

ANNUAL REPORT

2004

Celebrating Exploration History





Mars Exploration Rover:
An artist's concept portrays a NASA Mars Exploration Rover on the surface of Mars. Two rovers, Spirit and Opportunity, have the mobility and toolkit to function as a robotic geologist.



Resembling sparks from a fireworks display, this image taken by a JPL camera onboard NASA's Hubble Space Telescope shows delicate filaments that are sheets of debris from a stellar explosion in the nearby Large Magellanic Cloud galaxy.

— Image Credit: NASA/JPL/Hubble Heritage Team (STScI/AURA)

Celebrating Exploration



PREFACE

“Spirit” and “Opportunity” are more than just ideals to Americans. They are viewed as inalienable rights. The American Spirit that fueled a revolution in 1776 has always looked forward, believing that the opportunities are boundless.

President Thomas Jefferson believed that when he commissioned Meriwether Lewis and William Clark to embark on the exploration of the Louisiana Purchase in May 1804, a journey that took the American flag to the Pacific Ocean. President John Kennedy believed it in May 1961 when he challenged the nation to reach the moon within a decade. The first American flag was planted on the moon on July 20, 1969, and five others joined it later. This year, as the nation celebrated the two hundredth anniversary of the Lewis and Clark Expedition and the thirty-fifth anniversary of the Apollo 11 lunar landing, the nation continued to look forward. President George W. Bush gave NASA a mandate of returning to the moon and exploring beyond. Spirit and Opportunity, two NASA robots, landed on Mars, accomplished their geological missions, and then pushed further, personifying their names by seizing new opportunities with a spirit that is quintessentially American. Burt Rutan, encouraged by Huntsville’s own Konrad Dannenberg, took the American entrepreneurial spirit into space with the successful flights of SpaceShipOne that captured the Ansari X-Prize of \$10 million.

SPACE CAMP®, founded on the mission of helping to create the next generation of explorers, celebrated as alumnus Dottie Metcalf-Lindenburger, was named to the 2004 Astronaut Class as a Mission Specialist-Educator. She visited the U.S. Space & Rocket Center® (USSRC) this year and took time to encourage Title I students attending SPACE CAMP, along with another member of the 2004 Astronaut Class, Mission Specialist Shane Kimbrough, who previously had been to the museum on a school field trip. In their visits to the USSRC, Rutan and Apollo 11 astronaut Buzz Aldrin, who chairs the USSRC Saturn V Restoration Campaign, took time to salute the past but exhorted us never to lose the vision to explore.

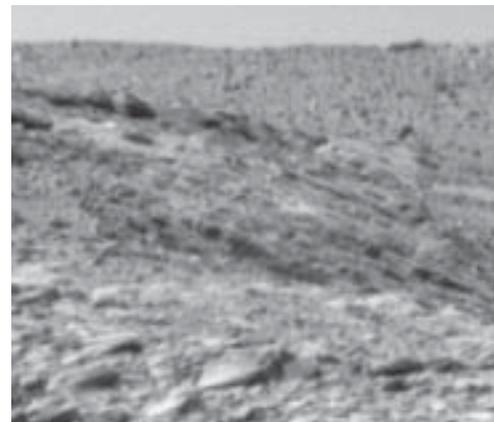
That vision permeates the atmosphere of the USSRC and SPACE CAMP, where this and every year, thousands of tomorrow’s leaders laugh, learn, and grow as they discover that with education and perseverance, today’s boundaries can be pushed to the stars and beyond.

In this annual report, we introduce you to some of the modern-day explorers we proudly claim as alumni and report on the progress we made as we encouraged Spirit, showed Opportunity, and worked to fulfill our mission of creating explorers.

—Larry R. Capps
Chief Executive Officer/President
U.S. Space & Rocket Center®

“The urge to explore has been the primary force in evolution since the first water creatures began to reconnoiter the land. The quest for the larger reality, the need to see the whole — from the mountaintop or the moon is the basic imperative of consciousness, the hallmark of our species.”

—Dr. Buzz Aldrin, *Apollo 11*



Layered Rocks in 'Columbia Hills': This black-and-white image shows the first layered rocks scientists have seen close up in Gusev Crater, where NASA's Mars Exploration Rover Spirit landed Jan. 4, 2004. While Spirit's twin rover, Opportunity, reached the stadium-size Endurance Crater on the other side of Mars and began exploring its many layered outcrops in early May, Spirit traveled more than 3.5 kilometers (2.2 miles) to get to this layered bedrock in the "Columbia Hills." Scientists are planning to conduct a study of these rocks to determine if they are volcanic or sedimentary in origin, and if they have been chemically altered. Spirit's panoramic camera took this image on sol 217 (Aug. 13, 2004).

— Photo Courtesy NASA Jet Propulsion Laboratory (NASA-JPL)



**TABLE OF
CONTENTS**

Mission Control

Alabama Space Science Exhibit Commission 5
U.S. Space & Rocket Center 5
U.S. Space & Rocket Center Foundation 5
U.S. Space & Rocket Center Employee Association 5

Celebrating Exploration

Mission Center Complex Upgraded 6
Honeywell Brings Teachers to SPACE CAMP 7
Corporate Sponsorships and Grants Help Fund Teachers 7
Governor Appoints New Members to the Alabama Space Science Exhibit Commission 8
Explorer Dottie Metcalf-Lindenburger 8
Museum Builds Exhibit Collection 9
Liberty Bell 7 Featured 9
NASCAR Packs IMAX® 9
Explorer Jamail Larkins 10
Frozen Missiles Fly in November 10
MSFC/USSRC Training/Education Facility Construction Begins 11

Marking the Milestones

Saturn V Project Moves Forward 12
duMidis Kick Off Brick Sales 13
Saturn V/Apollo Reunion Draws Crowd 14
Saturn V Honorary Committee Attracts Leaders 14
Rutan Researches von Braun Papers 15
First to the Moon Distinctive License Plate Offered 15
2004 Scholarships Doubled 16
Explorer Capt. Kim Reed Campbell 16
NASA Stars Works to Close Achievement Gap 17
SPACE CAMP Licensing Office Sees Increased Interest 18
Sci-Vis Program Makes SPACE CAMP Possible for Visually Impaired 19
GTAC Teaches Practical Applications of Space-based Technologies 20
Explorer Robert Shane Kimbrough 21

Charting the Journey

Legislators Save USSRC Appropriation, Pass Lodging Tax 22
State Auditor Commends ASSEC and Property Manager Terry Poole 23
Saturn V Donors 23
Siemens VDO Automotive Joins USSRC Donor Program 24
U.S. Space & Rocket Center Foundation Grows 25
U.S. Space & Rocket Center Foundation Statement of Operations 25
U.S. Space & Rocket Center Financial Statement 25
Departments Provide Updates 26
 Aerospace: Camp Reports 26
 FY 2004 SPACE CAMP and AVIATION CHALLENGE Attendance 26
 Museum: Inventory, Gifts, and Affiliations 26
 Visitor Reports 27
 Advancement: SPACE CAMP® Featured at U.S. Capitol 28
 Geospatial Training & Application Center 28
 Human Resources: Gleason Recognized for Achievement and Dedication 29
 Linda Burroughs Retires From Center 29
 Marketing 30
 Safety and Security: Nurses Distribute Medicine and TLC 30
 Explorer Kerri Brooke Beisser 31



Alabama Space Science Exhibit Commission

T. Jack Lee, *Chair*
 William H. Stender, Jr., *Vice Chair*
 Waymon Burke
 Joe Collazo
 Margie Cumbie
 James L. Flinn III
 Roosevelt J. Lewis, Jr.
 Gary Marcum
 J. Garrett Martz
 Roy Nichols
 Albert L. Patterson III
 Walter Penry, Jr.
 Todd Slyman
 Jimmy Ray Smith
 Loretta Spencer
 John L. Stallworth
 Irma Tudor
 Sidney White



U.S. Space & Rocket Center

Chief Executive Officer and Executive Management

Larry R. Capps, *President/Chief Executive Officer*
 Clif Broderick, *Executive Vice President/Chief Operating Officer*

Senior Vice Presidents

Ralph Bryson, *Aerospace Programs*
 Jim Johnson, *Museum Operations*

Vice Presidents

Holly Beach, *Marketing*
 Brenda Carr, *Advancement*
 Elgin Carver, *Safety/Security*
 Donnie Claxton, *Finance/Controller*
 Marion Cox, *Human Resources*
 Chris Johnson, *Geospatial Training and Application Center*
 Mike Kelly, *Domestic and International Licensing*

U.S. Space & Rocket Center Foundation

William H. Stender, Jr., *Chairman*
 Richard Carpenter, *Vice Chairman*
 Larry R. Capps, *Chief Executive Officer*
 Jennifer Crozier, *Executive Director*

Directors

Waymon Burke
 James L. Flinn III
 Mark J. Lumer
 Cynthia McCollum
 Frank Pitts
 Joe Ritch

U.S. Space & Rocket Center Employee Association

James Brown, *President*
 Cassandra Wilkins, *Vice President*
 Dionne Liner, *Secretary*
 Pam Padgett, *Treasurer*



New Initiatives

Creating the next generation of explorers is challenging work requiring that U.S. Space & Rocket Center staff continuously develop programs that capture the imagination of today's students and adults, who are savvy consumers accustomed to technological toys and sophisticated special effects.

The USSRC implemented new programs, featured fresh exhibits, and broke ground on a new education facility in the quest to keep the visitor experience unique and the USSRC viable.



» Mission Center Complex Upgraded

SPACE CAMP programs, which are correlated to the math standards of the National Council of Teachers of mathematics and to the National Science Education Standards, are taught in a classroom, known as the Mission Center Complex (MCC), which is designed to give students an out-of-this-world experience. This year, as the second stage of a three-phase renovation, SPACE CAMP continued the MCC upgrade by adding International Space Station (ISS) modules that initially NASA used to educate the public about the station.

Also in the 2004 renovation, a new ISS mission control room for 24 students was added to allow the trainees a more realistic ISS mission experience. Stardrop LED curtains were hung to create the effect of being in outer space, and they are equipped with theatrical lighting that can be cycled every 45 minutes to simulate the day/night effects of traveling around the Earth every 90 minutes.



Six ISS mock-up modules were moved from the Marshall Space Flight Center during Phases I and II and will be fully incorporated into the MCC for the 2005 summer season as part of Phase III upgrades. When Phase III is complete in June of 2005, it will expand the capacity of the Mission Center Complex from 82 to 160 students and the length of the trainees mission experience from a previous high of six hours to 24 hours for some programs. MCC renovations also will allow the USSRC to offer two-week programs for the middle and high school age students during the 2005 summer season.



▶▶ **Honeywell Brings Teachers to SPACE CAMP**

What began as a trial balloon to determine interest and support among Honeywell Employees for a new giving option became one of the premiere sponsorships of the year. The Honeywell Hometown Solutions Foundation was looking for a way to give back to Honeywell communities, and the Honeywell Educator Scholarships proved to be just the thing.



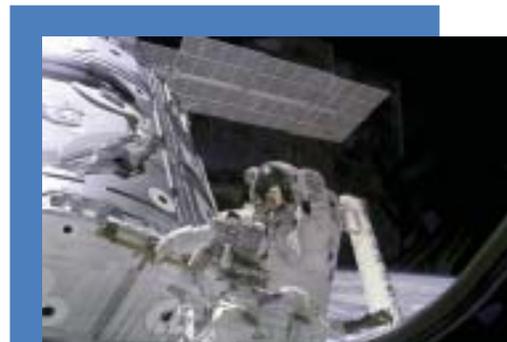
The Foundation agreed to underwrite the cost to sponsor 50 teachers from across the country to attend EDUCATOR SPACE CAMP — all expenses paid. However, this stop-gap measure was unnecessary as Honeywell employees bought into the program with great enthusiasm. With donations from nearly 1,500 Honeywell employees, the Honeywell Hometown Solutions Educator Scholarships sponsored 100 teachers — each having earned the honor through an essay competition — and has become the largest educator sponsorship at SPACE CAMP.

▶▶ **Grants, Corporate Sponsorships Help Fund Teachers**

Honeywell joins The Boeing Company and Rockwell International Corporation Trust and Rockwell Collins, Inc., in sending educators to this unique professional development experience. The University of Alabama in Huntsville also sends teachers through a grant from the Alabama Commission on Higher Education. The UAH program increased from 100 teachers in 2003 to 140 in 2004.

Each year, the National Teacher of the Year and teachers from each of the 50 states and U.S. territories join teachers from across the globe for International SPACE CAMP. Nineteen countries including Argentina, Australia, Austria, Belgium, Costa Rica, Denmark, Finland, France, Germany, Greece, Hungary, Netherlands, New Zealand, Norway, Portugal, Republic of Korea, Turkey, Russia, and Switzerland participated in 2004.

Funding from Toyota Motor Manufacturing Alabama, Inc., The Pierre and Pam Omidyar Fund (founder of E-Bay), and Coca-Cola helped to fund this program that was held July 24-30, 2004.



Encouraging Exploration:

Through these doors enter America's future astronauts, scientists and engineers.

— Posted over the entrance to SPACE CAMP Mission Center Complex



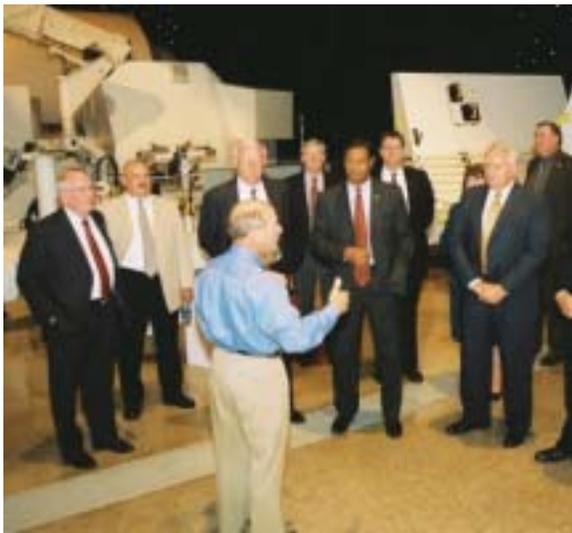
► Governor Appoints New Members to the Alabama Space Science Exhibit Commission

In addition to implementing programs and constructing facilities, the USSRC welcomed on April 8, 2004, 12 new board members when Governor Bob Riley appointed Joe Collazo, Margie Cumbie, James L. Flinn III, J. Garrett Martz, Todd Slyman, Irma Tuder, and Sidney White, all of Huntsville; Roosevelt J. Lewis,



Jr., of Tuskegee; Gary Marcum of Birmingham; Albert L. Patterson III of Enterprise; Walter Penry, Jr., of Daphne; and Jimmy Ray Smith of Decatur. They joined existing board members T.

Jack Lee (Chairman), Waymon Burke, Roy Nichols, Loretta Spencer, John L. Stallworth, and William H. Stender, Jr., who are all from Huntsville.



► Dottie Metcalf-Lindenburger *Astronaut Class 2004* **SPACE ACADEMY® 1990**

“In ninth grade, my love for science and the study of planets brought me to Huntsville, where the week of simulators, rocket-building, informative classes and nightly movies confirmed my dream to pursue becoming an astronaut,” says Dottie Metcalf-Lindenburger.



Today, at 29, she is in Houston, Texas. Metcalf-Lindenburger is the youngest member of NASA’s Astronaut Candidate Class of 2004 and the first SPACE CAMP graduate chosen for astronaut training. One of thousands of teachers who applied for the educator-astronaut position, she is one of only three teachers chosen. After receiving astronaut certification, Metcalf-Lindenburger will help guide NASA’s space exploration education program. The teachers and the others in the astronaut Class of 2004 may be scheduled for a space flight by 2009.

“People are doing great things with their lives to further science,” she says. “I hope to bring the community into what’s going on.”



Museum Archivist and Curator Irene Willhite leads State Senator Tom Butler (left) and ASSEC member Todd Slyman on a tour of the Museum.

» Museum Builds Collection

The museum continued the work of expanding the existing artifact collection and of offering traveling exhibits to museums across the United States. *Laboratories in Space*, a traveling exhibit on Skylab, Space Lab, Mir, and International Space Station is booked for the Omniplex in Oklahoma and then will move to a venue in Idaho. Marshall Space Flight Center and the USSRC staff worked together to build this exhibit which comprises early studies done on the Russian MIR with the United States up to the current work done on Space Station.

Boeing/Rocketdyne at Canoga Park, CA, helped with the refurbishment of four engines. The local Boeing employees did conservation work on the Saturn V J2, Lunar Module Descent, Redstone, and Shuttle engines that had been in the weather for many years and now have a home inside the museum. USSRC employees assisted and observed the restoration process and then restored the V2 engine.

» Liberty Bell 7 Featured

On July 21, 1961, astronaut and U.S Air Force Captain Virgil "Gus" Grissom piloted the Liberty Bell 7 Mercury capsule on a 15 minute and 37 second trip into history. It was a near-perfect flight until splashdown in the Atlantic Ocean when explosive hatch bolts fired prematurely, sending his craft to the bottom of the sea. Grissom narrowly escaped. The Liberty Bell 7 lay in its watery resting place, which was deeper than the *Titanic's*, for 38 years.

After its discovery in 1999, the capsule was preserved and became the centerpiece of an interactive traveling exhibit from the Discovery Channel, [THE LOST SPACECRAFT: LIBERTY BELL 7 RECOVERED](#).

The USSRC hosted the exhibit for the 2004 summer season, giving visitors the unique opportunity to re-visit the Cold War era space race and contrast technology of that era with state-of-the-art technology that enabled explorers to raise the *Liberty Bell 7* capsule.

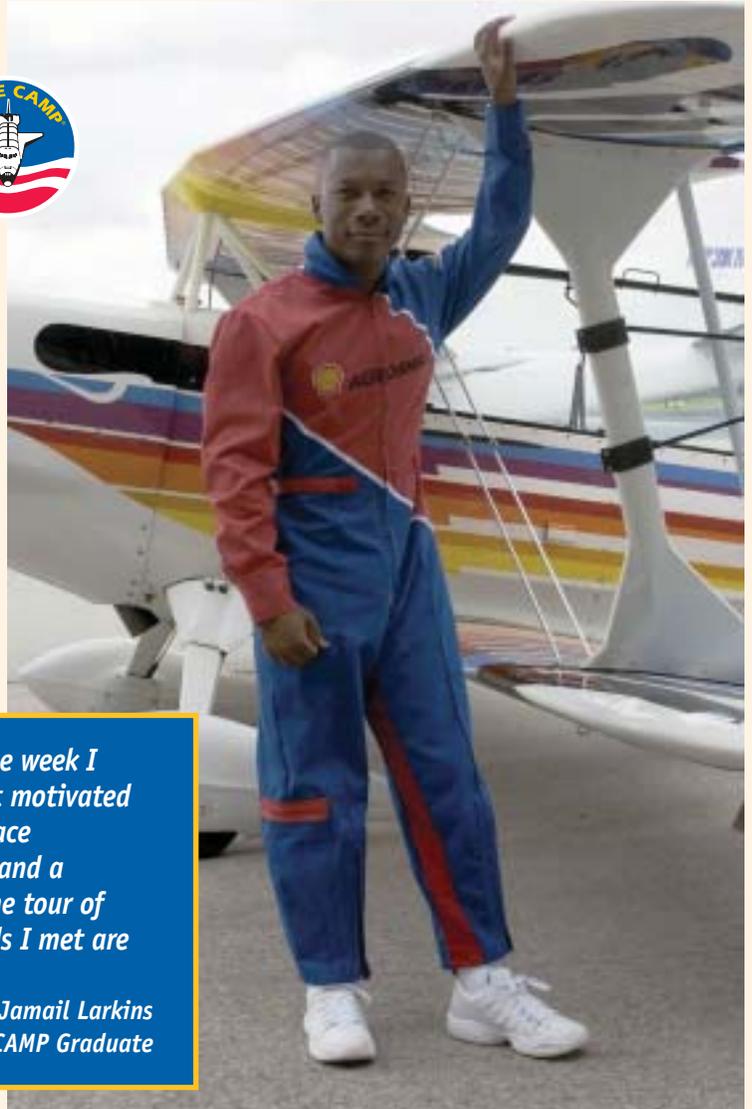


Madison County Legislative Delegation members enjoyed the Liberty Bell 7 exhibit. Shown from left are USSRC Executive Vice President and Chief Operating Officer Clif Broderick, ASSEC member Jimmy Ray Smith, Rep. Mike Ball, and Rep. Howard Sanderford.



►► **Jamail Larkins**
Larkins Enterprises, Inc.
SPACE CAMP® 1994

He became one of America's youngest pilots after soloing at age 14 in Canada. Larkins is the National Spokesman for Experimental Aviation Association's Vision of Eagles Program and also the National Spokesman for Careers in Aviation. He founded Larkins Enterprises in 1999 at age 15. The company is a distributor for flight training products. He represents and is sponsored by several corporations including Shell Oil's Aviation Division AeroShell, Gulf Coast Avionics, AV Web, and Electronics International. Larkins sponsors The Caring Institute a non-profit organization that promotes caring.



"My first true experience with aerospace was the week I spent at SPACE CAMP. It's a week I'll never forget. It motivated me to discover more about the aviation and aerospace industries and ultimately led me to become a pilot and a student at Embry-Riddle Aeronautical University. The tour of Kennedy Space Center, the activities, and the friends I met are memories I'll keep for the rest of my life."

— Jamail Larkins
 1994 SPACE CAMP Graduate



►► **Frozen Missiles Fly in November**

The U.S. Space & Rocket Center hosted the 2003 Annual Turkey Toss in November. Syndicated radio talk show hosts Rick Burgess and Bill "Bubba" Bussey broadcast live from the USSRC as fans — who came from across the state — lined up for the privilege of hurling a frozen turkey. Cash prizes were awarded to the people who could throw the frozen missiles the farthest. Marketing Department employees Amy Dawkins, Katherine Painter and Al Whitaker are shown with Rick and "Bubba" (far left), as a competitor (left) demonstrates how to toss a turkey.





► **Construction Begins on MFSC/USSRC Education/Training Facility**

SPACE CAMP offers one of the nation’s premier professional development programs for educators which last year served 429 teachers from across the globe. For the 2005 camp season, the SPACE ACADEMY for Educators program will move into new headquarters, the Marshall Space Flight Center/U.S. Space & Rocket Center Education/Training Facility (MSFC/USSRC Education/Training Facility).

Dr. Adena Loston, Chief Education Officer at NASA Headquarters, joined MSFC Director David King, Congressman Robert (Bud) Cramer, Jr., ASSEC Chair Jack Lee, and USSRC Chief Executive Officer Larry Capps in breaking ground for the facility on July 29, 2004.

The buildings will include a distance learning center, a state-of-the-art laboratory for teaching hydroponics and robotics, and technology that will allow teachers to communicate with

experts at NASA centers or even talk with astronauts on the International Space Station. Marshall’s Educator Resource Center also will be housed in the 24,000-square-foot facility. MSFC

funded the building with a \$3 million grant and will conduct training seminars in the facility, which is more readily accessible to the public than the training sites located on Redstone Arsenal.





Marking Milestones

Exploration is really the essence of the human spirit.

—Frank Borman, Apollo 8

Exploration requires tackling ambitious, daunting challenges. Along the way, the prudent explorer takes time to evaluate the progress. During 2004, the U.S. Space & Rocket Center moved ahead with some innovative programs that are highlighted here:



▶ Saturn V Project Moves Forward

Saturn V Curator Frank Winter, of the Smithsonian Institution, visited the USSRC in March to share his thoughts and guidance on the restoration project. Winter examined the rocket and scraped samples for analysis in the Smithsonian laboratory. Gresham Smith and Partners worked on the



Dr. George Mueller, Dr. Buzz Aldrin, Saturn V Executive Committee Chairman William H. Gurley, and Governor Bob Riley are shown with the Saturn V replica in the background.

engineering and design of the interim structure in which restoration will take place, and staff from the Marshall Space Flight Center began work on a plan for moving the rocket from its present location at the back of Rocket Park to a more spacious site in front of the Marriott Hotel, which is located on the USSRC grounds. After restoration, the rocket will be displayed in the interim structure until funds become available for a permanent building, which will also be located on that same site in front of the Marriott. Site preparation began in August of 2004, award of the building contract is expected to be in the first quarter of 2005, and an approximate completion date for the

restoration is targeted for November 2005.

Because the rocket could be housed in the interim structure for several years, the USSRC will build a permanent courtyard and garden to recognize restoration project donors. Donors' names will be listed on monuments in the Apollo Circle that will feature information on each of the nine lunar missions. The courtyard and walkways in this exhibit will be paved with bricks and tiles bought by project supporters. The courtyard will be located between the interim Saturn V structure and a new intermodal bus facility that the USSRC plans to construct during 2005. Once that building is complete, it will become the new USSRC visitor entrance. Guests will be able to wait in the Apollo Circle for trams that will connect





this new section of the USSRC complex to the museum and SPACE CAMP. The sketch of the accompanying site plan shows the location of the Saturn V interim structure in relationship to the intermodal facility that is drawn in yellow on the layout. The donor garden is shown as the orange circle located between the intermodal and Saturn V buildings. The front view, showing the intermodal building (left) and the Saturn V structure, is drawn at the top of the sketch.

► **duMidis Kick Off Brick Sales**

The duMidis, a local service group, bought the first brick for the Apollo Circle. Members (left to right) Charlene Kelley, Martha Sharp, Nancy Darnall, Patty Cato, and Betty Zoller are shown with USSRC CEO Larry Capps and Saturn V Executive Committee Chairman Bill Gurley, who is presenting the



brick. Though the engraved bricks are \$100, club members paid \$175 for the privilege of buying the first one. The bricks measure four-by-eight inches and are personalized. By the end of the 2004 fiscal year, 85 bricks had been sold, many to individuals who wish to honor or

memorialize a family member who worked on the Saturn V. Personalized tiles, which measure eight-by-eight inches, are available for \$1,000. Tiles engraved with a corporate logo are \$1,500.



▶ Saturn/Apollo Reunion Draws Crowd

It was billed as “a reunion of the individuals and community responsible for putting mankind on the moon and fundraiser for the rocket that took us there.” The first-ever Saturn/Apollo Reunion held Saturday, June 19, 2004, exceeded the hopes of all involved.



The Saturn V Special Events Committee had hoped to attract a crowd of about 500 and to raise awareness of the campaign while breaking even financially. As food ran low and seating scarce, it became evident that they had underestimated the appeal of such an event. With Apollo 11 Astronaut Buzz Aldrin and Dr. George Mueller, head of NASA’s Manned Space Flight Office from 1969 – 1971, as headliners, the event drew a crowd of more

than 600 and raised \$11,755 for the Saturn V Restoration.

In addition to the funds raised for the project, the reunion set in motion a groundswell of support from NASA veterans. In the days and weeks that followed the event, heart-felt e-mails and letters of thanks poured in from those who worked on the Saturn V, expressing their gratitude not only for our efforts to restore the rocket but also for remembering their contributions to the space program in such a special way.

▶ Saturn V Honorary Committee Attracts Leaders

At the reunion festivities, Mueller agreed to serve on the Saturn V Honorary Committee, and others who joined this year include Tom



Hanks, actor; Robert C. Seamans, Jr., NASA Deputy Administrator 1965-68; John S. Hendricks, founder and chairman of Discovery Communications, Inc.; Burt Rutan, founder of Scaled Composites, LLC, the company that produced SpaceShipOne, which won the \$10 million Ansari X-Prize; astronauts Alan Bean and Wally Schirra; and von Braun team member Walter Jacobi. *The full listing of the honorary committee members and of the working committee accompany this article.*



Saturn V Honorary Committee

Buzz Aldrin, Chairman

MEMBERS

Arthur C. Clarke
Frederick C. Durant III
Tom Hanks
John S. Hendricks
George E. Mueller
Frederick I. Ordway III
Burt Rutan
Robert C. Seamans, Jr.

Apollo Astronauts

Alan Bean
Gerald Carr

Michael Collins
Walter Cunningham
Charles M. Duke, Jr.
Owen Garriott
Fred W. Haise
James Lovell
Edgar Mitchell
William R. Pogue
Wally Schirra
Russell Schweickart
Alfred Worden

von Braun Team

Werner Dahm
Konrad Dannenberg
Hans J. Fichtner
Walter Haeussermann

Walter Jacobi
Wilhelm Raithel
Gerhard H. Reisig
Ruth von Saurma
Klaus H. Scheufelen
Ernst Stuhlinger

Saturn V Executive Committee

William H. Gurley,
Chairman

MEMBERS

James W. (Pete) Apple
Joe Fitzgerald
Frank Franz
Parker Griffith
Greg Gum

Jack Lee
William Lucas
John Malone
Gary Marchenia
Paisley Matthews
Linda Maynor
Jim Merrell
Joseph C. Moquin
Ralph Petroff
Gene Pospicil
Joe Ritch
Elizabeth (Betty) H. Schonrock
Remigius Shatas
Sally Spencer
William H. Stender, Jr.
Jimbo Wood



Burt Rutan, moments after accepting a model of the Saturn V from USSRC CEO Larry R. Capps.

» First to the Moon Distinctive License Plate Offered

As part of the Saturn V Restoration Campaign, the U.S. Space & Rocket Center(USSRC) Foundation applied to the State of Alabama for the right to issue a specialty license plate. Proceeds from automotive tag sales benefit the Saturn V Restoration Project.

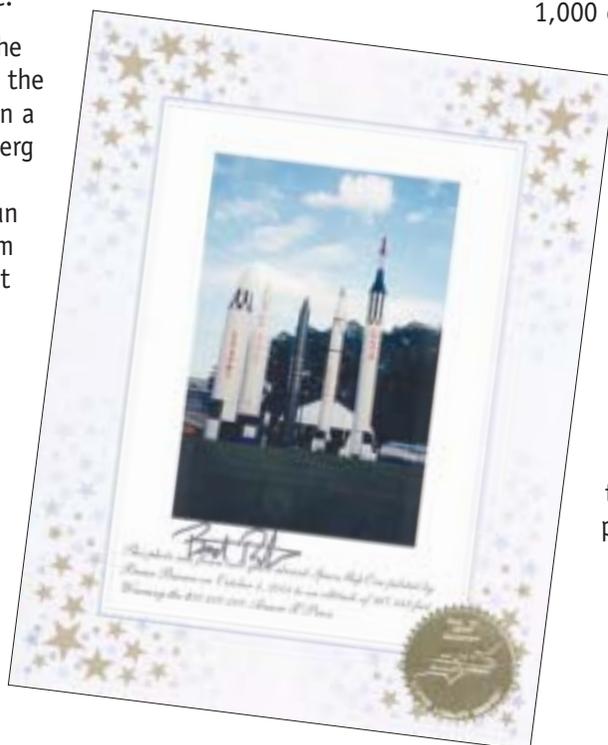


» Rutan Researches von Braun Papers

Burt Rutan, who designed SpaceShipOne, the first privately financed passenger craft to reach space, visited the USSRC to research the Wernher von Braun papers in the museum’s archives. Huntsville resident and von Braun rocket team member Konrad Dannenberg encouraged Rutan in the development of his space plane that made three suborbital spaceflights and captured the Ansari X-Prize.

Rutan previously visited the USSRC archives in 1998 and on the most recent visit participated in a panel discussion with Dannenberg and with Dr. Ernst Stuhlinger, Chief Scientist for the von Braun team. Rutan also showed a film on SpaceShipOne’s development and flight to those who packed the USSRC Spacedome Theater.

As a parting gift, Rutan donated photographs that had flown on SpaceShipOne. He took the pictures of Rocket Park and Skylab on his 1998 visit to the USSRC.



A legislative oversight committee approved the tag at a December 3, 2003, meeting, and the tag entered the “Commitment to Purchase” phase on February 1, 2004.

During a 12-month period, 1,000 commitments must be purchased from county offices issuing motor vehicle tags in order for the state to put this tag into production. The deadline for the *First to the Moon* tag is January 31, 2005.

The specialty tag fee is \$50, with \$41.25 of that amount designated for the Saturn V. State and county officials keep the remainder to cover program/production costs.



Photo courtesy of Air Force Times

▶▶ **SPACE CAMP Explorer:
Capt. Kim Reed Campbell**

**U.S. Air Force A-10 Pilot, 75th Fighter Squadron
SPACE CAMP 1988 and SPACE ACADEMY 1989**

“SPACE CAMP was a fun, yet challenging experience. Simulated shuttle missions taught me the importance of working together to accomplish difficult tasks while under pressure. I have employed these same skills while flying combat missions during Operation Iraqi Freedom.”

— Capt. Kim Reed Campbell
U.S. Air Force A-10 Pilot, 75th Fighter Squadron
SPACE CAMP 1988 and SPACE ACADEMY 1989

Capt. Kim Reed Campbell is shown after landing her plane that was hit by enemy fire (*Notice the football-size hole in the right horizontal stabilizer*) as she gave air cover in Iraq to U.S. forces pinned down along the Tigris River in the opening days of the war in Iraq. Campbell coached the A-10 to a safe return to Kuwait. The plane is now at the “Boneyard” at Davis-Monthan Air Force Base in Tucson, Arizona, in the company of other aircraft that survived heroic battles.

▶▶ **2004 Scholarships
Doubled**

Thanks to a number of newly established memorial scholarships, the USSRC Foundation’s 2004 scholarship awards more than doubled the number given in any other year.

It began in February, shortly after the anniversary of the Columbia tragedy. The life of a much-loved six-year-old boy from Indiana was inexplicably cut short. His parents established a scholarship fund in lieu of flowers. The Tommy Holman Memorial Scholarship Fund sent 15 deserving children from all over the country to SPACE CAMP.

Sadly, this scenario was repeated several times during the year. Joining the Holmans in their desire to make something good out of their personal tragedies were the families of Joshua Stokes, a SPACE ACADEMY graduate; Terry Lynch, a Washington insider who lost his life in the Pentagon on 9/11; and Jenie Purves, a counselor at AVIATION CHALLENGE. These generous gestures resulted in a once-in-a-lifetime experience for 33 children. The Terry Lynch Foundation funded an additional nine students from Lynch’s hometown of Youngstown, Ohio.

▶▶ **Tommy Holman
Memorial Scholarships
Benefit 15 Students**

Tommy Holman’s parents Sally and Barry are shown with Amber James, one of the Tommy Holman Memorial Scholarship recipients. Amber, who one day would like to build robots for NASA, participated in SPACE CAMP’s robotics program. Friends and family of the Holmans sent 15 children to camp during 2004.





▶▶ **Aerojet Marks 20 Years of Scholarship Support**

Mike Roddy, Director Army Business Development for Aerojet, and Shari Macpherson, administrative aide, are shown marking the twentieth anniversary of the USSRC's partnership with Aerojet and its GENCORP Foundation by presenting a check for \$1,000 to the scholarship fund. USSRC CEO Larry Capps received the check and shown to his left is Marcia Lindstrom, USSRC Scholarship Manager. Aerojet has generously supported the SPACE CAMP/AVIATION CHALLENGE Scholarship Program since 1984.

▶▶ **NASA Stars Works to Close Achievement Gap**

One of the most persistent challenges that our educational system continues to face is the tremendous gap in achievement among different income levels, races, and communities. In an effort to close that gap, the education staffs at the USSRC and Marshall Space Flight Center (MSFC) joined forces to create a program designed to help foster systemic change in Title I classrooms. Called **NASA Stars**, the program has now reached 1,404 children and 32 teachers from 16 schools.

The Social Science Research Center at Mississippi State University did an independent survey of the program, which utilized NASA's Education Evaluation and Information System (NEEIS). On that system, programs are ranked on a five-point scale, and the NASA goal is for an education program to achieve a 4.5 rating. The teacher component

of the **NASA Stars** program received an impressive 4.9. The student portion ranked 4.7. The survey included students and teachers who began the **NASA Stars** Program in the fall of 2003, and the USSRC will build on this data by surveying those schools added to the program during the 2004-2005 school year.

Among the highlights from the survey:

- 85% of students said that SPACE CAMP made them more interested in science, 69% said they were more interested in technology, and 43% said they were more interested in math.
- 53% of the students responded "yes" SPACE CAMP made them think about having a job that uses math, science, or technology; and 56% "strongly agreed" or "agreed" it had influenced their career interests.
- 68% of students said they are more interested in going to college.
- 78% said the program will help in their studies.

NASA Stars is, indeed, giving children a glimpse at the future. During one of the 2003 fall sessions, one teacher commented with excitement that she overheard some of her students discussing what they wanted to do when they grew up. "For my kids," she said, "that's never been a consideration beyond, perhaps, working in a store."

Schools participating in 2004 included:

- Haleyville Elementary**
(Haleyville City)
- New Market** (Madison County)
- Stevenson Elementary**
(Jackson County)
- Madison County Elementary**
(Madison County)
- Owens Crossroads Elementary**
(Madison County)
- Valley Head** (DeKalb County)
- Hatton Elementary** (Lawrence County)
- L.E. Wilson Elementary**
(Sheffield City)
- Rolling Hills Elementary**
(Huntsville City)
- Hayden Middle** (Blount County)
- Austinville Elementary** (Decatur City)
- Bay Minette Intermediate**
(Baldwin County)
- Summerdale Elementary**
(Baldwin County)
- Owens Elementary** (Limestone County)
- Ridgecrest Elementary**
(Huntsville City)
- Tarrant Middle** (Tarrant City)

At year's end, the USSRC received great news that MSFC has approved funding the program for the next three years at a level of \$210,000 annually.

The **NASA Stars** program receives additional support from the private sector. Daniel R. and Nancy E. Archuleta provided a \$100,000 endowment for the program; and Qualis Corporation has donated \$8,200 (*see page 18 for details on the company's 2004 donation*).



▶ **Astronaut Class of 2004 Visits**

In addition to financial support, NASA also supports the NASA Stars program with such enrichment activities as visits from astronauts when they are in town. Members of the 2004 Astronaut class are shown on a recent visit to the USSRC when the astronaut candidates talked with students at a NASA Stars graduation.



▶ **Qualis Corporation Donates Funds to NASA Stars Program**

Company founders Elizabeth Morard, President, and Mary Engel, Vice President, are shown presenting a check for \$5,000 to USSRC CEO Larry Capps (left) and Ralph Bryson, Senior Vice President for Aerospace Programs. The donation was given for the NASA Stars program. Qualis Corporation and its employees have supported the teacher training component of the NASA Stars program for two years.

▶ **SPACE CAMP Licensing Office Sees Increased Interest**

Interest in SPACE CAMP licensing opportunities increased during 2004, and in its second year of operation, Licensing Department Vice President Mike Kelly made much progress with existing

licensees clearing most of the legal obstacles, renewing relationships, negotiating agreements, and moving disputes closer to resolution.

The department settled with the existing SPACE CAMP licensee in Canada, collected past

royalties, and signed an amendment to the license agreement, which recognizes Alabama Space Science Exhibit Commission (ASSEC) as the licensor. SPACE CAMP Canada is a licensee in good standing and is well on the way to updating its program. New simulation software and additional equipment for EVA scenarios in the mission will be added with SPACE CAMP Alabama providing the necessary training for the upgrades. SPACE CAMP Japan signed a similar amendment to recognize ASSEC as the licensor



and is excited about the upgrades and help with improving merchandise sales.

The Licensing Department headed an effort to oppose the use of a name containing the words "Space Camp" by another camp. The other camp put a word between "Space" and "Camp" and submitted it for registration as a trademark. The Trademark

Trial and Appeal Board of the U.S. Patent and Trademark Office ruled in favor of ASSEC on this opposition. Included in the U.S. Patent and Trademark Office disposition of the oppositions was a statement of conclusion that stated: "Based on this record, we conclude that opposer (ASSEC) has demonstrated that its marks have achieved a degree of public recognition and renown (fame), and are thus entitled to a broad scope of protection." This is a very important decision that is not easily obtained.

Interest in the international market to license SPACE CAMP continues to increase. Three different groups from Korea visited USSRC to view the camp programs, and there were also visits from Germany, Australia, and Malaysia. A group from Mexico scheduled a visit in November 2004 to view the SPACE CAMP and AVIATION CHALLENGE programs.

► Sci-Vis Program Makes SPACE CAMP Possible for Visually Impaired

SPACE CAMP for Interested Visually Impaired Students (SCI-VIS) is designed to reach blind and visually impaired children to enhance their leadership and teamwork skills, to improve their self-confidence and self-sufficiency levels, and to spark their interest in math, science,

and advanced technologies. Interest in the SCI-VIS program has grown astronomically since the small pilot group of 20 students participated in 1990. In 2004, 167 students attended the program that is coordinated by Dan Oates, a teacher at the West Virginia Schools for the Deaf and the Blind.

During this special week, a number of adaptations are made so that students may fully enjoy the experience. Materials and equipment used during missions are available in Braille and large print. Computers used by students are adapted for speech and large print output. With these

accommodations, students with visual impairments can fully participate in nearly all activities. Each student is screened based on eye medical condition. Limitations may be placed on some, but for the most part, students participate fully.

Delta Gamma is a primary sponsor of the SCI-VIS Program and has been a supporter since 1994. To mark its tenth anniversary, Delta Gamma provided \$9000 to sponsor partial scholarships for visually impaired students. Through this 2004 Service for Sight Grant, Delta Gamma assisted 24 students providing financial assistance ranging from \$100 to \$550.

Oates, who assists at the USSRC in the summer by instructing teachers attending SPACE ACADEMY for Educators,

shared the following from a former (SCI-VIS) student Ben Clare of Australia who sent an e-mail reporting on his work with children in Papua New Guinea (PNG):

. . . Speaking of SPACE CAMP, it was talked about over and over again during my time in New Guinea. What I wouldn't do to get the kids from there to SCI-VIS! I worked at the Mount Sion School for the Deaf and Blind in Goroka, which is in Eastern Highlands Province. It was a real eye opener for me because PNG is a third world country and it was interesting to see how people with disabilities cope in less than ideal conditions. It is true they have next to nothing, but their determination is something that really inspired me and made me realise just how lucky I really am and how lucky your great country is. My job was to teach the kids how to use computers with JAWS (a speech output program). All of them had never seen a computer in their lives before, and all were Braille users. In ten days, I had to get them able enough to use a computer independently. The idea is that these kids will be able to study at Uni or get meaningful jobs if they have computer skills. Let's hope that happens! Despite overwhelming odds against it, the kids were able to boot-up the computer and start typing with little prompting, all this when they didn't know how to type before our classes began. I was amazed! I'm heading back to Moresby and Goroka again in November to continue the training, something I'm very excited about indeed. You will be pleased to know SPACE CAMP got many mentions and I told everyone that I was in PNG because SPACE CAMP gave me the confidence to move outside the square and to do and learn new things. It's all because of you, mate, and you should be very proud of SPACE CAMP and the work you do.





▶ GTAC Teaches Practical Applications of Space-based Technologies

During 2004, the Geospatial Training and Application Center completed work on a grant from the United States Department of

Agriculture (USDA).

The grant totaled \$692,104 and funded workshops in which over 300 Alabama farmers were trained to use space-based technologies such as global positioning systems, remote

sensed data, and

variable rate technologies in precision agricultural and crop-growth techniques. As part of the program, GTAC developed an on-line Web resource, www.agravisoin.org and installed a continuously operating reference system (CORS) for global positioning correction data that is

“Man must rise above the Earth — to the top of the atmosphere and beyond for only thus will he understand the world in which he lives.”

—Socrates



available free to farmers in a 50-mile range. The grant also was used to develop a Farm Portal Wireless Application for in-field farm operations.

As a result of the work accomplished by GTAC, Auburn University, and the Alabama Cooperative Extension System in the programs for farmers, the

USDA and NASA have partnered with the team to bring the programs to the youth sector through the National 4-H and other organizations. Two projects have been funded through NASA in 2005 to conduct pilot programs for educators and students in the area of space agriculture. The programs will teach the earth-bound applications of the space-based technologies in precision agriculture practices, as well as the space applications of advanced life support systems in food production for long duration missions. As a result of the funding, GTAC will also develop a public outreach program through exhibits in what is known as the “Space Agriculture Education and Training Center” located at the USSRC.

Auburn University, Alabama Cooperative Extension Systems, and USSRC are working together to bring the full youth program to reality by seeking additional funding to sustain the development of a permanent program. Talks with the Alabama Congressional delegation about this project have been positive.





» **USSRC Explorer:
Mission Specialist
Robert Shane Kimbrough
2004 Astronaut Class**

Each year thousands of students visit the U.S. Space & Rocket Center museum to learn more about space. Astronaut Shane Kimbrough reminisced about his first trip with classmates from his Atlanta school when he returned to the USSRC on a visit with members of the 2004 Astronaut Class. Kimbrough took time to shake hands and encourage children he saw at the USSRC, perhaps encouraging other young visitors to think about where math, science, and technology can take them.

Kimbrough received a bachelor of science in aerospace engineering from the United States Military Academy, West Point, and a master of science degree in operations research from the Georgia Institute of Technology.

He joined NASA at the Johnson Space Center in September 2000 where he served as a flight simulation engineer on shuttle training aircraft prior to being selected for the astronaut training program.



» **Leica Geosystems and Earl Dudley Associates Donate Equipment**

A donation of 10 GS20 Professional Data Mappers valued at \$50,000 greatly increased GTAC's training capability. Lee Meeks, of Leica Geosystems, Inc., and Chuck Jones, of Earl Dudley Associates, Inc., (shown from left), discuss the equipment with USSRC CEO Larry Capps, GTAC Vice President Chris Johnson, and USSRC Foundation Director Jennifer Crozier. During 2004, the GTAC laboratory and equipment were used to train Girl Scouts in remote sensing orienteering, Alabama farmers in precision agriculture, and city planners in infrastructure management.



Museum Guide Amanda Dodson shows the Liberty Bell capsule to visiting Congressman Jo Bonner of the Alabama First Congressional District.



Charting the Journey

“Twenty years from now you will be more disappointed by the things that you didn’t do than by the ones you did do. So throw off the bowlines. Sail away from the safe harbor. Catch the trade winds in your sails. Explore. Dream. Discover.”

—Mark Twain

Exploration is expensive and so is the educational preparation of the rising explorers. The U.S. Space & Rocket Center managed even during the recent economic downturn to generate 98 percent of its revenue, and progress was made in obtaining government funding and building the donor base. The USSRC also continued to reduce operating expenses and debt.



Sen. Tom Butler (left) discusses USSRC projects with ASSEC Vice Chairman William H. Stender, Jr.



ASSEC members and USSRC staff held a breakfast for the Madison County Legislative Delegation in May to thank members for their support during the 2004 Alabama legislative session. Shown are Rep. Mike Ball, Rep. Randy Hinshaw, ASSEC member Dr. Waymon Burke, Rep. Sue Schmitz, and ASSEC member Jimmy Ray Smith.

► Legislators Save USSRC Appropriation, Pass Lodging Tax

The Madison County Legislative Delegation worked with USSRC management and the Alabama House Committee on Education Finance and Appropriations to keep the USSRC funded in the Education Trust Fund.

In addition, the Madison County delegation passed a one percent lodging tax, effective for ten years, which will provide approximately \$500,000 annually for capitol improvements. The Saturn V Restoration was a primary factor in the passage of the lodging tax.



» **The Boeing Company Supports the Saturn V Restoration**

USSRC CEO Larry Capps is shown receiving a \$50,000 check from Peri Widener, Senior Site Executive for The Boeing Company in Huntsville. The donation was the final payment on a \$100,000 pledge the company made to the Saturn V Restoration Project. The Boeing Company is one of the USSRC's most loyal donors, having contributed more than a \$1 million over the last 20 years.



» **State Auditor Commends ASSEC and Property Manager Terry Poole**

The USSRC was commended by State Auditor Beth Chapman for 100% compliance in locating state property owned by the Center. Staff members from the Auditor's Office spent approximately two weeks at the USSRC checking for the 1,951 items that are on the state inventory list. Terry Poole, shown at right with USSRC CEO Larry Capps, is Property Manager in the Finance and Accounting Department and keeps up with the collection of desks, chairs, calculators, cameras, etc., which constitute the inventory that carries an acquisition cost of over \$10 million. ASSEC received a

» **Saturn V Donors**

| <i>Contributor's Name</i> | <i>Amount Donated</i> |
|---|-----------------------|
| Save Americas Treasures Grant | 700,000.00 |
| City of Huntsville | 350,000.00 |
| Science Applications International Corporation | 125,000.00 |
| ADECA | 100,000.00 |
| Elizabeth (Betty) Huth Schonrock | 100,000.00 |
| Frederick I. Ordway III & Maria Victoria Ordway Trustees Frederick I Ordway III Trust | 100,000.00 |
| The Boeing Company | 100,000.00 |
| Anonymous | 50,000.00 |
| Madison County Commission District 5 | 50,000.00 |
| Mr. & Mrs. William H. Gurley | 30,000.00 |
| CAS, Inc. | 25,000.00 |
| COLSA CORPORATION | 25,000.00 |
| DaimlerChrysler Corporation Fund | 25,000.00 |
| Siemens VDO | 25,000.00 |
| Julian and Dorothy Davidson | 20,000.00 |
| Other Donations | 12,526.00 |
| Saturn V Donation Boxes | 12,111.70 |
| SaturnV/Apollo Reunion | 11,750.00 |
| Dr. and Mrs. Gregory K. Gum | 10,000.00 |
| Madison County Commission-Other | 10,000.00 |
| The Daniel Foundation | 10,000.00 |
| Brick and Tile Sales | 9,132.00 |
| Lanier, Ford, Shaver, Payne | 7,500.00 |
| NASA/MSFC Retirees' Association | 7,400.00 |
| BELLSOUTH | 5,000.00 |
| Computer Sciences Corporation - Defense | 5,000.00 |
| Joe H. and Lana Ritch | 5,000.00 |
| National Space Club | 5,000.00 |
| Teledyne Brown Engineering, Inc. | 4,000.00 |
| Mr. & Mrs. Philip C. Dotts | 2,500.00 |
| Art and Loa Stephenson | 2,000.00 |
| New Market Elementary School | 1,859.01 |
| J. Walter Thompson Co. | 1,500.00 |
| Purity Dairies, Inc. | 1,500.00 |
| Frank A. Franz | 1,000.00 |
| Sparta, Inc. | 1,000.00 |
| Piggly Wiggly & Lucky's Supermarkets | 250.00 |
| | 1,951,028.71 |

letter dated February 9, 2004, that stated all items were located. The letter also commended Poole for his work. Poole said that while we have a very effective Property Accountability Program in place, he attributed the 100% accuracy to the support of upper management and to Center employees who work as a team.

"It doesn't matter how good the program is, if the procedures aren't supported by everyone from the top down, you won't be this accurate. It's a team effort that pays off," Poole said.

The Center has 96 property custodians who signed for the 1,951 property items, and each manager keeps track of assigned items and reports them to Poole.



» Siemens VDO Automotive Joins USSRC Donor Program

Siemens VDO Automotive is among 29 corporations and individuals welcomed into the USSRC donor program during Fiscal Year 2004. The company, which was involved in the gyroscope technology used in Project Mercury, contributed \$25,000 to the restoration of the Saturn V rocket. Dr. Heppner said when presenting the check, "It didn't take long to raise this money . . . We like this project. Siemens VDO Automotive is about technology and innovation — and that is what the Saturn V represents."



Shown presenting the check from Siemens VDO Automotive to USSRC CEO Larry Capps (left) are William Fodness, Plant Manager; Eelco Spoelder, Vice President Infotainment Systems NAFTA; Dr. Henning Heppner, Executive Vice President and CFO Electronics and Drivetrain; and Thomas Kirchlind, Director of Body and Chassis. USSRC Foundation Chairman William H. Stender, Jr., is shown at right.

» Friends of the Center 2004

| » APOLLO . . . | | | |
|---|------------|-----|----------------------------------|
| NASA | 290,000.00 | | SPACE CAMP Scholarships |
| City of Huntsville | 200,000.00 | New | Saturn V |
| Honeywell International | 146,000.00 | New | SPACE CAMP Scholarships |
| IGA Promotion | 104,000.00 | | SPACE CAMP Scholarships |
| Mrs. Betty Huth Schonrock | 100,000.00 | New | Saturn V |
| Coca-Cola North America | 100,000.00 | | Donation |
| The Boeing Company | 79,200.00 | | SPACE CAMP Scholarships |
| The Boeing Company | 50,000.00 | | Saturn V |
| Frederick & Maria Ordway III Trust | 50,000.00 | | Saturn V |
| USDA | 69,000.00 | | Geo-Spatial Training for Farmers |
| » GEMINI . . . | | | |
| Leica Geosystems & Earl Dudley Assoc. | 50,000.00 | New | GPS Equipment |
| Dr. Buzz Aldrin | 50,000.00 | New | In Kind |
| » MERCURY . . . | | | |
| Mr. & Mrs. William Gurley | 30,000.00 | New | Saturn V |
| » JUPITER . . . | | | |
| ASMDA | 26,728.00 | | SPACE CAMP Scholarships |
| COLSA Corporation | 25,000.00 | New | Saturn V |
| Siemens VDO | 25,000.00 | New | Saturn V |
| Toyota Motor Manufacturing NA | 20,000.00 | New | International SPACE CAMP |
| Mr. & Mrs. Julian Davidson | 20,000.00 | New | Saturn V |
| The Terry Lynch Foundation | 16,000.00 | New | SPACE CAMP Scholarships |
| Air Force Services | | | SPACE CAMP Scholarships |
| Alabama Commission on Higher Education | | | SPACE CAMP Scholarships |
| » EXPLORER I . . . | | | |
| Dr. & Mrs. Greg Gum | 10,000.00 | New | Saturn V |
| Army Community Services | 9,088.00 | | SPACE CAMP Scholarships |
| Delta Gamma | 9,000.00 | | SPACE CAMP Scholarships |
| Lanier, Ford, Shaver, Payne | 7,500.00 | | Saturn V |
| NASA Retiree Association | 7,200.00 | New | Saturn V |
| Military Child Education Coalition | 5,981.00 | | SPACE CAMP Scholarships |
| Rockwell Automation | 5,600.00 | | SPACE CAMP Scholarships |
| Rockwell Collins | 5,600.00 | | SPACE CAMP Scholarships |
| The Pierre and Pamela Omidyar Fund | 5,000.00 | New | International Space Camp |
| National Space Club | 5,000.00 | New | Saturn V |
| Joe H. and Lana Ritch | 5,000.00 | New | Saturn V |
| Computer Sciences Corporation | 5,000.00 | New | Saturn V |
| Qualis Corporation | 5,000.00 | | SPACE CAMP Scholarships |
| Verizon Wireless, Inc. | 5,274.00 | | SPACE CAMP Scholarships |
| » REDSTONE . . . | | | |
| AIAA | 2,599.00 | | SPACE CAMP Scholarships |
| Mr. & Mrs. Philip Dotts | 2,500.00 | New | Saturn V |
| Mr. & Mrs. Art Stephenson | 2,000.00 | New | Saturn V |
| Englehard | 2,000.00 | | SPACE CAMP Scholarships |
| Air Defense Artillery Assoc. | 1,298.00 | | SPACE CAMP Scholarships |
| Lockheed Martin Mechanisms Education Assoc. | 1,080.00 | | SPACE CAMP Scholarships |
| Sparta, Inc. | 1,000.00 | New | Saturn V |
| United Space Alliance | 1,000.00 | | SPACE CAMP Scholarships |
| GenCorp Foundation | 1,000.00 | | SPACE CAMP Scholarships |
| Madison Eye Care Center, LLC | 300.00 | New | SPACE CAMP Scholarships |
| Barry & Sally Holman | 1,150.00 | New | SPACE CAMP Scholarships/Saturn V |
| John T. & Karen E. Holman | 2,500.00 | New | SPACE CAMP Scholarships |
| Dr. Frank & Judy Franz | 1,000.00 | New | Saturn V |
| » SATURN/APOLLO REUNION SPONSORS . . . | | | |
| Leka Medenbach | 3,240.00 | New | |
| Halsey Brothers Grocery | 3,000.00 | New | In Kind |
| MBC United Wholesale | 650.00 | New | In Kind |
| Sylvia Thomas | 600.00 | New | |
| Supreme Beverage | 300.00 | New | In Kind |
| Guy & Sally Spencer | 200.00 | | |



» USSRC Foundation

Statement of Operations For the 12 Months Ending September 26, 2004

Revenues

| | |
|------------------------------------|------------------|
| Mission Center Complex | 10 |
| Scholarship Donations | 20,901 |
| Sponsorship Donations | 297,581 |
| International Space Camp Donations | 25,000 |
| Endowments | 0 |
| Museum & Exhibit Donations | 0 |
| Geospatial Equipment Donations | 50,000 |
| Undesignated Donations | 100,000 |
| Saturn V Donations | 623,905 |
| Interest Income | 285 |
| Total Revenue | 1,117,682 |

Donation Transfers

| | |
|-------------------------------------|------------------|
| Mission Center Complex | 10 |
| Scholarship Donations | 25,244 |
| Sponsorship Donations | 290,348 |
| International Space Camp Donations | 25,000 |
| Endowments | 0 |
| Museum & Exhibit Donations | 0 |
| Geospatial Equipment Donations | 50,000 |
| Undesignated Donations | 100,000 |
| Saturn V Donations | 561,483 |
| Total Transfers to the USSRC | 1,102,035 |

Expenses

| | |
|-------------------------------------|------------------|
| Supplies | 61 |
| Fundraising Expenses | 4,399 |
| Fundraising Event Expenses | 379 |
| Accrued Saturn V Brick Expense | 1,004 |
| Travel Expense | 5,475 |
| Outside Food | (25) |
| Rental - Facility | 500 |
| Bank Costs | 164 |
| Legal & Accounting | 1,646 |
| Total Expenses and Transfers | 1,115,639 |

Change in Net Assets **2,044**

Percentage of organization's total income supported by public donations **81%**

Percentage of organization's expenses allocated to administration/operation **0.2%**

Percentage of organization's expenses allocated to fundraising **1%**

Percentage allocated to program/direct services **98.8%**

» USSRC Financials

| | FY 2005 (Budget) | FY 2004 (Actual) | FY 2003 (Actual) |
|--------------------------|---------------------|---------------------|---------------------|
| Revenue | | | |
| Camp Programs | \$14.46 | \$12.69 | \$12.90 |
| Museum | 8.27 | 7.90 | 8.38 |
| Advancement/GTAC | 3.11 | 2.05 | 0.93 |
| Other | 1.03 | 0.85 | 0.78 |
| Total Revenue | \$26.87 | \$23.49 | \$22.99 |
| Expenses | | | |
| Personnel Related | 11.22 | 10.87 | 10.84 |
| Facilities | 2.08 | 2.06 | 2.12 |
| Cost of Goods | 2.37 | 2.36 | 2.44 |
| Services | 0.98 | 0.85 | 0.81 |
| Program Related | 1.34 | 1.33 | 1.31 |
| Marketing | 0.80 | 0.77 | 0.79 |
| Travel | 0.14 | 0.12 | 0.17 |
| Finance | 1.18 | 1.09 | 1.18 |
| Other | 0.85 | 0.87 | 0.86 |
| Depreciation | 2.29 | 2.26 | 2.57 |
| Total Expenses | \$23.25 | \$22.58 | \$23.09 |
| Net Income (Loss) | \$3.62 | \$0.91 | (\$0.10) |

» U.S. Space & Rocket Center Foundation Grows

The U.S. Space & Rocket Center Foundation reached a major milestone in Fiscal Year 2004 generating over \$1 million in revenue, a 40 percent increase over 2003 and a 494 percent increase over 2002 revenue.

» NASCAR Packs IMAX®

The IMAX® film *NASCAR: The IMAX® Experience* drew record attendance of 48,000 for the eight-month run, making it the most successful release of an IMAX® movie to date. Museum gift shop sales totaled over \$27,000 in NASCAR merchandise.

Kiefer Sutherland narrated the film that provides an insider's perspective of the nation's number one spectator sport. A part of the film focused on the application of space-based technologies and how research and development in the aerospace industries benefit society in other ways.



▶ USSRC Individual Attendance

U. S. Space & Rocket Center — Fiscal Year 2004 Final Report
Demographic breakdown for walk-up visitors • September 29, 2003- September 26, 2004
 Sorted by number of visitors per State

| State | People | People % of Total | State | People | People % of Total |
|----------------|--------|-------------------|----------------------|----------------|-------------------|
| Alabama | 86,702 | 48.56% | South Carolina | 216 | 0.12% |
| Tennessee | 62,391 | 34.95% | Colorado | 194 | 0.11% |
| Georgia | 4,149 | 2.32% | Massachusetts | 182 | 0.10% |
| Missouri | 3,199 | 1.79% | Kansas | 168 | 0.09% |
| West Virginia | 2,833 | 1.59% | Maryland | 162 | 0.09% |
| Ohio | 1,867 | 1.05% | New Jersey | 157 | 0.09% |
| Florida | 1,778 | 1.00% | Nebraska | 155 | 0.09% |
| Arizona | 1,642 | 0.92% | Oklahoma | 129 | 0.07% |
| California | 1,236 | 0.69% | Utah | 109 | 0.06% |
| Kentucky | 1,020 | 0.57% | New Mexico | 95 | 0.05% |
| Indiana | 1,004 | 0.56% | Connecticut | 89 | 0.05% |
| Illinois | 944 | 0.53% | Oregon | 76 | 0.04% |
| Mississippi | 931 | 0.52% | Montana | 61 | 0.03% |
| Minnesota | 810 | 0.45% | South Dakota | 60 | 0.03% |
| Michigan | 797 | 0.45% | Alaska | 52 | 0.03% |
| Texas | 713 | 0.40% | New Hampshire | 46 | 0.03% |
| Wisconsin | 638 | 0.36% | Maine | 45 | 0.03% |
| New York | 610 | 0.34% | Idaho | 27 | 0.02% |
| Virginia | 568 | 0.32% | Vermont | 26 | 0.01% |
| Pennsylvania | 428 | 0.24% | District of Columbia | 25 | 0.01% |
| North Carolina | 391 | 0.22% | AP | 22 | 0.01% |
| Louisiana | 348 | 0.19% | Wyoming | 21 | 0.01% |
| Iowa | 314 | 0.18% | Hawaii | 16 | 0.01% |
| North Dakota | 298 | 0.17% | Delaware | 15 | 0.01% |
| Nevada | 282 | 0.16% | Rhode Island | 13 | 0.01% |
| Washington | 244 | 0.14% | International | 14 | |
| Arkansas | 223 | 0.12% | TOTAL | 178,535 | |

▶ USSRC Group Attendance

U. S. Space & Rocket Center — Fiscal Year 2004 Final Report
Demographic breakdown for Group Visitors • September 29, 2003- September 26, 2004
 Sorted by number of visitors per State

| State | Visitors | People % of Total | State | Visitors | People % of Total |
|----------------|----------|-------------------|--------------|---------------|-------------------|
| Alabama | 40,461 | 44.74% | Arkansas | 213 | 0.24% |
| Tennessee | 22,104 | 24.44% | Michigan | 140 | 0.15% |
| Georgia | 17,241 | 19.07% | Virginia | 137 | 0.15% |
| Mississippi | 3,881 | 4.29% | Washington | 133 | 0.15% |
| Kentucky | 2,225 | 2.46% | Minnesota | 115 | 0.13% |
| Louisiana | 696 | 0.77% | Pennsylvania | 108 | 0.12% |
| Missouri | 520 | 0.58% | California | 92 | 0.10% |
| Indiana | 507 | 0.56% | Wisconsin | 71 | 0.08% |
| Florida | 398 | 0.44% | Texas | 57 | 0.06% |
| Ohio | 385 | 0.43% | Kansas | 46 | 0.05% |
| North Carolina | 339 | 0.37% | New Jersey | 31 | 0.03% |
| South Carolina | 265 | 0.29% | New York | 18 | 0.02% |
| Illinois | 244 | 0.27% | TOTAL | 90,427 | |



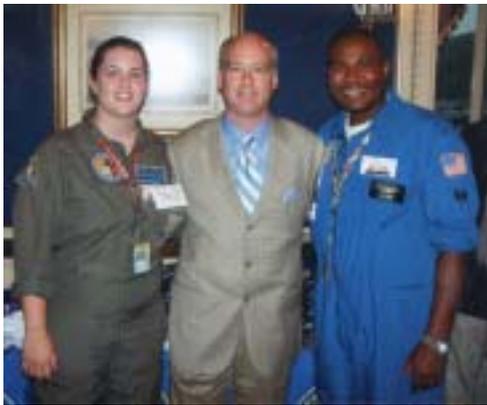
►► Advancement

In addition to administering the scholarship program, corporate relations, and grant writing functions for the USSRC, the Advancement Department:

- Produced the 2004 Annual Report.
- Coordinated the USSRC's exhibit for the Taste of America Reception held for members of Congress.
- Completed Fiscal Year 2005 Governmental Relations plans for both state and federal levels.
- Worked to build relationship with members of the Madison County Legislative Delegation who assisted with saving the state appropriation (\$304,756) after the Governor's budget set zero funding and worked for passage of a one percent increase in the county lodging taxes (effective for 10 years).
- Continued to build relations with the Alabama Congressional Delegation.
- Secured first-time funding for the Saturn V Project from Madison County Commission (\$60,000).
- Successfully pressed Huntsville City Council to include the Saturn V Project in the city's Fiscal Year 2005 budget (\$150,000). This is the second year the City has funded the Saturn V Restoration Project; support totals \$350,000.
- Coordinated USSRC's corporate/community outreach that resulted in 29 new "Friends of the Center" joining the donor program in 2004.

SPACE CAMP Featured at U.S. Capitol

Today's Youth, Tomorrow's Leaders was the theme for the twelfth annual Taste of America Reception held in the U.S. Capitol on July 22, 2004. SPACE CAMP was invited to participate as



one of the organizations recognized for its work in building tomorrow's leaders. SPACE CAMP counselors Heather Sellers and John Softley are shown with Alabama Fourth District Congressman Robert Aderholt, who stopped by the exhibit, along with Congressional

members and staff from across the country. The SPACE CAMP exhibit featured three of the Explorers presented in this annual report: Dottie Metcalf-Lindenburger, Jamail Larkins, and Kim Reed Campbell.



►► Geospatial Training and Application Center

Spatial Technologies Improve Work Performance

The USSRC's educational mission reaches beyond children to include adults. Nowhere is that more evident than in the Geospatial Training and Applications Center (GTAC). GTAC Vice President Chris Johnson teaches adults ranging from city planners to Alabama farmers how the spatial technologies can assist them to do their jobs more effectively. Work this year included:

- Grant for AlabamaView project totaling \$90,000 with additional \$90,000 to follow
 - Partnership formed with Auburn University, UAH/GHCC, Jacksonville State University, Alabama A&M.
 - GTAC will perform a Statewide Digital Ortho Imagery Fly Plan Exercise.
- Grant from Lockheed Martin for Girl Scout orienteering merit badge program
 - 135 girls explore non-traditional female science career field in geospatial technologies learning about cartography, surveying, and field data collection.
- City of Huntsville mapping services contract totaling \$55,000 completed.
- Contract with City of Athens/Limestone County for GIS implementation planning and GIS services initiated.
- National Guard Bureau contract totaling \$30,000 received.

► Human Resources

- Recruited at 25 universities; filled 230 counselor positions; contacted 1,900 former campers about counselor employment opportunities for January 2005.
- Presented employee recognition: Length of Service awards to 37 full-time employees (3, 5, 10, 15 and 20 years); 18 Employees of the Month; nine Team Recognition; 11 Excellent Customer Service; one Employee of the Year; one Special Recognition; one Special Recognition award from the Huntsville Area Committee on Employment of People With Disabilities.
- Held training sessions attended by 257 employees.



Linda Burroughs is presented a certificate of special recognition from Governor Bob Riley by USSRC CEO Larry R. Capps during her retirement party.

Linda Burroughs Retires from Center

Linda Burroughs came to work at the U.S. Space and Rocket Center in 1976 when the staff numbered 25. She was hired to be the administrative assistant for the USSRC's chief executive officer, but her duties went far beyond the traditional secretarial functions prompting one former director to comment that Burroughs carried more of the responsibilities of his job than any other employee on staff. However, her efficient, helpful manner reached beyond the CEO's office as she rolled up her sleeves to help with functions ranging from selling tickets to serving as a museum guide.

During her years with the USSRC, Burroughs helped the museum and SPACE CAMP grow to an organization that employed 347 full-time equivalent employees when she retired in January. With her tactful manner, encouraging words, and warm smile, this USSRC veteran made each new employee feel welcome and existing employees feel valued.

Gleason Recognized for Achievement and Dedication

Jerald Gleason was a runner-up for the Employee of the Year Award from the Huntsville Area Committee on Employment of People with Disabilities. Gleason has been employed with the USSRC since February 1995 and is Aerospace Support & Facilities Manager.

This award is given to a person who demonstrates personal courage, motivation, and outstanding performance in overcoming obstacles in rehabilitation and who has shown dedication in productive employment.

Gleason is the backbone of the AVIATION CHALLENGE survival programs, and he distinguished himself when he assumed responsibility for the renovation and design of a surplus trailer at AVIATION CHALLENGE. He utilized his considerable survival knowledge, inventive skills, and ingenuity to create a unique, hands-on survival exhibit and learning center. Gleason used his own tools, and he spent numerous hours planning and building this one-of-a-kind exhibit. He also conducts informative lectures and briefings to children and adults of all ages.

Gleason retired from the military with the rank of Sergeant Major after more than 30 years in the U.S. Army. He was the Chief Survival Instructor at the time of retirement, had three tours of duty in Vietnam, and was called out of retirement for Operation Desert Storm.





▶ **Marketing**

■ **Direct Sales Team generated revenue and brand awareness**

- Over \$1.0 million in sales for Fiscal Year 2004.
- Attended 53 conferences, trade shows, and events across U.S.

■ **Marketing support of Aerospace Programs**

- Increased bookings at calendar year-end by more than 2,000 over same period last year through Early Bird Promotional Special.
- Launched entirely new, experiential Web site while maintaining access to information with downloadable PDF's of all collateral materials.

- Strengthened direct mail efforts with three mailings this season in early September, late January, and early April to continue to drive sales.

Continued to strengthen brand awareness through national and regional partnerships.

■ **Museum Program**

- Launched successful promotion of NASCAR IMAX® film, which generated over \$129,000 in media trade and

\$12,500 cash support.

- Generated \$67,000 in revenue from Liberty Bell 7 Exhibit rack cards and other \$2 discount cards.



■ **Public Relations and Media**

- Appeared on several national news/entertainment programs, such as "60 Minutes" and While You Were Out."
- Received coverage in numerous national publications, such as *Southern Living*.

■ **Call Center Operations**

- Continued to provide outstanding service for "house accounts."
- Upheld calls-to-bookings ratio at a 25% or higher level, while maintaining low abandonment rate.

▶ **Safety and Security**

Nurses Distribute Medicine, TLC

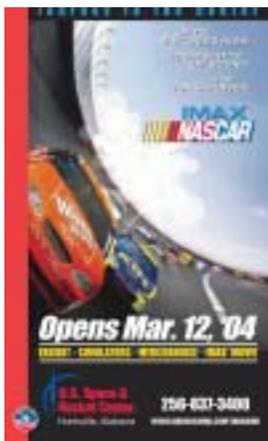
While not always visible to parents who send children to camp or to museum visitors, the Safety and Security Department, nevertheless, is the foundation for much of the USSRC's success. That

is true because that department staff maintains a safe environment. The department includes security personnel, who provide 24-hour protection to the USSRC, and the nursing staff that is shown above.

During Fiscal Year 2004, the department's nurses logged 5280 medical visits by campers, 305 by visitors, and 510 by employees. Most of the camp medical visits involved distribution of medication that students brought with them. Department Vice President Elgin Carver says that the number of children bringing prescription drugs to camp has increased dramatically in recent years.

Catherine Barofsky, Vicki Berryhill, Angela Butler, Tyra Cochran, Patt Epps, Jennifer Frith, Dianne Hughes, Sharon Jones, Darlene Leonard and Jana Mason deal daily with conditions ranging from chronic illness or physical disabilities to sudden illness and homesickness. They bring not only medical expertise to their jobs but also smiles and reassuring words.

That tender loving care (TLC) is just as important as pills and bandages to both students, who are often hours away from home, and to parents.





▶▶ **SPACE CAMP**

Explorer:

Kerri Brooke Beisser

**Johns Hopkins University
Applied Physics
Laboratory**

Each year, SPACE CAMP hires an elite group of college students and puts them through an intensive training program. Those hired must have completed two years of college, and usually they are majoring in either a scientific discipline or in education. Kerri Brooke Beisser represents these outstanding young leaders who, too, are SPACE CAMP alumni.

Kerri Brooke Beisser currently manages the Johns Hopkins University Applied Physics Laboratory's (APL) Space Department Office of Education and Public Outreach (E/PO). The E/PO team excites and

inspires the next generation of space explorers by creating hands-on, minds-on learning experiences for students, educators and the general public, and the office provides unique opportunities for those groups to share in the excitement of APL's current space missions.



As an undergraduate, Beisser studied Government and Astronomy at Franklin and Marshall College and worked during her undergraduate summers at the USSRC. She is continuing her graduate school work in Aeronautical Science with a concentration in Space Studies at Embry Riddle Aeronautical University.

Before coming to APL, Beisser worked as a Project Manager for Challenger Center for Space Science Education where she

created national Educator Fellowship programs for NASA's Cassini, STARDUST and Galileo Europa Missions.

Since joining APL in 1999, she has orchestrated E/PO programs for NASA's NEAR, TIMED, MESSENGER, STEREO and New Horizons missions, as well as for the CRISM instrument for the Mars Reconnaissance Orbiter. Beisser is shown (right) at the launch of the TIMED spacecraft in December 2001. TIMED was launched aboard a Delta II rocket as part of NASA's Solar Terrestrial Probes Programs.

Beisser has partnered with SPACE CAMP to conduct outreach efforts on NASA's New Horizons Pluto-Kuiper Belt mission. New Horizons is a mission to the unexplored edge of our solar system, designed to provide the first close look at Pluto, Charon and their icy, rocky relatives in the Kuiper Belt. Scheduled to launch in 2006 and reach Pluto-Charon by 2015, New Horizons would be the first NASA planetary spacecraft in the nearly three decades to train its instruments on a "new" world.



**"We shall never cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time."
— T. S. Eliot**

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