Orbiter
February 2014

No False Alarms for Katzman Award Winners

by Gail Kellner
February 25, 2014

Three Aerospace inventors received the seventh annual Howard Katzman Innovation Award at a reception on Feb. 13, hosted by the Library and Information Resources Center and the Office of Intellectual Property Programs. The event also honors and celebrates Thomas Edison's birthday and National Inventor's Day.

Mark Polak, Carlton Nealy, and John Stafsudd received the Katzman award in 2010 and again this year for developing the patented technology behind an ambient air analyzer that continually monitors the air for chemical warfare agents (CWAs) and toxic industrial chemicals (TICs).

Andrew Quintero, principal engineer, Intellectual Property Programs, explained to the inventors and patent holders attending the ceremony that although the team was honored in 2010, their patent was not issued until 2013.

Left to right, Andrew Quintero, John Stafsudd, and Howard Katzman. (Photo: Elisa Haber)

He said that the 2014 Katzman distinction was given to the team again because the system manufacturer, MKS Instruments, made new sales to a Department of Defense customer as a result of the instrument passing critical testing with no false positives. MKS, maker of the AIRGARD ® analyzer, stated that "it has been thoroughly tested by the Department of Defense and Homeland Security for sensitivity, specificity, response time, and immunity to false positive readings caused by the sensing of and alarming to everyday, benign, non-toxic solvents and industrial chemicals."

This immunity to false alarms prevents unwarranted evacuation of buildings, associated interruptions of business, and emergency notifications when no threat materials are really present in the building airflow.

AIRGARD ® is capable of detecting parts per billion levels of most CWAs and TICs below toxic, immediately dangerous to life or health levels, within 20 seconds.

This low-level detection and fast response ensures sufficient time for an appropriate response such as shutting down air handling systems, shelter in place, or evacuation of the affected area.

Quintero presented the award to Stafsudd, senior member of the technical staff, Computer Hardware Technology Office, who accepted on behalf of the team.

"Every now and then you have an opportunity to work on cutting-edge technologies that can actually save lives," Stafsudd said. "It's a once-in-a-lifetime experience."

Although Polak, senior engineering specialist, Electro Optical System Design, and Nealy, senior engineering specialist, Systems Performance Estimation and Algorithms Department, could not be at the ceremony, Quintero read comments from Polak acknowledging that Aerospace has technical expertise across the board.

Polak wanted to emphasize that he and his award colleagues come from different organizations within the company. He said that the "diverse talent base and low barrier to collaborations made him feel like there was always someone who could help."

The Howard Katzman Innovation Award was established in 2008 and named for Katzman, senior scientist, Materials Science Department, who in 1983 was issued a patent for "Carbon-Reinforced Metal Matrix Composites." Many other patents were later

issued for products that eventually made it to the commercial market, all citing Katzman's original work.

Katzman was on hand for the ceremony and explained that he has been involved in patent review for the last 20 years. He said that all patent applications are rigorously reviewed and many questions are asked of the inventors.

"Incredibly exciting things are happening at Aerospace," he said.

Delta IV Lofts GPS IIF-5

February 24, 2014

A Delta IV rocket launched GPS IIF-5 from Cape Canaveral Air Force Station on Feb. 20.

"I'm very pleased to announce the successful launch of Delta IV and its GPS IIF-5 satellite," said Ray Johnson, vice president of Space Launch Operations. "The vehicle lifted off of Space Launch Complex 37 here at the Cape right at the end of the launch window at 8:59 p.m."

This was the 25th successful launch of a Delta IV. The vehicle flew in the Delta IV M+ (4,2) configuration, meaning it had two strap-on solid rocket motors and a four-meter payload fairing.

"The Delta IV flight was very clean with no significant flight issues," Johnson said. "Congratulations to both the Delta IV and the GPS teams."

A Delta IV launches into the night sky carrying GPS IIF-5 on Feb. 20. (Photo: United Launch Alliance, LLC)

A Celebratory NEW View of Engineers at Aerospace

by Lindsay Chaney
February 13, 2014

At its heart, The Aerospace Corporation is an engineering company. We do the job of engineers – that is, we use science and math in creative ways to solve practical problems, all the while working under constraints that usually include time and budget.

Being able to do good work under constraints is a critical part of engineering, and some might say, the essence of engineering. The 19th-century American civil engineer Arthur Mellen Wellington famously defined engineering as "the art of doing well with one dollar what any bungler can do with two, after a fashion."

The profession of engineering will be honored nationwide next week (Feb. 16-22) during National Engineers Week, which the Orbiter will refer to as NEW, in honor of Aerospace's long tradition of devising an acronym for as many proper nouns as possible.

The celebration of NEW was started in 1951 by the National Society of Professional Engineers, which chose the week in closest proximity to President George Washington's birthday, based on the assertion that Washington was the nation's first engineer due to his surveying work. NEW's purpose is to raise public awareness of engineers' contributions to the quality of life, promote the desirability of engineering careers, and emphasize the importance of literacy in math, science, and technology. It is observed by more than 70 engineering, education, and cultural societies, as well as more than 50 corporations and government agencies.

To mark NEW at The Aerospace Corporation, the Orbiter will profile four of our engineers next week. They are a diverse group, with different backgrounds, but are representative of the engineering talent at Aerospace. One holds the most patents granted to an individual in the history of the corporation; another is a former flight controller for the International Space Station; the third was previously Miss Chicago and a semi-finalist in the Miss Illinois pageant; and the last got his start in engineering when he entered college at age 13. What they have in common is they are all proud to be engineers at The Aerospace Corporation.

Former Space Station Flight Controller Docks at Aerospace

February 18, 2014

Kristine Ferrone is relatively new at Aerospace, having been here less than three years. Previously, she was a flight controller for the International Space Station at NASA Johnson Space Center, and now works in Aerospace's Houston office as a project engineer in the Business Development section of Civil and Commercial Operations.

She brings a bachelor's degree and three master's degrees to the table: a B.S. in physics/astrophysics from Carnegie Mellon University, an MBA from the University of Florida, an M.S. in sports medicine from the United States Sports Academy, and an M.S. in space architecture from the University of Houston.

Read on to discover more about Kristine and her life as an engineer.

Kristine Ferrone (Photo: Eric Hamburg)

Why did you decide to be an engineer?

I never made the conscious decision to become an engineer, it sort of happened organically. I am a scientist by training, and I worked in particle physics for two years right out of college. I still have the mentality of a scientist, always concerned with the quality of the data and determining the complete solution to the problem. However, I've morphed into a systems engineer over the years as my assignments at NASA and at Aerospace have required, and I now see most problems through that lens.

How did you come to work at Aerospace?

In 2010, I was a flight controller for the International Space Station at NASA Johnson Space Center and about to finish my master's degree in space architecture. I was uncertain of future opportunities at Johnson Space Center with the upcoming end of the space shuttle program, and was just beginning to look for alternative options. That's when John Chobany found me. He was the associate director of the Vehicle Concepts Department in Chantilly at the time, and he introduced me to the experience of being an Aerospace employee. John had to fight hard to bring me in, someone with no clearances and no experience working with DOD or NRO. I will always be appreciative of John "betting on the underdog" in my case. I like to think I have made him proud, and will continue to work hard to make sure he never doubts that decision!

What do you do in your job?

Right now I am the lead for new business development for Aerospace at NASA Johnson Space Center. In this role, I have the privilege of reaching out to NASA managers and decision-makers to determine if there's a fit for Aerospace to offer our world-class engineering and science services. It is an intersection between engineering, science, and business and brings together a lot of diverse skills. I appreciate that one day I can spend hours at my desk researching and learning about technical topics such as hyperspectral imaging or the International Space Station's thermal control system, and the next day I can spend the day expanding my network within NASA and seeking out new contacts for business development. I've always been told I'm very

outgoing “for an engineer” so I suppose this role fits me quite well.

What’s your favorite part of your job?

My favorite part about my job is that it is seamlessly integrated with the rest of my life. I am a lifetime learner (obviously by the number of times I’ve gone back to school!), I love to read, I love to travel, I love to meet and engage with new people, and I love to help solve problems. My job is pretty much those things, in a nutshell.

Why is your job important?

I am a proud member of CCO; I feel that our civil and commercial work enables so many enriching activities for the rest of the corporation. It is exciting to bring in a C&C task that is a bit of a stretch of the imagination for our scientists and engineers and watch them have fun with it, solving a new problem and always exceeding the expectations of the customer. It is that opportunity to stretch the mind and inject creativity into our everyday work that I value the most.

What are your hobbies/interests when you’re not at work?

I’m the CFO for a nonprofit, Astronauts for Hire, working to establish the first training program and pool of qualified candidates for commercial spaceflight. I’m also one of the candidates, so I spend a lot of my free time on my training. Besides that, you will probably find me reading on my iPad, scrapbooking, doing Turbo Jam workouts, playing with my dog, or having some drinks with my husband and friends.

He Was in a Hurry to Be an Engineer

February 19, 2014

Michael AuYeung (Photo: Elisa Haber)

Michael AuYeung is a project leader in Enterprise Information Systems Development who has been at Aerospace 13 years. This bright engineer skipped high school and entered college at age 13 via the Early Entrance Program at Cal State L.A., after which he transferred to the University of Southern California (USC) to finish his bachelor’s degree.

After all that educational leaping he now has a B.S. in computer engineering and computer science and an M.S. in computer engineering from USC. Find out more about this Aerospace Corporation engineer as he answers questions posed by the Orbiter:

Why did you decide to be an engineer?

I always had an aptitude for taking things apart, though not necessarily the aptitude to put them back together. It was interesting to learn how things were actually made, and designed.

How did you come to work at Aerospace?

I was a student in the graduate program at USC, and wanted a teaching assistant or research assistant job. However, USC reserved those for foreign students with no work visas. Instead, because I was one of two U.S. citizens in the graduate program, Dr. [Cauligi] Raghavendra, who also works at Aerospace as a casual, asked me to come in for an interview.

What do you do in your job?

Currently, I have two hats. Within my organization, I’m working on Big Data (Hadoop) computing and analysis, trying to bring these new techniques to the corporation for use with our tons and tons of data. Within EIS, but outside of Development, I’m working with our folks back East to develop a classified computing architecture for now and the future.

What’s your favorite part of your job?

The balance of being able to switch between feeling like working at a place with real schedules and deadlines (i.e. “for profit” business) and a place that’s very academic and laid back, without the back stabbing.

Why is your job important?

I think my job is important because I feel like I’m making a difference with the corporate mission, that I help enable cost-effective mission assurance.

What are your hobbies/interests when you’re not at work?

I like commercial aviation and travel. So I find myself often flying around the world on a budget, and also, collecting models of planes I’ve been on, or would like to be on. I also enjoy photography.

Miss Chicago Becomes a Ph.D. at Aerospace

February 20, 2014

Portia Jackson is a senior member of the technical staff in the Environments, Test and Assessment Department in the Engineering and Technology Group. She has been at Aerospace 4½ years and has a bachelor’s degree in mechanical engineering from the University of Michigan, and a master’s and doctorate in materials science from the University of Southern California.

Dr. Portia Jackson (Photo: Eric Hamburg)

Despite her degrees and engineering bent, Jackson shows that engineers can have another side. She was Miss Chicago in 2005 and was a semi-finalist in the Miss Illinois pageant that same year. We’re guessing she didn’t wear a pocket protector to that event … Read on to learn more about Jackson in her own words.

Why did you decide to be an engineer?

I decided to be an engineer after attending a DaVinci & Me engineering camp at Valparaiso University in 6th grade that my math teacher recommended I attend. I really enjoyed the hands-on activities and I always enjoyed math and science more than liberal arts so engineering fulfilled that interest. Also, I was deciding between being an engineer or a sports broadcaster and a mentor told me to go into engineering because I would be able to climb the corporate ladder and have a broader career than with broadcasting.

How did you come to work at Aerospace?

I never heard of Aerospace until I met Dr. Austin at a meet and greet at USC for the Center for Engineering Diversity during grad school. I enjoyed her talk about her career and work/life balance. She was really nice and we exchanged business cards after the event. After some follow-up I also attended the USC Engineering Career Fair and went straight to the Aerospace booth where I collected more information. It was during a hiring freeze so I had to stalk some managers over email to make sure I got in for an interview. Once I received an offer, I weighed the pros and cons against other offers I received and decided that Aerospace fit best with my professional desires.

What do you do in your job?

I review the maximum predicted environments to ensure that space systems are designed to withstand the rigors of flight. I review test plans to develop test procedures, I observe the tests to make sure they are conducted according to specification. Afterwards, I review the test data to provide independent validation of the results and observe and address any test anomalies. I archive and catalog test data for future reference. I also make random vibration and acoustic prediction models to gain an idea of what to expect in the actual test situation. I am the workshop coordinator for the Spacecraft and Launch Vehicles Dynamic Environments Workshop held every June.

What's your favorite part of your job?

Seeing a payload I worked on have a successful launch. My last successful launch was STPSat-3. I was involved with many of the payloads on that mission.

Why is your job important?

My job is important because the launch environment is very rigorous and ensuring the survivability of delicate hardware poses challenges that can only be met by preflight environmental testing such as acoustic, shock, and vibration tests.

What are your hobbies/interests when you're not at work?

Outside of being a wife and mommy to a 2 year old and newborn, I am a die-hard Michigan Wolverines fan (I was a member of the Michigan Marching Band during my time in undergrad). I do Crossfit during my lunch breaks. (My current goal is to get 10 pull-ups in a row). I also teach personal finance workshops at my church and in my sorority, Delta Sigma Theta, where I serve as chair of the Financial Fortitude committee. I host a podcast for working mothers. My husband and I enjoy going wine tasting together.

An Engineer's Passion Pays Off With Patents

February 20, 2014

Robert Dybdal is a not just an engineer, he's a distinguished engineer in the Communications and Networking Division of the Engineering and Technology Group. During his 45 years at Aerospace, he has picked up 25 patents, making him the employee with his name on the most patents in the history of Aerospace. He holds B.S., M.S., and Ph.D. degrees in electrical engineering from Ohio State University. Following are Dybdal's thoughts on his job as an engineer:

Dr. Robert Dybdal (Photo: Eric Hamburg)

Why did you decide to be an engineer?

My interest in engineering stems from the enjoyment of technical challenges and the desire to solve problems by devising effective solutions.

How did you come to work at Aerospace?

The impressions Aerospace made during my interview were the apparent opportunities to grow and participate in a diverse number of programs and the knowledge and interests of the folks who interviewed me. The interview made apparent Aerospace presented a healthy research and development environment rich with the technical challenges I learned to relish during my graduate education.

What do you do in your job?

In short, my role is to help Aerospace customers develop and operate effective system solutions. This work spans devising new system designs and architectures, technology assessments, demonstrations of prototype designs to add credibility to future customer development, addressing specific problems that arise during program development and operation, and pursing new concepts with potential customer applications.

What's your favorite part of your job?

Several factors rather than a single favorite have made Aerospace an enjoyable organization:

a. an atmosphere that allows one to devise solutions for a broad base of program activities and applications

b. opportunities to be creative

c. environment to mentor Aerospace, customer, and contractor personnel

d. forming and participating in team efforts to address customer needs

Why is your job important?

Programs are team efforts and my technical and program experience is my way of contributing to corporate endeavors.

What are your hobbies/interests when you're not at work?

One of the things I have always enjoyed is woodworking for many of the same reasons I enjoy engineering.

Steele Promoted to Executive Director of Corporate Communications and Public Affairs

February 14, 2014

Sabrina Steele

Sabrina Steele has been promoted to executive director of the newly formed Corporate Communications and Public Affairs Division within the Operations and Support Group. In her new position, Steele is leading strategic communications for an organization that includes public affairs and media relations, internal and external communications, executive communications, technical publications, customer relations, event planning, digital media, marketing communications, and corporate branding.

Corporate Communications and Public Affairs is responsible for communicating the value of Aerospace in the most compelling way to all audiences, internal and external.

Concurrent with the promotion of Steele to executive director is the elevation of the Corporate Communications Directorate to a division. This reflects the increased scope and accountability of the organization as it expands its emphasis on branding, marketing communications, and external outreach including STEM. Steele's new position of executive director is a Level 5, equivalent to a general manager in responsibility and accountability.

Steele began her career as a reporter at the Long Beach Press-Telegram newspaper. She won awards for her coverage under hazardous conditions of the 1992 Los Angeles riots. Upon leaving the Press-Telegram, she worked at Raytheon and Hughes Aircraft Company in a variety of positions of increasing responsibility, eventually becoming director of communications at Raytheon Space and Airborne Systems in El Segundo. She joined Aerospace in 2008 as principal director of the Corporate Communications Directorate.

Steele, who holds a bachelor's degree in journalism from California State University, Long Beach, received the Aerospace President's Award in 2012.

Nokes Promoted to PD, Space Materials Lab

February 04, 2014

Dr. James Nokes

Dr. James Nokes has been promoted to principal director, Space Materials Laboratory, Physical Sciences Laboratories, Technology and Laboratory Operations, Engineering and Technology Group.

Nokes joined Aerospace in 1992 as a member of the technical staff in the Space Materials Laboratory where he addressed nondestructive evaluation issues unique to spacecraft and launch vehicles. His most recent previous assignment was director of the Materials Science Department.

Nokes is a 2002 President's Distinguished Achievement Award recipient and holds five patents related to his work in nondestructive evaluation and composites characterization.

OSU President Visits Aerospace

February 12, 2014

Dr. Steven Beck shows the lidar lab to the OSU visitors. (Photo: Eric Hamburg)

Oklahoma State University (OSU) President Burns Hargis and Tucker Link, chairman of the OSU board of regents, visited the El Segundo campus of The Aerospace Corporation on Tuesday, Feb. 11, to discuss collaboration by the two institutions in the area of unmanned aerial systems (UAS), colloquially referred to as drones. Aerospace has expertise in areas such as systems engineering, remote sensing, software systems, and ground systems. OSU has established the University Multispectral Laboratories, which does development of unmanned aerial systems; the school also offers degree programs in the UAS discipline.

Dr. Rami Razouk, senior vice president, Engineering and Technology Group, gave the OSU visitors — who included Hargis' wife, Ann, and Paula Voyles, senior associate vice president of constituency development — an Aerospace capabilities overview. The group also toured the Spacelift Telemetry Acquisition and Reporting System (STARS) lab and the Physical Sciences Laboratories. Former Aerospace Chief Financial Officer Dale Wallis, an OSU alumnus, participated in the tour.

Left to right, Ann Hargis, Paula Voyles, Dale Wallis, Burns Hargis, Tucker Link, Rami Razouk. (Photo: Eric Hamburg)

Kashangaki Receives 2014 Herndon Black Image Award

by Matthew Kivel
February 10, 2014

Dr. Thomas Kashangaki, senior project leader, Science and Robotic Missions Directorate, was honored at the 2014 Robert H. Herndon Black Image Award ceremony on Feb. 10 in A1 Titan IVA.

The award, now in its 32nd year, recognizes the achievements of African American employees at Aerospace who exemplify professional and humanitarian qualities at the individual, corporate, and community levels.

The annual event and award pay tribute to Robert H. Herndon, who joined Aerospace in 1961 as a structural engineer and rose through the ranks to become group director of the Advanced Mission Analysis Directorate. He was known as a man who set precedents, blazed trails, and mentored others until his death in 1976. As in previous years, Herndon's widow, Mary, attended Monday's event and was received warmly by the audience.

Left to right, Dr. Frank Donivan Jr., Dr. Wanda Austin, and Dr. Thomas Kashangaki at the award event. (Photo: Eric Hamburg)

After a few minutes of conversation among the members of the crowd, Aerospace Black Caucus President Dr. Leslie King took to the stage and welcomed all of the attendees. He thanked Dr. Wanda Austin, Aerospace president and CEO, and a 1984 Herndon Award winner, and welcomed Mary Herndon and the Executive Council. After leading the audience in the Pledge of Allegiance and a sung rendition of "Lift Every Voice and Sing," Dr. King introduced Brian Lucky, senior project leader, Launch Systems Development Department, who detailed Robert Herndon's personal and professional history.

Keynote speaker Rosalind Lewis engages the audience. (Photo: Eric Hamburg)

After Lucky's remarks, Rosalind Lewis, principal director, Acquisition Analysis and Planning Subdivision, gave the ceremony's keynote address. Her dynamic and inspiring speech emphasized the need for service and engagement within the community while drawing applause and laughs from the audience. Lewis quoted Dr. Martin Luther King Jr., stating "everybody can be great because anybody can serve."

Next, Dr. Frank Donivan Jr., principal director, Science and Robotic Missions Directorate, gave a detailed explanation of Dr. Kashangaki's personal history and numerous achievements at Aerospace, NASA, and as a student at The University of Michigan. After robust applause from the audience, Dr. Donivan handed the Herndon Award plaque to Dr. Austin who presented it to Dr. Kashangaki.

Dr. Kashangaki posed for photographs with Dr. Austin and gave a heartfelt speech that acknowledged those who had helped him throughout his career at NASA and as a student at The University of Michigan. Dr. Kashangaki detailed the significance of mentorship in fostering his success in the United States after growing up in Nairobi, Kenya.

Dr. Austin delivered the event's closing remarks, emphasizing a strong message of personal responsibility that challenged the audience members to take on leadership roles in their own lives. Afterward, a catered reception was held in A1 Titan IVB.

The Herndon Award presentation was the first of four major African American History Month events that will take place through Feb. 27. For more information, see the Aerospace Black Caucus website: http://pages.aero.org/abc/.

About the Recipient

Dr. Thomas Kashangaki joined The Aerospace Corporation in 2010 as a senior project engineer in the NASA Program Division, where he led a number of business development and customer-focused initiatives.

In 2012, Kashangaki was promoted to senior project leader in the Program Development Directorate within the NASA Programs Division. He played a key role in the development and implementation of a new NASA Programs Division (NPD) level business development pipeline analysis process. He led in the identification, pursuit, and capture of new work at NASA Goddard Space Flight Center (GSFC), and fostered strong customer relationships across that Center. Kashangaki also began working with the GSFC Deputy Director, Technology and Research Investments, to formulate a broad-scoped technology focused initiative for Aerospace support over the coming years.

Kashangaki currently serves as a senior project leader in the Science and Robotic Missions Directorate within Civil and Commercial Operations, supporting Aerospace's efforts on civil space programs at NASA Goddard, NASA Headquarters, and the NASA Engineering and Safety Center. He has done an outstanding job leading the team cultivating the Strategic Technology Collaboration with the NASA Goddard Space Flight Center. This effort is key to Aerospace's ability to coordinate the development of unique technologies for NASA Goddard with work performed for other Aerospace customers. The objective is for the corporation to invest strategically for the benefit of all our customers (investing in collaboration rather than in parallel).

Kashangaki relaxes at the reception after the event. (Photo: Eric Hamburg)

February 2014 Notes

by Carolyn Weyant
February 01, 2014

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

Victoria Hines, for the recent passing of her brother, Wesley McClure.
John and Regina Lozano, for the recent passing of their mother and mother-in-law, Maria Lozano.
Kathy Nilges, for the recent passing of her mother, Marilyn Van Ert.
Dana Speece, for the recent passing of her husband, Daniel Speece.
Roseanne Villalobos, for the recent passing of her father, Robert Vaca.

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

February 2014 Obituaries

by Carolyn Weyant
February 01, 2014

Sincere sympathy is extended to the families of:

Franz Balough, hired May 11, 1981, retired Nov. 1, 1987, died Jan. 2.
Jan Bundsen, engineering specialist, hired Oct. 3, 1961, retired July 1, 1994, died Jan. 26.
Bertha Caskey, office support, hired April 13, 1978, retired Aug. 1, 1987, died Jan. 11.
Paul Colen, member of the technical staff, hired Sept. 3, 1963, retired May 1, 1993, died Dec. 12, 2013.
Robert Evans, member of the administrative staff, hired Aug. 29, 1960, retired Sept. 1, 1982, died Dec. 21, 2013.
Carl Hall, member of the technical staff, hired Feb. 11, 1963, retired July 1, 1973, died Dec. 12, 2013.
James Hanna, member of the administrative staff, hired Sept. 11, 1961, retired Nov. 1, 1988, died Dec. 25, 2013.
Annette Lievense, administrative secretary, hired Sept. 21, 1973, retired Jan. 1, 1988, died Jan. 3.
Marvin Lubofsky, member of the technical staff, hired May 27, 1969, retired Oct. 1, 1996, died Jan. 12.

Emily Masillo, engineer assistant, hired Feb. 4, 1963, retired Feb. 1, 1994, died Dec. 6, 2013.
Joseph LeMay, member of the technical staff, hired Dec. 10, 1962, retired Sept. 1, 1989, died Oct. 7, 2013.
Lawrence Sharp, project engineer, hired Aug. 6, 1973, retired May 1, 2003, died Jan. 9.
Geoffrey Wilson, member of the technical staff, hired Jan. 19, 1970, retired June 1, 1991, died Dec. 10, 2013.
John Wood, principal director, hired Feb. 13, 1961, retired July 1, 1984, died Jan. 13.
Charles Zamites, project engineer, hired Jan. 29, 1963, retired Oct. 1, 1993, died Jan. 26.

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

February 2014 Anniversaries

by Carolyn Weyant
February 01, 2014

35 YEARS

Enterprise Information Services: Michael Hughes

Space Systems Group: Greg Neldner

30 YEARS

Engineering and Technology Group: Henry Helvajian, Brian Lenertz

National Systems Group: Donald Romeo

Operations and Support Group: Nancy Qualls

Space Systems Group: Mark Liberatore

25 YEARS

Engineering and Technology Group: Sandra Johnson

National Systems Group: Bruce Dennison, Jacqueline Unitis

Operations and Support Group: Anna Baltazar, Laura Miramontes

Space Systems Group: Brian Hardt, John Hoskins, Mark Miller, Brian Shaw

20 YEARS

Engineering and Technology Group: Douglas Berkner, David Caldwell

National Systems Group: Therese Mattijetz, Reynold Rose

15 YEARS

Space Systems Group: Stanley Chen

10 YEARS

Civil and Commercial Operations: James McConnell

Engineering and Technology Group: Heinrich Muller, Linda Yarbrough

Enterprise Information Services: Noe Mireles

National Systems Group: Kimberly Melvin

Systems Planning, Engineering, and Quality: Nathalie David

5 YEARS

Engineering and Technology Group: David McCasland, Allison Moeller

Operations and Support Group: Pamela Casto

Space Systems Group: Timothy Williams