

National Aeronautics and  
Space Administration



# ORION

MARCH 2017

# A SIGN OF THE TIMES

# ORION'S MONTHLY HIGHLIGHTS



PRESIDENT TRUMP SIGNS ON FOR FUTURE SPACE EXPLORATION



MAKING THE DROP



ASTRONAUT GETS HANDS-ON DEMO OF ORION



TEXANS LAUNCH SPACE DAYS 2017



GETTING TO MARS VIA SXSW



ORION SUPPLIERS HONORED FOR OUTSTANDING PERFORMANCE



SO-CAL SUPPLIERS WELCOME NASA



# PRESIDENT TRUMP SIGNS ON FOR FUTURE SPACE EXPLORATION

On March 21, President Donald J. Trump signed the National Aeronautics and Space Administration (NASA) Transition Authorization Act of 2017, the first comprehensive NASA authorization passed by Congress in more than six years. The bill demonstrates strong bipartisan support for the Nation's space program and helps ensure that NASA remains at the forefront of exploration and discovery.

The historic signing ceremony took place at the White House with Vice President Mike Pence and a number of senators, representatives and NASA officials in attendance, including Acting NASA Administrator Robert Lightfoot and NASA astronauts Tracy Dyson and Chris Cassidy.

The Authorization Act, passed unanimously by Congress, proposed a \$19.1 billion budget to provide a powerful framework for NASA and a roadmap for the Nation's future in space.

**Watch the video:** [NASA Authorization Act of 2017 Signing](#)

**Read the White House statement:** [NASA Transition Authorization Act of 2017](#)





# MAKING THE DROP

Engineers successfully tested the parachutes for NASA's Orion spacecraft at the U.S. Army Yuma Proving Ground in Arizona on March 8. This was the second test in a series of eight that will certify Orion's parachutes for human spaceflight.

The test, which dropped an Orion engineering model from a C-17 aircraft at 25,000 feet, simulated the descent astronauts might experience if they have to abort a mission after liftoff.

*For more articles of interest on this test:*

[http://bit.ly/DropTest\\_SFN](http://bit.ly/DropTest_SFN)

<http://bit.ly/DropTestSuccess>



## HANDS ON ORION

Astronaut Victor Glover evaluates cage designs for Orion's translational hand controller at the Reconfigurable Operational Cockpit at NASA's Johnson Space Center in Houston, Texas.

# ELECTED OFFICIALS GET CLOSE UP LOOK AT ORION



U.S. Rep Posey's staff poses for photo by an Orion model. Joe Mayer, Lockheed Martin Space Systems Government Relations in Florida, is pictured second from left.

Brevard County Commissioner Rita Pritchett met with the Orion team and toured the Neil Armstrong Operations & Checkout Building at NASA's Kennedy Space Center on March 13 for a program update and opportunity to view assembly of the Exploration Mission-1 Orion spacecraft.

The County Commission has authority over local economic development incentives designed to grow high-tech business opportunities and jobs in the county. Commissioner Pritchett represents the Titusville area where Lockheed Martin's Astrotech Space Operations is located.

On March 28, congressional district staff members for U.S. Rep. Bill Posey (R-FL-8), also enjoyed a facility tour and program update on Orion's progress toward its next space flight atop NASA's Space Launch System. Posey is a leading member of the House Science Committee's Space Subcommittee with oversight responsibilities for NASA's space exploration programs.

In appreciation for your achieving NOIA status and demonstrating your excellent contribution in maintaining a safe work environment at JSC.



# LOCKHEED MARTIN DEMONSTRATES SAFETY EXCELLENCE

On March 28, Lockheed Martin Space Systems was awarded the NASA Johnson Space Center (JSC) Contractor Safety and Health Forum (CSF) Safety and Health Excellence Nova award. The award recognizes contractor organizations that have demonstrated excellence in safety and health and significant participation in JSC safety and health activities.

Lon F. Miller, CSF chair; Jeff Tave, Penny Wilkinson and Stephanie Hicks from Lockheed Martin; and William S. McArthur, director, JSC Safety and Mission Assurance.



# TEXANS LAUNCH SPACE DAYS 2017

Members of the Orion team participated in Space Day Texas on March 7 in Austin, Texas. Space Day is NASA's biannual visit with the legislators at the Texas State Capitol to showcase current programs and milestones at NASA's Johnson Space Center, thank the legislators for support of the Texas Aerospace Scholars and

Technology Outreach Program and present the economic benefits of having a NASA center in their backyard. The event included educational and interactive exhibits, astronaut appearances and legislative proclamations that highlighted achievements in human exploration throughout the Lone Star State.

“So You Want to Go to Mars?” panelists NASA’s Astronaut Jessica Meir and Orion engineer Jessica Vos with Lockheed Martin space architect Tim Cichan and Orion thermal protection system lead Brian Hinde.

# GETTING TO MARS VIA SXSW

The journey to Mars took a detour this March as NASA made a pit stop in Austin, Texas, to share its exciting missions, discoveries, technology advancements and plans for future space exploration at the South by Southwest (SXSW) Interactive Festival and Tradeshow.

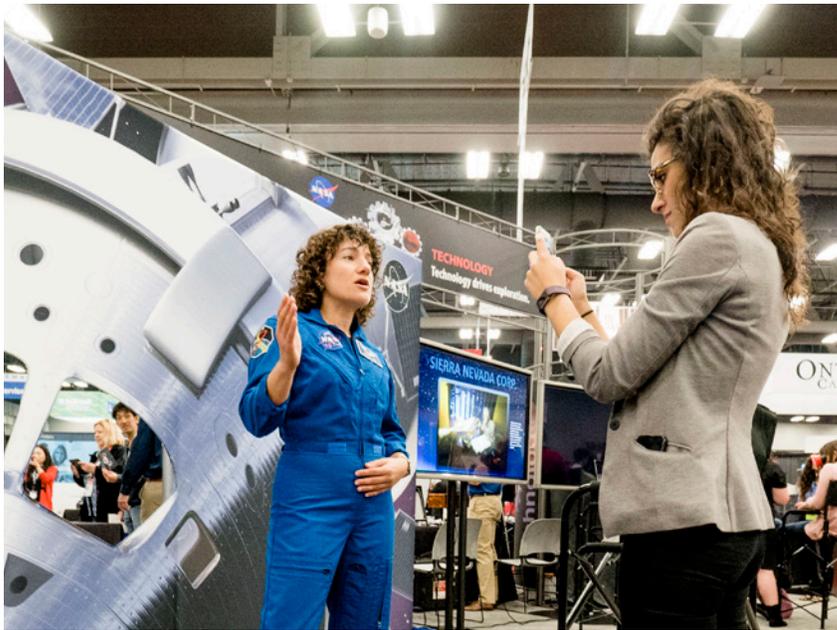
Thousands of event participants visited the NASA and Lockheed Martin tradeshow exhibits which showcased how lunar and Mars missions will evolve with hands-on content and virtual reality interactives to show space enthusiasts how spacecraft are being built and tested for human exploration of deep space.

In addition to showcasing Orion and SLS in the exhibit hall, NASA Astronaut Jessica Meir and the Orion team supported the “So You Want to Go to Mars?” panel discussion and Facebook Live event. The panel was in such high demand that a second encore presentation was scheduled to accommodate a record crowd. Facebook Live was hosted on the NASA Orion Facebook page from the exhibit space. Live views were around 47,000 users during the broadcast, and engagement with the content since the broadcast has continued to grow to over 1,700,000 users.

View the Facebook Live feed: <http://bit.ly/LiveAtSXSW>



More pictures on page 8





# SO-CAL SUPPLIERS WELCOME NASA



Representatives from the NASA SLS and Orion programs, Aerojet Rocketdyne, Boeing, Lockheed Martin and Orbital ATK traveled to Southern California in March to visit supplier companies in the area and conduct public outreach events.



Industry site visits took place at LeFiell Manufacturing Company, AMRO Fabricating Corporation (photo top left), STADCO (photo middle left), DASCO, Votaw Precision Technologies (feature photo) and VACCO Industries, which are among the many suppliers throughout Southern California contributing to SLS and Orion mission success and enabling NASA's return to human exploration of deep space. There are currently more than 3,500 people working at nearly 600 small businesses and companies in the state to help to build SLS and Orion.



On March 21, members of the SLS and Orion industry team hosted a supplier's leadership reception at the Cerritos Center for the Performing Arts, followed by a presentation about the nation's future space exploration programs. An estimated 900 people attended the event, including congressional staff from Rep. Duncan Hunter's office (R-CA-50) and Rep. Grace Napolitano's office (D-CA-32). Former NASA astronaut Brian Duffy and current NASA astronaut Tom Marshburn also talked about their personal experiences in space flight.

Additional stops included presentations at the California Science Center in Los Angeles and Haskell Middle School in Cerritos, California (photo lower left).

Read more about NASA's visit: [http://bit.ly/NASA\\_SoCal](http://bit.ly/NASA_SoCal)

# ORION SUPPLIERS HONORED FOR OUTSTANDING PERFORMANCE



Two of the Orion Program's subcontractors were recognized with prestigious honors in March for their outstanding contributions to mission success and program support.

Lockheed Martin Orion subcontractor Red Canyon Software, Inc. (photo upper left) won the Small Business Administration's Subcontractor of the Year Award for Region VIII. Red Canyon is a HUBZone small business located in Denver, Colorado, that develops software and technology to help humankind explore space, other planets and renewable resources on Earth.

The Subcontractor of the Year award honors small businesses that have provided the government and industry with outstanding goods and services as subcontractors. Small Business Administrator Linda McMahon recognized this year's Small Business awardees for 16 different categories ranging from exporting, outreach, contracting, lending, disaster recovery, manufacturing and research and development. Red Canyon has worked with the Orion program since 2006 and was nominated for this award by Lockheed Martin.



On March 14, Lockheed Martin announced ISYS Technologies (photo lower left) of Littleton, Colorado, as its 2016 Small Business of the Year for the Orion Program. Lockheed Martin Vice President and Orion Program Manager Mike Hawes presented the prestigious Rigel award to ISYS Technologies owner and CEO Teresa Porter. ISYS Technologies was founded as a woman-owned small business in 2002. It has been an Orion partner since 2009, providing niche skill engineering to all of Orion's integrated product teams. ISYS was recognized for their years of outstanding service and for their generous support to Orion outreach and advocacy. The Lockheed Martin Rigel award is an annual award given to a small business subcontractor who performs above and beyond its contractual commitments.

## FOLLOW THE PROGRESS OF NASA'S NEW SPACECRAFT FOR HUMAN EXPLORATION:

**NASA's Orion Blog** . . . . . [Blogs.NASA.gov/Orion](http://Blogs.NASA.gov/Orion)  
**Twitter** . . . . . [Twitter.com/NASA\\_Orion](https://twitter.com/NASA_Orion)  
**Facebook** . . . . . [Facebook.com/NASAO Orion](https://facebook.com/NASAO Orion)  
**Flickr** . . . . . [Flickr.com/NASAO Orion](https://flickr.com/NASAO Orion)  
**Google+** . . . . . [Plus.Google.com/+NASAO Orion](https://plus.google.com/+NASAO Orion)

## APRIL

Crew Module STA Ships to Denver  
Launch Abort System HT-11 Test  
National Space Symposium in Colorado  
Senator Moran Visits JSC