Orbiter
October 2014

Early Career Network Wraps Up First Year and Looks Ahead

by Laura Johnson
October 30, 2014

Aerospace employs many scientists and engineers with years of knowledge and experience, which is a key benefit to customers. But bright employees at the beginning of their careers are also invaluable to the company, because they will continue the work of mission assurance into the future.

This year Aerospace kicked off the Early Career Development Network (ECDN) for just those employees. The mission of the ECDN was to take employees early in their careers and give them a strong network, infuse them with a deeper knowledge of the company, and help them develop their career.

“The ECDN [group] was provided an intense program on corporate awareness, career development sessions, and professional and social networking,” said Russ Averill, general manager of the Space Based Sensing Division and the chair of the program for its first year.

During their trip to Chantilly, the ECDN saw the space shuttle Discovery at the Smithsonian National Air and Space Museum. (Photo courtesy Anthony Stier)

The initial ECDN “class” consisted of 21 members representing all the major groups at Aerospace, selected from a pool of self-nominated applicants. A five-person mentor team was chosen to provide advice to the group. Dr. Jared Fortune assisted Averill as co-chair of the program, and Dr. Rebekah Dillingham from the Organization Effectiveness Department helped facilitate the group’s activities.

A major part of the program was the trips the group took to a number of different Aerospace offices: El Segundo, Chantilly, Colorado Springs, Vandenberg, Houston, Crystal City, and Columbia.

“The ECDN visited seven different Aerospace locations and greatly expanded my awareness of Aerospace capabilities and customers across the country. I now have a better appreciation for the diverse set of customers that Aerospace supports,” said ECDN member Dr. George Pollock IV. “One attribute is shared among our customers — they each count on Aerospace to help solve their most challenging technical problems. As a result, I am much more aware of the abundance of exciting career opportunities at Aerospace locations across the United States.”

During the trips, the ECDN was treated to a number of tours including labs, a launch tower, and the Pentagon.

“My favorite tour was visiting the Atlas launch pad in Vandenberg,” said ECDN member Angie Ruiz. “Being so close to an actual rocket, and learning about the ingenious engineering behind launching a rocket was so inspiring.”

Some of the trips the ECDN took coincided with Aerospace management meetings in those locations. Thus, the ECDN members enjoyed two mixers with senior management in the corporation.

The ECDN class also had access to a high-level mentor team, which consisted of two vice presidents, two general managers and a distinguished engineer. The mentors participated in several formal sessions with the members of the ECDN, as well as dinners during which more casual conversation could ensue.

“Having access to the mentor team helped me to see that there are many paths to career success at Aerospace,” said ECDN member Phillip Morrison. “It also exposed me to some of the issues faced by our senior leadership and gave me a greater appreciation for my role within the company.”

In between trips, participants were given assignments such interviewing various other employees or attending Institute classes. They attended sessions to learn about different topics including the finances of the corporation, strategic planning, and conflict management.

Also, part of the program was simply getting to know the other members of the group, thus creating a network. When the group was traveling, a complex carpool rotation schedule that could only have been written by an engineer ensured everyone got some quality time, or at least transportation time, with other members of the group. Plenty of group dinners also provided time for networking and mentoring.

“ECDN provided me with an invaluable networking opportunity, not just for the career advice from the mentor team, but also with other early career individuals from across the country,” said ECDN member Lesli Otake. “These people broadened my understanding of the corporation and illuminated the various roles I could have as my career develops.”

Members of the ECDN discuss various topics with the mentors during the trip to Houston. (Photo: Jared Fortune)

ECDN member Krikor Geysimonyan also spoke about the networking opportunity the ECDN provided.

“By allowing me the opportunity to meet and connect with other early career employees and mentors, ECDN helped me get an understanding of the different groups and divisions in Aerospace,” he said. “This understanding opened my eyes to the different opportunities available for early career employees.”

Reflecting on the ECDN, Averill was very pleased at how the first year went.

“Each member of the ECDN and the group as a whole exceeded my expectations,” he said. “I saw tremendous growth in each individual and the group.”

The members of the 2014 ECDN class are now considered alumni, but that doesn’t mean the experience is over.

“I believe this group has made some long-term friends and bonds that will be beneficial throughout their careers,” Averill said. “It was a success and has paved the way for many more ECDN classes in the future.”

Early career employees who would like to participate in the next ECDN class are encouraged to apply until Nov. 14.

Editor’s Note: The author of this article was a member of the first ECDN class.

After arriving at LAX, the group piled into the Aerospace shuttle following its trip to Colorado Springs. (Photo courtesy Anthony Stier)

Launch Success for GPS IIF-8

October 29, 2014

An Atlas V rocket carrying the GPS IIF-8 satellite lifts off from Cape Canaveral AFS on Wednesday, Oct. 29. (Photo: United Launch Alliance, LLC)

Spewing smoke and emitting a fiery flash, an Atlas V launch vehicle powered the latest GPS satellite to orbit on Wednesday, Oct. 29.

Flying in the 401 configuration with a four-meter fairing, no strap-on solid rocket motors, and one engine in the Centaur upper stage, the United Launch Alliance-built rocket carried the advanced GPS IIF-8 satellite.

Aerospace Vice President of Space Launch Operations Ray Johnson reported from the Cape:

“This afternoon, the Atlas V/GPS IIF-8 mission was successfully launched from Space Launch Complex 41 at Cape Canaveral Air Force Station. The vehicle lifted off right at the opening of the launch window at 1:21 p.m. EDT.

“Last night, the Atlas team aggressively worked a crossover assessment to make sure that there were no critical hardware concerns as a result of [Wednesday’s] Antares failure. The team concluded that there were no crossover concerns and a final “go” was given to proceed with the Atlas launch.

“The Centaur upper stage just completed its second engine burn and we had a successful spacecraft separation. It was a very clean mission, and we are not working any significant issues.

“Congratulations to the entire Atlas team on this successful launch.”

Antares Launch Vehicle Explodes on Liftoff

by Lindsay Chaney
October 28, 2014

An Orbital Sciences Corp. Antares rocket exploded six seconds after liftoff from the Wallops Island launch facility in Eastern Virginia Tuesday. No one was hurt in the accident.

An investigation to determine the cause of the explosion is underway.

The launch was a resupply mission for the International Space Station with about 5,000 pounds of cargo and science experiments.

The Aerospace Corporation did not have a mission-assurance role on the launch. However, an Aerospace-built reentry breakup recorder (REBR) was aboard and presumed lost. Shortly after the accident, NASA contacted Aerospace to ask whether it can supply a similar REBR for launch aboard a SpaceX cargo resupply mission in December. The Aerospace REBR team is assessing that request.

The Space and Missile Systems Center (SMC) will decide whether to postpone a scheduled GPS launch on Wednesday because of the Antares failure.

UPDATE 11 a.m. Wednesday, Oct. 29

The following statement, edited for time references, is from William Gerstenmaier, associate administrator of NASA’s Human Exploration and Operations Directorate, regarding the mishap at Pad 0A of the Mid-Atlantic Regional Spaceport at NASA’s Wallops Flight Facility in Virginia during the attempted launch of Orbital Sciences Corp’s Antares rocket and Cygnus cargo spacecraft at 6:22 p.m. ET, Tuesday, Oct. 28.

“While NASA is disappointed that Orbital Sciences’ third contracted resupply mission to the International Space Station was not successful, we will continue to move forward toward the next attempt once we fully understand the mishap. The crew of the International Space Station is in no danger of running out of food or other critical supplies.

“Orbital has demonstrated extraordinary capabilities in its first two missions to the station earlier this year, and we know they can replicate that success. Launching rockets is an incredibly difficult undertaking, and we learn from each success and each setback. Tuesday’s launch attempt will not deter us from our work to expand our already successful capability to launch cargo from American shores to the International Space Station.”

Aerospace Celebrates Chantilly Campus Grand Opening

by Amanda McCarty
October 27, 2014

From left, Aerospace board member Alan Wade; Betty Sapp, director of the National Reconnaissance Office; Dr. Wanda Austin; and Dr. Mal De Ponte snip a ribbon officially opening The Aerospace Corporation's Chantilly Campus in a ceremony Oct. 10. (Photo: Eric Hamburg)

The Aerospace Corporation President and CEO Dr. Wanda Austin, along with members of the board of trustees, employees, and other distinguished guests, inaugurated Aerospace’s new Chantilly campus with a ribbon-cutting ceremony on Friday, Oct. 10.

The company relocated employees from Greens I and Penrose offices in Chantilly to the new campus during five separate moves from June to September. The new facility will allow greater access to and interaction with local customers.

“For many years now, Aerospace has worked alongside the National Reconnaissance Office (NRO) to ensure the success of the missions and safety of our nation,” said Austin. “This new campus will allow us to continue this strong relationship as we now sit side by side. By locating next door to the NRO headquarters, Aerospace is now able to increase the efficiency and effectiveness of the support we provide to the NRO. Despite the rise and popularity of Twitter and texting, there is no substitute for good old-fashioned face-to-face collaboration.” She also noted the importance of the NRO’s support and commitment, stating, “They have shown time and again how much they value the services that Aerospace provides, and with the creating of this large, modern campus, we are poised to strengthen our partnership for many years to come.”

NRO Director Betty Sapp shared with ceremony attendees that the new facility symbolizes the partnership between the NRO and Aerospace. She discussed some of the challenges associated with space and the important role Aerospace has in helping its customers meet those challenges.

The campus contains various meeting spaces to provide secure environments for employee and customer collaboration. Common areas throughout the campus also serve to facilitate discussion, creativity, and problem solving. “It is through the sharing of ideas that we produce the innovative solutions our customers deserve,” said Austin. In addition to enhancing Aerospace support to customers, building the campus was also a great financial decision for the corporation, Austin added. “The new campus allows us to be more cost-effective over the long run. Our operating costs can be managed and we will have the freedom to make structural modifications based on the specific needs of our customers and their future programs. This is a model that we’ve used in the past, and it continuously yields successful results.”

The campus is a state-of-the-art facility that will be continually improved throughout the next decade in various phases. The initial phase of development included approximately 180,000 square feet of “green” certified office space, construction of a visitor’s center, data center, and underground and surface parking areas. The campus construction is planned in a manner to incorporate a flexible design throughout the phases so Aerospace can develop new employee work environments and respond to customer demands as they arise.

The initial phases are only the first steps in setting the foundation for the future, said Dr. Mal De Ponte, National Systems Group senior vice president. The foundation also considered sustainability — an aspect that figured prominently into the construction of the

campus, from the materials used to the cost of maintenance. Environmental responsibility was another key consideration. The facility incorporates green materials from windows and roofing to energy- efficient fixtures. “We are committed to doing our part to serve this community and its environment to the greatest extent possible,” said Austin.

Aerospace has received multiple awards for its land conservation actions. This includes a major stream restoration project, a designation of half the land as a private conservation area, and use of part of the land as an environmental quality corridor to link and preserve natural resource areas.

Additional items to be added in upcoming phases include:

Fitness center
Unclassified conference center
Cafeteria
Data center enhancement
Remaining floors of south tower
Above-grade portion of the garage
Lab building

De Ponte noted the contributions of the various people responsible for the success of the campus, from the board of trustees, to the design and construction partners, the NRO, the move team, and every employee. “I’d like to thank all of our employees throughout the company for the part that each of you played in making this happen. I know that those of us here in Chantilly are thankful for our new campus and we are proud to call it home.”

(Editor’s Note: Publication of this article was delayed due to external security review requirements.)

BBC Crew Interviews Engineer and Scientist at Aerospace

October 15, 2014

A video crew from the British Broadcasting Corporation (BBC), the world’s oldest and largest national broadcasting organization, spent Tuesday, Oct. 14, at the El Segundo campus of The Aerospace Corporation interviewing a scientist and an engineer for an upcoming documentary.

BBC crew films Dr. Bill Ailor in the El Segundo Debris Garden. (Photo: Elisa Haber)

The hour-long documentary on space debris will be broadcast in the United States on the Discovery Channel next year. The exact date has not yet been set.

The crew interviewed Dr. Bill Ailor about reentry debris issues and Patti Sheaffer about the DebriSat and DebrisLV experiments conducted with the world’s most powerful light gas gun. The same crew will travel to Chantilly next week to interview Dr. Roger Thompson about space collision avoidance.

The crew had lunch at the A3 cafeteria and commented favorably on the spaciousness of the venue and the abundance of fresh produce available.

Dave Stewart, the video director, said the Aerospace interviews from El Segundo will likely take up about seven or eight minutes of the hour-long documentary. The Thompson interview presumably will add another few minutes.

Patti Sheaffer discusses debris created by the light gas gun experiment for a BBC documentary. (Photo: Elisa Haber)

Ada Rochester Launches Into Retirement

by Kimberly Locke
October 23, 2014

Friends and colleagues feted Ada Rochester at a luncheon on the STARS patio to mark her retirement from Aerospace after 40 years on the job. (Photo: Elisa Haber)

For Ada Rochester, executive assistant to the vice president, Civil and Commercial Operations (CCO), her 40 years at Aerospace has been a journey through many different organizations and challenges.

From starting as a senior secretary in what was the forerunner to today's Engineering and Technology Group, to supporting ETG's labs, the Office of Public Affairs, and CCO today, Rochester has seen many different areas of the company. Her favorite, she said, was working in the labs because of the constant flow of technical papers being produced.

"It was very exciting and painstaking to prepare those papers on the appropriate forms, by hand. Back then, we didn't have computers to do them on, so in the beginning we had to actually use rub-ons for all of the Greek letters. Eventually came [a new product], which gave us the ability to put the individual letter on the typewriter key so it could stick to the paper. This made the process a little easier, but it still took quite a bit of time and patience to prepare each paper," said Rochester.

In her current role, Rochester supports Randy Kendall, CCO vice president, and Dr. Dave Bearden, CCO Programs Division general manager. She joined CCO in 1997 and has remained there ever since. During this 17-year stretch, Rochester has seen the organization grow significantly from the days it was known as Space Transportation in the early 1990s to now.

At her retirement party held Oct. 22 on the STARS Patio adjacent to A1, Kendall began his remarks by giving some perspective on the time period when Rochester joined Aerospace. "In 1974, Nixon was still president and Ivan Getting was president here," he said. In reference to her longevity at the corporation, he jokingly added, "every president here has had Ada to guide them."

Kendall, who has been Rochester's manager for only the past two years, then read a letter written by her previous manager of some 15 years, Gary Pulliam, former CCO vice president and now a retiree casual. In his letter, Pulliam referred to Rochester as a "valued team member and friend" and thanked her for the "excellent support" she provided him on a multitude of tasks. "You made a big

difference with your cheerful spirit and extensive support," he stated in the letter.

Bearden provided some lighthearted moments as he presented a personal top 10 "things Ada won't miss hearing after she retires" list. These included "why isn't Sametime working?" and "I need travel arranged, by the way, for tomorrow." He, too, thanked Rochester for her support including arranging countless trips and keeping his schedule aligned, often across multiple time zones."

Rochester was presented with a gift card, framed collage of Orbiter articles that included her efforts during the years, and a matted caricature signed by well wishers.

Surrounded by family members, friends, and colleagues, Rochester thanked all those who came to celebrate the occasion. "It's been a nice 40 years," she said. "This company has been wonderful to work for."

The Puerto Rico native will head to Florida after retirement to be closer to her family. And with a sister living in Puerto Rico, Rochester plans on returning to her roots for an occasional visit.

Check out more photos from Ada Rochester's retirement party in the slideshow below.








Astronauts Can Get Out Alive, With Help From Aerospace

October 08, 2014

Aerospace assisted NASA in choosing the design of a launch pad escape system for astronauts.

NASA is currently developing the Space Launch System (SLS), the next generation launch vehicle that will enable deep-space human exploration beyond Earth orbit and be a backup launch service to the International Space Station.

If a dangerous situation on the rocket or launch pad were to develop, the Emergency Egress System (EES) would facilitate evacuation of the astronauts and any ground support crew from the launch pad.

The ESS posed a challenging engineering problem for NASA that had not been approached in 40 years: how to safely evacuate people starting at 270 feet off the ground on the launch tower and ending at a point outside a 1.25 mile blast radius in a limited amount of time.

Space Launch System astronauts will board this Mine-Resistant Ambush-Protection (MRAP) vehicle or an identical MRAP, which will carry them away from Launch Complex 39 in the event of an emergency. (Photo: NASA/Jim Grossman)

NASA directed the EES contractor to develop possible concepts. The contractor brainstormed a wildly diverse set of ninety-nine possible solutions and presented their best seven. Given the broad scope of solutions and the challenging and rare nature of the problem, NASA asked Aerospace to assist in determining a path forward.

Aerospace assembled a team of building architects and engineers with specific experience in the planning, design, and construction of launch and ground facilities to perform the assessment. In addition to that construction experience, the team tapped into Aerospace's depth of expertise in mechanics, structures, and operations to evaluate concepts ranging across roller coasters, slide-wire systems, and armored vehicles.

Artist's concept of the Space Launch System on the launch pad at Cape Canaveral. (Image: NASA)

The Aerospace team reviewed each concept from the viewpoint of their distinct disciplines and identified the risk in each option. Aerospace's risk assessment had a substantial impact on NASA's decision for the EES design, which includes a combination of slide-wire baskets and armored vehicles to usher the astronauts out of harm's way.

Charles Bolden, NASA's Administrator, presented the team of Aerospace, NASA, and contractor personnel with the prestigious NASA Group Achievement Award citing their "Outstanding teamwork in the risk mitigation and concept selection of the Emergency Egress System."

This article is based on a Value Vignette by Steve Escalante.

JAXA Officials Visit Aerospace

October 02, 2014

A contingent from the Japan Aerospace Exploration Agency (JAXA) visited the El Segundo campus of The Aerospace Corporation on Thursday, Oct. 2, to view some of the company's advanced technology capabilities. Aerospace has been working with JAXA for the past four years, assisting with the design and development of JAXA's next-generation launch vehicle.

The group, which included JAXA president Naoki Okumura, visited the Spacelift Telemetry Acquisition and Reporting System (STARS) lab, as well as several laboratories in A6.

Dr. Siegfried Janson, right, explains features of an AeroCube small satellite to JAXA President Dr. Naoki Okumura. (Photo: Eric Hamburg)

Duo Wins President's Award for Flight Test Work

October 02, 2014

The team of James Gin, systems director, AWTR Systems Engineering, Space Systems Group; and Chafic Hammoud, systems director, Targets and Interceptor, Systems Planning, Engineering, and Quality, was awarded a President's Achievement Award "for exceptional leadership in mitigating critical path risks to the first Ballistic Missile Defense System operational flight test."

The President's Achievement Award recognizes an outstanding singular act, a piece of work or a lengthy sustained effort with positive impact to the company.

The team provided boots-on-the-ground, onsite support for the tests, which saved the Missile Defense Agency (MDA) more than three months time, millions of dollars, and ensured crew safety. The team led more than 100 targeted pedigree reviews, vendor audits, failure investigations, and risk assessments.

Dr. Wanda Austin with President's Achievement Award winners Chafic Hammoud and James Gin. (Photo: Eric Hamburg)

"The team's support to MDA has relied heavily upon the breadth of Aerospace expertise in mission assurance for launch vehicles," said Dr. Wanda Austin, president and CEO, during the official award ceremony on Thursday, Sept. 18. "The team … was instrumental in the success of the Missile Defense Agency's first operational flight test."

The team's adept and economical management of matrix talent and capture and execution of MDA quality and safety work significantly protected the Western Range Directorate workforce from Evolved Expendable Launch Vehicle budget perturbations and provided purposeful areas to apply space systems expertise. By establishing a direct relationship with MDA Targets and Countermeasures, including onsite support in Huntsville, Ala., the team achieved one of the top goals for the Missile Defense and

Space Sensors Division of Systems Engineering, Planning, and Quality.

Through diligence and masterful use of the Aerospace matrix, the team helped realize the corporate vision to be a principal technical resource for programs of national significance and has put into concrete action the corporate value to tackle the tough questions and deliver candid answers.

Be The Difference: Employee Giving Campaign Starts Today

by Kimberly Locke
October 01, 2014

Employees can sign up for payroll deduction of charitable contributions during October. (Photo illustration: Elisa Haber and Stuart Araki)

Maybe you have a particular affinity for a charity because of a personal experience or encounter. Or, maybe you heard of the work being done by an organization and you believe it's a deserving cause.

Whatever the reason, employees will have the opportunity to select from more than 700 organizations to contribute to during the America's Charities Employee Giving Campaign being held from Wednesday, Oct. 1, through Friday, Oct. 31. Participants may pledge as little as $2 a week and all donations are tax deductible.

It's been a very personal choice for Mary Ann Greenelsh, manager, Travel Services, Finance and Accounting Directorate, Finance and Business Operations (FBO), Operations and Support Group (OSG). "As a breast cancer survivor, one of the charities I've chosen to give to is the National Breast Cancer Coalition," said Greenelsh. "I feel it is important to give back. This organization funds and advocates for research, and public policy and education, with a goal of ending breast cancer."

For Steven Johnson, principal director, Finance and Accounting Directorate, FBO, OSG, the convenience of the program coupled with the chance to aid charities important to him was a win-win.

"Like many of us, we already have a full slate of charities that we routinely choose to give to. The convenience and variety of the America's Charity program allows me to easily give something to other organizations that are so important including Meals on Wheels, The Humane Society, The Braille Institute, and Habitat for Humanity. I think it is a wonderful program."

During the drive, Aerospace campaign representatives will staff information tables at various locations. They will provide answers to questions while offering campaign literature and giveaways. Specific locations, dates, and times are listed in the Corporate Announcement.

"I selected Shepherd's Hope, which is a volunteer health care center that was founded to bring hope and healing to uninsured Americans," said Karolyn Young, principal director, Launch Engineering and Acquisition, Launch Systems Division, Space Launch Operations.

"Their values of faith, respect, people, and service resonated with me … Shepherd's Hope operates five medical clinics in Florida and partners with churches, hospitals, and the community. I am grateful to be able to extend love to and through them by contributing to America's Charities," she added.

Contribution changes and cancellations may be made during the open enrollment period. To make a pledge, go to https://www.pledgefirst.org/aerospace/. Pledges may also be canceled at any time during the year upon completion of the America's Charities Cancellation Form No. 489 and submission to Payroll.

October 2014 Obituaries

by Carolyn Weyant
October 01, 2014

Sincere sympathy is extended to the families of

Trudy Bergen, manager, hired March 16, 1981, retired July 1, 2008, died Sept. 16.
I-Shih Chang, distinguished engineer/scientist, hired Aug. 1, 1977, retired Oct. 1, 2013, died Aug. 18.
Robert Falconer, systems director, hired Nov. 8, 1961, retired Sept. 1, 1989, died Aug. 28.
Murray Goldberg, member of the technical staff, hired Feb. 1, 1962, retired April 1, 1990, died Sept. 19.
John Gott, maintenance coordinator, hired Aug. 29, 1960, retired Oct. 1, 1990, died Sept. 22.
Steven Grogin, member of the technical staff, hired March 17, 1997, retired March 1, 2012, died Sept. 13.
Calvin Heit, member of the technical staff, hired May 18, 1981, retired Nov. 1, 1990, died Sept. 9.
Thomas Kenney, manager, hired Feb. 14, 1966, retired Oct. 1, 1993, died Sept. 6.
Ellis Lapin, member of the technical staff, hired May 16, 1962, retired April 1, 1979, died Sept. 8.
Jean Lawrence, administrative secretary, hired Sept. 5, 1984, retired Oct. 1, 1996, died Sept. 1.
Wanda McKinney, secretary, hired Sept. 9, 1963, retired Aug. 1, 1974, died Aug. 1.
David Mills, systems director, hired Feb. 26, 1962, retired Oct. 1, 1993, died Sept. 21.
Thomas O'Brien, member of the technical staff, hired Dec. 2, 1996, died Sept. 21.
Lawrence Sashkin, principal director, hired May 7, 1964, retired July 1, 1990, died Sept. 4.
James Vaughan, systems director, hired Jan. 16, 1967, retired May 1, 1992, died Sept. 12.

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

October 2014 Notes

by Carolyn Weyant
October 01, 2014

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

Jeff Bolton, for the recent passing of his brother, James Bolton.
Kathy McDonald, for the recent passing of her mother, Patricia Jordan.
Christopher Zeineh, for the recent passing of his father, Rashid Zeineh.

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

October 2014 Anniversaries

by Carolyn Weyant
October 01, 2014

35 YEARS

Engineering and Technology Group: Wayne Hallman, Russell Lipeles

Executive Offices: Bruce Janousek

Operations and Support Group: Cynthia Johnson, Donna Kahl, Renee Risher

Space Systems Group: Herbert Lundblad, Elora Montgomery

30 YEARS

Engineering and Technology Group: Oscar Esquivel, Douglas Moody, Carol Selvey

National Systems Group: Laureen Branting

Space Systems Group: Daniel Gutierrez

Systems Planning, Engineering, and Quality: Kevin Wheaton

25 YEARS

Engineering and Technology Group: Robert Castaneda, Sandra Johnson

National Systems Group: Kirk Nygren, Mark Persons

20 YEARS

Executive Offices: William Hellrung

Engineering and Technology Group: Robert Lindell, Lan Nguyen

Space Systems Group: Ray Meadows

15 YEARS

Engineering and Technology Group: Valerie Ang, James Buzzelli, Peter Evans, Thomas Hill, Kok Lue

National Systems Group: Jack Carroll

Operations and Support Group: Janet Salcido

Space Systems Group: Maben Jimenez, James Liau

Systems Planning, Engineering, and Quality: Martin Oetting

10 YEARS

Engineering and Technology Group: DennisChandler, Edward Gaitley, Glen Inamura, Rostislav Spektor

National Systems Group: Ricardo Cadenas, Rhonda Cook, Ronald Lambert, Samuel Nguyen

Space Systems Group: Ronald Collins, Sam Elghanian, Sondrea Johnson

5 YEARS

Engineering and Technology Group: Edward Durning, Matthew Vondal

National Systems Group: James Calahane

Systems Planning, Engineering, and Quality: Dana Ramey