

SPACE UPLINK

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MESSAGE FROM MSBR PRESIDENT

ENTERING A NEW DECADE OF COLLABORATION AND ACCOMPLISHMENT

The beginning of 2010 has been eventful. To quote Charles Dickens, "it was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair..."

The April 20 Deepwater Horizon oil spill in the Gulf of Mexico, unchecked as this newsletter went to press, has significant implications for marine and coastal ecosystems, ecosystem services, and stakeholders throughout the Gulf for years—and likely decades—to come. The oil slick off the Mississippi Delta is [routinely imaged](#) by NASA's [Moderate-Resolution Imaging Spectroradiometer](#), a part of the Earth Observing System. NOAA, the lead science agency for oil spill response; NASA; and other agencies are working closely together to monitor and manage our nation's response. This interagency cooperation is not only encouraging, it is providing best practices and important lessons learned that can and should be applied to address the broader issue of climate change management—both adaptation and avoidance.



Dr. Philip Ardanuy, President of the MSBR

The NASA-NOAA partnership has never been stronger. NASA launched the Geostationary Operational Environmental Satellite-P, renamed [GOES-15](#), as NOAA's latest geosynchronous satellite, on March 4. Built by Boeing for NOAA and NASA, GOES-15 recently took its first "first-light" [visible](#) and infrared Earth images. NOAA's GOES-12, newly repositioned and a significant U.S. contribution to the emerging Global Earth Observing System of Systems, began coverage of South America to track tropical cyclones and help protect against deadly mudslides. At Goddard Space Flight Center (GSFC), joint [GOES-R](#) and Joint Polar Satellite System (JPSS) project offices are building an impressive bench of systems engineering and management talent that holds promise for future climate instruments and missions yet to come.

NASA's [Solar Dynamics Observatory](#) (SDO), built, operated, and managed by GSFC—and the crucial first mission of NASA's "Living with a Star" program—began its five-year science mission to study the Sun. SDO is performing

[spectacularly](#). In April, NASA's [James Webb Space Telescope](#) (JWST) passed its overall Mission Critical Design Review (MCDR). Also managed by GSFC, along with prime contractor Northrop Grumman Space Systems, JWST's passing of its MCDR gave confidence that the observatory will meet all its mission requirements. We begin the second half of the year with the promise of strong NASA and NOAA budgets, tempered with the likelihood of uncertainties that a continuing resolution may bring. NASA's [Glory climate mission](#) is rapidly approaching a scheduled November 2010 launch by Orbital, to be followed ten months later with the September 2011 launch of the [NPOESS Preparatory Project](#) (NPP) joint mission.

With special thanks to Lena Braatz, Sherri Tearman, and Booz Allen Hamilton for the production of this newsletter in an exciting new format, the officers and board of the Maryland Space Business Roundtable wish all of our members, partners, and colleagues a productive, rewarding, and refreshing summer.

Dr. Philip Ardanuy, President

AT THE PODIUM

MARYLAND SENATOR ADDRESSES MSBR



Senator Barbara Mikulski (D-Md) addresses the MSBR at the April luncheon

MIKULSKI HIGHLIGHTS NASA ACHIEVEMENTS AND DISCUSSES CONSTITUENT CONCERNS

The MSBR was pleased to welcome Senator Barbara Mikulski (D-Md) to speak at the organization's April 19, 2010 luncheon. After warm introductions from Goddard Space Flight Center (GSFC) Deputy Administrator, Lori Garver and National Oceanic and Atmospheric Administration (NOAA) Chief of Staff, Margaret Spring, Senator Mikulski greeted the crowd enthusiastically. Noting that local space technology efforts are a major engine for economic development in the region, Mikulski thanked the members of the MSBR for "being who you are"—the members of the academic, corporate, and civil servant communities who drive those important space-related science, technology, and engineering initiatives.

Mikulski noted that GSFC has achieved many amazing feats, and remarked that what seems easy today was once considered a risky effort. Exclaiming "I love Hubble!" the Senator recalled the 20th anniversary of the launch of the Hubble Space Telescope (HST) a few days before, explaining that it was GSFC leadership that drove her to be a strong advocate for repair of that important national resource.

The Senator remarked that although we are at a fork in the road for the space program, we are also experiencing a "cornucopia of opportunity." As we consider Shuttle retirement and Constellation program restructuring, we must make sure we maintain our nation's competitive edge in aeronautics and science. President Obama's vision calls for a \$19B appropriation for NASA, \$5B of which is slated for Earth science initiatives. The Goddard community will benefit, and can be proud to be "where the world looks for Earth science expertise."

As chair of the appropriations committee responsible for overseeing NASA, Mikulski promised to work hard to ensure the Agency's strategy includes a number of elements. First, we must ensure the safety of our nation's astronauts and the entire space team. In addition, NASA's mission needs to be focused, and involve human exploration to a clear destination. We need to make sure that Agency space exploration is tied to national science objectives. Finally, we need to address the concerns of our taxpayers, including worker dislocation at certain NASA Centers, and deficit and debt worries.

"It's not large or small government, it's smart government" that we need, asserted Mikulski. We need to work together with civility and trust. "We've looked at the Earth and the stars; now we have to look each other in the eyes and do what we need to do."

EDUCATIONAL OUTREACH

EDUCATION OUTREACH: AN IMPORTANT MSBR GOAL

While the most visible aspects of the MSBR are its monthly luncheons featuring prominent guest speakers and networking opportunities, education outreach is one of the organization's top goals. The MSBR promotes educational initiatives to instill an understanding of and a desire to pursue careers in Science, Technology, Engineering and Math (STEM), building the workforce for tomorrow and keeping the United States at the forefront of scientific advancement. In line with this goal, the MSBR provides funds to support STEM programs throughout Maryland.

The history of MSBR involvement in education outreach goes back over 15 years. We have supported some programs (e.g., FIRST [For Inspiration and Recognition of Science and Technology] Robotics, Physics Olympics and Final Frontiers) almost since the institution of the MSBR. Other programs come and go, and there are always new applicants seeking support each year. Most years between 10 and 15 organizations request funding. Each organization targets a specific age group, be it students in elementary, middle, or high school, or even college. Some applicants also target specific groups such as the disadvantaged or gender-based groups.

Each year the Board of Directors Outreach Committee seeks new applicants and also sends out guidelines to organizations the MSBR has supported in the past. Every organization requesting funding is provided with the opportunity to make a short presentation to the MSBR Board of Directors at the January meeting. The board reviews the requests, discusses their merits, and votes on the distribution of MSBR funds.

Our ability to provide financial support has grown substantially over time, increasing by 50% in the last five-years. Last year we raised an additional \$5,000 via our "silent auction" at the October Gala. Our outreach efforts truly make a difference in our community. Read about one important MSBR-sponsored program in the article below.

By MSBR Secretary Ken Dolan/Director of Operations, Capitol College

MSBR SPONSORS STEM INITIATIVE

ROBOTICS OFFERS STUDENTS UNIQUE LEARNING OPPORTUNITY

A primary mission of the MSBR is to support local Science, Technology, Engineering, and Math (STEM) programs. One very significant initiative we sponsored this year is the robotics team at the [Bluford Drew Jemison \(BJD\) STEM Academy](#).



Senator Mikulski at the April MSBR luncheon with students from the Bluford Drew Jemison STEM Academy, accompanied by school administrators Mr. Clifton Martin and Mr. Carl Stokes

Located in northeast Baltimore, BJD is a Baltimore City public charter school designed to foster academic and personal success. BJD Academy is named for Guion "Guy" Bluford, retired Colonel from the United States Air Force, former NASA Astronaut, and the first African American in space; Charles Drew, a physician and medical researcher who developed the method for preserving and reconstituting blood and the system for storing blood plasma (blood bank); and Mae Jemison, a physician, retired NASA astronaut, and the first African American woman to travel in space. BJD features a rigorous curriculum in all academic areas, with a special emphasis on STEM subjects. The all-male student body attends school on an extended day schedule, including enrichment sessions on Saturdays and a mandatory five-week summer program that focuses on math and language arts. Originally founded as a middle school, BJD has now expanded to include a high school curriculum, allowing students to continue their preparations for a college education or the workplace.

In 2009, BJD formed a middle school robotics team to build and design a VEX robot to compete in a regional competition. Despite being the only middle school team competing against older, high school opponents, the BJD team took first place in the tournament, earning the privilege of competing in a national VEX competition in Dallas, Texas. Based on the success of the 2009 program, BJD administrators decided to continue the robotics program in 2010, and the MSBR agreed to provide financial support. The BJD robotics team had another successful season, and competed in several VEX tournaments. Even though they did not come in first place this year, the team finished in the top ten in two competitions against tough competitors.

According to BJD Technology Coordinator Clifton Martin, however, more important than a winning record are the experiences and skills the students gained through participation in the robotics program. Not only did the students learn about design, programming, building, and testing a robot, they learned valuable life lessons, as well. Martin noted, "These students worked really hard together to accomplish a big goal—something many of them had never done before. They learned that by investing effort and time they can realize a big payoff. Building a robot is not out of reach for them. They did it!" Robotics mentors also noticed that the students became increasingly independent as the year progressed, and by the end the season, the team was almost entirely student-run.

At the May luncheon, we were privileged to host BJD Chief Operating Officer Mr. Carl Stokes, Mr. Martin, and several BJD students. We hope our members enjoyed interacting with these educators and remarkable youngsters. After all, one of these students might be a valued employee or client one day!

OF NOTE

MSBR ENDORSES STATEMENT SUPPORTING NASA

The MSBR is one of thirteen organizations that recently came together to show support for NASA in the wake of the release of the Agency's FY2011 budget proposal. The group issued a joint statement on May 20, 2010 endorsing NASA's FY2011 top line budget, and expressing excitement about "the increases in science, aeronautics and technology initiatives." In addition to the MSBR, a diverse set of organizations endorsed the statement, including the American Association for the Advancement of Science, the Planetary Society, Universities Space Research Association, the American Astronomical Society, and the American Geophysical Union. To read the statement in its entirety, please visit the MSBR website, at http://mdspace.org/other/Joint_Statement_by_Space_Organizations.pdf.

MSBR TO HOST GSFC CONTRACTOR EXCELLENCE AWARD CEREMONY

The MSBR is pleased to announce that Goddard Center Director Rob Strain will present the GSFC Contractor Excellence Award at the MSBR luncheon on July 27, 2010. This prestigious award is the highest honor for quality and technical excellence that the Center can bestow on a member of the GSFC contractor community. Specifically, the award recognizes contractors that make a substantial contribution to the mission of the Center, are dedicated to a philosophy of Continuous Improvement (CI), and have implemented a CI program that has achieved demonstrable and measurable results. For further information on the GSFC Contractor Excellence Award, visit <http://gsfccea.gsfc.nasa.gov/>.

WELCOME NEW MEMBERS

MSBR WELCOMES NEW CORPORATE MEMBERS

COLUMBUS TECHNOLOGIES AND SERVICES, INC. IS an 8(a) SBA certified Small Disadvantaged Business, founded in 2001 by Mr. Ajay Handa. We are dedicated to customer satisfaction and providing high quality support in the areas of Software, Information Technology, Science, Engineering and Professional services. Columbus is ISO 9001 and CMMI Level 2 certified. We support NASA's mission-critical systems including engineering, implementation and operation of both software and hardware components. Our work in science includes mission planning and logistics, instrument design, and science data analysis. We support several federal agencies in addition to NASA from our software engineering office in Columbia, Maryland and our office in Arlington, Virginia. We also maintain strong affiliations and active partnerships with large and small businesses throughout the United States. Our expertise in managing and providing human and technical resources and solutions helps our customers solve their most pressing technical, strategic and operational challenges, ensuring the overall success of their programs. At Columbus, we take pride in providing innovative and customized technology-based solutions to fulfill the needs of our customers and exceed their expectations.



Reva and Ajay Handa accept Thomas H. May Legacy of Excellence Award from Karl Bird, JPL Acquisition Division Manager

We have a history of successful, high quality contract performance and have been recognized with over 150 awards, including NASA JPL's 2009 Small Business of the Year and the 2010 Thomas H. May Legacy of Excellence Award. At Columbus, "A Passion to Provide Excellence" represents our commitment to each of our customer's success. It also reflects our commitment to give back to the community by mentoring other small businesses and through the Columbus Ongoing Community Education and Nurturing (OCEAN) Program, where we partner with NASA and other government agencies to sponsor charitable activities such as teaching computer skills to high-risk youth and children of deployed Marines. For additional information, visit our website at www.ColumbusUSA.com.

INTEGRATED SYSTEMS SOLUTIONS, INC (ISS MANAGEMENT) is a Service Disabled Veteran-Owned business specializing in providing program management, systems engineering, financial management, and information technology support to a variety of Government agencies. The firm supplies professionals experienced in both Government and industry, providing a unique perspective to suit all of our clients' needs. Our clients include large corporations, the U.S. military, NASA, NOAA and the Federal Aviation Administration. This broad experience enables ISS Management to bring best practices from industry and government to support program planning, budgeting, execution, acquisition, training, organizational analysis, organizational design and business process optimization. ISS currently provides management and analysis support to the Office of Systems Development (OSD) in the National Environmental Satellite, Data, and Information Service (NESDIS), and the Aviation Weather Program, and supports the Joint Planning and Development Office for the modernization of the FAA's U.S. Air Transportation System. We are known for successfully assisting organizations through major change initiatives, from strategy refinement through the final project implementation. Along the way we assist our clients in developing leadership skills and guiding internal teams towards alignment on clear organizational goals. For additional information, visit our website at www.ISSMGMT.com.

PROTOTYPE PRODUCTIONS INC. (PPI) is a small firm with design and manufacturing facilities in Ashburn, Virginia near Dulles and in Gaithersburg, Maryland. The company was founded 19 years ago, by two brothers, Joe and Italo Travez, with the goals of being an incubator for new technologies and products and employing staff who share core values. PPI is a key supplier to the Army for new technology equipment. Goddard first expressed interest in PPI several years ago because of the firm's unique mechanical prototyping techniques. In late 2009, PPI formed an Aerospace division located in Greenbelt, Maryland, and dedicated to supplying systems engineering expertise to NASA. Today that division supplies key systems engineers to the Hubble Space Telescope and Landsat Data Continuity Mission Projects. The Aerospace division is led by Mr. Larry Dunham and Mr. W. Tracy Meyer, both of whom have supported GSFC for over 20 years. PPI is a certified 8(a) small, disadvantaged business. For additional information, please visit our website at www.protoprod.com.



PPI Founders Joe and Italo Travez with an Endovascular Training System Built Using PPI's Selective Laser Sintering (SLS) Process

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MSBR MEMBERS

MSBR members are space industry stakeholders located in Maryland or the surrounding areas. Membership in the MSBR is open to both corporations and individuals. Below is a list of current MSBR members, including links to corporate members' websites. Please visit these sites to learn more about the organizations or to explore potential business or employment opportunities.

CORPORATE MEMBERS		INDIVIDUAL MEMBERS
1 Source Consulting Inc. Adnet Systems, Inc. Advocates in Manpower Management, Inc. AI Solutions, Inc. ARES Corporation (view site) ASRC Federal Holding Company, LLC ATK Ball Aerospace and Technology Corp. The Boeing Company Booz Allen Hamilton Caelum Research Corp. Capitol College Space Operations Institute The Coleman Group Computer Sciences Corp. Constellation Software Engineering Corp DB Consulting Group, Inc. (DB) Dell Perot Systems Deloitte Federal Group Earth Resources Technology, Inc. Edge Space Systems, Inc. Emergent Space Technologies, LLC Energy Enterprise General Dynamics C4 Systems Global Science & Technology, Inc. GMV Space Systems, Inc. Harris Corporation The Hawk Institute for Space Sciences Honeywell Technology Solutions, Inc. HP (formerly EDS) IBM Information Dynamics	Innovim, LLC Integral Systems, Inc. Integrated Systems Solutions, Inc. ITT Geospatial Systems Jackson & Tull L-3 Communications Government Services, Inc. Lockheed Martin Mission Services ManTech Space Systems MEI Technologies, Inc. Millennium Engineering Northrop Grumman/Baltimore Omnitron, Inc. Orbital Sciences Corp. - Technical Services Division Prototype Productions, Inc QinetiQ North America Raytheon Information Solutions SAIC Science and Technology Corp. Science Systems & Applications, Inc. SGT, Inc. Sigma Space Corp. SM Resources Corp. Solers Space Telescope Science Institute STG Inc. TRAX International Corporation United Space Alliance Universities Space Research Association University of Maryland Van Scoyoc Kelly, PLLC Vantage Systems, Inc. Wyle Information Systems	Supriya Banarjee Doug Britt A. Todd Colangelo Martin Donohoe C. Alan Foy Rosemarie Franz Nora Jeffcoat Frederick Hawkins John Majane Kevin McQuade Keyvan Mortazavi Bruce Needham Suneel Sheikh Peggy Slye Terry Tarbell Art Verbin Cinda Verbin John Williams Brian Wintermyer
		For membership information, please contact Missy Linkins at 443-340-4634 or via email at MdSpaceBR@aol.com .

Do you have news you wish to share with the Roundtable? Send press releases and other information to Lena Braatz, *Uplink Editor*, Booz Allen Hamilton, 134 National Business Parkway, Annapolis Junction, MD 20701, or via email (braatz_lena@bah.com).

Space Uplink is available online at http://mdspace.org/msbr_content/newsletter.htm.