A MESSAGE FROM THE PRESIDENT

On behalf of the Northrop Grumman Foundation and its Board of Directors, I am pleased to present our 2010 annual report.

As the year draws to a close, it is the perfect time to reflect up the wonderful partnerships we have established and how we, together, have been able to advance science, technology, engineering and math (STEM) education for educators and students. This report describes the Foundation’s programming and how we are working with nonprofit partners to advance the STEM agenda.

Highlights of this report include:

- Matching Gifts for Education Program
- Summary of major grants
- Aid to Higher Education initiatives
- Future programs

While we have some great strides in support of STEM, there is still so much work to do and we look forward to partnerships and programs that will help to inspire the next generation of scientists, engineers and technicians.

Thank you for your interest in the Northrop Grumman Foundation.

Sincerely,

Sandra Evers-Manly, President
Northrop Grumman Foundation
Foundation Overview

The Northrop Grumman Foundation supports diverse and sustainable national-level programs for students and teachers. These programs create innovative education experiences in science, technology, engineering and mathematics (STEM).

The Foundation has two primary methods for giving: Matching Gifts for Education and Northrop Grumman Foundation grants. All Foundation funding focuses on education and in 2010, approximately $4.5 million in Foundation giving supported a variety of education programs.

2010 Matching Gifts for Education

The Northrop Grumman Foundation Matching Gifts for Education program is a popular way for employees to increase their contribution to qualified education institutions. In 2010, the Foundation matched 2,735 gifts for a total of $1,046,989.

- K-12 42% ($442,209)
- Higher education 58% ($604,780)

Top 10 Matching Gift Recipients

Manhattan Beach Education Foundation .... $31,774
University of California, Los Angeles .......... $30,925
Peninsula Education Foundation ............ $26,123
Virginia Tech ................................ $12,608
Massachusetts Institute of Technology ...... $9,967
University of Southern California .......... $9,340
Penn State ...................................... $9,315
Purdue University ............................. $9,240
Notre Dame ................................... $8,425
California State University, Long Beach ...... $8,312
2010 Program Highlights

In 2010, the Northrop Grumman Foundation invested nearly $3 million in a variety of programs that provide STEM opportunities to teachers and our nation’s youth. From floating in a zero-gravity environment to developing the perfect science project, each opportunity provides essentials support to a student’s success. Below are highlights of the Foundation’s major grants.

Earthwatch Educator Program
The Northrop Grumman Foundation has partnered with the Earthwatch Institute to develop a unique opportunity for educators. In 2010, The Foundation’s Earthwatch Educator Program funded fellowships for 22 middle school teachers from communities nationwide that enabled them to participate in environmental science research expeditions. Expeditions focused on the coastal ecology of the Bahamas and climate change at the Arctic’s edge. The immersive experience of this field work empowers and inspires teacher to incorporate more knowledgeable and exciting instruction in their classrooms.

U.S. Space and Rocket Center – Space Camp
In partnership with the U.S. Space and Rocket Center in Huntsville, Ala., the Northrop Grumman Foundation sent a group of 48 students and 16 teachers from Northrop Grumman communities across the country to Space Camp, a program designed to inspire and motivate the next generation of explorers, scientists and engineers through classroom instruction and hands-on activities.

Weightless Flights of Discovery
Partnering with Zero Gravity Corporation, the Northrop Grumman Foundation provides school teachers the chance to take part in hands-on science workshops and perform experiments in a parabolic or “zero-gravity” aircraft flight. In 2010, 180 current and future teachers participated in flights from six U.S. cities. Each flight creates temporary weightlessness comparable to what humans would experience in outer space. Educators are able to experience for themselves the theories of physics that they have been teaching their students. Following their experience, teaches are able to enhance their curricula and share their first-hand experience, their students. The Weightless Flights of Discovery program brings national and local media attention to the importance of STEM education and has served to inspire students to pursue math and science-related careers.

MATHCOUNTS Foundation
MATHCOUNTS is providing students with the foundation for successful STEM careers. The organization focuses on working with middle schools students and provides them with fun and challenging math programs. While the organization coordinates a national competition for students, Northrop Grumman Foundation funding supported the MATHCOUNTS website, an interactive resource for online visitors. This tool allows hundreds of thousands of students and teachers currently enrolled the club or competition programs, as well as the millions of students and teacher who are not, the ability to access and share information, ask questions, solve the “Problem of the Week,” and review archived data.

Sally Ride Science
Dr. Sally Ride, America’s first woman in space, founded Sally Ride Science to create programs that educate, entertain, engage and inspire girls’ and boys’ interest in STEM. Each year, Sally Ride Science coordinates festivals which are typically hosted on college campuses and bring together 5th – 8th grade girls for a festive day of science and socializing. In 2010, the Northrop Grumman Foundation sponsored two festivals, one
at Tulane University in New Orleans and one at Cal State Los Angeles. Nearly 1,000 girls attended the two festivals and volunteers from the Northrop Grumman Women Engineers Employee Resource Group provided support to an exhibit booth and workshops.

**National Action Council for Minorities in Engineering**
The National Action Council for Minorities in Engineering (NACME) is the nation’s largest private provider of scholarships for underrepresented minority students in engineering. In addition, collaborations with other non-profit organizations has provided pre-engineering study preparation and experience for public school and community college students. NACME has become a leading source of research results and policy analysis regarding the participation of African Americans, Latinos and American Indians in engineering education and careers. Northrop Grumman Foundation funding helps to ensure scholarships are available to deserving students and supports NACME efforts to further STEM education.

**Teach for America**
Teach for America’s mission is to build the movement to eliminate education inequity by enlisting our nation’s most promising future leaders in the effort. A national corps of outstanding recent college graduates of all academic majors and careers interest commit two years to teach in urban and rural public schools and become leaders in the effort to expand educational opportunity. Funding from the Northrop Grumman Foundation enables Teach for America to expand its cohort of exceptional math and science teachers in Baltimore, Greater New Orleans, Los Angeles and Washington, D.C.

**PBS / WGBH**
WGBH, a PBS affiliate based in Boston, creates exceptional educational programming for kids and students of all ages. Foundation funding aided WGBH in their production of the fourth seasons of Design Squad and Peep and the Big, Wide World and supported an educational outreach initiatives from the two shows plus Fetch! With Ruff Ruffman. In addition, Northrop Grumman employees were able to participate in webinars hosted by WGBH that helped them sharpen education outreach skills so they were better prepared to enter K-12 classrooms and work with students.

**Science Buddies**
Serving as an on-line resource for students, parent and teachers, Science Buddies empower Website visitors to quickly and easily find free science fair project ideas and help in all areas of science from physics to food science to music and microbiology. With help from the Northrop Grumman Foundation, Science Buddies was able to produce additional projects and content in the areas of aerodynamics, hydrodynamics, electronics, computer science, mechanical engineering, materials science, astrophysics and weather science.

**National Engineers Week Foundation**
February 14 – 20, the Foundation celebrated Engineers Week, a week dedicated to increasing the understanding of and interest in engineering and technology careers among young students and raising public understanding and appreciation of engineer’s contributions to society. Funding from the Foundation helped the organization provide extensive programming to students across the country. In addition, hundreds of Northrop Grumman employees used materials developed for Engineers Week to reach students in classrooms and those who visited Northrop Grumman facilities for briefings and tours.
Foundation Aid to Higher Education - University & College Partnerships and Diversity Scholarships

In 2010, the Foundation continued its support to numerous universities and colleges across the country. Over $135,000 was allocated to support higher education programs ranging from STEM initiatives and diversity and inclusion to academic organizations such as Association of Computing Machinery, Association for Women in Computing, Electrical and Computer Engineering and Supply Chain Management.

Universities receiving Foundation support provide top engineering and technical talent to companies such as Northrop Grumman. The Foundation also contributed an additional $95,000 to national diversity organization scholarships to the American Indian Science and Engineering Society (AISES), National Society of Black Engineers (NSBE), Society of Hispanic Professional Engineers (SHPE), Society of Women Engineers (SWE) and Great Minds in STEM (formerly HENAAC). The Foundation’s contributions to diversity programs in engineering will further increase the enrollment, retention, and graduation rates for women and underrepresented minority students.

In addition, our involvement with campus student organizations, such as NSBE, SHPE, SWE and AISES, are invaluable and provide opportunities to affect student development. Grants were provided to support attendance at leadership and professional development conferences and workshops, and support signature programs such as academic excellence workshops and engineering education outreach programs.

Specifically, the Foundation contributed to the NSBE and SWE organizations at University of Maryland, Baltimore County, to support professional development programs. It is through these organizations that students develop networking and presentation skills, which are sometimes overlooked in the classroom.

In support of the SWE mission to retain women in engineering and invest in their future education and careers, scholarships were granted to women engineers who demonstrated outstanding academic performance in their majors and exceptional leadership skills within their engineering student organization. In addition, the Foundation contribution to George Mason University SWE chapter enabled the student organization to host a Girl Scout outreach event which highlighted the importance of an education and career in science, technology, engineering and math.

Another success story where the Foundation’s contributions are making a difference is the Computer Science and Engineering (CSE) undergraduate student association and the Association of Computing Machinery (ACM) at the University at Buffalo. Through their community outreach programs, the organization formed computer science clubs within community schools so that students may realize their interest in computers and engineering. Through the Buffalo Human Rights Center, ACM will be working to promote human rights utilizing technological means. Finally ACM hosted a scientific competition within the poorest, inner-city schools where CSE students presented the materials, discussed educational pathways within STEM and conducted experiments with middle school students.

As the resources of the Foundation have continued to fund strategic university programming over the years, emphasis is placed on building a continuum of support to those initiatives that have proven to make a difference with the people and organizations that promote learning opportunities for our next generation of scientists, engineers and technicians.
2011 Programming
In 2011, the Foundation will renew some key partnerships and will be developing new programming with partners such as Conservation International and the Wolf Trap Foundation. A complete list of Foundation partners (click on link) for 2011 includes:

- American Indian Science and Engineering Society
- Carnegie Mellon Summer Academy for Math and Science
- Conservation International
- Great Minds in STEM
- International Science and Engineering Fair
- Let's Go!
- MATHCOUNTS
- National Action Council for Minorities In Engineering
- National Engineers Week Foundation
- National Society of Black Engineers
- PBS/WGBH Design Squad
- Sally Ride Science
- Science Buddies
- Society of Hispanic Professional Engineers
- Society of Women Engineers
- Teach for America
- United Negro College Fund
- U.S.A. Science and Engineering Festival
- U.S. Space and Rocket Center (Space Camp)
- Weightless Flights of Discovery
- Wolf Trap Foundation

2011 Special Notes
In January, Frank Flores, Northrop Grumman Aerospace Systems Vice President, Strike and Surveillance Systems Division Engineering, was elected to the board. Mr. Flores has a tremendous amount of STEM education and diversity program experience and will be a true asset to the Foundation. Mr. Flores replaces Wes Bush, CEO and President, Northrop Grumman Corporation, who left the board in December 2010.

In March, Japan was devastated by an earthquake and tsunami. The Foundation Board of Directors approved a $1M contribution to agencies supporting the relief and recovery efforts. $500,000 was split between AmeriCares, American Red Cross International and Save the Children. An additional $500,000 was dedicated to an employee matching gift program. A full report of the Japan Disaster Relief program will be made available in the Foundation’s 2011 Annual Report.
Northrop Grumman Foundation
Board and Staff

Sandra Evers-Manly, President
Wes Bush
Sheila Cheston
Darryl Fraser
Silva Thomas, Treasurer
Carleen Beste, Manager and Secretary
Reyna Gaar, Administrator

For additional information on the Northrop Grumman Foundation or the grant application process, visit: www.northropgrumman.com and keyword search: foundation.
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Telephone number: 1-888-478-5478