



GSDO

GROUND SYSTEMS
DEVELOPMENT & OPERATIONS

EXPLORATION BEGINS HERE



PROGRAM HIGHLIGHTS • JUNE / JULY 2015

At NASA's Kennedy Space Center in Florida, the Ground Systems Development and Operations (GSDO) Program Office is leading the center's transformation from a historically government-only launch complex to a spaceport bustling with activity involving government and commercial vehicles alike. GSDO is tasked with developing and using the complex equipment required to safely handle a variety of rockets and spacecraft during assembly, transport and launch. For more information about GSDO accomplishments happening around the center, visit <http://go.nasa.gov/groundsystems>.

GSDO Making Strides Towards Exploration Mission-1

GSDO Program Manager Mike Bolger and his management team recently held a pair of All Hands meetings at Kennedy Space Center to update the team with an overview of the new organization, review recent accomplishments and discuss future goals.

Bolger detailed the "Journey to Mars" roadmap that focuses on developing the capabilities that will help Americans land on the Red Planet.

He also discussed the ramifications of recent Planning, Programming, Budgeting and Execution efforts and praised many recent accomplishments, including Exploration Flight Test-1 launch, landing and recovery operations.

He provided an update on modifications to the Vehicle Assembly Building, crawler-transporters, mobile launcher and other facilities and ground support equipment as the center prepares for the arrival of NASA's Space Launch System and Orion spacecraft for Exploration Mission-1.

Bolger said much work is being accomplished by GSDO and its support contractors to support NASA's exploration mission.

"It's not about whether you're NASA or a contractor; it's about being part of a program that has an amazing mission," Bolger said. "This is our program, this is our mission. It's our time in history and it's an amazing thing to be a part of."



An artist illustration of the Vehicle Assembly Building and NASA's Space Launch System and Orion crew module on the mobile launcher, with Launch Pad 39B in the background. Image credit: NASA

RESOLVE Team is First User of New LCC Firing Room 4

NASA's 21st century multi-user Firing Room 4 in the Launch Control Center at Kennedy Space Center was used for the first time June 3. The facility last used to launch space shuttle Atlantis on the STS-135 mission in July 2011 was the site of a multi-center integrated mission simulation for the Regolith and Environment Science and Oxygen and Lunar Volatiles Extraction (RESOLVE) team.

"We are the first customer to take advantage of this multi-use facility," said Josie Burnett, director of the Exploration Research and Technology Program at Kennedy.

"Customizing our own control room isn't just cool, it enables us to enhance our exploration training."

The team is using the firing room for about six months to support operations.

Steve Cox is an operations engineer in the Ground Systems Development and Operations (GSDO) Program. He oversaw the firing room modifications and provides support to the LCC and the end-to-end command and control development group.

During the shuttle era, the firing rooms were designed to support up to 200 people or more. The four smaller control rooms in Firing Room 4 are designed to support smaller missions that may only require 25 to 30 people for a test. As customers' needs grow and they get closer to launch, Cox said opening access to adjoining rooms will accommodate an increased crew size of 50 to 100.

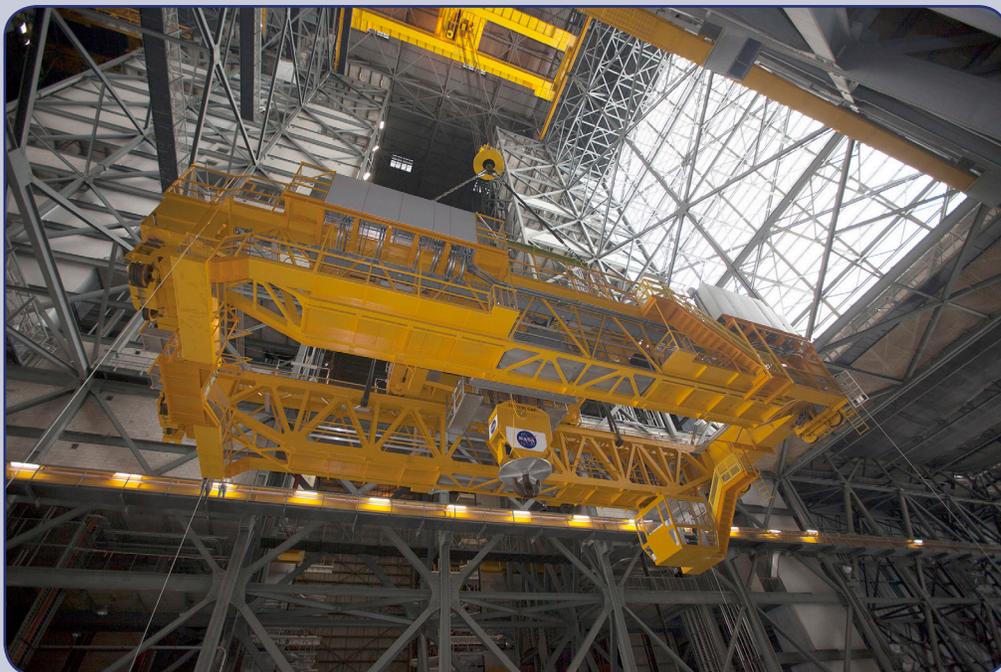
"The four new control rooms are designed for customers who may use the facility for a couple of weeks, a month or all the way up to a year or more," Cox said. "For RESOLVE, we found out what the team's requirements were and then we set up the room to meet their specific needs."



A simulation test June 3 of the Regolith and Environment Science and Oxygen and Lunar Volatiles Extraction (RESOLVE) payload for a future Resource Prospector mission to the moon was the first use of one of the new 21st century multi-user control rooms inside Firing Room 4 in the Launch Control Center at Kennedy Space Center. RESOLVE team members monitor the test inside one of the control rooms. GSDO managed the construction of four new separate control room areas that can be flexible to meet current and future NASA and commercial user requirements. Photo credit: NASA/Ben Smegelsky

The RESOLVE team will use the firing room for subsequent flight simulations, the flight mission and the entire RESOLVE payload. Using the flight-like environment for the RESOLVE simulation is in line with NASA's "test as you fly" philosophy.

For the complete story, visit <http://go.nasa.gov/1NvUEnA>.



Inside the Vehicle Assembly Building at NASA's Kennedy Space Center in Florida, a 325-ton crane high above is used to lift the 175-ton crane back to its original position, Level 16, above the transfer aisle June 3. The crane's 45-year-old controls were upgraded to improve reliability, precision and safety. The GSDO Program managed the upgrades and modifications to the crane so that it can support lifting needs for NASA's Space Launch System and Orion spacecraft. Photo credit: NASA/Kim Shiflett

Ground Systems Team Spotlight

Pam Cooley is a project administrator for Vencore on the Engineering Services Contract at Kennedy Space Center. Cooley has worked at Kennedy for 19 years.

Her main responsibilities include providing project management support to the Vehicle Assembly Building senior project manager. She tracks project activities and audits financial documents and provides updates to Ground Systems Development and Operations on VAB construction activities.

Cooley says the coolest part of her job is watching the transformation of the VAB, including the removal of shuttle platforms and all of the upgrades currently in progress.

"Seeing the new platforms arrive and all the activity in High Bay 3 is absolutely amazing," Cooley said.

She is proud of one of her recent accomplishments: earning the Certified Internal Auditor designation, which is globally recognized. Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. Cooley said it helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

She first became interested in space when she moved to the space coast. Originally from Woodstock, Virginia, there wasn't much coverage of the space program. When she moved to Brevard, she became more aware of what was happening.

"Working at Kennedy has offered me the opportunity to see many aspects of the space program that many people are not aware of," Cooley said.

Her hopes for the future of U.S. space exploration? Cooley would like to see U.S. astronauts go to Mars.

"There are so many things that we can learn from space travel," Cooley said. "The technologies that have been developed by the space program are benefitting us, not only for future travel, but also for here on Earth."

Cooley's first car was a light green 1972 Ford Pinto. She bought it to drive to high school, and when she graduated, she traded the Pinto in for a Chevrolet Camaro.

She and her husband have three dogs, a Tibetan spaniel named Ruby, and two Japanese Chins, named Matti and Zeba.

Her hobbies include helping her husband work on a 1993 Ford Lightning. They celebrated their 17th wedding anniversary on July 4.

Adia Griffin is a mechanical engineer for Jacobs Engineering on the Test and Operations Support Contract supporting the GSDO Program at Kennedy. She is the pressure vessel and pressurized systems coordinator. She has worked at Kennedy for 8.5 years. Prior to TOSC, she was a fluid system design engineer with United Space Alliance and worked primarily on pneumatic system design for the Space Shuttle Program.

Her current responsibilities include ensuring the pressure vessels and systems are certified for continued use and comply with NASA and Kennedy standards, and National Consensus Codes and Standards.

One of her recent accomplishments was developing a pressure-system shop policy as a way for the various shops to meet the requirements and still allow the team to perform several different periodic test setups and operations.

Griffin first became interested in space in the eighth grade. She attended the Space Academy in Huntsville, Alabama. She was assigned the flight director role for one of the mission simulations and was hooked.

Her advice for students seeking a career in a field similar to hers is to keep learning and not give up on their dreams. Many avenues can be taken to reach their destination.

Griffin says NASA needs to continue to explore: "It is part of who we are. I want to see us launching our own crewed rockets and return our astronauts to space on our own."

Griffin grew up in New England (Go Patriots!) but considers her hometown to be Titusville. She earned her bachelor's degree in engineering physics in 2004 from Embry-Riddle Aeronautical University in Daytona Beach, Florida.

Griffin's first car was a 2006.5 Kia Optima with 1,000 miles on it. It now has more than 183,000 miles on it and still remains one of the family cars. Griffin and her husband DeAvalon have two children: a four-year-old son, Tanay, and a two-year-old daughter, Carmen. Her hobbies include going to Disney World, traveling, music, movies and jewelry making.



Employee Spotlight: Karen Curry

Karen Curry is the executive assistant to the Ground Systems Development and Operations Program (GSDO) at Kennedy Space Center. She works for Wichita Tribal Enterprises. She came to Kennedy in July 2013, and starting as a training coordinator for GSDO, was promoted to executive assistant about eight months later.

As an executive assistant, she is responsible for the day-to-day management of the GSDO front office. She handles the administrative duties in that office.

"I've also been told, as executive assistant, that I am the face of GSDO. So I think the more important role that I play there is making sure that the executives in GSDO, their interfaces with the public, with their workforce, with all their peers across the agency, are smooth," Curry said.

She ensures that their meetings are set up, their conference calls get connected, and provides quality customer service in a professional environment.

Curry was sincerely honored in December 2014 when she was asked to draft some letters for NASA Administrator Charlie Bolden's office to thank the



military personnel who helped with the recovery efforts for the Orion crew module when it splashed down in the Pacific Ocean.

Curry grew up in Mims, Florida. She graduated from Astronaut High School in Titusville, Florida, and then went on to

earn a bachelor's degree in economics at Florida Agricultural and Mechanical University in Tallahassee, Florida.

Her first car was a champagne-colored Hyundai Excel, which she bought in the 1980s before Hyundai became the company they are today.

Her hobbies include writing, and she has self-published two books that currently are available on Amazon.com. She looks forward to writing more after she achieves her MBA. She also recently began to travel and is very excited about her first trip overseas next month to London and Paris.

Curry has two children: a son, Loren, 19, who currently is in Navy Reserve training in San Diego, and a daughter, Simone, 21, who will graduate from college next year and is an actress and singer at the Holiday World theme park in Indiana.

She has no pets, although she thought of getting a little teacup poodle to keep her company since she's become an empty-nester.

"But after raising two kids on my own, I'm completely enjoying my freedom," Curry said.



The Orion Service Module Umbilical (OSMU) was positioned on Tower A, on June 30 at the Launch Equipment Test Facility at NASA's Kennedy Space Center in Florida. The tower supports the Vehicle Motion Simulator (VMS) 1, which will be used to test the OSMU beginning in early August. Photo credit: NASA/ Jeffrey Garrison