

iLab Innovation comes to Chantilly

by Kelly Hart

June 28, 2017



Exhibits about drones and counter UAV activity were popular at the Chantilly Innovation Day. (Photo: Kelly Hart)

On the heels of the El Segundo Innovation Day open house, the iLab team presented a successful iLab Innovation Open House in Chantilly.

Visitors to the event on Tuesday, June 27, included employees, intelligence community customers and the media. Representatives from Politico were among outside media interested in innovation at Aerospace.

Fourteen exhibits were featured in the Lower Level Concourse where people could visit and explore some of Aerospace's latest innovations from both the East and West coasts. Several exhibits were on the topic of unmanned aerial vehicles; one dealt with CubeSat development; and another showed virtual and augmented reality displays. Of the 14 exhibits, four were featured with live demonstrations in the Gambit auditorium.

The keynote address was provided by Dr. John Main, program manager of the

Defense Advanced Research Projects Agency's Defense Sciences Office, who addressed the room nearing capacity on the topic of innovation. He shared that when his organization is asked to be innovative, he believes it means to help in addressing rapid shifts in technology. Main shared stories of on-going innovative work being performed at DARPA, including technologies that allow humans to scale walls using lizards as inspiration.



Dr. John Main gave the keynote address. (Photo: Kelly Hart)

Innovation Day Open House Draws a Crowd

by Lindsay Chaney
June 22, 2017



Employees test virtual reality at the EPIC open house. (Photo: Elisa Haber)

Hundreds of Aerospace employees trooped through the Exploration, Prototype, and Innovation Center (EPIC) on Wednesday, where they viewed demonstrations of cutting-edge innovative projects being developed at Aerospace.

The audience was augmented by a contingent of media that included representatives of the Los Angeles Times, Channel 2, Channel 9, Channel 7, and a space blogger.

“What you’re seeing is where the next big ideas in space are coming from,” said Dr. Randy Villahermosa, executive director of Innovation, gesturing at the exhibits that filled the first floor of the Lauritsen Library, where EPIC is housed.

Villahermosa later introduced Aerospace President and CEO Steve Isakowitz, who spoke briefly about the intent of EPIC and his hopes for its future.

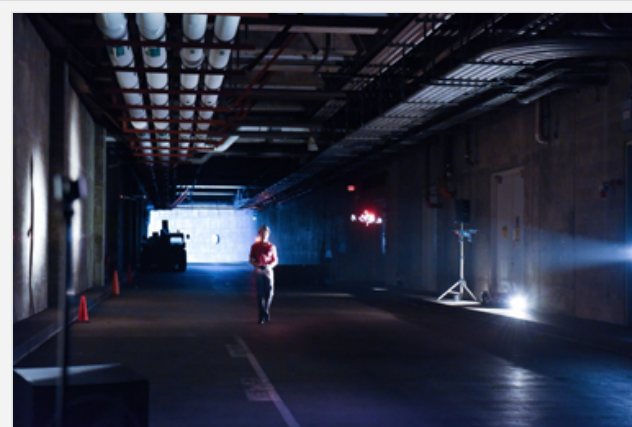
“Today is a big day; it marks a milestone in our effort to amplify all the innovation we’re doing at Aerospace,” said Isakowitz. He noted that the EPIC space is set up physically to be open and allow for a collaborative environment, where people can exchange ideas on an informal basis when they happen to see each other.

The exhibits and demonstrations included a sensor that will be placed on the International Space Station to study a phenomenon called “airglow” that can be used for Earth observation; the Brane Craft super-thin spacecraft concept; augmented and virtual reality; the Sextant concept for timing and navigation to back up GPS; and the MarsDrop exploration capsule.

The most enthusiastic visitors donned hard hats and safety glasses for a drone takeover exhibition by Kyle Logue and Jared Dulmage that took place in a tunnel beneath the Aerospace campus.



Steve Isakowitz and Dr. Randy Villahermosa chat after Steve’s remarks. (Photo: Elisa Haber)



The drone takeover demonstration was held in a radio signal-proof tunnel. (Photo: Elisa Haber)

A running theme throughout many of the demonstrations was using existing technology or modifying existing technology to accomplish something new in a relatively inexpensive manner for the end user.

Nehal Desai and Ron Fitzgerald, for example, demonstrated a program they called Real Time Interrogation of Data through Language (RIDL) that allows analysts to ask questions, find data, and present information using commercial equipment such as Amazon’s Alexa (and the background program developed by Desai and Fitzgerald).

NSG's Steele Delivers Enthusiastic Talk to Summer Interns

by Nancy Profera
June 26, 2017

Senior Vice President Cathy Steele, of National Systems Group (NSG), shared an energetic presentation to a room full of eager summer interns on the topic “Aerospace Coast to Coast,” exploring her 28-year-career at Aerospace, as well as her work experience at other companies (she also worked at Hughes and MITRE).

Her presentation, held in the executive board room in El Segundo on June 21, was part of the TECTalk summer program. She gave a similar talk to the Chantilly interns on Friday, June 23.

Steele explained that NSG is a program office that is forward facing with its customers, including the Department of Defense, Office of the Director of National Intelligence, and the National Reconnaissance Office, and its partners in the intelligence community. Many of Aerospace’s employees “sit with our government customers — at their ground stations and work sites, all over the United States,” she said.

Steele said that she’s a “power user” of Aerospace’s subject matter experts, estimating that during her tenure, NSG has tapped into the power of at least 2,000 different people across the company to help solve the government’s complex technology problems. “My customers like new technology and creative thinking,” Steele said.



Cathy Steele gives career tips to summer interns. (Photo: Walter Sturrock)



The audience pays close attention to Cathy Steele's presentation. (Photo: Walter Sturrock)

Steele’s story involves many firsts—often the first, and only, woman engineer in many settings during the early years of her career, and how she had to flex in these work environments. As Steele’s career developed and she gathered different government clearances, she moved around the country, at one point working at the Pentagon — where she could walk to work — to roles supporting the Air Force on both coasts and places in between, and an eventual move to Colorado Springs, where the portfolio of work was quite different from her prior experiences. She explained that Colorado is where Air Force Space Command is located, and during that time, she was responsible for the JSPOC (Joint Space Operations Center) located at Vandenberg Air Force Base, as well as overseeing Aerospace’s work in Albuquerque, New Mexico, with the Air Force Research Labs, Air Force Nuclear Weapons Center, Operationally Responsive Space, and other activities.

Steele is a prime example of that spot where hard work, preparation, and opportunity meet. “I read everything,” she said, explaining that you will never acquire all the years of

knowledge of someone else, but you need to strive for it, especially when you’re managing and leading other people.

She had plenty of practical career advice too. “Be willing to do everything; no task is too small. There is no substitute for hard work and putting the time into the job,” she said. As for sloppy work or missing deadlines? “Unacceptable,” Steele stated, advising the students that if they find themselves unable to meet a deadline, to ask for more time in advance, not on deadline. “Other people are counting on you and waiting for you to make a decision so that they can move forward,” she said.

She also shared that she's a "news junkie" and may have "workaholic tendencies." She talked about the importance of exercise in her life too, sharing that she's a golfer, and that "every morning I get on the treadmill at 5 a.m., which kicks in the endorphins."

Steele attributes her success to "flexibility, resilience, and stubbornness," as well as a "strong work ethic and being detail oriented." She's also "high energy, passionate, and extremely responsive," stating that anyone who sends her an email gets a response within 24 to 48 hours.

Steele shared her "building blocks for success," which include "showing up," being prepared, and listening with full attention to people without being distracted by phones or computers or "looking at the clock." She discussed the importance of learning communication skills, both verbally and in writing. "Everyone's time is valuable," she said, "as you move forward in your career, you will need to learn how to be succinct, because sometimes you will only have seconds to convey an idea or important message."

Developing good manners, it turns out, will take you far too. "Good manners will get you through any situation. You will have difficult conversations, so develop some 'fix-it' phrases," she advised. These are for repairing relationships with people and moving forward. Being curious and open were also high on her list of successful traits, as well as networking, and recognizing others' contributions to the work.

About TECTalks

The TECTalk (Technology, Education, Career) Aerospace summer series is a grass-roots, volunteer effort focused on providing education, inspiration, career development, and a sense of community for interns and new hires (0-2 years) at all Aerospace locations. For more information, and to watch a video on the TECTalk program, visit <https://pages.aero.org/etg/etg-home/tec-talks/>

Corporate Awards Presented in Gala Event

by **Kimberly Locke**

June 15, 2017

This year marked Aerospace's inaugural combined Corporate Awards presentation ceremony during which the corporation's highest honors, the Presidents and Trustees' Distinguished Achievement Awards, were presented in addition to all other corporate awards.

The ceremony, which was held at 10 a.m. June 15 at Aerospace's corporate offices in El Segundo, California, looked more like the Academy Awards than a corporate event. The fanfare, including a walk down an actual red carpet, was designed to pay tribute to the women and men who have made significant contributions to Aerospace, its customers, and the community.

The program began with a welcome by Steve Isakowitz, president and chief executive officer, who presented the awards to each recipient. Dr. Willie Krenz, senior vice president and chief velocity officer, served as master of ceremonies.

Ambassador Barbara Barrett, Aerospace board of trustees chairman, described the work done by recipients of the corporation's highest honor, the Trustees' Distinguished Achievement Award. She then joined Isakowitz in presenting the award.

The individual and team honorees received trophies or plaques, depending on the category, as well as monetary awards of varying values. They, along with a guest, were also invited to attend the Corporate Awards Dinner Program the same evening



Corporate award winners before the ceremony. (Photo: Eric Hamburg)

at Fort MacArthur in San Pedro, California, where a celebratory evening was planned that included dinner, live music, and dancing.

Trustees' Distinguished Achievement Award

The NTM Satellite Team

The corporation's highest honor, the Trustees' Distinguished Achievement Award, was presented to the National Technical Means (NTM) Satellite team of Timothy Graves, senior project engineer, National Systems Group, and Preston Partridge, engineering specialist, Engineering and Technology Group.

This team played "a fundamental role in identifying the cause of a catastrophic failure that crippled a critical NTM satellite that was rendered non-mission capable," the nomination states. Graves and Partridge provided the technical expertise, leadership, and relentless effort that uncovered the physics of failure and root cause understanding of the on-orbit events. Their investigation led directly to the recovery of an on-orbit NTM satellite valued at more than a billion dollars. Their achievement is directly responsible for the recovery of existing NTM assets and enabled successful redesign, test, and mitigation of future systems.



Ambassador Barbara Barrett and Steve Isakowitz present the Trustees' Distinguished Achievement Award to Timothy Graves, left, and Preston Partridge. (Photo: Eric Hamburg)

Their work exceeded all expectations in their aggressive drive to restore national capabilities. The pair demonstrated initiative in mining extensive data sets to provide insight into the anomaly, creativity in new innovative and integrated modeling techniques that were not previously thought possible, and they had the courage to outfit a new lab with state-of-the-art equipment to evaluate their hypothesis. Within the lab, they developed new sensors to detect the phenomenon and applied their deep knowledge to understand a new regime of physics that had not been previously characterized.

The team's efforts and recommendations ultimately resulted directly in a change to government operations that produced increased capabilities for the nation while establishing operational constraints to ensure no future damage to hardware. The analysis and modeling developed by the nominees was initially met with skepticism by the community but, through their influence, has been adopted by several contractors and used to ensure that future components function properly.

President's Distinguished Achievement Award

Steven Dunham

The President's Achievement Award acknowledges specific outstanding achievements recognized by the professional community as being worthy of higher commendation. This year, two President's Distinguished Achievement Awards were presented. The first recipient is Steven Dunham, senior project engineer, International Launch Systems Office, Strategic and Global Awareness Directorate, Defense Systems Group.

Dunham was recognized for "demonstrating new intelligence analysis tradecraft that compelled major revisions in foreign missile threat assessments."

His innovative and insightful exploitation of reliable flight test data compelled the intelligence community to significantly revise their range/payload performance assessment of an operationally deployed foreign missile system. The agency with primary responsibility was initially skeptical that their assessment could be that far off but ultimately was convinced by Dunham's analysis. The intelligence community is now using his analytical methodology to mitigate the lack of intelligence data that contributed to the assessment shortfall.

Dunham identified shortcomings in intelligence community threat assessments as an outcome of his rigorous analysis of a foreign exercise. The assessment shortfalls are a consequence of significant configuration differences in flight test missiles and a dearth of detailed intelligence information that typically supports high-confidence assessments. He subsequently focused on analysis of the performance issue, documenting and disseminating his results within the intelligence community, including a presentation at a national technical intelligence community forum.

According to his nomination packet, Dunham "constructed compelling arguments that the assessments were incorrect, including an explanation of how that came to pass. While some experts were immediately convinced, he persisted in

engagement with the initially reluctant primary analysts who finally concurred.”

President’s Distinguished Achievement Award

GSSAP/MUOS Team (Geosynchronous Space Situational Awareness Program/Mobile User Objective System)

The team of Dave Albert, William Bjorndahl, Lori Crosse, Michael Mirowski, Laura Needels, Andrew Schickling, Mark Simon, and Mark Shockey were also selected for the President’s Distinguished Achievement Award as members of the Geosynchronous Space Situational Awareness Program and Mobile User Objective System Team (GSSAP/MUOS).

This group represents a cross section of technical experts from throughout the corporation. The team was selected for the award for “recognizing and establishing the opportunity to use a new national asset in support of another national security space partner.”

Air Force Gen. John Hyten, commander, U.S. Strategic Command, described the resulting product as “truly eye watering.” Details of the missions and the resulting products remain classified.

This team recognized the opportunity to use a new national asset in support of another national security space partner, brought those partners together, and provided key technical support, all of which enabled the first-ever GSSAP operational mission.

The mission provided time critical results. Technical resources were focused on the reassessment of the adequacy of spacecraft designs and verifications and where required, design and process changes were implemented in this and other national security space programs to mitigate potential issues.

This effort clearly demonstrates Aerospace’s cross-program technical insight and its ability to shape the future through close collaboration with the corporation’s national security space customers.

Program Recognition Award

Electronic Program Division’s Directorate H Team

The Directorate H team was selected for the 2017 Program Recognition Award for “exemplary support of critical national security space programs.” This award acknowledges the significant contributions of all categories of employees in the completion of a major program milestone that exceeded their performance and reliability objectives.

The selection was based on the exceptional performance of the Directorate H team in their support of critical national security space programs. The details of the programs supported remain classified, but the Directorate H team’s dedication and expertise have ensured that those programs met all milestones, stayed well within cost constraints, and have remained failure-free.

Innovation Award

Genetic Resources for Innovation and Problem Solving Team

The Innovation Award recognizes an individual or team who discovers, fashions, or develops a new or novel creation that has a noteworthy impact on Aerospace, its customers, or society at large. The innovation can be an outstanding singular act, a piece of work accomplished over a timely period of a few years, or a lengthy sustained effort with extensive positive impact in many areas.

The Innovation Award was presented to the Genetic Resources for Innovation and Problem Solving (GRIPS) Team of Ronald Clifton, senior project engineer, National Systems Group (NSG), Dr. Matthew Ferringer, systems director, NSG, and Timothy Thompson, senior engineering specialist, Engineering and Technology Group, “for the development of the genetic resources for innovation and problem solving (GRIPS) capability.”

This team, during the past 15 years, has created a process and software that has transformed the way that Aerospace and government customers approach large, complex, architecture-level decision problems. The GRIPS process leverages parallel computing to address multi-objective problems, allowing for optimization and characterization of complex trade-offs. The process enables decision-making in the face of multiple, competing objectives. It has been applied to many programs and has made transformative impacts on them.

GRIPS has created a paradigm shift in the way customers think about solving their multi-stakeholder decision problems, and has had a significant, positive impact on Aerospace’s reputation. There have been 11 patents issued for GRIPS, eight have been filed and are pending, and another has been approved for filing. The 20 issued and pending patents related to GRIPS demonstrate “ground-breaking reach of the program,” the nomination states.

Aerospace Team of the Year Award

Mt. Wilson Aerospace Facility for Integrated Optical Testing Team

The Aerospace Team of Year Award acknowledges achievements that were made possible by the breadth and diversity of skills available at Aerospace and that have been recognized by the professional community as being worthy of higher commendation. The award's intent is to celebrate a true strength of Aerospace — the ability to synthesize exceptional products from a diverse and distributed workforce of specialists.

The 2017 Aerospace Team of the Year Award was presented to the Mount Wilson Aerospace Facility for Integrated Optical Test, or MAFIOT, Team.

The team was recognized for “significant contribution to the actualization of the Mt. Wilson Aerospace Facility for Integrated Optical Testing.”

The team accomplished the conception, design, fabrication, build, facility construction and operation of an offsite state-of-the-art lidar/optical test bed facility for the advancement of interactive active and passive tracking and detection technologies.

This highly efficient, cross-functional and interdivisional team of technical and non-technical staff members combined their skills, initiative, and energy for nearly four years to enable the collection of data for passive and active future sensing efforts, according to the nomination packet. The project provides a test bed facility for customers to test different detector and camera technologies in an interactive way on augmented and non-augmented orbiting and boosting objects. This capability enhances both national security and civil space customers and will be used across the customer base.

The Mt. Wilson facility offers flexible capabilities that will support multiple corporate accountabilities and initiatives, including AeroCube and weather lidar missions, for a variety of customers well into the future.

Excellence in Diversity Award

Delilah Nuñez

The Excellence in Diversity Award encourages, recognizes, and rewards significant contributions and outstanding achievements that demonstrate excellence in advancing a diverse and inclusive work environment, through outreach and recruitment, engaging diverse individuals and teams in the workforce, and creating an inclusive culture.

This year, there are two recipients of the 2017 Excellence in Diversity Award. The first is Delilah Nuñez, a senior project engineer in the Space Systems Group. She was selected for “distinguishing herself through outstanding contributions to promote a diverse and inclusive environment.”

Nuñez has dedicated herself to increasing representation of qualified individuals with diverse backgrounds in Aerospace and our industry. She has served in high-impact leadership roles for multiple years, including as president of the Aerospace Latino Members Association (ALMA) and as a leader in the Corporate Science, Technology, Engineering, and Math (STEM) Committee.

Nunez also has made significant contributions to corporate diversity recruitment goals through her outreach to the Mexican American Engineers and Scientists, also known as Latinos in Science and Engineering, and Mathematics Engineering Science Achievement students at California State University, Long Beach.

Nuñez' reputation for making connections and inspiring the next generation led to her selection as mentor to Heydy Arias, the first recipient of the Dr. Wanda Austin STEM Scholarship Endowment award. Nunez was unanimously selected by the STEM Endowment Committee as having the right “skills, energy, and commitment” to succeed in this role.

Excellence in Diversity Award

Daniel Winton

The second recipient of the 2017 Excellence in Diversity Award is Daniel Winton, senior project engineer, Acquisition Risk and Reliability Engineering Department, Systems Engineering Division, Engineering and Technology Group.

Winton was recognized for “significantly increasing awareness in the community and inspiring and championing change that promotes inclusion.”

Winton is one of the founding members of the Aerospace Totally Adaptable Group (ATAG), an affinity group comprising employees interested in supporting issues concerning persons with a disability.

Between 2006 and 2014, when he served as ATAG president, Winton demonstrated an “exceptional and unwavering commitment to promoting a diverse and inclusive work environment at Aerospace,” according to his nomination.

Winton, under the ATAG umbrella, has engaged senior leadership in the execution of various events during Disability Employment Awareness Month whereby they simulate an assortment of disabilities for a period of time and then report out as part of a panel discussion.

Winton has reached out to support STEM initiatives and partner with other affinity groups. One example is the partnership formed between ATAG and the Aerospace Military Veterans and involving California State University, Northridge's College of Engineering and Computer Science. University representatives presented on their multi-disciplinary master's program on assistive technologies during a lunch and learn session. Winton facilitated presentation of a \$1,000 scholarship in memory of the late Murry Glick, former engineer and ATAG member.

Office Professional Recognition Award

Candace Puls

The Office Professional Recognition Award acknowledges outstanding achievements that have a very significant positive impact on the corporation's goals and/or objectives, demonstrate excellence exceeding normal expectations, and are recognized beyond the immediate peer group of the nominee(s). Applied effectively, this award will create a workplace climate of respect and opportunities for individuals with diverse backgrounds to grow personally and professionally.

This year's recipient of the Office Professional Recognition Award is Candace Puls, administrative specialist IV, Eastern Range, Launch and Satellite Control Division, Launch Program Operations, Space Systems Group.

Puls was recognized for “excellence in administrative services support and professional development.”

According to her nomination, Puls continues to provide outstanding support at the Eastern Range Directorate, Cape Canaveral Air Force Station, with a lengthy sustained effort working in the unique and often challenging environment of a regional office, with extensive positive impacts not only across the Eastern Range Directorate but with reach back to the Aerospace corporate office. Her dedication to assisting the technical staff and mentoring support to employees has helped the Eastern Range in achieving 100 percent mission success for all Department of Defense missions from 2009 to the present.

Puls earned a Certified Administrative Professional designation as well as a certification in Organizational Management, both from the International Association of Administrative Professionals.

Recaps and Remembrances at June Corporate All Hands

by **Wendy O'Dea**
June 13, 2017

The CEO All Hands meeting broke from its traditional structure with Executive Vice President Wayne Goodman presenting and CEO Steve Isakowitz speaking briefly. Isakowitz only recently returned to the office from bereavement leave after losing his son, Matthew Isakowitz, 29.

Isakowitz spoke to a crowd of 450 in El Segundo's Titan IV meeting center, with another 1,746 attending remotely. He thanked them for their support during a difficult time. “I appreciate the number of you who have reached out with kind notes and thoughts,” he said. “Matthew was a loving son and an amazing person with a deep passion for space exploration.”



Dr. Wayne Goodman addresses Aerospace employees at the June All Hands. (Photo: Elisa Haber)



CEO Steve Isakowitz opens the Corporate All Hands. (Photo: Elisa Haber)

During his brief comments, Isakowitz shared that he recently brought Matthew on a tour of the El Segundo campus, showing him around the various buildings, EPIC, the labs, and also sharing details about the company mission and history.

“He hadn’t said much until the end,” Isakowitz recalled. “But as we were walking through the parking lot he said ‘Dad, this is very cool.’ I remember feeling very proud in that moment of what we do here. We should all feel proud. We’re not going to be here forever and it should make us all feel good that we’re doing good in the world ... We shouldn’t lose sight of that.”

After thanking Goodman for leading the company during his absence — including overseeing last week’s board meeting, Isakowitz handed the meeting off to him to report on recent news and progress from the most-recent quarter.

Quarterly Progress

Goodman reported that Aerospace had done full mission assurance on two successful launches during the last quarter: the NROL-79 and WGS-9. In addition, Aerospace successfully completed the demonstration of the Small Tactical Anti-Jam Transceiver (STAT) using a small, affordable unit to transmit short messages through WGS-8. The board of trustees was shown a demo of the technology, developed here at Aerospace.

Other recent accomplishments included supporting five Space X Falcon 9 static fire tests and launches; supporting a widely publicized flight intercept test over the Pacific Ocean using a ballistic missile, and playing a key role in the installation, checkout, and demonstration of the GPS modernization code (M-code) for military use on a B-2 Spirit bomber.

New Board Member

Goodman announced that Stephanie O’Sullivan, former principal director of National Intelligence, has been elected to the board of trustees. “Stephanie is highly regarded for her broad experience and deep technical expertise and we feel fortunate to have someone of her caliber on our board,” Goodman said. O’Sullivan, who retired earlier this year, also served as the associate deputy director of the CIA, as well as having led its Directorate of Science & Technology, which is responsible for developing and deploying innovative technology in support of intelligence collection and analysis.

Goodman also noted that Lt. Gen. Thompson has replaced Lt. Gen. Greaves as the commander of the Space and Missile Systems Center and as program executive officer for space. Thompson previously served as the commander of the Air Force Life Cycle Management Center at the Wright-Patterson Air Force Base in Ohio. He recently toured the El Segundo campus and was also hosted by the board of trustees during the quarterly meeting last week.

Goodman added that the Colorado Springs office was also visited recently by new Secretary of the Air Force Heather Wilson.



Stephanie O’Sullivan

Progress on Strategic Imperatives

“It’s very clear that we’re living in a time of change in the space community,” Goodman said. He pointed out the importance of playing a part in shaping that change, noting that Aerospace’s strategic imperatives were established specifically to address this issue. He then reviewed each of the four imperatives, sharing some of the recent progress and success in each area.

Shaping the Future

The Center for Space Policy and Strategy inaugural event, held in Washington in March, was attended by more than 140 people

Significant Aerospace technical expertise is devoted to the Space Warfighting Construct, the key priority for our Air Force space customer

SMC Enterprise Systems Engineering Council co-chaired by Dr. Malina Hills and the SMC executive director, is providing support and expertise to the SMC Space Defense Task Force

Innovation

As part of Innovation Day, Aerospace teamed with Starburst—a start-up accelerator providing a bridge to funding between investors and young companies pursuing new advances in space, defense, and security; over 200 people attended and the event was covered by many news organizations
Showcased our cutting-edge work at the opening of EPIC
Held the Agile Mission Assurance Innovation Forum

Growth

Customer requested 300+ STE above current level for FY18
Participated in the 33rd Annual Space Symposium in April with more than 50 executive-level meetings; signed two contracts as a result
Continued to work on creating two or more sponsored FFRDC's with government agencies within next two years

Velocity

Introduced new branding at the end of May with a bold and dynamic look that reflects the spirit of the corporation: truth, honor, integrity, authority, and excitement

Promotions and Recognition

There were a number of promotions and moves announced, and Goodman also shared the names of recent Hero Award winners.

Role Changes/Hirings:

Ed Swallow, promoted to senior vice president of Civil Systems Group
Tammy Choy, promoted to general manager, head of EIS, and deputy CIO
Craig Heatwole, promoted to general manager of Imagery Programs Division
Jeff Emdee, moved to general manager of Space-Based Sensing Division (will continue as acting GM of Launch Systems Division until that position is filled)
Andrew Dawdy, moved to general manager of the newly formed Space Defense Division within the Defense Systems Group (and will continue as acting GM for Advanced Development and Planning until a replacement is hired)
Randy Villahermosa, promoted to executive director of Innovation
Robert Sherwood, hired externally as deputy director of Innovation

Goodman congratulated all those recognized and thanked employees for their ongoing work and dedication before adjourning the meeting.

June 2017 Obituaries

by **Michelle Love**
June 01, 2017

Sincere sympathy is extended to the families of:

Al Geiger, member of technical staff, hired Nov. 2, 1992, died May 16, 2017
Don Latimer, office of technical support, hired Aug. 26, 1971, retired Feb. 1, 1994, died April 5, 2017
Edward Layman, member of technical staff, hired Sept. 9, 1980, retired Oct. 1, 1996, died May 7, 2017
John O'Leary, member of administrative staff, hired Jan. 9, 1961, retired July 1, 1987, died March 2, 2017
Gloria Roberts, member of administrative staff, hired March 26, 1984, retired Dec. 1, 1990, died May 1, 2017
D. Ted Romine, member of technical staff, hired Jan. 9, 1961, retired Aug. 1, 1996, died May 18, 2017
Robert Smith, member of administrative staff, hired Dec. 15, 1969, retired July 1, 1987, died April 17, 2017
Kenneth Soderquist, member of technical staff, hired Dec. 6, 1976, retired Oct. 1, 1996, died May 19, 2017

William Sterr, member of administrative staff, hired Oct. 3, 1960, retired Oct. 1, 1988, died April 25, 2017
Francis Wachi, member of technical staff, hired Aug. 7, 1961, retired Feb. 28, 1998, died May 20, 2017

To notify Aerospace of a death and have it included in the Orbiter, please contact Human Resources at (310)336-5107.

Press Release: Outer Space Treaty

June 30, 2017



NEWS RELEASE

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Aerospace policy paper examines Outer Space Treaty

EL SEGUNDO, Calif. (June 30, 2017) – [The Aerospace Corporation's \(Aerospace\)](http://www.aerospace.org) Center for Space Policy and Strategy announced today the release of an analysis of the Outer Space Treaty, which marks its 50th anniversary this year. The analysis by Dr. James Vedda, senior policy analyst at Aerospace, examines the treaty provisions that may affect space commerce and highlights both possibilities for updating the treaty as well as the risks in re-opening a longstanding international agreement.

Committees in the U.S. Congress are currently addressing the question of whether the nation should withdraw from or propose amendments to the Outer Space Treaty. The intended purpose of these actions would be to support more rapid development of space commerce.

"The treaty does not directly address orbital debris mitigation and remediation or enable salvage in space," Vedda said, noting that the treaty also has the potential to inhibit commercial space development due to concerns about property rights.

However, Vedda urges caution. "It is difficult to identify any significant, enduring benefits to the U.S. from unilateral withdrawal" from the treaty. "From the commercial development perspective, this action increases risk by removing current protections without enabling commensurate benefits."

Amendment of the treaty also has risks. It would require considerable time and effort, without a guarantee that the end result would be better than what is already in place. "The amendment process may not remain limited to the one or two issues that prompted it," Vedda said. The treaty has numerous signatories with different stakes and objectives in space, "any one of which could bring up its own amendments, which could be objectionable to the major stakeholders."

Executive Director of the Center for Space Policy and Strategy Jamie Morin observed, "Space capabilities and ambitions are growing worldwide with more than a hundred nations now party to the Outer Space Treaty. Objectively evaluating the complexities involved in reopening an agreement like this is exactly the sort of problem our Center is dedicated to studying in order to help inform policymakers."

After a half century, the Outer Space Treaty is starting to show its age, but as Vedda points out, "Space agreements exist in a dynamic environment and attempts to alter them must be undertaken with eyes wide open."

To read Vedda's paper and others related to space policy matters, visit www.aerospace.org/policy.

The Center for Space Policy and Strategy is a specialized research branch within The Aerospace Corporation; the corporation provides objective technical analysis for programs of national significance. The Center for Space Policy and Strategy was established in 2000 as a Center of Excellence for civil, commercial and national security space and technology policy; it examines issues at the intersection of technology and policy and provides nonpartisan research for national decisionmakers.

About The Aerospace Corporation

The Aerospace Corporation is a California nonprofit corporation that operates a federally funded research and development center and has approximately 3,600 employees. It provides guidance and advice to military, civil and commercial customers to ensure the success of complex, technology-based programs. The Aerospace Corporation is headquartered in El Segundo,

Calif., with multiple locations across the United States. For more information on Aerospace, visit www.aerospace.org. Follow us on Twitter: @AerospaceCorp.

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Press Release: New Board Member

June 13, 2017



NEWS RELEASE

The Aerospace Corporation
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The Aerospace Corporation Announces New Board Member

EL SEGUNDO, Calif. (June 13, 2017) – The Aerospace Corporation (Aerospace) has elected Stephanie O’Sullivan, former principal deputy director of National Intelligence, to join its board of trustees, effective immediately.

“Stephanie brings a wealth of knowledge and technical expertise from the intelligence community, as well as the military and aerospace sectors,” said Ambassador Barbara Barrett, chairman of the board of trustees. “Our board greatly values her deep insight and experience, and we look forward to working with her to serve our nation’s best interests.”

For the last six years, O’Sullivan oversaw the operations for the Office of the Director of National Intelligence, and supported initiatives and resource challenges for the Intelligence Community. She retired from this position in January 2017. Prior to that assignment, she served as the associate deputy director of the Central Intelligence Agency (CIA). In this role, she worked with the director and deputy director in the overall leadership of the agency and day-to-day management of the organization.

Prior to becoming associate deputy director of the CIA, O’Sullivan led the CIA’s Directorate of Science and Technology (DS&T) – the part of the agency responsible for developing and deploying innovative technology in support of intelligence collection and analysis. Throughout her career, she held various management positions in the CIA’s DS&T, which included oversight of systems acquisition, and research and development in fields ranging from power sources to biotechnology.

O’Sullivan joined the CIA in 1995 after working for the Office of Naval Intelligence and TRW, which is now part of Northrop Grumman. She holds a bachelor of science degree in civil engineering from the Missouri Science and Technology University.



About The Aerospace Corporation

The Aerospace Corporation is a California nonprofit corporation that operates a federally funded research and development center and has approximately 3,600 employees. It provides guidance and advice to military, civil and commercial customers to ensure the success of complex, technology-based programs. The Aerospace Corporation is headquartered in El Segundo,

Calif., with multiple locations across the United States. For more information on Aerospace, visit www.aerospace.org. Follow us on Twitter: @AerospaceCorp.

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Press Release: New Leadership

June 19, 2017

The



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NEWS RELEASE

Aerospace Corporation announces leadership changes

EL SEGUNDO, Calif. (June 19, 2017) – [The Aerospace Corporation \(Aerospace\)](http://www.aerospace.org) announced today a series of new leadership promotions and appointments to support its strategies for future innovation and growth. These personnel changes strengthen the company's continuous role to provide mission assurance and novel solutions across national security, civilian and commercial space sectors.

"The promotion of these proven visionary leaders validates their exceptional track record of anticipating and fulfilling our customers' needs as they advance the space enterprise," said Steve Isakowitz, Aerospace president and CEO. "At the same time, our leaders are taking the necessary steps to advance our new corporate initiatives."

Among Aerospace executive changes, Ed Swallow was promoted from vice president to senior vice president of Civil Systems Group (CSG). This division operates in the national security interests of the U.S. and its allies. It also identifies new opportunities outside of space to apply the company's intellectual property and unique technical expertise.

Aerospace Fellow Tammy Choy has become general manager of Enterprise Information Services and deputy chief information officer. She assumes the role following the promotion of Dr. Willie Krenz to senior vice president and Chief Velocity Officer.

Dr. Craig Heatwole has been promoted to general manager of the Imagery Programs Division, following the promotion of Kevin Bell to vice president, Space Program Operations. Previously, Heatwole served as principal director of Reconnaissance Systems in that division.

Dr. Jeff Emdee will move from general manager of Launch Systems Division to general manager of the Space Based Sensing Division, upon the retirement of Russ Averill. He will remain as acting general manager of Launch Systems Division until that position is filled.

Andrew Dawdy is the general manager of the new Space Defense Division within the Defense Systems Group. His organization supports the Space Defense Task Force for the U.S. Air Force's Space and Missile Systems Center. He will remain as acting director for Advanced Development and Planning (ADP) until that position is filled. As part of the Aerospace organizational change, the general manager position for ADP will be relocated to Albuquerque, N.M.

Dr. Randy Villahermosa has been appointed executive director of Innovation and assistant general manager. Rob Sherwood is the new deputy executive director of Innovation and joins Aerospace from Pure Style LLC, where he was formerly the chief technology officer. Prior to this position, Sherwood was manager of strategic alliances at Dreamworks Animation and worked at NASA's Jet Propulsion Laboratory for 20 years on a variety of missions.

Isakowitz added, "I'm excited to see how my colleagues leverage their new roles to open new chapters in space and expedite the flow of critical innovations at a compelling value for our customers."

All appointments are effective immediately, with the exception of Swallow, whose promotion is effective July 1; and Emdee, who will assume his new role on July 17.

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