

Austin Confirms 2016 Merit Raises During CEO Report on Quarter Activities

by Lindsay Chaney
September 16, 2015

In her final CEO's Report to Employees for fiscal year 2015, Dr. Wanda Austin opened her remarks by thanking all employees for their hard work during a busy summer and announcing that the board of trustees has approved a merit increase for next year.

The merit increase will be a combination of lump-sum payments and/or salary increases and will be effective in February, 2016. Increases for nonsupervisory MTS must be negotiated with the staff union.

Austin also touched on the recent board of trustees meeting held in Colorado Springs; technical efforts during the quarter, including launches; work on Vaeros; and ongoing management of operations, including new hiring.

At the board of trustees meeting, the group heard from Gen. John Hyten, commander of Air Force Space Command at Peterson Air Force Base. Hyten thanked Aerospace for the corporation's "unique and significant role ... in supporting the Air Force and our nation," Austin said. He also asked Aerospace to help in addressing rapidly-evolving security threats the country will face in the future.

Aerospace supported three launches during the quarter, all launched from Cape Canaveral — the GPS IIF-10, on July 15, aboard an Atlas V; the Wideband Global SATCOM 7, or WGS-7, on July 23, aboard a Delta IV; and the Multi-User Objective System 4, or MUOS-4, on Sept. 2 aboard an Atlas V. Payloads from all launches are performing as expected.

Austin noted that the upcoming launch campaign will be busy, with 16 launches scheduled over the next 12 months for which Aerospace has mission assurance responsibilities or will be monitoring.

Also in the area of launch, she said that although Aerospace did not have an accountability role for the SpaceX CRS-7 Falcon 9 mission that exploded shortly after takeoff on June 28, the company was observing and recording data during the launch. Aerospace is currently doing an independent anomaly analysis of the failure for the Space and Missile Systems Center (SMC).

A few of the noteworthy Vaeros projects:

The corporation has completed an assessment of options for disposition of weapons-grade plutonium for the Department of Energy's National Nuclear Security Administration (NNSA). Vaeros has been asked to continue to provide technical expertise to NNSA for future planning on this program.

Vaeros is working with the UK Space Agency in their effort to develop a commercial spaceport. The second phase of this project, completed during the quarter, involved conducting casualty analyses of two suborbital vehicles at six potential UK spaceport sites.

In response to interest in Unmanned Aerial Vehicles (UAVs) by federal civilian agencies, such as the Department of Homeland Security and the Secret Service, the company is developing a counter-UAV testbed, which could be used to evaluate technology solutions for detecting, tracking, and responding to UAVs.



Dr. Wanda Austin delivers the final CEO's Report to Employees for fiscal year 2015.
(Photo: Eric Hamburg)

In the area of business operations, Austin reported that at the August Aerospace Strategic Management Committee (ASMC) offsite meeting, the corporate leaders reviewed cost-projection scenarios for the fiscal year 2016-2020 timeframe and concluded that the data supported robust hiring in the technical area next year. As a result, the company has adopted a hiring target of 125 additional members of the technical staff (MTS) in FY16.

The company is also developing contingency planning for various Base Realignment and Closure (BRAC) scenarios. No government decision has been made on whether to proceed with a BRAC and no action in the area is expected until at least FY2017. Aerospace is working to be prepared for any potential situation.

Following her speech, Austin took questions from the audience. Some questions were also submitted ahead of time. Following are the questions and answers, edited somewhat for space and conciseness.

Question: Will work related to security threats fall under our current contract (and current ceiling) or under Vaeros?

Answer: It would be done under Aerospace's FFRDC and current ceiling. Aerospace is constantly looking at what work to prioritize and how to move people around to meet our customers' needs. For us to get a ceiling increase, our customers would have to request it.



The audience in El Segundo listen intently to the CEO's Report to Employees. (Photo: Eric Hamburg)

Question: When is Aerospace's report of our independent assessment of the CRS-7 launch failure due to SMC?

Answer: SpaceX is planning to wrap up their assessment in the next few weeks. Aerospace is doing an independent assessment and we expect that process to continue for the next several months.

Question: Is sequestration likely to occur next fiscal year?

Answer: We don't know what will happen, but Aerospace leadership has spent time looking at the possible scenarios and coming up with plans for each of them. We have communicated with our customers and collected lessons learned from last time.

Question: I find it difficult to work effectively to deliver surge effort on weekends when the climate control is turned off. I believe that exceptions have been made to our energy-

saving policies when we were trying to increase end-of-year deliveries.

Answer: Normally you have to request after-hours air conditioning through your building coordinator. Because of the year-end surge we have set up the air conditioning to operate during the remaining Saturdays in September. If you don't know your building coordinator, please refer to the "Facilities" web page on "Inside Aerospace."

Question: What is the latest information on the data/security breach with the Office of Personnel Management? Do we know the extent and impact of the breach on Aerospace current and past staff? What are we doing as a corporate body and what should we do individually?

Answer: As a result of Security's request to be notified if employees are contacted by OPM, 28 employees and two board members have reported such a contact, based on the first data breach.

The second breach was much larger, and in response, OPM has selected a private company that will provide protection. Notifications are expected to begin in the next few weeks. There are several sources that can provide information on the breaches. You can visit the OPM website at www.opm.gov for the most current and accurate information. Willie Krenz, our CIO, also maintains a blog that you can visit; it's at blogs.aero.org/cio, and the latest information about the breach is the July 24 entry.

As always, be cautious about releasing any personal data online. It's likely that everyone will be affected at one time or another by such a breach (recall previous breaches of Target, Aetna, etc.). If you are contacted by OPM, use the credit and identity monitoring services that will be made available.

Question: How is Aerospace planning to respond to the potential government shutdown that is rumored for Oct. 1?

Answer: We learned a lot during the shutdown two years ago. Our experience from that time, as well as the planning we've undertaken in the ensuing years and our contract with SMC, leaves us in a very strong position to mitigate the effects of a shutdown. With that said, there are many unknowns at this time, and our corporate response will be based entirely on the specific nature of any shutdown that may occur. We will communicate with employees through a variety of channels, including internal and external websites, social media, email, and telephone.

We are all in this together, and everyone will be informed and kept up-to-date as we find out more about this very dynamic situation.

Hilton Wins Trustees' Award; Nine Others Receive President's Award

September 16, 2015

Once a year, The Aerospace Corporation collectively pauses for one afternoon to acknowledge the accomplishments of some of its most exceptional employees. These are men and women who have demonstrated excellence exceeding expectations, leveraging the pressure of great challenges to produce great work.

On Tuesday afternoon, Sept. 15, 10 employees — comprising two individual and three team winners — were presented with the corporation's highest honors at the 36th annual President's and Trustees' Distinguished Achievement Awards ceremony.

Addressing a near-capacity audience in the El Segundo Titan meeting center, Dr. Wanda Austin, president and CEO, said of the honorees, "their work, their dedication, and their excellence is a reflection of our strong Aerospace culture, which is a culture of innovation, problem-solving, and tireless devotion to our mission. For us, failure is never an option."

Austin explained that 18 nomination packages had been reviewed, which consisted of eight individual nominations and 10 team nominations. The nominations included representation from five of the major organizational groups — National Systems Group; Engineering and Technology Group; Systems Planning, Engineering, and Quality; Space Systems Group; and Civil and Commercial Operations (now known as Vaeros).

The President's and Trustees' Distinguished Achievement Award can recognize an outstanding singular act; a piece of work accomplished over a period of days, weeks, or months; or a lengthy sustained effort with extensive positive impact in many areas.

This year's award winners each received a crystal eagle wing statuette and will have their names added to the corporate display in the El Segundo A1 lobby. In addition, each award is accompanied by a monetary prize — \$12,500 for individual President's Award winners; \$7,500 per person for joint President's Award winners; and \$25,000 for an individual Trustees' Award winner.

Alan Wade, board of trustees member and chair of the awards subcommittee, presented the 2015 Trustees' Distinguished Achievement Award to Dr. Michael Hilton, director, Mechanical Systems Department, Engineering and Technology Group (ETG), "for sustained leadership in guiding the development and insertion of hybrid bearings into satellite mechanisms."

Hilton's acceptance speech provided a mixture of poignancy and humor, as he discussed medical advances that he attributed to keeping him alive with a chronic health condition, and also noted that the technology he developed for national security space systems is "now used in Rollerblades."

For more than 20 years Hilton has been the driving force behind the identification, development, and testing of hybrid ceramic/metal bearing technology — from early concept through insertion into deployed attitude control systems — on national security space (NSS) and commercial satellites. Because of Hilton's vision and leadership, Aerospace was able to help the government and contractors select the best methods to implement this technology; as a result, five systems with hybrid bearings are successfully flying on orbit, with other systems slated to fly in the future.

More than any other single contributor in the field, Hilton has been responsible for the successful adoption and current use of hybrid bearings on NSS systems. It is unusual for one individual to be involved in a technology over such an extended period,



Alan Wade, chairman of the Board of Trustees Awards Subcommittee, left, with Dr. Michael Hilton. (Photo: Elisa Haber)



Dr. John Brader

particularly when the involvement has included changes in job responsibilities and organizations.

Because Hilton is a recognized national authority on bearings, the government continually consults him not only on current issues, but on plans for future developments.

The first person to be honored with a President's Achievement Award was Dr. John Brader, director, Vehicle Engineering Office, Engineering and Technology Group, "for outstanding technical input on and development of a critical national asset for a classified program."

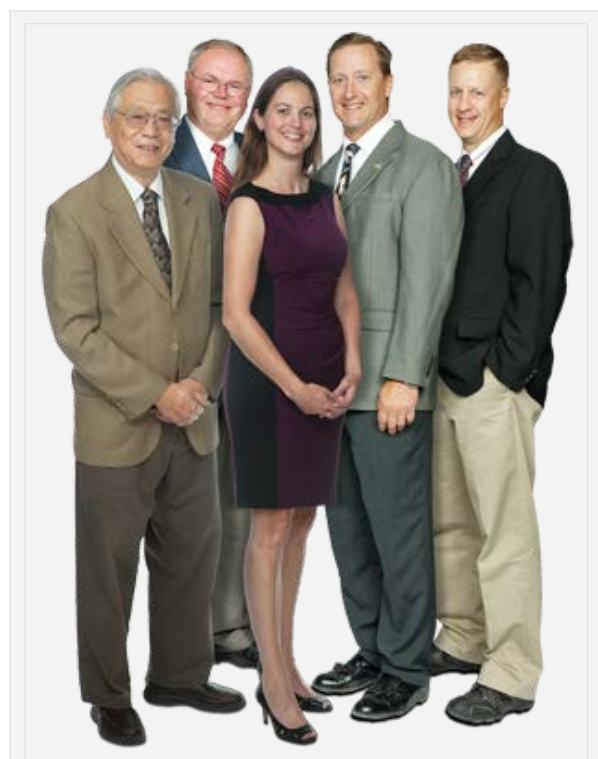
Brader was recognized for three achievements on the same classified program: saving an operational system, where he designed a software-based redundancy for a sensor suite (the operational system has been saved twice because of this new software redundancy); and saving an operational payload, where he redesigned a payload support structure for a critical national asset under an extremely tight, two-week deadline. Brader's design was built, tested, and deployed within the customer's window and allowed the payload to become operational on time. Without this fix, the program would have remained non-operational and would have most likely been cancelled.

Brader also helped the customer prepare a classified payload for quick deployment to the operational system. This effort was very time-critical, and the customer was having trouble integrating the payload with the system. Brader quickly came to the rescue, independently assessed the problem, and came up with a structural design and internal enhancements to the payload that would allow for successful integration with the customer's operational system. Had Brader not been consulted, the customer would have missed the deployment window for this operational opportunity.

The team of Dr. Renny Fields, distinguished engineer, Electronics and Photonics Laboratory, ETG; Kevin O'Brien, principal engineer, and Kevin Zondervan, principal engineering specialist, both of the Missile Defense and Space Sensors Division, Systems Planning, Engineering, and Quality, was honored with a President's Achievement Award "for creating and developing a revolutionary and high-value space sensor system."



Left to right, Kevin Zondervan, Dr. Renny Fields, and Kevin O'Brien



Left to right, Dr. Warren Hwang, Michael O'Brine, Heidi Graziano, Donald George, and Mark Strub

The team created a groundbreaking space sensor and test system, with an order-of-magnitude lower program cost than previous concepts. The team's achievements are considered remarkable, considering the schedule and funding constraints under which the program operated. The team secured national security leadership support for the concept, leading to its development and successful testing, which exceeded all program goals. The team of Fields, O'Brien, and Zondervan played a key role in every aspect of the classified program's development, including conceptual design, requirements definition, systems analysis, risk reduction, test planning and execution, requirements verification and validation, and mission assurance practices.

The team's leadership, critical thinking, and engineering rigor contributed to the mission success of a classified program to advance the "state of the art" in ballistic missile defense system tracking and discrimination. This program exceeded all expectations, and its success has opened new possibilities for effective missile defense.

The final President's Achievement Award went to the team of Donald George, senior project leader; Heidi Graziano, senior project engineer; Michael O'Brine, systems director; and Mark Strub, senior project engineer, all of the Navigation Division, Space Systems Group; and Dr. Warren Wang, principal engineer, Electronics and Photonics Laboratory, ETG.

The team demonstrated that on-orbit Global Positioning System IIR and IIR-M satellite batteries could be life-limiting for the satellites, and developed a charging protocol to extend the battery life, later proposing an orbital testing approach.

The team analyzed the projected satellite reliabilities and estimated life extension, and advocated for the GPS Directorate at

the Space and Missile Systems Center as well as Air Force Space Command to adopt the modified battery-charging control method.

The team of George, Graziano, O'Brine, Strub, and Hwang also helped develop the implementation plan and worked directly with the operators to assess and mitigate risks. The team's tireless efforts resulted in the expert deployment of the battery charge modifications that successfully extended the operational life of GPS IIR and IIR-M satellites, thereby reducing the cost to maintain the GPS global utility.

After the ceremony, award recipients were congratulated by friends and colleagues at a reception in front of A1.

Chantilly Opens New Auditorium at Campus Anniversary Bash

September 09, 2015



From left to right, Mike Horn, DC-area facilities director; Cathy Steele, senior vice president, National Systems Group; and Darrell Reynard, Facilities general manager, cut a ceremonial red ribbon to open the Gambit Auditorium. (Photo: Kelly Hart)

Chantilly-area employees celebrated the first anniversary of the Aerospace Chantilly Campus with a barbecue lunch served in the new Gambit Auditorium and the lower-level atrium.

A brief ribbon-cutting ceremony to officially open the Gambit Auditorium kicked off the lunchtime festivities, attended by about 400 employees.

The lunch menu included pulled chicken, beef brisket, potato salad, baked beans, salad, and rolls. Dessert featured a strawberry crème cake with the Aerospace logo and a lemon chiffon cake with a picture of the Chantilly building on it. All the food was supplied by FLIK, the Chantilly café operator.



Employees enjoy a barbecue lunch celebrating the first anniversary of the Aerospace Chantilly Campus. (Photo: Kelly Hart)

AEA Astronomy Club Visits Mt. Wilson

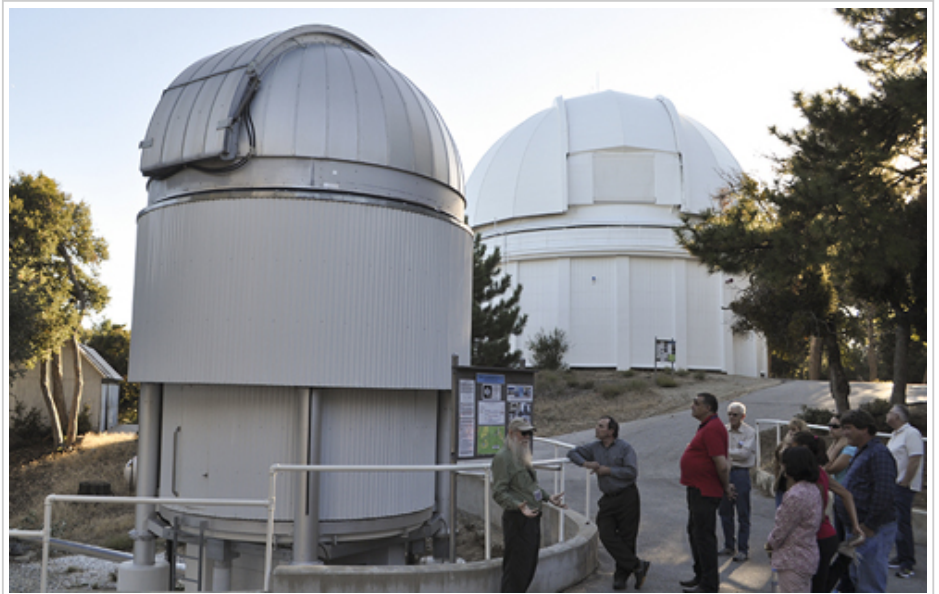
September 28, 2015

The AEA Astronomy Club recently took a tour of more than 100 years of history and technology at Mt. Wilson Observatory.

The club started its Sept. 18 visit at the Mt. Wilson Aerospace Facility for Integrated Optical Tests (MAFIOT), where they were treated to a behind-the-scenes tour by Dr. Renny Fields and Petras Karuza.

Afterward, club members saw historic telescopes and learned about landmark discoveries made at the Mt. Wilson Observatory on a tour led by veteran docent Tim Thompson. Highlights included the first dedicated solar telescope, the 60" Hale telescope, the 100" telescope, and discoveries made there such as the real nature of sunspots, the composition of the Milky Way galaxy, and the size and expansion of the universe.

After sunset the club spent a good part of the night using the massive 100" telescope to view and photograph a multitude of astronomical phenomena, such as galaxies, nebula, asteroids, planets, and star clusters.



Docent Tim Thompson explains one of the Mt. Wilson telescopes to Astronomy Club members. (Photo: Walt Sturrock)

Inspiration for Hispanic Heritage Month

September 23, 2015

In honor of Hispanic Heritage Month, the Aerospace Latino Members Association sponsored a luncheon on the El Segundo campus featuring speaker Edi Santos, founder of InspireMÁS, which stands for motivation, achievement, and success.

Santos discussed how the potential for success is already inside of each person.

The lunch was held in A1 Titan IVA and IVB on Sept. 16.

National Hispanic Heritage Month runs from Sept. 15 to Oct. 15. It celebrates the histories, cultures, and contributions of American citizens whose ancestors came from Spain, Mexico, the Caribbean, and Central and South America.

The observation started in 1968 as Hispanic Heritage Week. It was expanded through federal legislation signed by President Ronald Reagan in 1988 to cover a 30-day period starting on Sept. 15 and ending Oct. 15.



Edi Santos gives the featured presentation during the celebratory Aerospace luncheon for Hispanic Heritage Month. (Photo: Elisa Haber)

September 15 is significant because five Latin American countries celebrate their independence on that day. Mexico celebrates its independence on Sept. 16, and Chile celebrates on Sept. 18. Columbus Day, Oct. 12, also falls within the month.

Powerful Atlas V Launches Enormous Navy Satellite

September 02, 2015

With five solid rocket motors and its RD-180 main engine generating 2.5 million pounds of earth-shaking liftoff thrust, an Atlas V rocket lit up the pre-dawn Florida sky Wednesday morning on its way to delivering the fourth Mobile User Objective System satellite to orbit for the United States Navy.

The Atlas V lifted off at 6:18 a.m. ET after a short delay in the count for a ground system issue. The launch had been delayed two days to allow the remnants of tropical storm Erika to clear out of the area.

The rocket flew in the 551 configuration, the most powerful available, which was needed to loft the 15,000-pound satellite.

“Thanks to the Atlas V and MUOS teams for weathering the storm and staying focused on ensuring another successful national security launch,” said Randy Kendall, Aerospace vice president of Space Launch Operations, reporting from the Cape. “This fourth MUOS satellite will complete the MUOS network, which provides significantly enhanced secure tactical communications capability for our mobile military forces around the globe.”

The Wednesday liftoff marked the 56th Atlas V launch and the 99th launch by United Launch Alliance since the company was formed in December, 2006.



An Atlas V rocket launches into the pre-dawn Florida sky on Wednesday, Sept. 2. (Photo: United Launch Alliance, LLC)

Giving a High-Level Antenna Briefing

September 01, 2015

Aerospace employees gathered on the roof of A2 in El Segundo on Aug. 27 to brief Col. Tom Rock on testing of an antenna that will be used at Vandenberg Air Force Base during launches of national security payloads.

Aerospace measured performance of the antenna, which will be used to send a destruct signal to a launch vehicle if an anomaly occurs during the early minutes of a launch. In the photo, the antenna is the white cowboy-hat-shaped object in the top middle.



Lyn Shaw, left, briefs Col. Tom Rock on Aerospace testing of an antenna to be used at Vandenberg Air Force Base. (Photo: Eric Hamburg)

Members of Congress Visit Aerospace

September 03, 2015



Dr. Siegfried Janson, right, explains operations of CubeSat small satellites to Congresswoman Lucille Roybal-Allard, left. (Photo: Elisa Haber)

Two members of Congress visited the El Segundo campus of The Aerospace Corporation this week for tours and the opportunity to talk with corporate officers about the company's work.

Adam Schiff stopped by for a short visit on Tuesday, Sept. 2. He is the ranking member of the House Permanent Select Committee on Intelligence. During his visit he toured the Spacelift Telemetry Acquisition and Reporting System (STARS) facility.

Lucille Roybal-Allard, who is a member of the House Appropriations Committee, had a working lunch with corporate officers in the company's executive dining room on Wednesday, Sept. 3. Afterward, she toured the STARS facility and several labs in the Physical Sciences Laboratories.



Congressman Adam Schiff, second from right, discusses STARS capabilities with corporate officers from left, Ed Swallow, Dr. Wanda Austin, and Dr. Dave Gorney. (Photo: Elisa Haber)

September 2015 Obituaries

by Elaine Young
September 01, 2015

Sincere sympathy is extended to the families of:

Jackson Bard, member of technical staff, hired June 25 , 1979, retired Dec. 1, 1990, died July 20, 2015.
Donald Barker, member of technical staff, hired Jan. 1, 1988, retired Sept. 1, 2010, died Aug. 9, 2015.
Harry Chenarides, member of the administration staff, hired Nov. 14, 1960, retired April 1, 1989, died, May 22, 2015.
Victor Farrington, security officer, hired June 22, 1981, retired Jan. 1, 2011, died Aug. 24, 2015.
Albert Finney, Principle Engineer, hired Feb. 14, 1961, retired July 1, 1994, died Aug. 11, 2015.
Frederick Jay, staff assistant, hired Dec. 24, 1961, retired March 1, 1986, died Aug. 19, 2015.
Stanley Klein, member of technical staff, hired June 7, 1979, retired Dec. 1, 2003, died June 12, 2015.
James Mancini, other technical staff, hired Oct. 3, 1960, retired May 1, 1985, died April 2, 2015.
Ann Rounds, office support, hired March 8, 1961, retired Oct. 1, 1994, died Aug. 26, 2015
Arthur Taggart, engineer specialist, hired Jan. 10, 1983, retired Dec. 1, 1994, died July 31, 2015.
Adolph Tischler, senior research specialist, hired March 6, 1961, retired Dec. 1, 1999, died Aug. 2, 2015.
Robert Walters, manager, hired March 17, 1980, retired Nov 1, 1986, died Aug 3, 2015.
Joyce Willis, office support, hired Nov.11, 1964, retired Dec.1, 2000, died June 14, 2015.
Janet Wojcik, office support, hired July 31, 1978, retired July 1, 1994, died Aug. 8, 2015.

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

September 2015 Notes

by Elaine Young
September 01, 2015

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

Graham Arnold, on the recent passing of his wife, Lesley Arnold.
Lindsay Chaney, on the recent passing of his sister, Carol Chaney.
William Munley, on the recent passing of his father-in-law, John Linkiewicz.

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

September 2015 Anniversaries

by Laura Johnson
September 01, 2015

5 YEARS

Engineering and Technology Group: Andrea Hsu Schouten, Peter Kim, Claudia Molina, Kathleen Nguyen, David Spiegelthal, Don Walker

National Systems Group: James Wolfe

Office of the General Counsel: Stephanie Collins

Space Systems Group: Joseph LeBlanc

10 YEARS

Enterprise Information Services: Matthew Uller

Engineering and Technology Group: Alan Choy, Andrew Hsu, Thomas Kogler, Connie Kosmann, Krista O'Neill, Angie Ruiz, Gerrit Sorensen

National Systems Group: Thomas Harper, Ronnie Scott

Operations and Support Group: Laura Johnson

Systems Planning, Engineering, and Quality: Megan Conkle, Charles Menk III

Space Systems Group: Peter Hess, Zhong Ye

15 YEARS

Enterprise Information Services: Michael Auyeung

Engineering and Technology Group: Michelle Carter, Chung-Yaw Chiang, Eric Coe, Colin Cole, Jonathan Dovala, Kenneth Lester, Michelle Permann, Ryan Pfeiffer

Systems Planning, Engineering, and Quality: Christopher Tschan

Space Systems Group: Aaron Cozart, David Johnson

Vaeros: Garry Boggan

20 YEARS

Engineering and Technology Group: Noreen Davis

National Systems Group: Marvin Coleman

25 YEARS

Engineering and Technology Group: Robert Elliott, Sheng Lee

Operations and Support Group: Steven Matsushima

Space Systems Group: Christopher Ihde, Chee OuYang, Paul Straus, Bruce Thomas

30 YEARS

Engineering and Technology Group: Kent Bohman, Kenneth Elliott III, Steven Margolis

National Systems Group: Mark Long

Operations and Support Group: Linda Bledsau

Systems Planning, Engineering, and Quality: Natarajan Bhaskar

Space Systems Group: George Scherer, Jack Yahner

35 YEARS

Engineering and Technology Group: Sharon Jeffery, Charles Klimcak, Rokutaro Koga, Patti Sheaffer

Systems Planning, Engineering, and Quality: Cindy Bandel

Space Systems Group: Arlene Kishi, Edward Ruth

40 YEARS

Operations and Support Group: Billie Jones