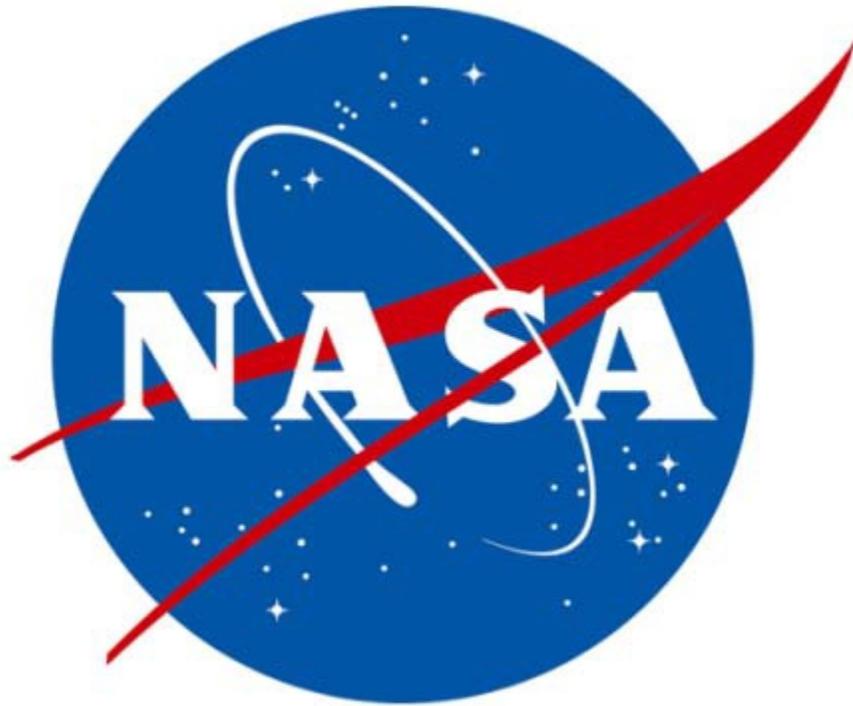


**National Aeronautics and Space
Administration**



Customer Service Plan

October 20, 2011

Executive Summary

The National Aeronautics and Space Administration (NASA) has a long tradition of enabling professionals, interested amateurs, educators, students, and the general public to actively participate in its missions of research and development, science, discovery, and human exploration. The goal of such public engagement is to provide opportunities for active involvement of individuals in the experience of, as contributors to, and collaborators in, NASA's research, science, and discovery activities. These opportunities deepen the public's understanding, appreciation, and ownership in NASA Mission. In turn, these opportunities tap into the nation's creativity and capabilities. The spectrum of activities ranges from passive receipt of routine information, to citizens using their computers to help collect satellite data for programs, to direct hands-on activities such as students building and operating experiments and/or flight hardware, to citizen scientists collaborating on interpretation of data and discoveries.

The Agency is uniquely positioned to introduce a broader community to the benefits of aeronautics and space research and development. The emergence of new communication technologies, computer and mobile applications, high definition imagery, social media, and an emphasis on greater transparency in government activities provides NASA a new environment for increasing engagement opportunities.

In Executive Order (EO) 13571, issued on April 27, 2011, the President stated that, "with advances in technology and service delivery systems in other sectors, the public's expectations of the Government have continued to rise," and that the Government "must keep pace with and even exceed those expectations." In addition, the President made clear that the Government "must also address the need to improve its services, not only to individuals, but also to private and Governmental entities to which the agency directly provides significant services." This customer service plan represents a few of the activities leveraged by NASA to engage the public. NASA is committed to sharing its mission with the public, educators, students, scientists, small business and other stakeholders, as well as to develop opportunities to foster innovation and contribute to a strong national economy.

SIGNATURE INITIATIVE: POSITION NASA TELEVISION FOR NEW EMERGING TECHNOLOGIES
Office of Communications, NASA Headquarters

Overview: NASA Television (TV) is comprised of four publicly available digital channels (three standard digital, one high definition) that provide real-time coverage of the agency's human space flight programs, science and aeronautic missions, agency news conferences, and special events. NASA TV provides daily news feeds for national and international news-gathering organizations of mission activities that include launch coverage, interviews with subject matter experts, and images of space and Earth taken from the International Space Station and by NASA robotic missions across the solar system.

The agency is working to eliminate the traditional "stovepipes" of media. Instead of print news releases, websites, video presentations, and TV, NASA takes the approach that it is all digital content and accessible across all media platforms supported by the agency. However, NASA recognizes that transition may take years to accomplish and is working behind-the-scenes to ensure new technologies adopted by the agency are not proprietary to any one medium. The concept is to make all media accessible across all platforms, from traditional cable and television systems to contemporary wireless mobile computing networks. Positioning NASA TV for new emerging technologies will have a significant impact on public transparency and the customer experience. Distribution of news feeds, education programming, and other mission-related information provides insights into Agency activities. Increasing the awareness and reach of NASA TV will bring Agency news conferences, science discoveries, and internal news and information programs to a wider audience.

Challenges: Continuing mission support in the wake of the space shuttle's retirement and providing public access to agency information and content. Moreover, the satellite distribution system known as NASA TV is not TV in the traditional sense. It is made up of encrypted satellite signals that are part of the infrastructure owned and operated by the Human Exploration and Operations Mission Directorate. Significant content is managed by the Office of Communications, which also operates production facilities across the agency.

Key Customer Groups: NASA mission support managers, NASA employees, the general public, news media, cable outlets, satellite service providers, and education and other institutions of learning.

Background: The original analog satellite transmission system known as NASA TV was established in 1981 as part of the space shuttle program and was launched with STS-1 in 1981. As the Apollo program came to a close, the national TV networks dissolved a "pool" system they created to share live video of launch coverage and other mission-related events. For the Apollo-Soyuz Test Project in 1975, NASA rented the technical equipment necessary to provide and distribute video of launch and other mission related activities. The agency made the decision to build TV capability as part of the new space shuttle program for both critical in-flight mission support and for public distribution.

The primary purpose of the NASA TV system is to provide mission support to the International Space Station and other agency missions. However, after the Challenger accident in 1986, the Office of Communications was provided access to the system in order to distribute news feeds, education programming, and other mission-related information. The foundation of NASA TV's programming philosophy is based on the 1958 National Aeronautics and Space Act to "provide for the widest practicable and appropriate dissemination of information..." of agency and related programs, events and discoveries. NASA Headquarters and its various field centers and other facilities maintain and operate a TV production infrastructure. These systems are most often used for news conferences, science discoveries and internal news and information programs. Funding for these facilities are inadequate to create the capability for the kind of post-production services required to create an agency owned and operated TV channel as envisioned by many across the agency and in Congress.

In 2005, the single analog transponder was upgraded to contemporary digital transmission standards to create four satellite signals (SDTV). In 2010, the Office of Communications directed the creation of a fifth satellite signal to distribute NASA content and information in high-definition (HDTV). In 2008, NASA TV launched a channel on the popular video Internet site YouTube. Since then, the channel often ranks in the top 50 of all channels on the site and during mission activities it is often ranked #1. To date, video material posted on this channel has been viewed more by more than 31 million people. Also, in 2009, NASA TV was honored with two Emmy Awards from the Academy of Television Arts and Sciences for its innovative use of technology. One was the Governor's Award for Lifetime Achievement and the other was the prestigious Philo T. Farnsworth Award for outstanding achievement in engineering development.

Key Milestones and Timeline: Numerous activities are planned in FY 2012 to position NASA TV for new emerging technologies. They include the following:

- Issue announcements and media advisories that increase awareness of NASA TV programming. Feedback mechanisms are also included.
- Work with cable TV outlets that carry NASA TV to make agency content/programs part of their on-demand line up.
- Transition all NASA TV channels to HDTV.
- Use the NASA TV satellite infrastructure to enhance and improve internal communications for the agency through interactive programs featuring participation by NASA senior leadership and program and project managers.
- Directly engage the NASA Advisory Committee and its new Public Outreach and Education subcommittee on ways to improve distribution and dissemination of NASA content to internal and external audiences.
- Revise requirements for the Satellite Service Contract for distribution of NASA TV Channels, which will reduce the agency's cost for distributing NASA TV content.

Additional activities planned beyond FY 2012. They include:

- Monitor and assess industry developments in order to develop and implement emerging 3D technology, and establish a transition from HDTV to 3D in the FY 2013/2014 timeframe to more effectively communicate the agency's technical and science discoveries, and its mission developments. Also, migration to 3D allows NASA to keep pace with contemporary private and commercial industry standards.
- Move NASA TV to a different satellite and transponder to increase the signal "footprint" to cover Hawaii and Alaska and reduce costs associated with the legacy space shuttle program satellite system.

1. Activities to Increase Feedback from Customers

- **Activity 1:** Produce and disseminate Public Service Announcements and other multimedia materials that increase customer awareness of NASA TV's YouTube Channel where viewers can watch NASA TV content on-demand and provide feedback on individual videos. This will be on-going during FY 2012.
- **Activity 2:** Produce and disseminate Air Public Service Announcements and other multimedia materials that inform the public about Social Media such as Facebook and Twitter, where viewers can provide feedback on NASA TV programs. This will be on-going during FY 2012.
- **Activity 3:** Issue Media Advisories and produce on-air announcements to alert media, Cable Outlets and Satellite Service providers to changes in delivery of NASA TV Channels and provide them with points of contact for sharing feedback. This is an on-going effort.

2. Activities to Adopt Best Practices for Improving Customer Experience

- **Activity 1:** During FY 2012, work with cable TV outlets that carry NASA TV to make agency content/programs part of their on-demand line up.
- **Activity 2:** Transition all NASA TV channels to HDTV in FY 2012.

3. Activities to Set, Communicate, and Use Customer Service Metrics and Standards

- **Activity 1:** Use the NASA TV satellite infrastructure to enhance and improve internal communications for the agency through interactive programs featuring participation by NASA senior leadership and program and project managers.
- **Activity 2:** Monitor and assess industry developments in order to develop and implement emerging 3D technology, and establish a transition from HDTV to 3D in the FY 2013/2014 timeframe.
- **Activity 3:** Directly engage the NASA Advisory Committee and its new Public Outreach and Education subcommittee on ways to improve distribution and dissemination of NASA content to internal and external audiences.

4. Activities to Streamline Agency Processes to Reduce Costs and Accelerate Delivery

- **Activity 1:** Revised requirements for the Satellite Service Contract for distribution of NASA TV Channels. A major change calls for the contractor to provide hardware (such

as satellite dishes) for uplink and downlink capability at NASA centers, maintain the infrastructure associated with the distribution of the NASA TV feeds, and to provide satellite uplink trucks when requested. These changes go into effect at the beginning of FY 2012 and will reduce the agency's cost for distributing NASA TV content.

- **Activity 2:** Move NASA TV to a different satellite and transponder. With the retirement of the space shuttle program, the agency has the opportunity to make this change. NASA TV will become available to more viewers because the signal "footprint" will now cover Hawaii and Alaska. This change goes into effect in the first quarter of FY 2012.

SERVICE #1: Expanding NASA's Social Media Leadership and Public Engagement

Office of Communications, NASA Headquarters

Overview: NASA uses social media tools to help the agency fulfill the National Aeronautics and Space Act Sec. 203. (a) "The Administration, in order to carry out the purpose of this Act, shall— (3) provide for the **widest practicable** and appropriate dissemination of information concerning its activities and the results thereof." Social media allow NASA to share information about the nation's space program and engage with a broader audience.

Key Customer Groups: The key customer group is the public, specifically American taxpayers. Social media allow NASA to reach diverse customer groups: educators and students; scientists, engineers and academics; professionals; and people of all types.

Challenges: The key challenges NASA faces are identifying appropriate personnel and fiscal resources to engage fully with a deeply interested public and navigate the bureaucratic barriers that make it difficult to be nimble and responsive to evolving technologies and services.

Background: NASA is a recognized leader in the use of social media. Since the agency got involved with these online communities in November 2008, NASA has expanded its social media presence and influence on such sites as Twitter, Facebook, You Tube, and Flickr. The @NASA Twitter account grew from 500,000 followers in 2010 to nearly 1.5 million in 2011. The effectiveness of NASA's leadership in this area was reflected in the agency's #1 rating in the L2 Digital IQ index for the Public Sector, scoring higher when measured against more than 100 other public and private organizations.

In June 2011, NASA served as a consultant when the White House kicked off its first Tweetup. In executing its event, the White House used the NASA-developed procedures as its model. The agency also expanded the execution of NASA Tweetups, which provide @NASA followers with the opportunity to go behind-the-scenes at agency facilities and events, and speak with scientists, engineers, astronauts, and managers. For the final two launches of the space shuttle, STS-134 and STS-135, more than 6,000 individuals applied for 300 tickets to watch the launch. People representing all 50 states and more than 12 countries attended. The events also attracted industry leaders and celebrities from across the country.

Along with the traditional news coverage of NASA activities, the agency's involvement in Twitter and other social media efforts resulted in more than 1,800 media reports in 2011, helping to solidify NASA's position as a leader in new media. The agency has conducted a total of 26 Tweetups since the concept was adopted in July 2009.

- 1. Activities to Increase Feedback from Customers:** The more social networks the agency can use to engage, the greater opportunity to reach the widest possible audience and increase feedback. NASA has established more than 200 social media accounts on Twitter, Facebook, Flickr, YouTube, and UStream and led the government in creating partnerships with Foursquare, Gowalla and SlideShare to deliver content even more widely. A full list is available at <http://www.nasa.gov/connect>.

 - **Activity 1:** NASA plans to continue to expand to more social networks as they become viable options for reaching large audiences. The team keeps track of new opportunities and how the agency can engage on them. The agency plans to expand to Google+ within FY 2012.
 - **Activity 2:** Continue NASA's leadership of in-person social media gatherings through NASA Tweetups and similar activities that provide the agency's social media followers the opportunity to get a behind-the-scenes look and provide feedback. NASA already has six such events planned during early FY 2012.

- 2. Activities to Adopt Best Practices for Improving Customer Experience:** The 2010 L2 Digital IQ Index for the Public Sector study of the effectiveness of more than 100 organizations' websites, digital outreach, social media use and mobile sites ranked NASA number one by a wide margin. NASA astronaut Doug Wheelock has been recognized with a Shorty Award for his use of social media to connect and engage during his six months living aboard the International Space Station. The agency is honored to be recognized as a leader in best practices for use of social media.

 - **Activity 1:** NASA will continue to train its communications team members in the best practices and uses of various social media tools so they can provide accurate and timely information and responses online.
 - **Activity 2:** NASA Headquarters has established regular meetings of social media users across the agency to discuss strategies to address emerging social media tools and implementation.

- 3. Activities to Set, Communicate, and Use Customer Service Metrics and Standards:** The agency uses as many free services to deliver customer service metrics as possible; however, with more resources, the agency could provide a streamlined collection and delivery of key metrics.

 - **Activity 1:** The Office of Communications will make available to each NASA official responsible for the agency's Twitter and Facebook pages reports about their volume of comments and replies, the response times of the team members, and overall response rate.

- **Activity 2:** The Office of Communications has set regular meetings with all social media leads to review and address concerns that arise.

4. Activities to Streamline Agency Processes to Reduce Costs and Accelerate Delivery: Using social media allows the agency to streamline delivery of its news and public information in a low-cost, quick process.

- **Activity 1:** NASA has begun a set of standard responses to frequently asked questions on its primary Twitter account, @NASA, which has 1.4 million followers and receives more than 30,000 mentions a month and 3,000 @replies each month. Standard responses will allow the agency to respond to more of the questions and do so in a consistent manner.
- **Activity 2:** Repurposing content for multiple social media platforms allows NASA to reduce costs and accelerate delivery. The agency is using a tool that allows it to post simultaneously to Twitter and Facebook while altering the text slightly for the different audiences each represents. The agency has begun implementing the tool for all of NASA's more than 150 Twitter and Facebook accounts.

SERVICE #2: MAINTAINING AND EXPANDING NASA'S AWARD-WINNING INTERNET PRESENCE
Office of Communications, NASA Headquarters

Overview: www.nasa.gov is NASA's primary website. In addition to more than 10,000 web pages with information on agency programs, it offers visitors images, videos, interactive features, and live streaming of three NASA Television channels. It is supported by a core editorial group of six at NASA Headquarters and editors from around the agency's 10 field centers.

Key Customer Groups: General public, K-12 students and teachers, news media.

Challenges: The main challenges www.nasa.gov faces are expanding and maintaining existing services at a time of declining resources and agency web governance issues. Funding for the primary content group has been reduced by almost 80% in FY 2012, forcing some creative solutions to meet the growing demands for space-related content.

Background: www.nasa.gov is the agency's primary address on the World Wide Web. Traffic has grown steadily from 1995, averaging more than 100 million visits a year during the last four years. Visitors have given the site some of the highest customer-satisfaction ratings in the government. NASA's overall rating of 83 for 2011 is not only the highest NASA has ever received, it's much higher than the overall ratings for federal web sites (74) and all web sites (71), but it's only a step behind such well-known commercial sites as Google and Amazon, which have generally been in the mid-80s.

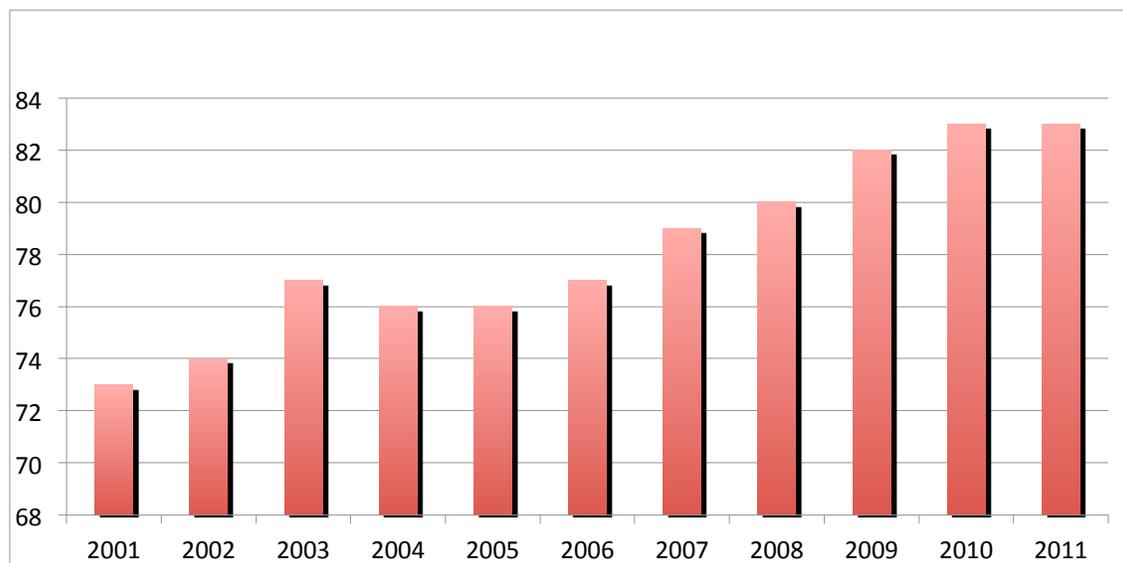
It is easy to conclude from the survey, which is a federal government standard, that it measures agency popularity. However, that is not the case. The survey measures the user experience on

the website, measuring such items as design layout, navigation, and other activities that are not directly connected to the popularity of NASA and its content of science discoveries and space imagery. For the past three years, the agency's primary website has been recognized with the industry's highest honor, a Webby Award. Webby Awards are presented annually by The International Academy of Digital Arts and Sciences for excellence on the Internet with categories in websites, interactive advertising, online film and video, and mobile. Two winners are selected in each category, one by members of The International Academy of Digital Arts and Sciences, and one by the public who cast their votes during Webby People's Voice voting. NASA.gov received top honors in the People's Voice voting in 2009, 2010, and 2011. The website also won the award in 2003.

NASA's online reach goes beyond its website. Since 2004, visitors have watched more than 50 million streams of NASA TV. The 2011 launch of STS-135 drew 560,000 webcast viewers alone. NASA has taken advantage of social media to become one of the most-followed and influential organizations on Twitter (1.4 million followers) and Facebook (578,000 "likes"). Like a growing portion of the Internet audience, NASA.gov is going mobile. There is a version of the site optimized for mobile devices, and NASA developers have released a dozen NASA-related apps for smartphones and tablets. Users of those devices now make up 10 to 20 percent of the audience for major events on NASA TV.

NASA has been able to do this while finding creative ways to save the taxpayers' money. Under a Space Act Agreement, Yahoo! webcast NASA TV at no cost from 2005 through the end of the space shuttle program. If NASA was forced to purchase the bandwidth NASA used under the agreement, it would have cost the agency nearly \$12 million. The agency is in the process of securing another agreement to support the delivery of agency content online and to mobile devices as the new exploration initiatives move forward.

www.nasa.gov Customer Satisfaction



1. Activities to Increase Feedback from Customers

- **Activity 1:** The NASA.gov web team will conduct at least one focus group and one round of usability testing to guide the redesign of the site, planned for the second half of FY 2012. This testing provides first-person insight to new technologies, functionality, and navigation.
- **Activity 2:** Incorporate the results from the ongoing Foresee customer-satisfaction survey results to continue improvement of the user experience.

2. Activities to Adopt Best Practices for Improving Customer Experience

- **Activity 1:** The usability testing outlined under "Increase Feedback from Customers" will be conducted in accordance with the Federal Web Managers' Council Best Practices (<http://www.howto.gov/web-content/requirements-and-best-practices/checklists/long#usability-and-design>) to identify users' top tasks and ensure the redesigned web site continues to allow users to fulfill them.
- **Activity 2:** Monitor, assess, and adopt best practices from both federal government and commercial websites. Periodic and ongoing external benchmarking activities provide valuable insight to successful trends and pitfalls in the ever-evolving online community.

3. Activities to Set, Communicate, and Use Customer Service Metrics and Standards

- **Activity 1:** The Office of Communications will regularly post metric information for the public to see in its "Behind the Page" blog on <http://blogs.nasa.gov>.
- **Activity 2:** Work to identify other emerging technologies that aid in measuring effective Internet, mobile, and other online-related systems.
- **Activity 3:** Use the entire suite of NASA's public communications tools to share the findings and solicit input regarding future development of NASA.gov and other online initiatives. The agency is committed to engaging the public through collecting comments on agency news and interactive features, monitoring and answering comments shared with NASA through its social media activities, and ongoing research projects (as resources allow).

4. Activities to Streamline Agency Processes to Reduce Costs and Accelerate Delivery

- **Activity 1:** The Office of Communications will work with the Office of the Chief Information Officer to transition from the current content management system (CMS) to one more easily used across the agency, reducing the need for and cost of independent web sites.
- **Activity 2:** The Office of Communications will issue a Request for Entrepreneurial Offers (REO) to identify opportunities for commercial entities to augment delivery of NASA web services, including NASA.gov web content, NASA video, and live NASA television.

SERVICE #4: IMPROVING SMALL BUSINESS OPPORTUNITIES
NASA Office of Small Business Programs

Overview: The NASA Office of Small Business Programs (OSBP) mission is to ensure maximum practicable opportunities for small businesses to be awarded NASA contracts. To accomplish this mission, OSBP provides training to the NASA workforce on small business practices, reviews all NASA requirements for possible set-aside to small business, provides outreach to small businesses to educate them on the federal procurement system and NASA requirements, and provides challenging small business subcontracting goals on all large prime contracts.

Key Customer Groups: Our key customer groups are the NASA acquisition professionals and the U.S. small businesses as defined by the North American Industry Classification Systems (NAICS) size standards. In addition, NASA is required to give special consideration to Small Disadvantaged Businesses (SDB), Woman Owned Small Businesses (WOSB), Historically Underutilized Business Zones (HUBZone), Veteran (VOSB) and Service Disabled Veteran Owned Small Businesses (SDVOSB).

Challenges: The Congress of the United States has set a goal of 23% of federal procurement dollars be awarded to small businesses. In addition, it has set goals for SDB (5%), WOSB (5%), HUBZone (3%), and SDVOSB (3%). The nature of the supplies and services NASA requires, such as a space launch system, satellites, and research and development, limits our ability to contract with small business and as such make these goals unachievable.

1. Activities to Increase Feedback from Customers

- **Activity 1:** NASA OSBP has developed a NASA Vendor Data Base (NVDB) to communicate with our vendors. The next upgrade in FY 2012 will enhance the email capabilities. NVDB is used in market research, distribution of quarterly newsletters, and announcement of outreach events. Our customers are able to load company specific data into the database via Central Contractor Registry, as well as upload capability briefs for use by all NASA employees. NVDB will be measured via the NVDB metrics report.
- **Activity 2:** As a result of the NASA Small Business Improvement Plan (SBIP), NASA Centers will host a series of outreach events to focus on small business subcategories. The NASA Centers selected are those having difficulty in meeting their small business goals. In FY 2012, Johnson Space Center will hold a Service Disabled Veteran Owned Small Business event, Marshall Space Flight Center will hold a Woman Owned Small Business Event, and the Glenn Research Center will hold a Historically Underutilized Business Zone event. During these events our customers will be able to provide feedback to the NASA Acquisition Community on their ability and skills, while NASA will emphasize upcoming requirements. Center improvement will be measured on the monthly metrics report.

2. Adopt Best Practices for Improving Customer Experience

- **Activity 1:** NASA OSBP collects the small business best practices for each of the ten NASA Centers and posts them on the OMB MAX website for use by all federal agencies. The best practices will not only be available to NASA, but all federal agencies.
- **Activity 2:** NASA OSBP will hold three Small Business Specialist Council meetings in FY 2012. At these council meeting representatives from all NASA Centers will present best practices, hold discussions, and improve common processes. OSBP will set up metrics and track best practices that are adopted by each Center.

3. Set, Communicate, and Use Customer Service Metrics and Standards

- **Activity 1:** NASA OSBP will deploy in FY 2012 a Small Business Dashboard that will increase the transparency of NASA procurement and allow the acquisition community to have real-time access to the small business goal performance, drill down into award data, and access to other performance metrics. Transparency will allow for better review and correction of contract award data. NASA will track benefits in the annual discrepancy report.
- **Activity 2:** Leverage the NASA Baseline Performance Review (BPR) to include, in FY 2012, senior level presentations on small business metrics. These presentations by Center Directors or Deputy Directors will focus on reporting monthly center metrics to include actual performance, goals, trend analysis, forthcoming obstacles, top three procurements, implementation of SBIP initiatives, and an ad hoc question. Sharing this information with NASA senior management will improve the acquisition process, which will be measured in the monthly metrics reports.

4. Streamline Agency Processes to Reduce Costs and Accelerate Delivery

- **Activity 1:** NASA is updating NASA Policy Directive 5000.2C, “Uniform Methodology for Determination of Small Business Subcontracting Goals.” The updated version will streamline the process for determining and setting small business subcontracting goals on acquisitions over \$50 million, thereby providing more subcontracting opportunities to our customers. The Small Business Administration will be setting the NASA subcontracting goals for FY 2012-13 and NASA OSBP will track performance via Subcontracting Summary Reports filed bi-annually by large prime contractors.
- **Activity 2:** NASA Centers are instituting the Small Business Technical Coordinator (SBTC) Program in FY 2012. Each Center program office or technical director will submit the name of a point of contact who will act as the SBTC. The SBTC will receive a four-hour training class in small business and then provide first-hand technical expertise to small businesses in order to identify appropriate avenues to market their products and ideas with the Center. In addition, the SBTC will aid in outreach events, counseling sessions, and acquisitions forecasting. NASA OSBP will solicit customer feedback once the program is up and running.
- **Activity 3:** NASA OSBP has streamlined the Small Business Improvement Planning (SBIP) process. The annual meeting will now take place every two years to reduce travel and event hosting costs. In addition, the SBIP initiatives will have more time for

implementation and monitoring. Each initiative has set objectives and measurement plans.