes; and listening to music, especially jazz. I was learning the finer points of tennis until I was appointed to my current job.

### Christyl Johnson

Title: Associate Director for Exploratory Missions in the Office of Earth Science

**Current position with NASA:** I perform strategic planning for new programs, develop long-term space measurement options and mission architecture concepts for out-year programs, and I provide technical guidance and oversight for the design, development, and flight of national and international Earth Explorer missions.

**Career history:** I have held numerous positions with NASA, including Subsystem Manager of the Diode Seeding Subsystem of the LASE instrument, Program Manager and Lead Engineer of the Diode-Pumped Cr:LiSAF Technology Development Program, and the Assistant Head of the Electro-Optics and Controls Branch (EOCB).

**Family:** I am the second of three siblings. My older brother is a filmmaker and movie producer, and my younger brother is a professional football player. I have an incredible soul mate in my husband of nine years, and we have an equally incredible son.

Activities/hobbies: I enjoy spending time with my husband and son, re-exploring life through the eyes of our child. I enjoy doing Tae-bo, aerobics, swimming, and volleyball. I also like to indulge in the arts—musicals, plays, other performing arts, and art exhibits.

# Walz, Bursch Set New U.S. Space Flight Records





(I to r) Record-breaking Astronauts Daniel Bursch and Carl Walz of the International Space Station's Expedition Four crew.

Expedition Four Flight Engineers Carl Walz and Dan Bursch returned to Earth June 19 on STS-111 on *Endeavour* with two new U.S. space duration records.

Walz and Bursch, who worked on the International Space Station for six months with their Russian Commander Yuri Onufrienki, now share the new record for the longest U.S. space flight with their 196 days in space. NASA's Chief Scientist and astronaut Shannon Lucid established the previous record of 188 days in 1996 when she flew on STS-76 to *Mir*, where she served as an engineer and conducted science experiments and returned on STS-79. The astronauts exceeded Lucid's record on June 11, while staying with Onufrienki and the STS-111 crew aboard the docked Space Shuttle *Endeavour*.

Walz also holds a second U.S. record for the most cumulative days in space with 231 days.

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### Summer Interns: The New Faces of NASA

Jacob Keaton—Hometown: Hulmeville, PA. Studying international affairs, George Washington University. "Working in the Office of External Relations is a great way to combine my major with a lifelong interest." Code I.

Jennifer Davis—Hometown: Antioch, CA. B.A. History, Brigham Young University. "I enjoyed my internship last year so much that I wanted to come back." Code I.

Anne Juterbock—Hometown: Jefferson, OH. Entering Ohio State University School of Law. "I want to work for NASA because it is a prestigious, progressive organization that will give me valuable work experience." Code I.

Michael Verbeck—Hometown: Chesapeake Beach, MD. Studying computer science, University of Maryland Baltimore County. "I want to work for NASA because it gives me office experience." Code Y.

Kristin Delo—Hometown: Reston, VA. Studying sociology, Virginia Tech. "This is an opportunity not many people receive and a great experience for people my age." Code C.

Ryan Brack—Hometown: Vernal, UT. Studying biology, Utah State University. "A unique opportunity to participate in relevant research." Code U.

Nicole Jackson—Hometown: Ft. Washington, MD. Studying communications, St. John's University. "I feel this organization will enable me to hone the skills necessary to succeed in my career." Code C.

Amy Costanzo—Hometown: North Potomac, MD. Studying criminal justice, University of Maryland. "I want to gain experience in a Federal agency because I want to work for the FBI or CIA." Code X.

Wesley Johnson—Hometown: Lyons, NY. Graduate student, School of Public Policy, University of Maryland. Chose NASA for its "exciting technology." Code U.

Charles Brooks—Hometown: Atlanta, GA. Studying history, Alabama State University. "To enhance my technical skills and broaden my historical knowledge." Code I.

**Pedro Ramos**—Hometown: Eunice, NM. Studying mechanical engineering, University of New Mexico. "Working at NASA HQ will give me the experience necessary to succeed in my career as well as expand my education." Code AS.

Kendrick Faison—Hometown: Mt. Olive, NC. Studying history, geography, Fayetteville State University, NC. "I am very interested in the function of this organization. I would like to see it firsthand . . . . " Code I.

Chevonna Nimmons—Hometown: Charlotte, NC. Studying law, North Carolina Central University. "I want to work at NASA to gain some experience relating to what I learned during my first year of law school." Code G.

Yolanda Taylor—Hometown: Oklahoma City, OK. Studying English, Tennessee State University. "This internship will provide insight into the inner-workings of the space administration." Code I.

**Carla Howard**—Hometown: Norfolk, VA. Studying public administration, Old Dominion University. "I would like to obtain experience from my internship that would help me utilize my education and training more effectively." Code P.

**Teressa Scott**—Hometown: Enterprise, AL. Studying English education, Florida A&M University. "To become more familiar with the operations of NASA and of the Federal Government, and to gain valuable work experience." Code CS.

Audrey Rodgers—Hometown: Tallahassee, FL. Studying business management, Florida A&M University. "I believe that an internship at NASA will provide me with the opportunity to gain 'real work experience' and facilitate decisions regarding permanent placement." Code Q.

Michael Chilton—Hometown: Columbus, MS. B.S., computer science, Mississippi State University. "I wanted to work with the brightest people and the most advanced space program in the world." Code AO.



(I to r): Jacob Keaton, Jennifer Davis, Anne Juterbock, Michael Verbeck, and Kristin Delo.



(I to r): Ryan Brack, Nicole Jackson, Amy Costanzo, and Wesley Johnson.



NASA National Association for Equal Opportunity in Higher Education (NAFEO) interns (back row I to r): Charles Brooks, Pedro Ramos, Kendrick Faison; (front row I to r): Chevonna Nimmons, Yolanda Taylor, Carla Howard, Teressa Scott, Audrey Rodgers, and Michael Chilton of the Achieving Competence in Computing, Engineering and Space Science (ACCESS) intern program.

All photo credits: NASA/Renee Bouchard

July 2002

NASAteam

# Space Flight Awareness Program Honorees







Congratulations to the eight HQ employees honored at the Kennedy Space Center during SFA award activities prior to the launch of STS-111: (I to r) Dawn Brooks, Joseph McElwee, Diane Thompson, Judy Gross, Michael McNeill, Lynn Bailets, Sandy Muse, and Pedro Colon.

Photo credit: NASA/Renee Bouchard

Eighteen HQ employees received SFA Business Management Awards on May 22 in recognition of their support of International Space Station (ISS) operations and the Code M budget process. William Readdy, Deputy Associate Administrator (Code M), and Michael Reilly, Deputy Associate Administrator (Business Management), presented the awards. Award recipients (front row I to r): Catrina Mason, Barbara Manthos, Joseph La Curto, Garry L. Gaukler, Jr., Anna Henderson, Jeannie McDonough, and Readdy; (back row I to r): Vickie Walton, Tony Schoenfelder, Charlene Matthews, Pedro Jimenez, John Watts, Altonell Mumford, Michael Milsted, Douglas Koupash, Reilly (Leadership Award recipient), and Joyce Proctor. Not pictured: Stephanie Green, Andrea Jordan-Ledbetter, and Robert Solstess.

# CONTOUR Targets The Heart of Comets



NASA's Comet Nucleus Tour (CONTOUR), a mission to visit and study at least two comets, should provide the first detailed look at the differences between these primitive building blocks of the solar system and answer questions about how comets act and evolve.

At press time, CONTOUR was scheduled to lift off from Cape Canaveral Air Force Station, FL, on a Boeing Delta II rocket during a 25-day launch window that opens July 1.

CONTOUR's flexible four-year mission plan includes encounters with comets Encke, November 12, 2003, and Schwassmann-Wachmann 3, June 19, 2006. CONTOUR will examine each comet's "heart," or nucleus, which scientists believe is a chunk of ice and rock. The nucleus is often just a few kilometers across and is hidden from Earth-based telescopes beneath a dusty atmosphere and a long tail.

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#### insideHQ

# Truly Portrait Unveiled at NASA HQ

The portrait of former NASA Administrator Admiral Richard Truly, USN (Ret.) by artist Laurel Stern Boeck was unveiled during a June 6 ceremony in the Administrator's suite at NASA Headquarters. Richard and Cody Truly (shown in photo) unveiled the portrait to an audience that included Administrator Sean O'Keefe, who welcomed the guests: former Congressman Sonny Montgomery, former Deputy Administrator J.R. Thompson, and Mrs. Faye Fletcher, wife of the late former NASA Administrator James Fletcher. Astronauts Bill Readdy and Shannon Lucid and former astronauts Bob Crippen, Bill Lenoir, Rick Hauck, and Bryan O'Connor also attended. A reception followed. Truly's portrait now hangs with the other paintings of former Administrators in the Administrator's suite.



Photo credit: NASA/Bill Ingalls

# Agency Honors Its Best

At the annual Agency Honor Awards Ceremony on Tuesday, July 9, Administrator Sean O'Keefe will present awards to Headquarters employees and individuals from outside NASA who have made significant contributions to Agency programs. Employees are encouraged to attend the ceremony at 1:30 p.m. in the auditorium with a reception immediately following in the west lobby. The Agency award winners are listed below.

### Public Service Group Achievement Award: Employee Assistance Program Professionals

#### Group Achievement Award:

Class Action Management Mediation Team Far Ultraviolet Spectroscopic Explorer Team Integrated Financial Management Program Resume Management Project Team NASA Environmental Management Team NASA IT Security Team NASA Media Services Team NASA Office of Inspector General, Pentagon/World Trade Center/National Infrastructure Protection Center – Evidence Recovery Team

Near Earth Asteroid Rendezvous Shoemaker Mission Team New Millennium Earth Observing-1 Project Team

Occupational Health Principal Center Team Vision Mission Team

Exceptional Engineering Achievement Medal: Robert W. Farquhar Tommy W. Holloway

### Exceptional Scientific Achievement Medal:

Mary E. Kicza Michael C. Malin

### Distinguished Public Service Medal:

Thomas P. Ackerman Viktor D. Blagov Vladimir Nikolaevich Dezhurov Glenn A. Goerke Audrey Milroy R. K. Chetty Pandipati Gerald W. Smith Mikhail Tyurin Yury V. Usachev

### Distinguished Service Medal:

Kenneth D. Cockrell Frank L. Culbertson, Ir. Michael L. Gernhardt Linda M. Godwin Susan J. Helms Scott I. Horowitz George D. Hopson Marsha S. Ivins Thomas D. Jones James W. Kennedy Daniel R. Mulville Arthur F. Obenschain Scott E. Parazynski William F. Readdy Kent V. Rominger Robert A. Schiffer William M. Shepherd James S. Voss James D. Wetherbee

Exceptional Service Medal:

William J. Bierbower Wayne R. Frazier Gilbert R. Kirkham John C. Landers Lia S. LaPiana Patricia K. Maliga Mary M. Mellot Malcom V. Phelps Steven G. Schmidt John D. Schumacher Marvalyn J. Sweeney William J. Wagner Gregory J. Williams

### **Exceptional Achievement Medal:**

E. Julius Dasch Candace S. Irwin Ramesh K. Kakar Thomas S. Luedtke Vicki A. Novak Paul G. Pastorek

### Outstanding Leadership Medal:

Ghassem R. Asrar Alphonso V. Diaz Charles Elachi James B. Garvin G. Scott Hubbard Charles J. Precourt Brock R. Stone Edward J. Weiler

# Events Calendar

### July

- 1—CONTOUR Launch Scheduled
- **4**—Independence Day; 5th Anniversary, Mars Pathfinder Landing on Mars
- 8—10th Anniversary, Comet Shoemaker-Levy 9
- 9—Agency Honor Awards Ceremony and
- Telstar-1 Launch
- 15–24–27th Anniversary, Apollo Sovuz Test Project (ASTP) Mission
- **19**—35th Anniversary, Explorer 35 Launch
- 20—33rd Anniversary, Apollo 11 Moon
- 22—STARDUST. 2nd Interstellar Dust Collection
- 30—GALEX Launch Scheduled

# Ball Wins F2M Award



Photo credit: NASA/Bill Ingalls

Precittia Ball of Code R receives an award from Courtney Stadd, NASA Chief of Staff and White House Liaison (at left), in recognition of her support of the Freedom to Manage (F2M) team, while Gregg Reck of Code AF looks on. The F2M team actively reviews ideas and suggestions from the NASA workforce on barriers to NASA's effectiveness and efficiency. Recent topics the team has tackled include ISO 9000 implementation, delegation of Center reorganization approvals, and streamlined hiring for senior-level positions. In addition, suggestions from employees resulted in guidance from the Comptroller clarifying the budget process, facilitating Center suballotments, and identifying potential reductions in OMB reporting requirements. To identify a barrier that gets in your way to efficiency and effectiveness, visit the F2M Web site and submit your suggestion electronically at http://f2m.nasa.gov

## Administrator Goes Back to School



Photo credit: NASA/Bill Ingalls

NASA Administrator Sean O'Keefe (at left) signs autographs for students at Eagle Ridge Middle School in Ashburn, VA. During their visit, O'Keefe and Astronauts Robert Curbeam and William Readdy met with the school's sixth graders. Students saw NASA videos and gained knowledge of the training and education requirements for becoming an astronaut. The students also received patches, pins, and stickers relating to recent missions.

http://www.hq.nasa.gov/exchange/

### **Exchange Council News**

NASA Day at Kings Dominion: Saturday, July 27.

NASA Day at Six Flags: Sunday, August 18.

Book Fair: Thursday and Friday, August 22–23.

Annual Crab Feast: Thursday, August 29.

Cell Phone Day: Thursday, September 5.

For more information on these events, visit the Exchange Council Events and Activities web page shown above.





Access the HQ Bulletin Online: www.hq.nasa.gov/hq/infocom/bulletin\_online.htm