

National Aeronautics and Space Administration



REACH  
— NEW —  
HEIGHTS

BENEFIT  
— ALL —  
HUMANKIND

REVEAL  
— THE —  
UNKNOWN



**Dr. Alotta Taylor**

Director, Strategic Integration and Management Division,  
Human Exploration and Operations Mission Directorate (HEOMD)



# A Mandate to Communicate



**According to the National Aeronautics and Space Act (Pub. L. No. 111-314, 124 Stat. 3328 [Dec. 18, 2010]):**

- Sec. 20112 (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

# NASA Communications



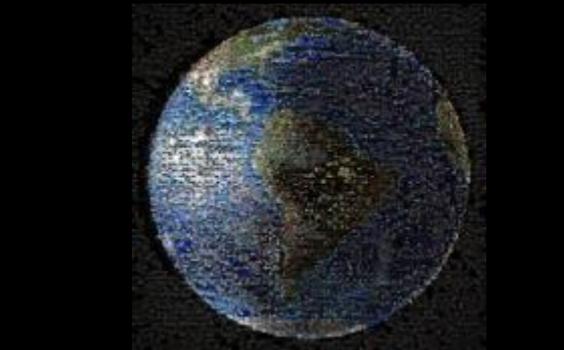
*Big Picture – Shifting our stakeholders' images of NASA from ...*



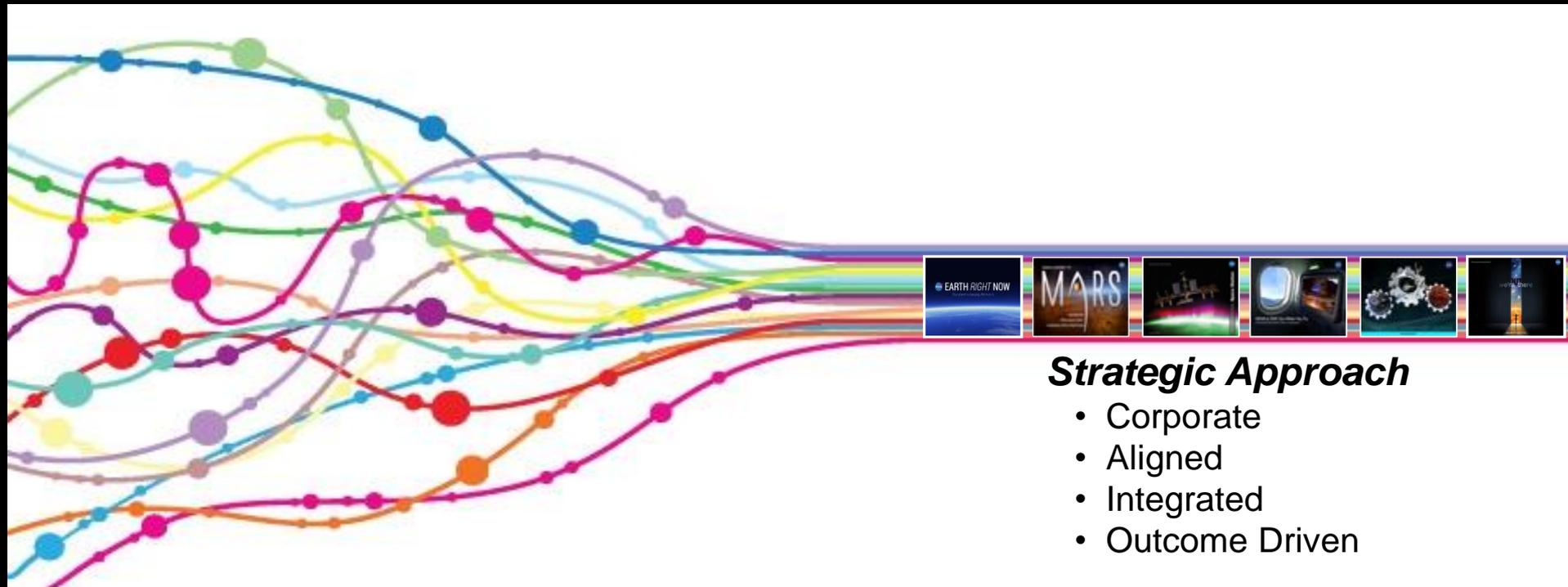
# NASA Communications



To . . .



## *Changing Our Operational Model and Fostering Integration*



# NASA Communications Priorities



**Earth Right Now.**  
*Your planet is changing.  
We're on it.*  
**#EarthRightNow**



**Technology.**  
*Technology drives exploration.*  
**#321TechOff**



**ISS.**  
*Off the Earth, for the Earth.*  
**#ISS**



**Aeronautics.**  
*NASA is with you when you fly.*  
**#FlyNASA**



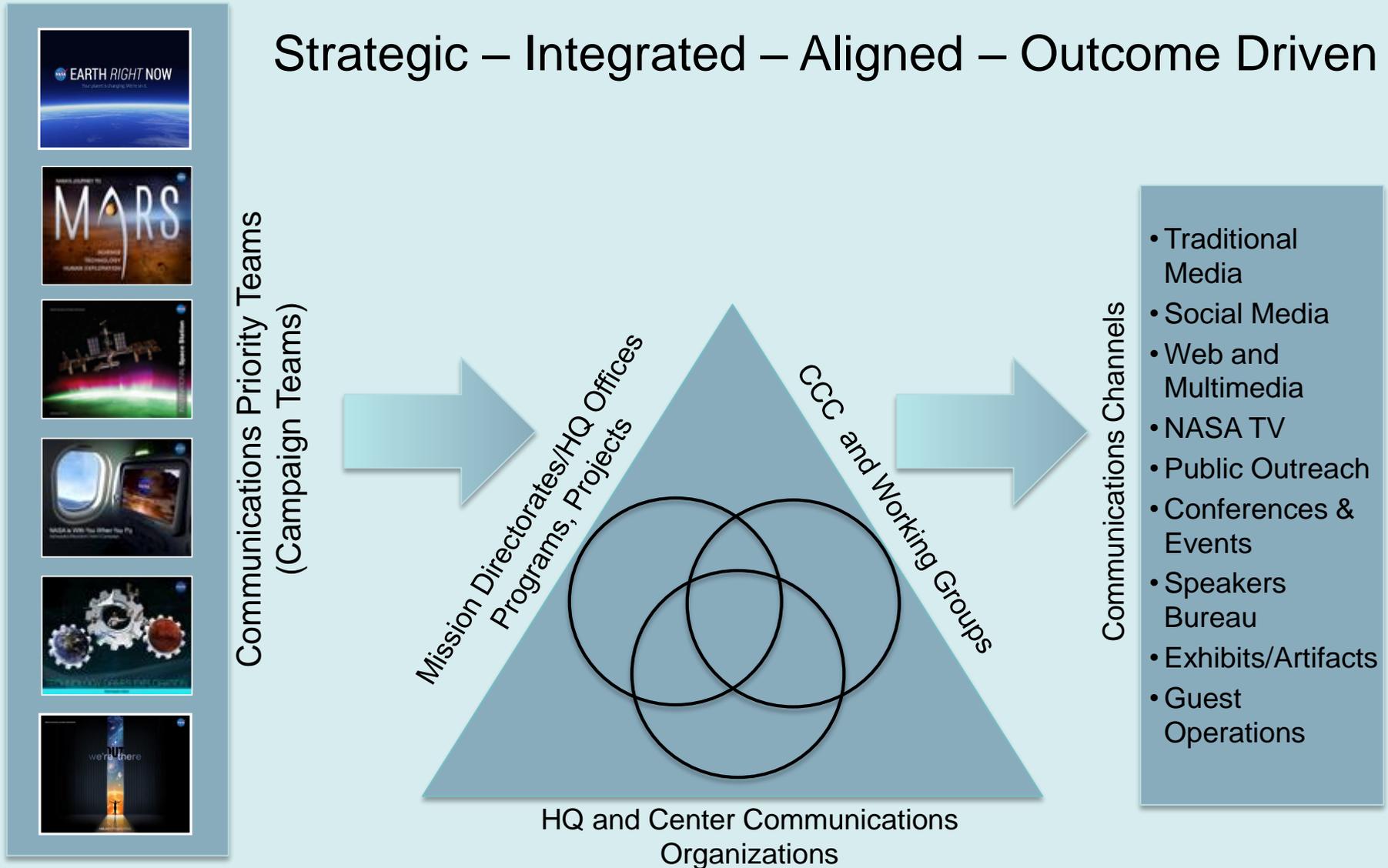
**Mars.**  
*Join us on the journey.*  
**#JourneytoMars**



**Solar System and Beyond.**  
*NASA: We're Out There.*  
**#NASABeyond**

## Changing Our Operational Model and Fostering Integration

Strategic – Integrated – Aligned – Outcome Driven



# HEOMD Communications Goals



## HEOMD Communications Goal 1:

Enhance public and Congressional recognition of the value of human space exploration and understanding of the capabilities-driven approach in our pursuit of sending humans to Mars.

### Strategies

1. Mobilize the NASA workforce to serve as knowledgeable and excited ambassadors.
2. Articulate the challenges, risks, and benefits of human space exploration; communicating in terms meaningful to our stakeholders and always delivering a call to action.
3. Leverage milestones and activities as proof points, citing the capabilities-driven approach, in our advancement towards reaching Mars with humans.
4. Cultivate and maintain relationships with opinion leaders and influencers.
5. Partner with industry and academia to expand capabilities and broaden message dissemination.
6. Proactively collaborate with Public Affairs and the Office of Legislative and Intergovernmental Affairs to ensure they are fully equipped to achieve HEOMD communications goals.

## HEOMD Communications Goal 2:

Enhance public awareness of the marvels associated with the International Space Station and its role in advancing human space exploration.

### Strategies

1. Incorporate the International Space Station (ISS) into the public's everyday consciousness.
2. Articulate the benefits to humanity, world-class research opportunities, and the role the ISS plays as a proving ground in sending humans to Mars; communicate in terms meaningful to our stakeholders and always delivering a call to action.
3. Leverage milestones and activities as proof points, citing ISS as a proving ground, in our advancement towards sending humans to Mars.
4. Cultivate and maintain relationships with opinion leaders and influencers.
5. Partner with industry and academia to expand capabilities and broaden message dissemination.

**JOIN US ON THE JOURNEY TO MARS DAY ON THE HILL**

We invite you to join us and enjoy interactive exhibits and engaging conversation with NASA experts who are developing solutions to solvable challenges for robotic and human missions to Mars, including transportation, technology, and scientific developments that will allow us to get there, land, live, work, and return safely to Earth.

**THURSDAY, JUNE 25, 2015 • 3-7 P.M.**  
Rayburn House Office Building Foyer  
Reception with light hors d'oeuvres begins at 5 p.m.  
Register to attend by e-mailing [CongressionalEvents@nasa.gov](mailto:CongressionalEvents@nasa.gov)

#JOURNEYTOMARS

Meet special guest NASA astronaut Barry "Butch" Wilmore, who just returned to Earth from the International Space Station after 167 days in space.

**ISS Benefits for Humanity Videos: In Their Own Words**

- Changing Lives
- Eyes on the Tide
- Farming from Space
- Found At Sea
- In Plain Sight
- Station Inspiration
- The Sound of Life
- Water for the World

# HEOMD Communications Goals and Balance



## HEOMD Communications Goal 3:

Enhance public involvement and excitement about human space exploration missions through authentic experiences and opportunities to participate.

### Strategies

1. Identify and plan experiences and opportunities as early as possible in program and project planning.
2. Maximize use of existing NASA partnerships and agreements for collaboration, competitions, and challenges.
3. Partner, both internally and externally, to find innovative and cutting-edge solutions to providing experiences and participation opportunities.



# HEOMD Communication Strategy Aligns with the NASA Communications Ecosystem



Sharing the amazing work we do as widely as possible!

# Social Media/Media

*“Inspiring Current  
and Future  
Generations”*

## PewResearchCenter

### Who uses social networking sites

*% of internet users within each group who use social networking sites*

|                            |                  |
|----------------------------|------------------|
| All internet users         | 74%              |
| a Men                      | 72               |
| b Women                    | 76               |
| a 18-29                    | 89 <sup>cd</sup> |
| b 30-49                    | 82 <sup>cd</sup> |
| c 50-64                    | 65 <sup>d</sup>  |
| d 65+                      | 49               |
| a High school grad or less | 72               |
| b Some college             | 78               |
| c College+                 | 73               |
| a Less than \$30,000/yr    | 79               |
| b \$30,000-\$49,999        | 73               |
| c \$50,000-\$74,999        | 70               |
| d \$75,000+                | 78               |

### As of September 2014:

71% of online adults use Facebook

23% of online adults use Twitter

26% use Instagram

28% use Pinterest

28% use LinkedIn

# Social Media and Space Exploration



## UNDENIABLE RELATIONSHIP: SPACE & SOCIAL MEDIA

73°

6:18

12 abc 25

#SPACEWEEK

WIN TRIP TO SPACE CAMP

LIFE AFTER SPACE

CLAY FORECAST:

[ MON: 96° ⚡ ] [ TUE: 95° ⚡ ] [ WED: 95° ⚡ ]

# Big Picture AND Close Up Details



## **Harness the power of the flagship agency accounts**

- Carefully curate this and reach the largest number of social media followers
- Provide a well-rounded view of everything NASA has going on
- Shine light onto things that are unlikely to make news otherwise

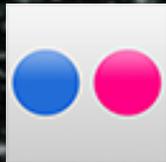
## **Create a ecosystem of niche, single-purpose accounts**

- Curated by embedded account managers specializing on a particular mission, topic, or program
- Develop followings of users interested in a particular slice of the NASA pie
- Allow for experimentation and trying out new ideas



490+

Accounts & Counting...





Facebook

| Facebook Account    | Followers   |
|---------------------|-------------|
| <b>NASA</b>         | 11M         |
| The White House     | 4M          |
| U.S. Navy           | 2.1M        |
| Air Force           | 2M          |
| <b>ISS Facebook</b> | <b>1.8M</b> |
| <b>Kennedy</b>      | 1M          |
| Curiosity           | 1M          |
| SpaceX              | 878K        |
| Goddard             | 785K        |
| <b>JSC</b>          | <b>601K</b> |
| <b>Orion</b>        | 369K        |
| <b>Marshall</b>     | 81K         |



Twitter

| Twitter Account         | Followers   |
|-------------------------|-------------|
| <b>@NASA</b>            | 10.8M       |
| @TheWhiteHouse          | 6.47M       |
| @MarsCuriosity          | 1.93M       |
| @SpaceX                 | 875K        |
| <b>@NASAKennedy</b>     | 850K        |
| @USNavy                 | 491K        |
| <b>@NASA_Astronauts</b> | <b>393K</b> |
| <b>@NASA_Johnson</b>    | <b>343K</b> |
| @NASAGoddard            | 250K        |
| <b>@ISS_Research</b>    | <b>238K</b> |
| <b>@NASA_Orion</b>      | 202K        |
| <b>@Space_Station</b>   | <b>174K</b> |
| <b>@NASA_Marshall</b>   | 104K        |



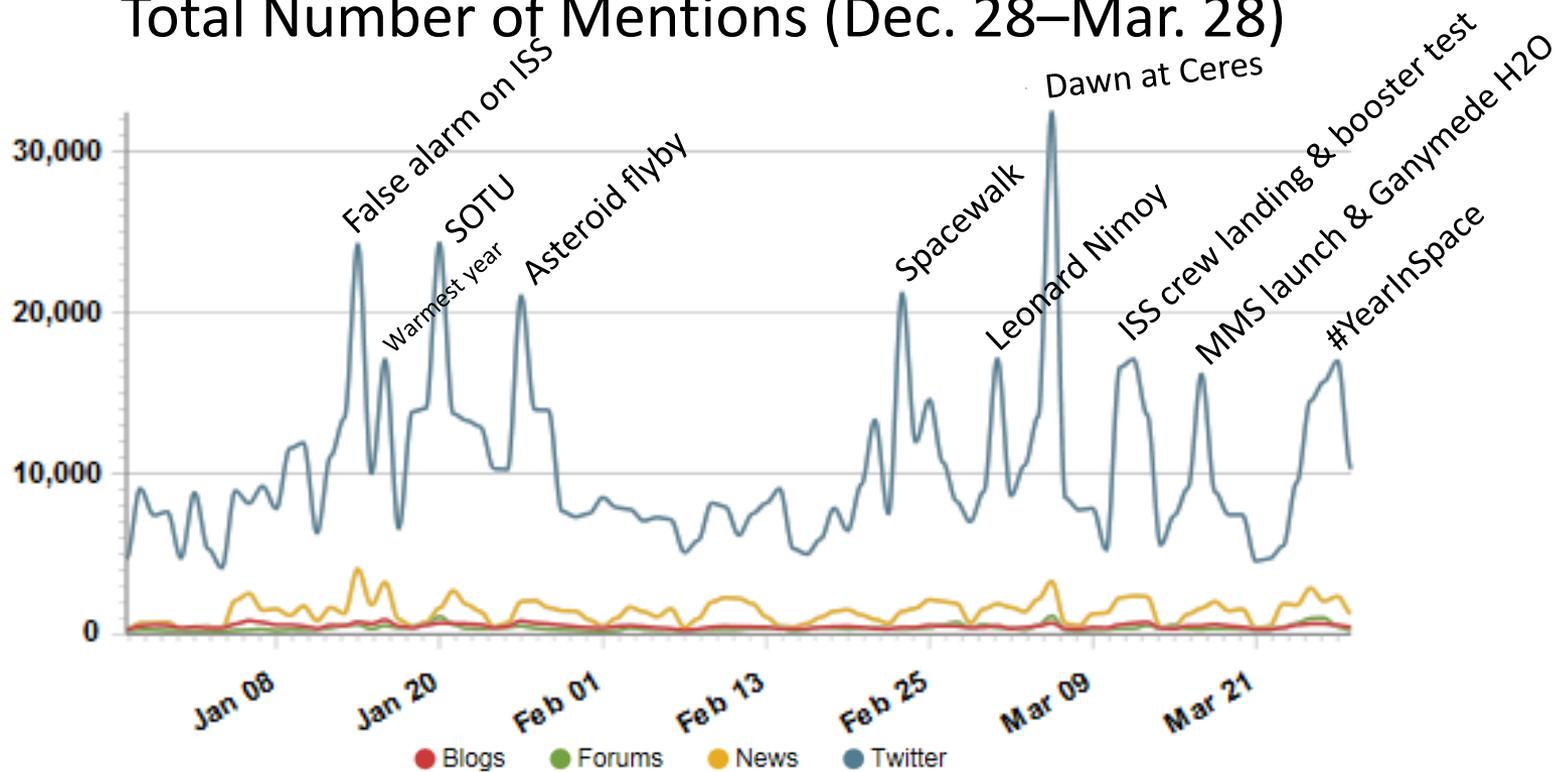
Instagram

| Instagram Account    | Followers    |
|----------------------|--------------|
| natgeo               | 23.8M        |
| <b>nasa</b>          | 3.4M         |
| Nasagoddard          | 843K         |
| <b>iss</b>           | <b>595K</b>  |
| Usnavy               | 126K         |
| <b>nasajohnson</b>   | <b>41.4K</b> |
| <b>Nasakennedy</b>   | 21.8K        |
| <b>Nasa_marshall</b> | 17.9K        |

# NASA Office of Communications

## Media Metrics

Total Number of Mentions (Dec. 28–Mar. 28)

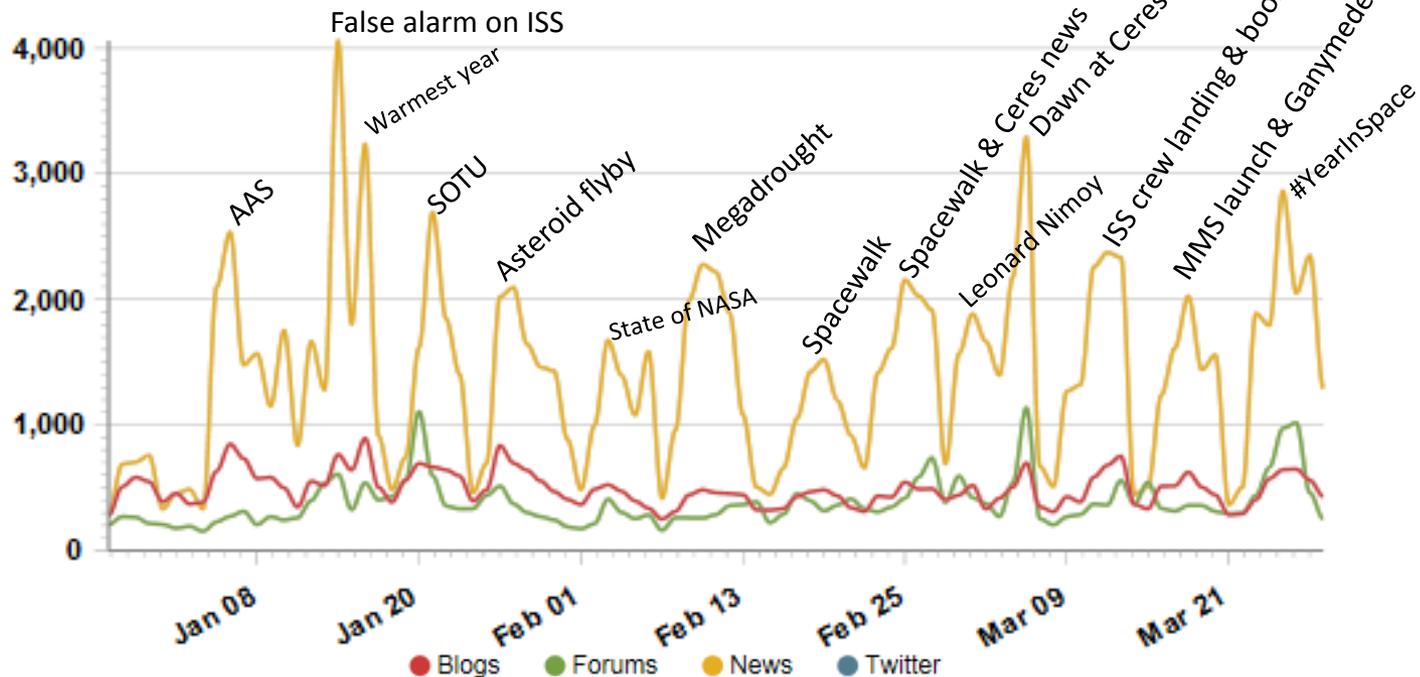


- This chart shows the total number of mentions over time, broken down by media.
- Twitter consistently makes up the vast majority of NASA's traffic.

# NASA Office of Communications Media Metrics

Total Number of Mentions (Dec. 28–Mar. 28)

*Blogs, Forums, and News*



- This chart shows the total number of mentions with Twitter data removed.
- On the week of Mar. 22, there were more mentions on forums than on blogs. This week's activity was mostly driven by a popular Reddit AMA (Ask Me Anything) post with NASA and university scientists discussing climate change and megadroughts.

# Time Coverage of Scott Kelly's Year In Space



TIME  
A YEAR IN SPACE

TIME IN SPACE  
107D20H6M58s

TRAILER: THE MISSION

EP. 1: LEAVING HOME

EP. 2: UNLIKELY ALLIES

EP. 3: COMING SOON

LATEST NEWS

SIGN UP

EPIISODE 1

# LEAVING HOME

Astronaut Scott Kelly says goodbye to family and friends as he leaves to become the first American to spend a year in space.

PRESENTED BY **BOEING**

[Time](#) released the first two episodes in its series about Scott Kelly.

# Commercial Crew Astronaut Selection (over 300 articles)



The Washington Post

The Switch

## Meet the first American astronauts headed to space from U.S. soil in years



By Christian Davenport July 9 [Follow @\\_chrisdavenport](#)



Astronaut Sunita Williams discusses upcoming flight (4:14)

post tv

Sunita Williams is one of four astronauts who will fly on a commercially owned and operated spacecraft, built by contractors, not NASA. They will launch to space from U.S. soil for the first time since the space shuttle was retired in 2011. (ReelNASA/YouTube)

Combined, they have spent more than a year in space, orbited the Earth hundreds of times and traveled tens of millions of miles. They are decorated military veterans, fighter jet and helicopter pilots turned NASA astronauts, who have all flown to the International Space Station.

NBC NEWS

SCIENCE > SPACE

ENVIRONMENT WEIRD SCIENCE



NASA plans to use commercial space vehicles to transport astronauts to and from the International Space Station. © NASA file

## Meet the first astronauts for NASA's commercial space flight program

By Loren Grush on July 9, 2015 11:27 am [@lorengrush](#)



(NASA)

f Share on Facebook (2,622) [T](#) Tweet (649) [i](#)n Share (9) [P](#) Pin



Overall Reach: 2.94 Billion  
Facebook Reach: 4.6 million **70,000 Blog Views**  
**“Biggest NASA News Event of the Year”**  
Twitter Engagement: **20,000** 71,628 Video Views  
Top Two U. S. Gov Tweets **Twitter Reach: 3 million**  
1,000 + News Stories NASA TV Plays: 40,000



**“One giant leap for NASA – and U.S.”**

- Washington Post

- Story carried on every major broadcast network and publication framed with NASA messaging of returning flight of American astronauts to U.S. soil
- Biggest event of the year until Orion’s test flight
- Nearly 4 million Twitter impressions
- Announcement 40% of NASA.gov web traffic for the week
- 40,000 concurrent NASA Television streams of the news conference
- Media Advisory had 300,000 page views, 2X any other announcement

# NASA COMMUNICATIONS

## *Integration and Best Practices – Orion Test Flight*



“Orion: NASA’s next giant leap.”

- NBC News

- Succeeded in framing the flight and other Agency missions and projects in the broader “Journey to Mars” context
- 27,000 VIP guests
- 2,900+ media reports
- 157 newspaper front pages worldwide
- @NASA Twitter account reached 47 million people
- #Orion & #Journey To Mars top trending worldwide hashtags
- First NASA Social with every field center participating
- NASA Facebook page reached 13.5 million launch day
- 5 million visits to NASA.gov launch day, more than a typical week
- Six hours of live, NASA TV coverage



**Space Launch System reached one million likes  
on Facebook!**



**1 Million Likes!**

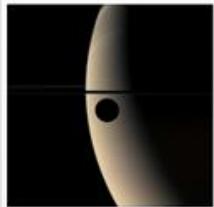
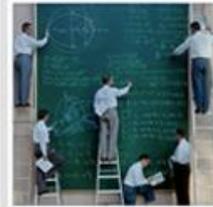


***YOU* are the STARS  
in our sky.**



**SLS**

# Integrated Exploration Systems Development Instagram Account – @exploreNASA – 90K+ new followers in less then six months!



# Public Engagement and Outreach

# INTERNATIONAL SPACE STATION

Off the Earth, For the Earth



NASA HQ ISS video wall won 2015 APEX Top Gold Award for Exceptional Digital Signage of Interactive Technology in U.S. Business, Industry and Government. Times Square digital signage came in second for the Silver award.

# Conference, Large-Scale Events and Exhibits



## *FY2015 CLEE Events*

## *FY2016 CLEE Events - TBD*

| <b>Event</b>                                | <b>Location</b>   | <b>Event Date</b> |
|---|-------------------|-------------------|
| <b>SXSW</b>                                 | Austin, TX        | 03/13-17/15       |
| <b>Earth Day Nat'l Mall – Union Station</b> | Washington, DC    | 04/18 - 22/15     |
| <b>World Science Festival/Fleet Week</b>    | New York, NY      | 05/22-30/15       |
| <b>San Mateo Maker Faire</b>                | San Mateo, CA     | 05/16-17/15       |
| <b>Comic-Con</b>                            | San Diego, CA     | 07/9-12/15        |
| <b>Essence Festival</b>                     | New Orleans, LA   | 06/29 -07/06/15   |
| <b>World Maker Faire, NYC</b>               | New York, NY      | 09/26-27/15       |
| <b>Balloon Fiesta</b>                       | Albuquerque, NM   | 10/2-10/15        |
| <b>Bay Area Science Festival</b>            | San Francisco, CA | 10/24             |
| <b>CA Science Center Endeavour Fest</b>     | Los Angeles, CA   | 11/15 (TBC)       |

# Comic-Con Panel and Exhibit Booth



AdChoices | Mashable App | Comic Con Panel | Social Sites | Social Networks

## How to follow Mashable at San Diego Comic-Con 2015

1.3k  
SHARES

Share on Facebook

Share on Twitter



The banner as seen at Comic-Con International: San Diego.

IMAGE: DAVID BROVCOREIS



It's that time of year again. As the summer heats up, thousands of people, from celebrities and [cosplayers](#) to exhibitors and fans, make the trek to San Diego for four days of nerd heaven. Kicking off on Thursday, July 9, the event brings people of all walks of life together to celebrate the world of entertainment and much more.



Victor Glover, NASA astronaut and Martian candidate, with Andy Weir, author of 'The Martian', visit Comic-Con. ([Mashable article](#))



Victor Glover ✓  
@VicGlover

Follow

I only cried a little. #STEM gets me all choked up. Thanks Stephanie, you guys were awesome! #SDCC #weareingoodhands [twitter.com/stephist/statu...](#)

2:04 PM - 10 Jul 2015

# EFT-1 Boarding Pass





**FIRSTNAME  
LASTNAME**

EMBED

**Invite Friends & Family** >

With your Boarding Pass, your name will fly on **ORION'S FLIGHT TEST** ~ Dec. 4-6, 2014 (Launch Window)

Frequent Flyer points earned for flights taken on NASA's #JourneyToMars.

\*Required

**First Name\***

**Last Name\***

Used only to create participation maps or to allow you to search for your boarding pass and share it with others.

**Country\***

**Postal Code\***

Used only to give you "frequent flyer" points and to allow you to send your name on future Journey to Mars launches.

**Email**

[Privacy Policy](#)




**SEND MY NAME** >





National Aeronautics and Space Administration

J2M1000000096903

BOARDING PASS: ORION'S FLIGHT TEST

**ASHLEY EDWARDS**

**LAUNCH SITE**

CAPE CANAVERAL SLC-37B  
FLORIDA, UNITED STATES

**ARRIVAL SITE**

PACIFIC OCEAN  
TRANSFER: CALIFORNIA  
UNITED STATES



**SCHEDULED DEPARTURE**

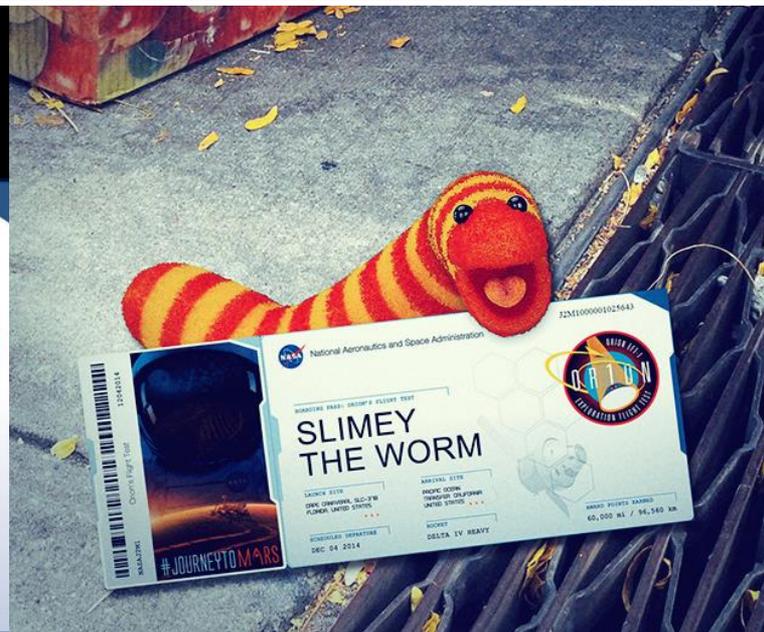
DEC 04 2014

**ROCKET**

DELTA IV HEAVY

**AWARD POINTS EARNED**

60,000 mi / 96,560 km



# EFT-1 Sesame Street Partnership



**Scott Kelly**  
@StationCDRKelly



.@NASA\_Orion @Astro\_Ricky from up here,  
I can tell you how to get to @SesameStreet.

# Destination Station



FY15 Destination Station stops:

- Bay Area, Feb 12-20 (meetings with Disney, GoogleX, AAAS Family Science Days, Kaiser Permanente, Stanford, Children's Creativity Museum)
- World Science Festival & NYC, May 30-31 & June 2-6 (WSF CLEE, BASF, Silicon Alley, Merck, NYC City Hall, Yankees, Macy's Herald Square)
- Philadelphia & Bio International, June 16-20 (BIO International is world's largest biotechnology gathering, The Franklin Institute, Phillies' Citizens Bank Park, Macy's)
- ISS R&D & Boston, July 7-10 (ISS R&D Conference, New England Aquarium, Northeastern University, Museum of Science)



# Spot The Station



**International Space Station**  
**Spot The Station**

Home | Location lookup | Sign up | Log in | Contact

**Home Page**  
245,924

**Know when to look up**  
and see the International Space Station

**Sighting Location Lookup**  
See the upcoming sighting opportunities for several thousand locations worldwide.

[Location Lookup](#)  
268,265

**Sign up for alerts**  
Receive email or text message notices hours before the station flies overhead.

[Sign Up](#)  
41,269

**Received an Alert code?**  
Please note these expire after 1 hour.

[Go](#)  
2,744

**Already registered?**

[Extend Alerts](#) [Delete Alerts](#)  
20,225

**Questions?**  
Visit our [Frequently Asked Questions](#) webpage.

9,380

**How to Use Spot The Station**  
See what an average user might receive.

[Go](#)  
20,044

**291,341 Total registrations at month's end.**  
(+4% from last month)

## ISS-STIS Alert Registrations

| Top 10 Countries (of 150) | Registrants | Total |
|---------------------------|-------------|-------|
| 1. United States          | 158,434     | 2     |
| 2. United Kingdom         | 44,963      | 2     |
| 3. Canada                 | 11,817      | 3     |
| 4. Australia              | 9,497       | 4     |
| 5. India                  | 6,300       | 5     |
| 6. Brazil                 | 6,286       | 6     |
| 7. Spain                  | 3,342       | 7     |
| 8. Italy                  | 3,146       | 8     |
| 9. Germany                | 2,893       | 9     |
| 10. Ireland               | 2,206       | 10    |

## Top 10 Sightings Opportunity Pages by Visits

| US ISS-SO Pages         | Visits | Month |
|-------------------------|--------|-------|
| 1. US: Phoenix, AZ      | 3,366  | 1     |
| 2. US: Houston, TX      | 3,195  | 2     |
| 3. US: Seattle, WA      | 3,131  | 3     |
| 4. US: Los Angeles, CA  | 2,349  | 4     |
| 5. US: Cleveland, OH    | 2,198  | 5     |
| 6. US: Portland, OR     | 2,153  | 6     |
| 7. US: Grand Rapids, MI | 2,104  | 7     |
| 8. US: San Diego, CA    | 2,074  | 8     |
| 9. US: Las Vegas, NV    | 1,918  | 9     |
| 10. US: Minneapolis, MN | 1,436  | 10    |

# Strengthening Relationships with Museums and NASA Visitor Centers



## Goals

To increase the public's awareness of NASA's Journey to Mars and importance of the transportation systems (Ground Systems Development Office, Orion, and Space Launch System) in that journey.

To equip NASA Visitor Centers, museums, planetariums and science centers with relevant and up-to-date Journey to Mars content and resources.

NASA National Aeronautics and Space Administration

Welcome pinooze21

## Museum Alliance

Home

Advertise!

Partners

Conversations

Calendar

Resources

Competitive Program

Aeronautics Research

Human Exploration and Operations

Science

Space Technology

### Member Home

Quick Resource Finder

RECENTS

- Extraterrestrial
- Conversations
- News & Announcements
- Education Activities
- Models/Exhibits
- Multimedia
- NASA Resources

**Welcome to the NASA Museum Alliance!**

NASA's Museum Alliance is the gateway to NASA resources for STEM informal science educators, staff, and leadership at museums, science centers, planetariums, observatory visitor centers, parks, zoos, and aquariums and other informal education organizations. We provide advance notice of key mission events, plus professional development telecons and materials for preparation of your educational and public programs.

Advertise! your NASA-related events, programs, and exhibits on the public Museum Alliance webpage.

For more information, download the [Museum Alliance FAQ](#).

Send questions/suggestions to [Anita Sohus](#) or [Carla Johns](#).

### Announcements

August 18, 2014

**Astrobiology: A Journey Through Time -- It Will Leave You Breathless**

Join Dr. Briana Hashman as she discusses why we do not need to travel through space to find a world completely different than the one we know today, we just need to travel through time. If we were able to visit early Earth, we would see a fundamentally different planet—a planet with minimal atmospheric oxygen. Oxygen enabled the complexity of life that we see today. It has fundamentally changed the chemical processes operating on the Earth's surface, and it is the prime suspect in causing one of the largest environmental catastrophes in our planet's history. This talk will traverse the history of Earth and explore how a simple element like Oxygen has shaped the amazing planet that we know today.

**Date:** Monday, August 18, 2014  
**Time:** 3:00 - 4:30 pm PT (6:00 pm - 7:30 pm ET)  
**Call-In:** 888-282-0432  
**Passcode:** Ambassador  
**Leader:** Kay Ferrari

[read more >](#)

- 600 + Museums, Science Centers and Planetariums
- Existing website of resources
- Listserv of 1100 individuals
- Excellent location to list existing and new ESD resources

# Journey to Mars Museum Kit



NASA National Aeronautics and Space Administration

Welcome plmoore21

## Museum Alliance

- Home
- Advertisel
- Partners
- Conversations
- Calendar
- Resources
- Competitive Program
- Aeronautics Research
- Human Exploration and Operations
  - Announcements
  - Conversations
  - Education Activities
  - Journey to Mars Museum Kit
    - Featured Products
    - Activities
      - Apps/Interactives
      - Background/Talking Points
      - Graphics
      - Presentations
      - Print
      - Videos
      - Web/Social Media
    - Models/Exhibits
    - Multimedia
    - Speaker Support
  - Science

The Journey to Mars Museum Kit premiered at the Space Exploration Educator's Conference at Space Center Houston on February 6<sup>th</sup>.

Conducted a focus group with 18 informal educators and received feedback to improve kit.





# NASA Visitor Centers

## NASA Visitor Centers

- On going communication between NASA and the NASA Visitor Centers
- Face-to-Face Meetings



# Education Outreach

# Education EXPRESS

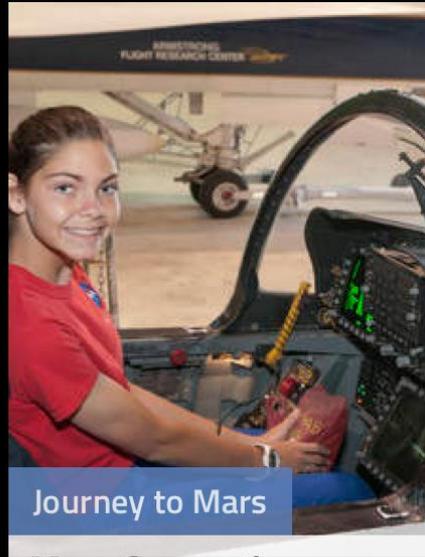


*On July 2, 2015 the Education EXPRESS message was sent to 20,933 EXPRESS subscribers, and shared with 37.4 thousand NASA Education Twitter followers and 10.9 million NASA Twitter followers. Through the use of social media, content from the EXPRESS message has the potential to be shared with approximately 10.96 million people.*

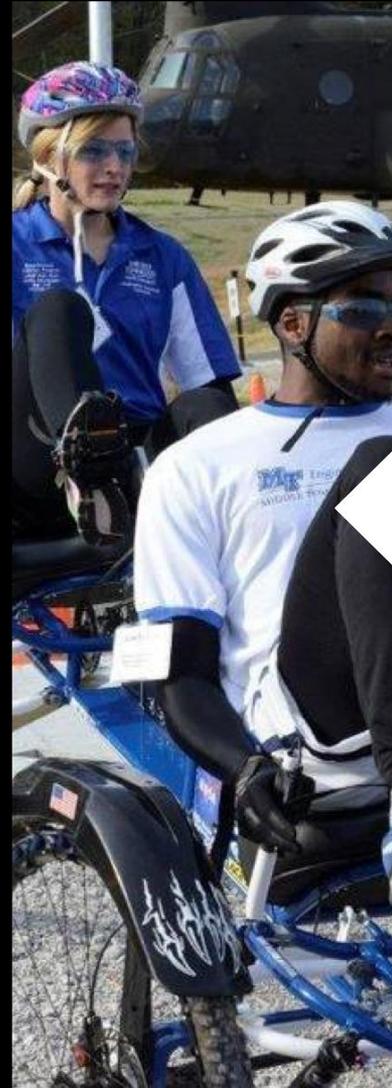
The EXPRESS message is sent to our current subscribers, and posted to the NASA Blog page. Posting the *EXPRESS* message on the Blog page allows interested persons to sign up to receive the *EXPRESS* message via an RSS feed. After the message is posted, NASA Education, tweets that the Education *EXPRESS* message is available and provides the URL.

- NASA Education listserv sign up: <http://www.nasa.gov/education/express>
- NASA Twitter: <http://twitter.com/nasa>
- NASA Education Twitter: <https://twitter.com/nasaedu>
- NASA Blogs: <https://blogs.nasa.gov>
- NASA Education *EXPRESS* Blog: <https://blogs.nasa.gov/educationexpress/>
- Current Opportunities for Educators: <http://www.nasa.gov/audience/foreducators/current-ops-index.html>
- Current Opportunities for Students: <http://www.nasa.gov/audience/forstudents/current-ops-index.html>

# Education/Collaboration Opportunities



Journey to Mars



## Student Programs and Projects

A-Z list of education opportunities that NASA offers throughout the year

[Exploring Careers @ NASA](#)  
The modules on this page lead to steps you can take now that may help land the job you want at NASA.

[NASA's One Stop Shopping Initiative Website](#)  
Apply for NASA internship, fellowship and scholarship opportunities through a single application.

[Pathways Programs at NASA](#)  
These programs provide opportunities for students and recent graduates to be considered for federal employment.



What's Up in the Night Sky



Spot the Station

# Design Challenges



## NASA Challenges Students to Design 3-D Space Containers

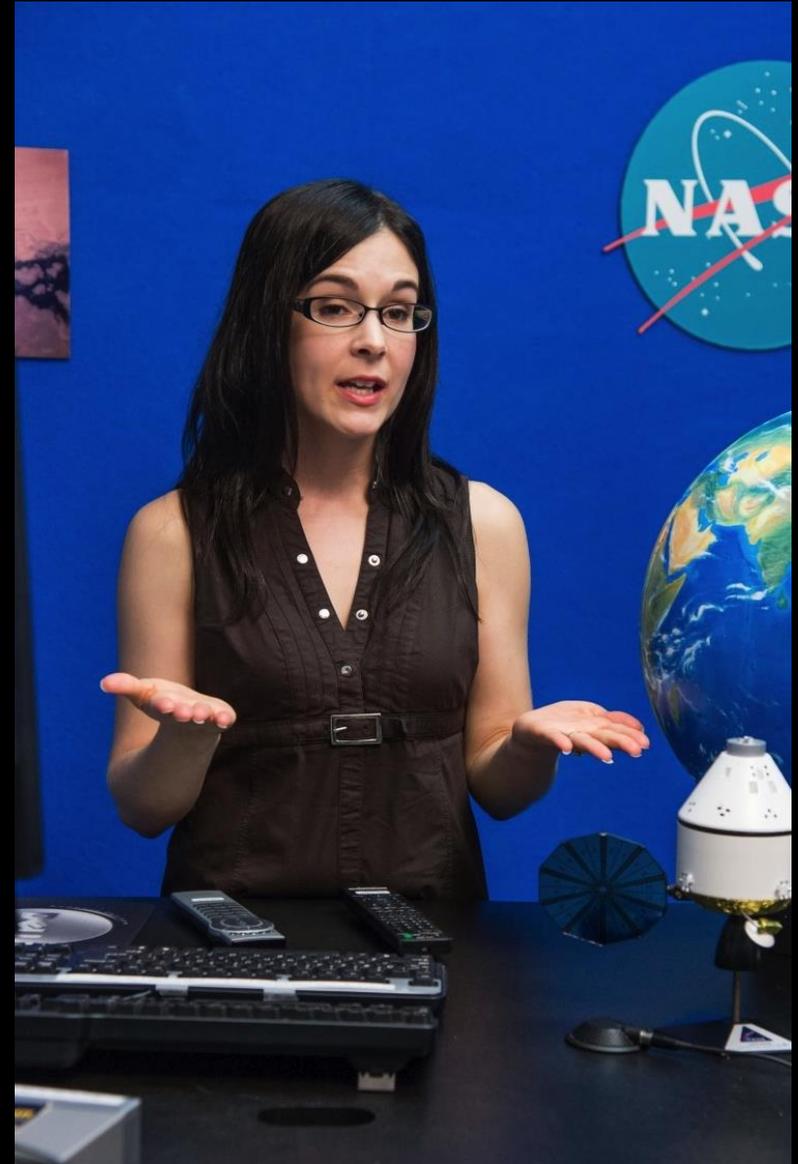


Calling all students! NASA needs your help to design containers that could be used in space. The 3-D Space Container Challenge is the second in series of [Future Engineers Challenges](#) where students in grades K-12 will create and submit a digital 3-D model of a container that they think astronauts could use in space.



Washington holds the space planter she designed as part of the Space Tools Challenge.

# Informal Education



# Summer Web Chat



Challenger Paducah



Yves Lamothe

# #WhySpaceMatters Photography Competition



- Audience: All Educators and Students  
Next Deadline: Aug. 10, 2015

NASA and the United Nations Office for Outer Space Affairs, or UNOOSA, have launched a global photography competition to highlight how the vantage point of space helps us better understand our home planet, improve lives, and safeguard our future by aiding sustainable development on Earth.

To highlight the role of space-based science and technologies and their applications on Earth, NASA and UNOOSA are inviting the public to submit photos depicting why space matters to us all in our daily lives. To participate, post a picture and description on Instagram using the hashtag #whyspacematters and tagging @UNOOSA.

NASA astronaut Scott Kelly, who is three months into a one-year mission aboard the International Space Station, will announce the winning photo each month by posting it from his Instagram account [@StationCDRKelly](#).

For more information about the competition, visit <http://www.unoosa.org/oosa/contests/whyspacematters/index.html>.

For more information about the International Space Station and the One-Year Mission, visit <http://www.nasa.gov/content/one-year-crew>.

# Future of Human Spaceflight Planetariums Shows



- **As of May 1<sup>st</sup>**, 30 planetarium requests were estimated as producing a minimum of 70,000 show viewers; 124 teacher lessons had been downloaded via [nasa.gov](http://nasa.gov); 764 teacher lessons had been downloaded at NIA workshops & events; 1,000,000 viewers had viewed the one-screen version on (1) [nasa.gov](http://nasa.gov), (2) the NASA HQ video wall, (3) YouTube, (4) the National Institute of Aerospace website, and at (5) conventions.
- Since May, seven more planetariums have requested it, so you could estimate about a third more of those statistics in each category.

# **Internal Communications and Employee Motivation**

# ESD Newsletter and Space Flight Awareness Program Activities



National Aeronautics and Space Administration



# ESD

**EXPLORATION SYSTEMS DEVELOPMENT**  
*Combined Monthly Report May 2015*

## ORION

Orion Mockup Arrives at the Lockheed Martin Integrated Test Lab in Colorado  
 Welding Underway on EM-1 Orion Pathfinder  
 Quarterbacking for the Future  
 Lockheed Martin Completes Orion Mockup for Risk Reduction Testing  
 Space Foundation Launches Lockheed Martin Space Education Center  
 Houston... We Have Recognition!  
 Lockheed Martin Earns JSC Honor for Small Business Initiatives  
 Futuramic Brings the Future of Spaceflight to Michigan  
 NASA Blends Science Fiction with Science Fact at Comicpalooza

## SPACE LAUNCH SYSTEM

Space Launch System Program Moves Forward with Critical Design Review  
 Steamy Summer Begins for SLS with RS-25 Test A  
 Some Assembly Required: The Newest RS-25 Joins the Space Launch System Family  
 Spaceflight Partners: Ultimate Hydroforming Inc.  
 SLS Booster Work Continues Well After Smoke Clears from Major Test  
 Milestone Work Under Way on B-2 Test Stand  
 On the road...

## GROUND SYSTEMS DEVELOPMENT & OPERATIONS

Small Class Vehicle Launch Pad Takes Shape at Pad 39B  
 GSDO Inspires, Promotes FIRST Robotics Teams  
 Ground Systems Team Spotlight  
 Employee Spotlight: Trey Reilly

[www.nasa.gov](http://www.nasa.gov)

## SPACE FLIGHT AWARENESS ACTIVITIES, VISITS, AND PRODUCTS

### SFA Activities

SFA activities include motivational visits and the development, display, and distribution of awareness tools.

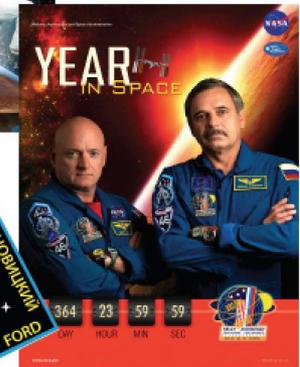
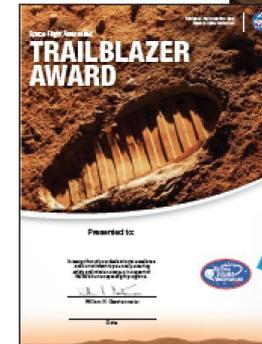
### SFA Visits

SFA works to arrange executive and astronaut visits to help remotely located employees feel that they are part of the human spaceflight team, and to give them an opportunity to get to know those who will use the products they design and build.

### SFA Products

SFA uses a variety of products to focus on key aspects of human spaceflight requirements and mission activities:

- Printed products – safety, quality, reliability, mission, astronauts, significant milestones
- Decals – Space Shuttle and International Space Station missions
- Lapel Pins – vehicle, mission, milestones
- Safety Day activities.



# HEO Communications Strategy



- Communicate as widely as possible
- Build communities of fans & followers
- Transform them into advocates, ambassadors, creators, & collaborators



## Connect With NASA

Download free NASA apps for your smartphone or tablet. Use the links below to find more ways to connect with NASA.

[NASA Apps](#)

[NASA Blogs](#)

[NASA e-Books](#)

# Thank you. Questions?