

Coast Guard Helicopter Pilot Shares Her Compelling Story

by Gail Kellner

February 26, 2015

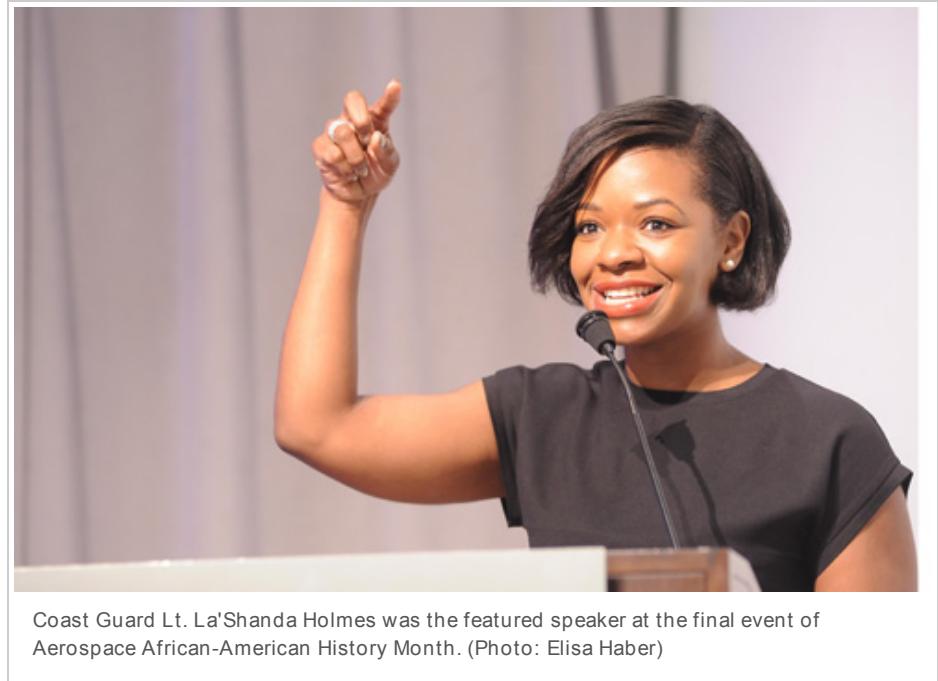
Lt. La'Shanda Holmes is no stranger to adversity. Faced with a difficult childhood, her challenges just pushed her to thrive and excel. She is the first African-American woman to become a helicopter pilot in the United States Coast Guard, and she now feels a particular responsibility to inspire others and to be a good role model to young girls.

And inspire she does.

Holmes visited Aerospace on Thursday, Feb. 26, in Titan IVB as the keynote speaker for the closing event of African-American History Month: "History in the Making: A Conversation with the Coast Guard's First African American Female Helicopter Pilot."

Holmes projects confidence and strength, while owning her background without wearing it as a badge of courage. She was adopted by her aunt at age two after her mother committed suicide, and was soon moved frequently inside the foster care system until she was cared for at age 17 by the people who she still calls her parents today.

She said that she came to a pivotal time in her life when she was a junior in high school. She frequently cried about her misfortune, but on this particular day after a good hard cry, she just stopped and told herself to do something else, recognizing that she needed to come up with a plan to change her life.



Coast Guard Lt. La'Shanda Holmes was the featured speaker at the final event of Aerospace African-American History Month. (Photo: Elisa Haber)



From left to right: Danielle Sherrod, Aerospace senior counsel, who introduced Lt. La'Shanda Holmes; Dr. Wanda Austin; Lt. La'Shanda Holmes; and Malissia Clinton, senior vice president, who gave closing remarks. (Photo: Elisa Haber)

Holmes' inspiring and personal talk focused on the concept of power. She explained that she used to feel that power was a physical thing until she had an experience as a new Coast Guard pilot. Her goggles, worn on the top of her head, accidentally hit the power switch to one of the engines, and she heard the words "power, power, power" from the aircraft commander as the helicopter started dropping toward the ocean surface. She was able to get the helicopter back under control, but she wanted to find the silver lining of what happened.

"Power and I had an intimate experience that evening," she said. "What would happen if we gave 100 percent all the time? Where am I on that power curve? Some would argue that operating at the top of your power curve would cause you to burn out, but there are other resources like family, spirituality, friends that can help you sustain your place."

In 2003 Holmes went to Spelman College in Atlanta, Ga., a school she had dreamed about for years. She was short on funds, but found herself working at a career fair

and approached the Coast Guard table. It piqued her interest and she was offered a scholarship for the last two years of college that very day.

"The Coast Guard offered me the opportunity of a lifetime," she said. "It's the first time I felt that I had a sense of power to do something with my life."

Holmes joined the United States Coast Guard in 2005, graduated from Spelman College in 2007, graduated from Officer Candidate School in 2008, and at the age of 25 completed flight school and earned her Wings of Gold in 2010.

Holmes' wings at graduation were pinned on her by Lt. Jeanine Menze, the Coast Guard's first African-American aviator, who inspired her earlier to brush up on her science and math and consider aviation as a career.

This summer it will be 10 years that Holmes has been serving as a helicopter pilot for the Coast Guard. When asked how much longer she sees herself as a pilot, she said, "a minimum of 20 years."

So what's next for Holmes' master plan? She recently started working on a master's degree, would like to write a book, a screenplay, and maybe even become a pharmacist.

"We have to be willing to do the work. We must re-hone our focus on the things that matter, rather than be captive from the past. Everything prepares us for something greater," she said.

Along with the Aerospace Black Caucus, the event was co-sponsored by Aerospace Military Veterans and the Aerospace Women's Committee.

Delta IV Takes a Cruise

February 25, 2015

The Orbiter is publishing a series of articles that follow one launch through its preparation to when it lifts its payload to orbit. The payload, GPS IIF-9, is set to launch in March on a Delta IV launch vehicle. This article describes the Delta IV's journey from factory to launch pad.

Aerospace employees were on hand when a Delta IV common booster core and the rocket's second stage left the United Launch Alliance (ULA) factory in Decatur, Ala., on Sept. 3, 2014, for a boat ride to Port Canaveral, Fla.

The Delta Mariner, a unique 312-foot cargo ship, arrived at Port Canaveral on Sept. 10 and was unloaded the next day. In addition to the first and second stages of the Delta IV that will launch the GPS IIF-9 satellite, it brought an Atlas V rocket and a second stage for another Delta IV.

The ship, launched in late 1999, was built under the direction of The Boeing Co. specifically to carry large rocket parts from the Decatur plant to the eastern and western ranges. Cargo for the ship is rolled on and off via a ramp at the stern, rather than lifted aboard by a crane. The Delta Mariner is owned and operated by Foss Maritime of Seattle.



The Delta IV common booster core is taken out of the United Launch Alliance factory in Decatur, Ala. (Photo: United Launch Alliance, LLC)

Since Decatur is not a seaport, but instead sits on the Tennessee River, the Delta Mariner was designed to operate in both shallow inland waterways and open seas. A normal trip from Decatur to the Gulf of Mexico and around Florida to Port Canaveral takes about eight days. The trip to the western range at Vandenberg, through the Panama Canal, takes about three weeks. (EDITOR'S NOTE: The quiz that previewed the Countdown to Launch series had a longer time for the trip to Vandenberg, based on information posted on the ULA website. ULA has since revised that information.)



09/03/2014

The common booster core on its way from the ULA factory to the Tennessee River. (Photo: United Launch Alliance, LLC)



The Delta IV first stage is loaded onto the Delta Mariner. (Photo: United Launch Alliance, LLC)



Delta IV booster being unloaded at Port Canaveral. (Photo: The Aerospace Corporation.)



On the road to Cape Canaveral. (Photo: The Aerospace Corporation)

10 Reasons to Love Engineering

February 23, 2015

This week is National Engineers Week, an annual observance started by the National Society of Professional Engineers (NSPE) in 1951 to raise public awareness of engineers' positive contributions to the quality of life.

Now referred to as EWeek, the purpose is to promote recognition among parents, teachers, and students of the importance of a high level of math, science, and technology literacy and to promote engineering careers in order to provide a diverse and vigorous engineering workforce.

As a tribute to current and future engineers at The Aerospace Corporation, the Orbiter reprints here the official EWeek "10 Reasons to Love Engineering."

1. Love your work, and live your life too! – Engineering is an exciting profession, but one of its greatest advantages is that it will leave you time for all the other things in your life that you love!
2. Be creative – Engineering is a great outlet for the imagination – the perfect field for independent thinkers.
3. Work with great people – Engineering takes teamwork, and you'll work with all kinds of people inside and outside the field. Whether they're designers or architects, doctors or entrepreneurs, you'll be surrounded by smart, inspiring people.
4. Solve problems, design things that matter – Come up with solutions no one else has thought of. Make your mark on the world.
5. Never be bored – Creative problem solving will take you into uncharted territory, and the ideas of your colleagues will expose you to different ways of thinking. Be prepared to be fascinated and to have your talents stretched in ways you never expected.
6. Earn a big salary – Engineers not only earn lots of respect, but they're highly paid. Even the starting salary for an entry-level job is impressive!
7. Enjoy job flexibility – An engineering degree offers you lots of freedom in finding your dream job. It can be a launching pad for jobs in business, design, medicine, law, and government. To employers or graduate schools, an engineering degree reflects a well-educated individual who has been taught ways of analyzing and solving problems that can lead to success in all kinds of fields.
8. Travel – Field work is a big part of engineering. You may end up designing a skyscraper in London or developing safe drinking-water systems in Asia. Or you may stay closer to home, working with a nearby high-tech company or a hospital.
9. Make a difference – Everywhere you look you'll see examples of engineering having a positive effect on everyday life. Cars are safer, sound systems deliver better acoustics, medical tests are more accurate, and computers and cell phones are a lot more fun! You'll be giving back to your community.

10. Change the world – Imagine what life would be like without pollution controls to preserve the environment, lifesaving medical equipment, or low-cost building materials for fighting global poverty. All this takes engineering. In very real and concrete ways, engineers save lives, prevent disease, reduce poverty, and protect our planet.

Engineering also has a long history, stretching back literally thousands of years. The earliest recorded civil engineer was an Egyptian known as Imhotep, who it is believed designed and oversaw building of the great pyramid of Djoser, also known as the Step Pyramid, in about the time period 2630 – 2611 BC. However, engineering projects (and their critics) go back even further, as explained in the following cartoon by Corporate Communications graphic artist Joseph Hidalgo.

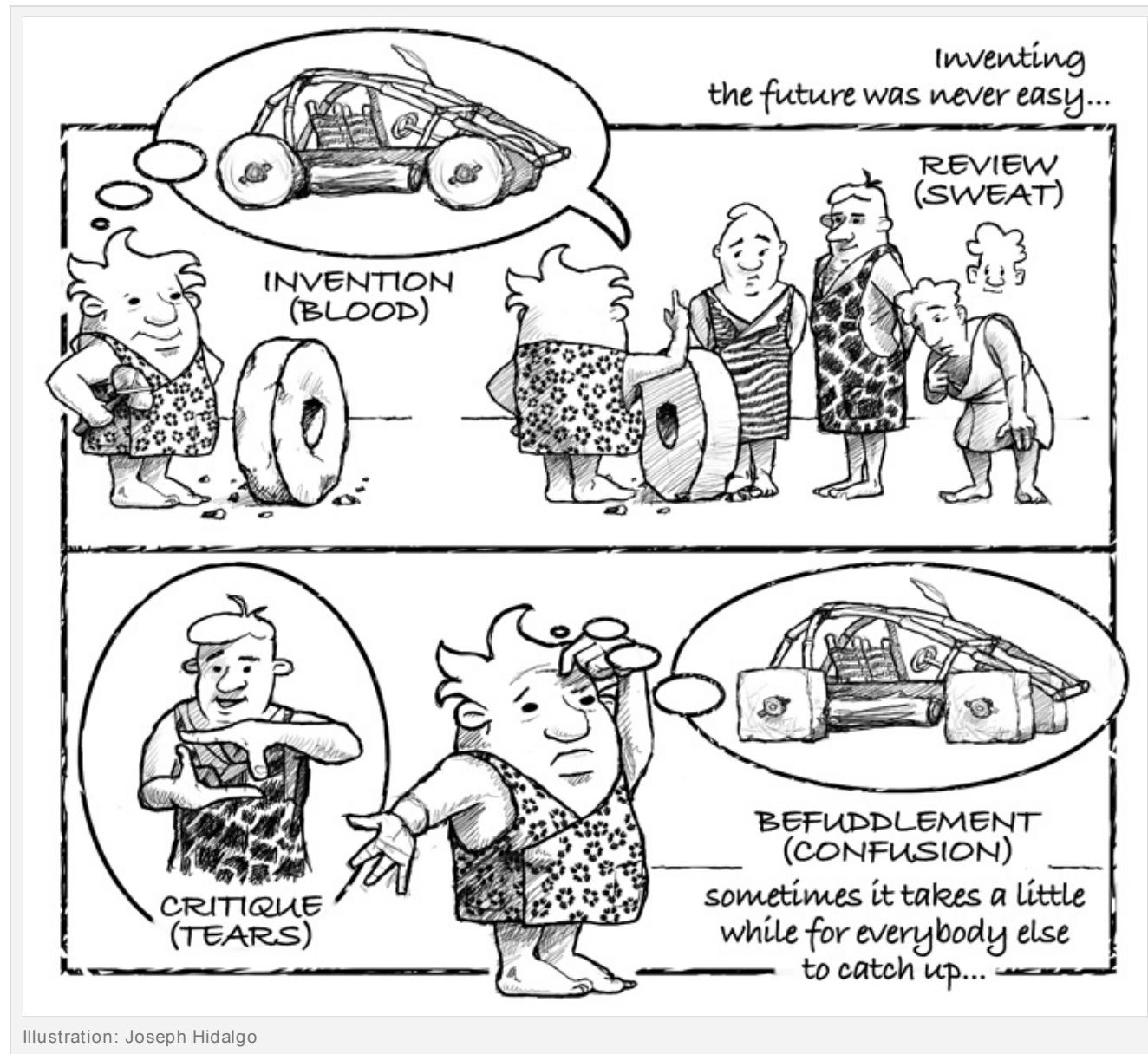


Illustration: Joseph Hidalgo

Countdown to Launch: Looking at the Hardware

by Laura Johnson
February 12, 2015

The Orbiter is publishing a series of articles that follow one launch through its preparation to when it lifts its payload to orbit. The payload, GPS IIF-9, is set to launch in March on a Delta IV launch vehicle. This article discusses Aerospace's participation in pedigree reviews.

A rocket is a complex vehicle with a lot of parts, and the Delta IV that will launch GPS IIF-9 is no exception.

It's important to make sure each of those parts will function as designed, and Aerospace's participation in pedigree reviews helps reach that goal.

"The purpose of a pedigree review is to review the manufacturing, design, test, and assembly information for a particular piece of hardware to make sure that it is flightworthy and that when it's used on the launch vehicle, that it is going to, in fact, work the way it should," said Dr. Paul Brennan, systems director for Delta IV Mechanical and Propulsion Systems.

The pedigree reviews cover three main areas: avionics, propulsion, and structures. Aerospace experts in each of these areas apply their knowledge to make sure the parts are flightworthy.



Pedigree reviews start about a year out from the launch date, and last until about two months before the launch.

For this particular Delta IV, Aerospace has completed 34 different reviews, some at vendor locations around the country, and others electronically from El Segundo. Depending on the part or parts being evaluated, each review took one to four days.

The pedigree reviews covered 150 hardware items, such as batteries, solenoid valves, solid rocket motors, the RS-68 engine, the nosecone, and more. In addition, Aerospace did a less intensive review of another 250-300 parts.

Although it might seem counter-intuitive, pedigree reviews do not consist of looking at the actual hardware. Rather, the team reviews the data for the hardware. Simply looking at a part does not reveal whether or not it will work as desired.



A Delta IV cryogenic valve, one of many pieces of hardware that Aerospace helps review in preparation for launch. (Photo: VACCO Industries)

pedigree reviews for this Delta IV.

Ni and Davitian are among about 70 Aerospace staff members who contributed to one or more pedigree reviews for the Delta IV that will launch GPS IIF-9. Their work helps ensure the success of the mission.

"Pedigree reviews are important because they increase the confidence to our customer that when they give the go-ahead to launch the vehicle that they are in fact going to be launching a flightworthy vehicle," Brennan said.



Although most pedigree reviews consist of reviewing the paperwork, Dr. Juliett Davitian also gets the opportunity to physically examine the solid rocket motors for each launch she supports. (Photo: Alliant Techsystems)

"You can look at stuff, but you can't tell if the guts inside are going to withstand the launch environment and do what they need to do. The only way you can do that is test. So they've already tested it. We review the test results," Brennan said.

In fact, the Aerospace team reviews all kinds of data for a piece of hardware. Dr. Juliett Davitian, who participated in a pedigree review for the Delta IV's two solid rocket boosters, described the process:

"During a typical pedigree review, the Aerospace team, comprising various technical disciplines, independently reviews all manufacturing processes, record books, non-conformance reports, and test data to verify compliance to specification requirements and minimize mission risk," she said.

Each part may have abnormalities or unusual characteristics, but the important thing is whether it is flightworthy.

"If there is any deviation, the rationale to accept the nonconforming condition is assessed in the review," said Dr. Yenyih Ni, an engineering specialist who also participated in

Chantilly Campus Group Wins Team of the Year Award

February 11, 2015

The 2014 Aerospace Team of the Year Award was presented Feb. 6 to the Chantilly Campus team for "development of the Chantilly Corporate Campus that lays the foundation for our support to Intelligence Community customers for years to come."

Dr. Wanda Austin, Dr. Willie Krenz, and Dr. Wayne Goodman spoke at a ceremony to honor the 22 team members.

"Over the past months, I heard from many different members of the team and each person talked about how it took the entire team to complete this job," said Goodman. "The Chantilly Campus team is what the Aerospace Team of the Year Award is all about. Simply put, there was no way to build a campus as complex and capable as this one, with just one Aerospace group. We needed to have Facilities, EIS, Security, CorpComm, Finance and Business Operations, NSG, and ETG all working together in order for this project to come to fruition."



Team of the Year award winners gather with their managers and company executives at the new Chantilly Campus.

Team of the Year members are: Carlos Colon, Tracy Ferington, James Ford, Charles Hanley, Cynthia Holdsworth, Michael Horn, Brian Jett, Steven Johnson, Irving Jones, Dianne Kline, Scott McLaughlin, Daniel Menzie, David Nicoll, Melissa Parsons, John Ready, Kevin Severin, Samuel Tai, Peggy Tatum, John Tunell, Elizabeth Uyeda, Robert VonGerichten, and Pamela Yanosky.

Countdown to Launch: Prime Time for GPS

by Gail Kellner

February 05, 2015

The Orbiter is publishing a series of articles that follow one launch through its preparation to when it lifts its payload to orbit. The payload, GPS IIF-9, is set to launch in March on a Delta IV launch vehicle. This article explains how GPS IIF-9 is part of a major satellite constellation that provides critical services to the military and civilians.

The Global Positioning System (GPS) is without question an essential part of the information infrastructure, with millions of people taking advantage of its applications every day. It is frequently referenced alongside the Internet because both contributions have transformed the way we live and work, but GPS holds the distinction of being a dual-use technology that continues to be supported by the military today.

If Aerospace has a signature satellite program, it is GPS. The corporation played a significant role in its development as the principal adviser to the Air Force on space acquisitions. Aerospace provided proof of concept studies, constellation design and management studies, accuracy improvement initiatives, independent assessments, and operational assistance to the satellite-based navigation system.

Aerospace today continues its role as the primary GPS adviser to the Air Force, helping design the Block IIF satellites, of which eight have already been launched. They are intended to replace aging earlier satellites in the GPS constellation and provide new services not available before.

Originally developed by the military to enhance airborne, marine, and land-based operations, GPS is critical to national security space and has revolutionized the way nations operate in space – from guidance systems to crewed vehicles, to the management, tracking, and control of communication satellites, to monitoring the Earth from space.



Significant civilian and military applications of GPS technology are for commerce, scientific projects, tracking, and surveillance.

Accurate Timekeeping

What actually drives GPS is its extremely accurate timekeeping, which facilitates everyday activities such as banking, mobile phone operations, and even the control of power grids.

The system consists of three segments: the space segment, the control segment, and the user segment, all of which contribute to overall accuracy, reliability, and functionality. The U.S. Air Force develops, maintains, and operates the space and control segments.



The GPS IIF satellites bring the newest capabilities to the GPS constellation. (Photo: U.S. Air Force)

The GPS space segment is made up of a constellation of at least 24 satellites that transmit one-way signals that give the current GPS satellite position and time. Each GPS satellite contains multiple atomic clocks that generate very precisely timed ranging signals. GPS receivers decode these signals, effectively synchronizing each receiver to the atomic clocks. This enables users to determine the time to within 40 nanoseconds (billions of a second) and compute the range to each satellite.

GPS satellites fly in medium Earth orbit at an altitude of about 12,000 miles. They are constantly moving, making two complete orbits in less than 24 hours and travelling at about 7,000 miles per hour.

The satellites are arranged into six equally-spaced orbital planes surrounding the Earth. Each plane contains four slots occupied by baseline satellites. This 24-slot arrangement ensures users can view at

least four satellites from virtually any point on the planet. The Air Force has been flying 31 operational satellites over the last few years, although they are not all considered part of the core constellation, to maintain coverage whenever the baseline satellites are serviced or decommissioned.

Expandable 24 Configuration

In June 2011, the Air Force successfully completed a GPS constellation expansion known as the “Expandable 24” configuration. Three of the 24 slots were expanded, and six satellites were repositioned, so that three of the extra satellites became part of the constellation baseline. As a result, GPS now effectively operates as a 27-slot constellation, and it has attained the most optimal geometry in its history, maximizing GPS coverage for all users worldwide.

The GPS control segment consists of a global network of ground facilities that track the satellites, monitor their transmissions, perform analyses, and send commands and data to the constellation. The operational control segment includes a master control station at Schriever Air Force Base in Colorado, an alternate master control station at Vandenberg AFB, 12 command and control antennas, and 16 monitoring sites.

The user segment, which is not controlled by the Air Force, consists of GPS receivers of all types built for civilian and military users in the U.S. and abroad. Military user equipment is developed and procured by the military services and the GPS program office at the Space and Missile Systems Center (SMC). Aerospace is currently involved in helping the Air Force with a major equipment upgrade program called Military GPS User Equipment (MGUE).

In addition to navigation, GPS time signals are used in numerous applications such as time-stamping business transactions, synchronizing the time at wireless network base stations to allow more efficient use of bandwidth, and synchronizing seismic monitoring sites to more quickly pinpoint earthquake activity.

New uses for GPS are popping up almost daily. To support the end users, the Air Force, with support from Aerospace, continues a program of constantly upgrading and replenishing the GPS constellation, thereby maintaining a global utility that is the backbone of national security and international commerce.

McNeal Named Herndon Black Image Award Recipient

by Heather Golden
February 03, 2015



2015 Herndon Award recipient Darin McNeal expressed his gratitude to those who have helped him in his career and life. (Photo: Elisa Haber)

the Wideband Global SATCOM (WGS) program.

"I am deeply humbled, and I have inexpressible gratitude; I was actually surprised by the nomination," McNeal said. "All the people who influenced me should be up here with me. They collectively taught me to go after [goals] with all your heart. And, if at the end of the day, if you've given your best, be happy with the results."

He was joined by his wife, Toni, two of his three children, and his parents during the ceremony. He credited his success and daily happiness to his family and their unceasing support and love.

McNeal's list of qualifications for the nomination and selection is a long one, especially when it comes to his volunteer service within his community and with his coworkers. His resume includes volunteer coaching, tutoring students of all ages in STEM-related subjects, mentoring, organizing sporting events, like an annual flag football game for his co-workers dubbed the MILSATCOM Bowl, and working with youth groups at his church. He and his wife also have a habit of taking families in need into their home and providing marriage counseling.

"He has devoted his entire life to helping people better their lives," said S. Michele Johnson, senior engineering specialist, Software Systems Acquisition, who nominated McNeal for the award. "He has said he has infinite energy and passion to help people."

Dr. Wanda Austin, Aerospace president and CEO, provided the closing remarks and used her time at the podium to talk about African-American History Month and why celebrations like this are important to both the community and the company. The theme this year is "A Century of Black Life, History and Culture."

"I always look forward to speaking at this event because it is such a great way to kick off African-American History Month," Austin said. "Every February we take the time to remember and celebrate the achievements of the civil-rights pioneers who came before us. During this month of reflection, we have the opportunity to examine our past and to recognize and celebrate

Darin McNeal is the newest recipient of the Robert H. Herndon Black Image Award, which he received during a ceremony commemorating the award's thirty-third year Monday, Feb. 2.

The award, presented by the Aerospace Black Caucus, began in 1982 to honor former Aerospace engineer and manager Robert H. Herndon. Up to four honorees are selected each year based on career and professional achievements, leadership and initiative, and company and community volunteer activities.

McNeal, systems engineering lead, Wideband Systems, Military Satellite Communications Systems, joined Aerospace in 2005 and was soon placed on the Transformational Satellite System (TSAT) program. He said he fell in love with the project and was devastated when it came to an end in 2009. However, he quickly found himself in his current role in



In attendance at Monday's ceremony were Darin McNeal's wife, Toni, center; her mother, Beatrice Taylor, left; and sons, left to right, Jared and Ryan. (Photo: Elisa Haber)

the tireless efforts of individuals like Robert Herndon who worked to create a society that is more just, more understanding, and more accepting of all people."

Austin touched on recent civil rights headlines, and urged those in attendance to continue the month's work after February ends.

"The collective discussion we are having now is long overdue. African-American History Month provides us with a wonderful opportunity to raise our awareness, to be informed, and to further this discussion," she said. "African-American History month is just a beginning; a catalyst. It is here to light a spark within each one of us. A spark that should not die out at the end of February. We must continue to promote diversity, equality, and inclusion all year long."

The Black Image Award presentation is also the opening event to the company's celebration of African-American History Month. Other events on the schedule this year are a Stress Reduction Tool Bag presentation by the Anthem Employee Assistance Program on Thursday, Feb. 5; the annual Jazz Brunch Thursday, Feb. 19; and "History in the Making: A Conversation with the Coast Guard's First Black Female Helicopter Pilot, Lt. LáShanda Holmes" on Thursday, Feb. 26.

All speaker events are free. Tickets for the jazz concert are on sale, and are expected to sell out before the date. Detailed information on each event and on purchasing tickets is available on the ABC website.

February 2015 Anniversaries

by Carolyn Weyant
February 01, 2015

35 YEARS

Civil and Commerical Operations: Roy Chiulli

Engineering and Technology Group: Roy Ehlers, Michael Werner

National Systems Group: Lee Bavaro, Brian Hamada

Operations and Support Group: Elton Evans, Cynthia Dickson

Space Systems Group: Michael Jacobs, Mary Trafton

30 YEARS

Engineering and Technology Group: Mark Clayson, Paul Joseph, Chung-Chu Wan

National Systems Group: John Duggan

Systems Planning, Engineering, and Quality: Steven Johns

25 YEARS

Engineering and Technology Group: Kuang Tsai

Operations and Support Group: Ronald Aguon, Bryan Tsunoda

Space Systems Group: Richard Reyes

20 YEARS

National Systems Group: Penny Nickle

15 YEARS

Engineering and Technology Group: Rebecca Gick, Yong Kim, David Stampleman

National Systems Group: Mark Kirtley

Operations and Support Group: Brenda Stratton, Ernest Wheeler

Space Systems Group: William Ball, Dorretta Bradshaw, Paul Burridge, Peter Winzen

10 YEARS

Civil and Commercial Operations: Timothy Anderson, Robert Grados

Engineering and Technology Group: Tjau-Yuen Cheung, John Hathaway, Toni Jones, Colby Lemon, Thomas Sullivan

National Systems Group: Janet Geldermann, Mary Ponce

Operations and Support Group: Xu Tu

Space Systems Group: Robert Jackson, Mathiyathany Pandian

Systems Planning, Engineering, and Quality: Philip Blower, Elijah Ricca, Laurie Tracey

5 YEARS

Engineering and Technology Group: Alex Aranda, Antonia Cheung, Christopher Hagy,

Catherine Horan, Aleksandra Lukyanets, Eric Lundgren

National Intelligence Operations: Trung Trieu

National Systems Group: Lauri Williamson

Space Systems Group: Catherine Bienvenue, Stanley Tahara

February 2015 Obituaries

by Carolyn Weyant

February 01, 2015

Sincere sympathy is extended to the families of:

John Batteiger, member of the technical staff, hired Aug. 27, 1962, retired July 1, 1980, died Dec. 2, 2014.

Cathy Davis, senior secretary, hired Dec. 7, 1987, retired Jan. 1, 1995, died Dec. 7, 2014.

John Dawson, member of the technical staff, hired Sept. 15, 1974, retired Dec. 1, 1994, died Dec. 18, 2014.

Charles Gibson, member of the technical staff, hired Jan. 30, 1967, retired Nov. 1, 1999, died Dec. 10, 2014.

Margaret Hall, administrative secretary, hired Feb. 19, 1985, retired Dec. 1, 2006, died Dec. 1, 2014.

Douglas Heitkamp, member of the technical staff, hired April 19, 1971, retired June 1, 1982, died Dec. 26, 2014.

Donald Jaeger, member of the technical staff, hired Dec. 5, 1960, retired Aug. 1, 1985, died Dec. 28, 2014.

Frank Li, member of the technical staff, hired Feb. 19, 1962, retired June 1, 1985, died Dec. 15, 2014.

Archie MacMillan, senior project engineer, hired June 10, 1975, retired July 1, 1994, died July 24, 2014.

Fredrick Martin, project engineer, hired March 16, 1962, retired Jan. 1, 1988, died Jan. 1.

Prem Mathur, member of the technical staff, hired May 3, 1965, retired May 1, 1982, died Dec. 18, 2014.

George Millburn, member of the technical staff, hired Nov. 2, 1962, retired Nov. 1, 1982, died Jan. 10.

Thomas Moore, member of the technical staff, hired Feb. 4, 1963, retired Jan. 1, 2006, died Dec. 23, 2014.

Nancy Olmstead, technical staff support, hired March 13, 1989, retired Sept. 1, 2004, died Dec. 25, 2014.

Eugene Phillips, member of the technical staff, hired Nov. 15, 1960, retired Dec. 1, 1982, died Dec. 25, 2014.

Rand Rensvold, project engineer, hired June 16, 1980, retired Feb. 1, 1999, died Dec. 13, 2014.

Helen Smith, administrative secretary, hired May 14, 1984, retired Feb. 1, 2001, died Nov. 20, 2014.

Robert Stark, member of the technical staff, hired Jan. 17, 1966, retired Jan. 1, 2002, died Nov. 24, 2014.

Richard Toutant, member of the technical staff, hired June 6, 1968, retired April 1, 1991, died Dec. 27, 2014.

Maxine Wood, forms control admin, hired Dec. 11, 1961, retired Feb. 1, 1987, died Jan. 5.

To notify Aerospace of a death and have it included in the Orbiter, please contact Cynthia Johnson in Human Resources at 310-336-5806.

February 2015 Notes

by Carolyn Weyant
February 01, 2015

Notes of appreciation to fellow employees and Aerospace for thoughtfulness and sympathy have been received from:

Anne Gick, on the recent passing of her grandmother, Ena Gick.
Diana, Steve, and Sandra Johnson, on the recent passing of their father and father-in-law, Dennis Johnson.
Arlene Kishi, on the recent passing of her husband, Thomas Cook.
Cassandra Lakey, on the recent passing of her mother, Betty Bond.
David Sylvain, on the recent passing of his mother-in-law, Betty Holtman.
Liz Wheeler-Schwarzrock, on the recent passing of her father, Edward Kukic.

To submit a note of appreciation to Aerospace, please contact Valerie Jackson in Human Resources at 310-336-0891.