NASA Educational Technology Services
Administered by Marshall IT Services (MITS)
Type of Agreement (Contract)
Jeff Ehmen
Marshall Space Flight Center
256.961.1567

PROJECT DESCRIPTION

NASA Educational Technology Services (NETS) is a cross-cutting NASA education technology project that prepares and delivers educational content on the NASA Portal (www.nasa.gov), and maintains the Office of Education website (education.nasa.gov). Additional Web support is provided by identification and linkage of multimedia resources to support video programming on the NASA TV Education File and Education Services channel and for selected projects needing website creation and support. NETS assists education projects in complying with the agency mandate to migrate all Web content to a portal infrastructure. NETS provides Web-based support to NASA's Office of Education external partnerships (Space Act Agreements) and cooperative agreements, and conducts customer focus and usability studies to determine improved methods to deliver electronic content to NASA's key education audience.

PROJECT GOALS

- Content identification and creation for the education sections of the NASA Portal (www.nasa.gov). The team identifies potential content based on current NASA mission directorate or education projects, activities, or events. The team assesses the educational value of the content, converts it to the appropriate grade level, and ensures that it meets Portal standards.
- Development of games for the For Kids section of the NASA Portal, ensuring that the games contain educational value and are appropriate for their grade-level audience.
- Publication and syndication of NASA Portal educational content.
- New website migration and development for other NASA Education projects and activities.
- Work with the NASA mission directorate education leads, NASA Education project managers, and activity sponsors to create or promote NASA e-learning content and educational opportunities. The team also

collaborates with external partners to inspire student interest in science, technology, engineering, and mathematics (STEM) content.
- Provide support for activities such as usability studies, education product cross-promotion, and education conference exhibits to ensure that NASA educational content is reaching its audience as effectively as possible.

PROJECT BENEFIT TO OUTCOME 2

NETS supports NASA Education efforts to accomplish Outcome 2: to attract and retain students in STEM disciplines through a progression of educational opportunities for students, teachers, and faculty.

NETS supports Outcome 2 by developing, producing, and publishing curricular support materials/products and disseminating them to the education community via the NASA Portal, as well as by distributing materials at educational conferences.

NETS provides agency-wide support by developing and publishing educational content on NASA.gov to support various missions and educational projects. These efforts include collaborating with internal and external stakeholders to develop products and to ensure content quality before products are disseminated. Additionally, NETS works with internal/external staff to promote products, projects, and opportunities via the Express listserv, which has over 18,400 subscribers. NETS promotes products, projects, and opportunities at educational conferences, as well as in workshops and sessions.

NETS assists and consults with other NASA field center education offices and projects in migrating Web content of center education and education project pages into the NASA Portal framework. This enhances the public's access to electronic information and materials from NASA, and helps NASA comply with Open Government objectives.

PROJECT ACCOMPLISHMENTS

- Created 66 general feature and career profile articles (performance goal: 65)
- Created 22 student topic-based content articles (performance goal: 20)
- Created six sets (five pictures/set) of Kids' Club Picture of the Week images (performance goal: six)
- Created 17 features of shuttle missions and ISS expedition: Mission overview, Flash feature for 5-12 students, Flash feature for K-4 students, Now in Space feature, Educators Resource page related to the mission (performance goal: five)
- Populate the Portal with newly approved educational products to be delivered by the faceted navigation tool on the Portal—NETS added 72 educational products and 9 videos to the For Educators section of the Portal, as well as added links to 72 websites (performance dependant on available source materials)
- Disseminate notification of availability of new products and opportunities via the Express mailing list—NETS promoted 313 products and opportunities via the Express listserv during FY11. The Express messages are sent to approximately 18,500 subscribers (performance dependant on available source materials)

Notes: In November, 2010 the NASA Kids' Club website was selected as the "Best Kids' Site" by Physics.org for 2010. Physics.org is operated by the Physics in Society team at the Institute of Physics, a scientific charity devoted to increasing the practice, understanding and application of physics. They are a leading communicator of physics to all audiences, from specialists to the general public.

In February, 2011 the For Educators section of NASA.gov was named one of the top 10 sites with free resources for educators on www.eschoolnews.com, which has more than 500,000 unique visitors each month, including over 250,000 registered members.

PROJECT CONTRIBUTIONS TO PART MEASURES

NETS prepares and delivers audience appropriate educational content for K-12 and higher education educators and students through the NASA Home Page and NASA Education Home Page. Promotional efforts by NETS for other Office of Education and Mission Directorate projects helps leverage funding and resources, providing projects with direct student and educator interaction objectives with electronic information and distribution support. The Project Accomplishments

listed above provide details on this type of support to Office of Education projects and activities.

IMPROVEMENTS (e.g., project management, efficiencies, etc.) MADE IN THE PAST YEAR

- Streamlined the process for gathering weekly notes and data for monthly, quarterly, and annual reports.
- Changed project tracking to a portfolio style of management to permit cost analysis at the task, project, or entire portfolio level
- Increased the flow of information within the project by ensuring all team members participate in weekly status meetings.
- Utilized social media services to expand the range for NASA education messages to an audience of approximately 1,492,700 people.
- Created template designs and procedures roadmap to speed development of new websites.

PROJECT PARTNERS AND ROLE OF PARTNERS IN PROJECT EXECUTION

- Supported the STS-133 and 135 launch activities at the Kennedy Athletic, Recreation, and Social (KARS) Park at NASA's Kennedy Space Center. The launch activities were for the children of NASA employees and guests who camped at the park.
- Completed "The Space Shuttle and NASA Education" Web page in collaboration with the Teaching From Space Office to commemorate the last flight of the Space Shuttle Program and highlight many of the NASA educational projects that were associated with shuttle flights over the last 30 years.
- Provided support for NASA Summer of Innovation (SoI) website. NETS led the SoI Technology Integration team, comprising representatives from four NASA centers, Pennsylvania State University, Georgia Institute of Technology, and Booz Allen Hamilton. A total of 93 lessons and approximately 30 training modules were added to the site.
- Responded to a series of inquiries from the Library of Congress regarding the NASA Kids' Club. The Library of Congress is considering ways to reach a younger cohort of readers, particularly the K-12 audience. NETS provided guidance on specific questions regarding the site, staffing, partnerships with outside organizations, and usability testing.
- NETS and Teaching From Space coordinated efforts for an educational downlink with astronauts on the International Space Station that occurred on March 4, 2011. NETS staff and two student interns from Marshall Space Flight Center asked questions during the event with the STS-133

crew and the Expedition 25 astronauts. Prior to the downlink, messages posted via social media and listserves were projected to reach approximately 875,000 contacts.

- Created a Web page for Women's History Month featuring career profiles and articles about women who work at NASA. The page includes engineers, scientists, and other professionals along with women students in intern and co-op positions. Several women featured on the page include Ellen Ochoa, Peggy Whitson, Sally Ride, and Eileen Collins. The new page is promoted on the Educators and Students sections of NASA.gov, and the updated Teaching From Space website.
- Collaborated with the NASA Headquarters Public Affairs Officer for Education to write a feature article about NASA's participation in a New York City Education Forum celebrating Women's History Month. More than 200 students from several New York City schools participated in a special event that included hearing from NASA Deputy Administrator Lori Garver and Associate Administrator for Education Leland Melvin. The students also spoke with astronaut Cady Coleman on the International Space Station via an Education Downlink.
- Collaborated with Marshall Educator Resource Center staff in conducting three DIY Podcast workshops at the 2011 Alabama Governor's STEM Education Summit in Montgomery, Alabama. The purpose of the exhibition was to collectively showcase Alabama's "best practice" STEM programs. More than 230 STEM education stakeholders from across the state were in attendance at the summit.
- Collaborated with the National Center for Earth and Space Science Education to create 13 features describing the Student Spaceflight Experiments Program (SSEP). SSEP is working with 16 student-designed experiments that flew on Endeavour's final mission. SSEP is the first precollege science, technology, engineering, and mathematics education program that is both a U.S. national initiative and implemented as an orbital commercial space venture. SSEP was made possible through a Space Act Agreement between NanoRacks and NASA as part of the use of the International Space Station as a national laboratory.
- Collaborated with Marshall Academic Affairs to conduct a DIY Podcast session at the Southeastern Consortium for Minorities in Engineering (SECME) Summer Institute in Tuscaloosa, Alabama.
- Collaborated with agency staff on writing a feature story for the Portal about NASA hosting summer camps for children of military families that took place at Stennis Space Center and Kennedy Space Center. The Teaching From Space office partnered with Stennis and Kennedy to provide the camps, which support the White House military family initiative.
- Collaborated with members of the Learning Registry to discuss how NASA Education's digital resources could be added to the Learning Registry. The

Registry has a pilot scheduled for a beta release at the end of September. The Learning Registry makes digital learning resources easy to find, access, and integrate into learning environments for teachers, students, parents, schools, governments, corporations, and nonprofits.

- Provided primary Agency-level support to a Space Act Agreement with Pearson Publishing that is targeted toward making more of NASA's electronic educational and informational content available to educators and students.
- Supported the NASA Office of Education's participation in Mozilla's Open Badge Project. The Open Badge Project allows education providers, web sites, and other organizations to issue virtual badges that give public recognition and validation for specific skills, achievements, and learning beyond the classroom.