

Aerospace Launches Innovative Study on Position, Navigation, and Timing Resiliency

by Gail Kellner
August 29, 2016

Aerospace is pioneering a study to enhance position, navigation, and timing (PNT) resiliency, challenging an Aerospace team to think about PNT resilience with a clean slate.

Dr. David Gorney, executive vice president, initiated the project and asked Aerospace researchers to look at the broad mission of how PNT might be improved, perhaps by augmenting the space-based capabilities with other technologies.

The strategic study, named Sextant after one of the first tools for navigation, does not involve looking for replacement options for GPS. It was actually a key finding of the study that there is not a drop-in replacement for the system.

"GPS is the pre-eminent system that provides service globally, and it is likely to remain so for the foreseeable future," Gorney said. In fact, GPS recently clocked its most accurate day ever in the history of the constellation, generating signals with an average accuracy of 38 centimeters.

Sextant was framed in terms of three critical elements, according to Dr. Randy Villahermosa, principal director, Research and Program Development Office and study lead.

"First, we looked at how to protect PNT services from outages, whether caused by natural phenomenon or man-made threats," he said. "The second element was to address options for flexibility and cost, and third, we wanted to see if there was a way we can introduce new technologies faster," Villahermosa said.

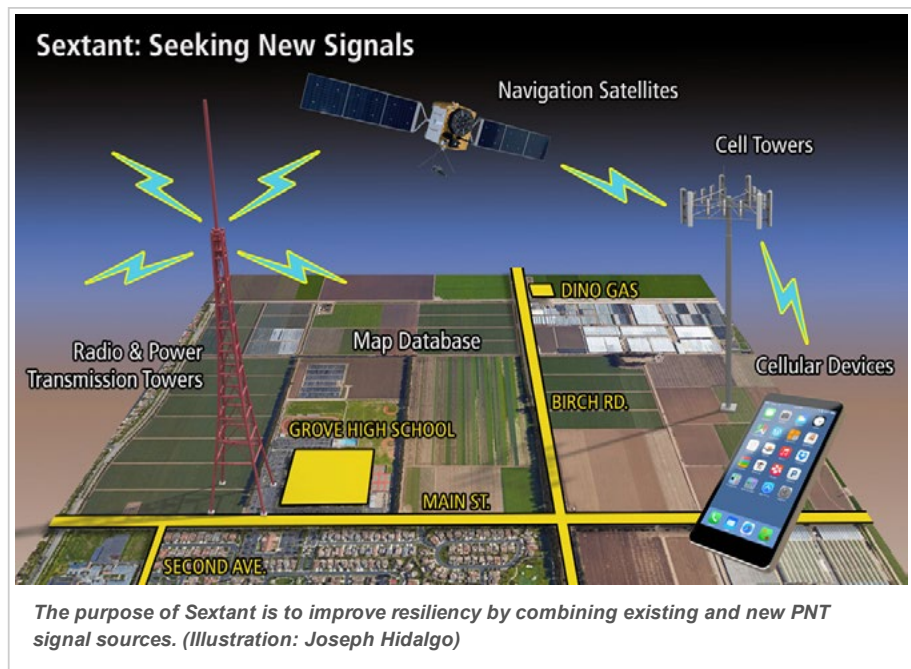
The Sextant strategy revolves around an open-source approach to creating a PNT user-device platform that can accept multiple PNT inputs such as the global navigation satellite system; television and radio signals; cell tower signals; inertial and visual sensors; and terrain maps, according to Villahermosa.

But first, standards must be created to make the strategy viable.

"We do this by first understanding the needs of the government acquisition agencies, while at the same time maintaining strong technical ties to the industrial community," Gorney said. "In this way, we can develop draft specifications or standards, discuss these in industry or government forums, obtain feedback, and then ultimately help to publish or deploy the standards."

According to Villahermosa, if standards are designed appropriately, he anticipates that it will accelerate the growth of the PNT ecosystem consisting of multiple PNT services, technologies, and users.

Aerospace presented its briefing at the National Space Symposium earlier this year as one of the first legs of a tour to the navigation and timing community, particularly product developers. The corporation will attend the ION GNSS conference in



September to discuss strategies. The conference brings together GNSS leaders in the PNT fields and offers the opportunity for attendees to present new research, introduce new technologies, and exchange ideas.

“Looking to examples from the tech industry, it is expected that an ecosystem approach will lead to business opportunities that will accelerate the growth of the PNT market, which will provide benefit back to the government,” Villahermosa said. “The Sextant strategy addresses the evolving threat, affordability, and technology insertion issues that arise when thinking about enhancing resiliency for the future.”

For more information on Sextant, visit www.aerospace.org/sextant.

Observations from McMurdo Station, Antarctica

August 01, 2016

Editor's Note: In the following article, Aerospace senior project engineer Bruce Collins reflects on his experiences working at McMurdo Station, Antarctica, which is managed by the United States' Antarctic Program, National Science Foundation (NSF).

McMurdo is a world unto itself. It is located at the tip of Ross Island, about 3,864 kilometers (2,415 miles) south of Christchurch, New Zealand, and about 1,360 kilometers (850 miles) north of the South Pole.

Approximately 1,000 people live in this self-contained city on the ice in the Antarctic summer months, where scientists are conducting some of the most interesting cold weather research in all the world.



LC-130 aircraft on the ice getting ready to depart McMurdo Station. (Photo: Bruce Collins)

As guests of the NSF, a team from Raytheon—the prime contractor for the Joint Polar Satellite System (JPSS)—L3 Datron, who manufactured and installed the antennae, and I, travel to McMurdo once a year to perform maintenance checks and service on the 4-meter antenna system and ground equipment.

JPSS is a cooperative program between NASA and the National Oceanic and Atmospheric Association (NOAA), and is the United States' next generation polar-orbiting operational environmental satellite system.

JPSS satellites track current storms including hurricanes and typhoons, and collect information on the effects of global warming by monitoring, over time, the melting of glaciers in the North and South Pole regions.

Weather broadcasters rely on NOAA weather data to predict local weather patterns, and the military uses this data for planning and predictions. The JPSS science relayed via these satellites is critical to accomplishing these goals.

Traveling to the Ice

I have deployed three times to McMurdo, and getting there is an adventure all in itself. It starts with an extensive medical, physical, and dental assessment that one must pass to qualify for travel to McMurdo.

Once en route to McMurdo, the first stop is in Christchurch, New Zealand, at the United States' Antarctic Program clothing and distribution center. Here we spend a couple of days attending safety and travel briefings and are then issued three bags of cold weather gear to take to the ice. Finally, we are loaded onto an aircraft for the six- to eight-hour journey, depending on whether we fly in a U.S. Air Force C-17 or LC-130.

The trip to the ice can be daunting and is not guaranteed. Depending on the weather at McMurdo, an aircraft may not be able

to land on the ice. If this happens, one can experience a 'boomerang' where we fly back to Christchurch and try again the next day.

We are usually on the ice for three-and-a-half weeks, but that is a short time compared to some of the support team, who are there for months at a time.

Antarctica is a wonderful place to visit. Talking to the scientists and finding out what they do is intriguing and exciting.

Working with Aerospace has enabled me to travel the world doing satellite work. I have gone to places not normally visited by the public, and it gives me a feeling of accomplishment and adventure. We work hard when in the field, putting in long hours and working nearly every day, but it is all worth it.

To read Collins' complete reflections, please see the [Crosslink article](#).



Springtime at McMurdo Station brings penguins looking to nest in the rocks. (Photo: Bruce Collins)

A Midsummer Night's Launch

by **Randy Kendall**

August 19, 2016

This launch, very early Friday morning, may have seemed like a dream to some, but it was real, and spectacular, as the Delta IV Medium vehicle with two solid strap-on rocket motors lit up the Florida skies with the second launch for the Geosynchronous Space Situational Awareness Program (GSSAP).

This launch occurred on the first attempt, unlike the previous GSSAP launch back in July 2014, which required five attempts, due to ground system issues and then persistent weather problems. Dave Stephens, the Aerospace mission integration manager, remarked, "I'd much rather stay up all night and launch the first time rather than having to go through five attempts. In the end though, the only thing that matters is having successfully delivered another very important national security asset to its intended orbit."



A Delta IV rocket lifts the third and fourth GSSAP satellites into the night sky. (Photo: United Launch Alliance, LLC)

As has been widely reported about this once highly secretive program, the GSSAP satellites provide space situational awareness data for the tracking and characterization of resident space objects and greatly enhance our ability to understand what goes on in the geosynchronous orbit regime.

This launch was also notable as it was the last one in the tenure of Dr. Wanda Austin, who was at the Cape to witness the launch. Remarking on her perfect record of launch success during her time as CEO, "It's not due to me—it's the hard work by the entire team that makes this record of success possible," she said. "Most people don't realize how much work goes into making things look this easy, but I'm confident you all have a great team and great processes in place to continue this success in the future."

Editor's Note: Randy Kendall is Aerospace vice president of Space Launch Operations.

In His Own Words: 9 Things About Steve

by Heather Golden

August 11, 2016

Aerospace's new president Steve Isakowitz loves being part of a team. And that's in many things—sports, family, life, work. That enthusiasm for it comes through when he describes his life.

Before accepting the job at Aerospace, Steve, a graduate of the Massachusetts Institute of Technology, made a name for himself as the president and former chief technology officer of Virgin Galactic, the chief financial advisor for the Department of Energy, deputy associate administrator for the Exploration Systems Mission Directorate at NASA, and the science and space programs branch chief at the White House Office of Management and Budget.

But, instead of writing about Steve, we'll let him tell us all about himself in his own words.



New Aerospace President Steve Isakowitz talks with employees in the A6 laboratories collaboration area. (Photo: Elisa Haber)

1. Steve is a space cadet.

I happen to consider myself lucky that I was born at the dawn of the space program. That's a special time because the dawn of anything only happens once. I was always hooked as a little kid. I was captured by the Apollo program and never lost the passion since. I've never met a kid who hasn't looked at the stars and wondered why; wondered why are we here. I feel that space is a unifying curiosity to the world in its endlessness of its possibilities.

2. Steve is a diehard Cleveland sports fan.

What I love about sports teams in Cleveland is we hadn't won a championship in 52 years—it was the longest streak for any major sports team to not win a championship. For someone to continue to say they're a Cleveland fan despite that drought, that's a sign of real hometown loyalty. And this year, the Cleveland Cavaliers won the championship, despite the odds, being down three games to one against the Golden State Warriors. That was about the same time I accepted this job. My wife said this was a sign; this is the beginning of a big win streak. Dr. Austin's been on an incredible win streak since she's been here, and I've got to keep that going. The other thing I'm really into is football. But beware, with the Cleveland Browns' 3 wins and 13 losses, that means there may be a lot of grumpy Mondays from me. My employees on a previous job knew not to bring it up.

3. Steve is a team player.

I enjoy team sports more so than individual sports because I always find it amazing what people can do that work together. It's so complicated why some teams work well. Like, you watch tennis. If you're a great tennis player, you're going to be great. If you're a great basketball player, you can still be in last place if the team is not clicking. In fact, you can have a team of all-stars and still not make the playoffs.

I'm always so proud of teams that can bounce back from really bad and tough moments. I was in Washington D.C. during 9-11. It was an amazing moment of incredible patriotism. For one fantastic moment, everyone was unified. And people came back to work the next day to start rebuilding the Pentagon and start figuring out what we need to do to respond to such a horrible tragedy. Sometimes, out of these bad moments, amazing things can happen.

4. Steve is a family man.

I have four kids, a boy and three girls. They are an amazing team all doing amazing things on their own. I've got a son doing space stuff, a daughter doing PR, a daughter doing international relations, and another doing psychology. The youngest is going to UCLA now. She told us when we still lived in Virginia, "Mom, Dad, you're not going to like it, but I picked a school 3,000 miles away." Two weeks later I said, "Hey, guess what? I just picked a job 3,000 miles away. We're going to be 20 minutes apart." She was a bit surprised. Now, we're in Manhattan Beach. I'm moving in boxes right now. And it's 10 minutes to work. I haven't had that in 20-something years.

5. Steve wants to hear from you.

I candidly came in here to Aerospace open to new ideas. I want to hear from everybody. I want to hear from the leadership; I want to hear from the board; I want to hear from our customers; I want to hear from our industry partners and the community here; and I want to hear from our employees. What are people thinking? How are people doing? Where should we be going? Where are the opportunities? What do you love about this place, and what do you think we could be doing better?

6. Steve likes to have fun.

We are in a tough business. Space is about the toughest business there is. Silicon Valley does some pretty amazing things, but when their computer crashes, it doesn't make front-page news. When a rocket crashes, it's headlines. It's a serious business with high stakes. Because of that, you've got to have those moments where you can have a little fun in the things you do. We should enjoy what we're doing and enjoy each other while we're doing it. The theory is you get better results with people who feel they have struck that right balance. They come to work happy, their family is happy. I want to create an environment where people want to go home and say, "Guess what I worked on today?" And it's not just the engineers and technicians. It's the IT team, it's the finance team, it's the HR team. And so on. We're all launching rockets and flying spacecraft.

7. Steve is a big believer in the power of passion.

I have an affinity for people who have passion for what they do. And you can tell who they are. They are the ones who lose track of how many hours they're putting in because they are just really excited about what they are doing. The thing I always looked for [when I was hiring someone] was something that told me they had a passion for their work. I can always tell that pretty early in the interview, or just in a handshake.

8. Steve likes mentoring early talent.

When I was at Virgin, I met this kid. His name was Gus, a 9-year-old, and he was really into the space program. I just fell in love with this kid. I said, "Bring Gus to Virgin Galactic. I'll give him a personal tour." I showed him the rocket stuff we were doing, and he just loved it. And I told him, "Gus, I'm leaving Virgin, I'm going for another job, and we're looking for a new president, are you interested?" And he said, "Yeah, I'm interested." His mom said he called it his greatest day ever.

That's why I like having interns; they have that same youthful exuberance. One summer at the Department of Energy, our facility's team said, "We have no space to place the 10 more interns requested so we cannot hire." I said, "Well, I think so. I have a huge office, and I don't need it. I'm not there that much. Just take my desk out, and we'll put a big table in there." And that's what we did. We had 10 interns with a nice view of the Washington Monument and the Capitol Building. And I found another place to sit that summer.

9. Steve really likes his new job.

I think it is an interesting time for the space program. I think whether it's national security, whether it's civil, or whether it's commercial, I feel like things are changing in really seismic ways. That's the nature of the game. Things are moving fast. So, I love the idea of coming to Aerospace because Aerospace sits at the crossroads of all these things. Aerospace has a chance to not only help these sectors succeed, but also help give them direction. There's a lot of really interesting things going on, both in terms of policy directions and the programs that are taking place, to the technologies that are going to make them happen. I don't know where there is a better place to be perched to help shape all that.

EELV Team Receives 2016 Program Recognition Award

by **Gail Kellner**
August 26, 2016

The Evolved Expendable Launch Vehicle (EELV) Program Launch Operations team was honored with the 2016 Program Recognition Award on Thursday, Aug. 25, at an early evening celebration in the Paulikas Mall.

The venue combined live '50s and '60s rock music as a backdrop to the informal ceremony.

Aerospace President Steve Isakowitz, Senior Executive Service member Dr. Claire Leon of the Space and Missile Systems Center, and many other special guests were in attendance to see the largest team to accept the honor since the award's inception in 1982.

The EELV Program Launch Operations team is recognized for its exceptional performance over the last 14 years, working in close partnership with the Air Force, a national security customer, and United Launch Alliance. During that time, team members worked collaboratively with their customers to launch 58 critical national security spacecraft, as well as 34 civil and commercial missions into space. Since the inaugural Atlas V and Delta IV launches in 2002, the team has compiled a record of mission success unmatched in the history of space launch.

"I see how hard this team works day in and day out to ultimately get to the launch at the end," said Dr. Dave Gorney, executive vice president and host of the event. He explained that it is difficult to appreciate the innovation and ingenuity that is involved in the success of the mission without being intimately involved in the process.



Dr. Mark Brosmer, at podium, accepts the 2016 Program Recognition Award on behalf of the EELV team. Seated, left to right, Dr. Dave Gorney, Randy Kendall, Dr. Claire Leon, and Dr. Wanda Austin. (Photo: Heather Golden)



The band's saxophone player serenades two audience members. (Photo: Heather Golden)

Randy Kendall, vice president, Space Launch Operations, said he was pleased that the team was recognized for the sustaining record of success, rather than it being an award for a singular achievement or for solving a particular problem. "I am thrilled we are celebrating a long stream of successes," he said.

Dr. Wanda Austin, CEO, congratulated the team and commented on her confidence in them before presenting the award to Dr. Mark Brosmer, general manager, Launch Operations Division. "People always ask me what keeps me up at night," she said. "I never lose sleep over a launch because we have a first-class team that follows a disciplined process."

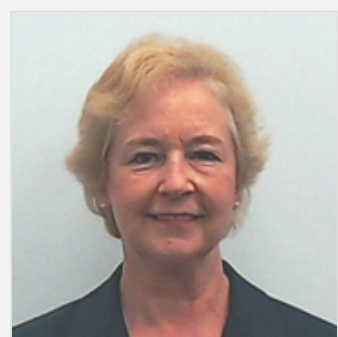
Brosmer conveyed the message that launch is a team sport. He told the group in attendance that "It takes a team, especially when you are looking at the number of successful launches we have had in this program since 2003 ... two-thirds of those missions were the ones that you sweat

through, and you continue to work through the commercial and civil missions, as well."

Brosmer ended his remarks by reciting a toast that is given after every launch mission. "To err is human, forgiveness divine, but the only thing they pay us for is mission success. To success!"

Dana Speece Named PD of Corporate Quality Management Office

August 23, 2016



Dana Speece

Dana Speece has been promoted to principal director of the Corporate Quality Management Office, Corporate Chief Engineer's Office.

In this new position, Speece is leading the development and sustainment of the corporate quality management system. She is also overseeing the implementation of the corrective and preventive action systems and leading the effort to instill a culture of continual process improvement at Aerospace.

Speece joined the corporation in 1984, working in the Material Science Laboratory, now the Space Materials Laboratory, Engineering and Technology Group (ETG) for eight years and then held positions of increasing responsibility within ETG including department director within the Systems Engineering Division.

She joined the Corporate Chief Engineer's Office in 2014, serving as senior project leader for its Corporate Quality Management Office where she provided leadership in the planning and implementation of all aspects of the corporate quality management system.

Speece earned a bachelor of science degree in ceramic engineering from the University of Washington.

Aerospace Women's Committee Honors Women of the Year

by **Gabriel A Spera**

August 23, 2016

The Aerospace Women's Committee (AWC) honored three individuals during a lunchtime ceremony on Aug. 22 in El Segundo. Margaret Abraham of Vaeros NASA & Civil Space Division, Jennifer Tanzillo of the Vehicle Systems Division, and Carmelita Johnson of the Computers and Software Division received the 2016 Women of the Year award.

AWC president Yogita Shah presided over the ceremony, which was attended by outgoing CEO Dr. Wanda Austin and incoming CEO Steve Isakowitz. Austin addressed the assembly, noting that the annual award winners "always make you feel like you're standing still" with regard to how much they've managed to achieve. The ceremony, she said, was about "recognizing excellence ... both inside and outside the workplace." Austin has direct experience in the matter, having received the award in 1982.

The three recipients represent a diversity of backgrounds and interests. For example, Abraham holds degrees in history and art history as well as materials science; she has applied her knowledge of materials science to art restoration projects. During her time in the Aerospace labs, she served as lead contamination control engineer for NASA's Lunar Atmosphere and Dust Environment Explorer (LADEE) mission. She currently focuses on missions including BioSentinel, scheduled to launch in 2018, and the NASA Geostationary Operational Environmental Satellite (GOES).

Tanzillo began her career at Aerospace as a summer intern in 2001; an active member of the AWC, she served as president of the organization in 2009 and 2010 and was instrumental in bringing Dr. Sally Ride to speak at Women's Week that year. She became manager of the Dynamics and Control Center in 2010 (now the Mechatronics Research Laboratory), and was a key member of the Transformational Satellite Communications System team. She was named director of the Electromechanical Control Department in 2015.



From left, Steve Isakowitz, Jennifer Tanzillo, Carmelita Johnson, Margaret Abraham, and Dr. Wanda Austin. (Photo: Eric Hamburg)

Johnson has worked at Aerospace for 28 years, and also served as AWC president; she has amassed an impressive collection of awards and accolades during that time, and gained recognition as a dedicated mentor and educator. "Aerospace has come a long way since the day I started," she said, noting that the administrative staff was still using typewriters back then. As for word processing, she said, "there was a device down the hall known as the Wang..."

All three award winners expressed gratitude for being given the opportunity to pursue their personal and professional goals at Aerospace. They also noted the sense of satisfaction and accomplishment that comes from volunteering and helping others, both inside and outside the corporation.

This event marks the 44th presentation of the Woman of the Year award, which recognizes exemplary achievement across five categories: job performance, company activities, community involvement, professional/career/educational achievements, and leadership and initiatives that contribute to the advancement of the company.

Upcoming Women's Week activities

The Women of the Year award ceremony is the kickoff event for Women's Week, which is timed to coincide with Women's Equality Day, commemorating passage of the 19th Amendment. Additional events will be held at various locations throughout the week.

On Tuesday, Aug. 23, the Connections Speed Mentoring Event will take place at 11:30 a.m. PST in El Segundo, A1 Titan IVA and IVB. On Wednesday, Andrea Belz, Entrepreneur-in-Residence, USC Viterbi School of Engineering, will speak at 11:30 a.m. PST in A1 Titan IVA and IVB, with VTC to Chantilly (ACC L0037 Gambit A), Colorado Springs (FED Conference Room 1802), and Albuquerque (KAFB Bldg. 413, room 147). Two events are scheduled for Thursday, Aug. 25—a "Lunch and Learn" with Dorothy Arbiter at 11:30 a.m. EST in Chantilly (ACC U0025A) and an invitation-only luncheon to honor the current and previous Women of the Year award winners in El Segundo.

There will also be a weeklong clothing drive, Monday through Friday in El Segundo and Chantilly and Monday through Thursday in Colorado Springs. Collection bins have been placed in El Segundo in A8 near the elevators and D8 near the core elevators; in Colorado Springs in the first floor lobby; and in Chantilly in the A101 upper concourse, plaza entrance, and the Greens 3 lobby.

Events are free and open to all Aerospace employees except for the Connections Speed Mentoring Event, which costs \$10 per person, and the winners' luncheon, which is invitation only. For more information, contact Rebecca Glick, Women's Week chair, at 310-336-1653, or Yogita Shah, AWC president, at 310-336-6952.

Awards and Recognitions, August 2016

August 09, 2016

Aerospace employees frequently earn recognition for their professional accomplishments. This Orbiter feature will acknowledge those honors and awards, including the publication of books. To nominate someone for consideration in this section, send details of the award in a timely fashion to orbiter@aero.org, or contact Gail Kellner at gail.d.kellner@aero.org.

Dr. Wanda Austin

Dr. Wanda Austin, chief executive officer, was awarded the 2016 AIAA Goddard Astronautics Award in June at a Washington, D.C. ceremony. The award honors Austin's leadership, vision, inspiration, and contributions to the nation's space programs.

The Goddard Astronautics Award is the highest honor the AIAA bestows for notable achievements in the field of astronautics.

Dr. Drew Turner

Dr. Drew Turner, member of the technical staff, Space Sciences Department, has received the 2016 Yakov B. Zeldovich Medal. This honor is a joint award conferred by the Russian Academy of Sciences and the Committee on Space Research (COSPAR) to young scientists for excellence and achievements.

Turner received the award for his work on COSPAR Scientific Commission D: Space Plasmas in the Solar System, including Planetary Magnetospheres.

Congresswoman Comstock Speaks at Aerospace

August 24, 2016

Congresswoman Barbara Comstock discussed leadership and mentoring in an address to East Coast Aerospace employees on Wednesday, Aug. 24.

In particular, Comstock talked about the Young Woman's Leadership Program, an organization that she founded in 2013. The program provides young women currently enrolled in middle school and high school with the opportunity to meet and interact with women who hold leadership roles in government, business, medicine, media relations, and other professions. The women leaders share insight, advice, and stories of personal achievement. Program participants also engage with their peers and special guests in candid, roundtable discussions. Participants learn to identify their strengths, practice effective communication with others, and develop their leadership abilities.

In her speech, delivered on the Aerospace Chantilly Campus, Comstock gave examples of instances where community leaders spoke with the girls and inspired them to get involved in philanthropy, to the extent that many of the young women started their own nonprofit charities and organizations.



Barbara Comstock discussed leadership and mentoring in her Chantilly address. (Photo: Kelly Hart)

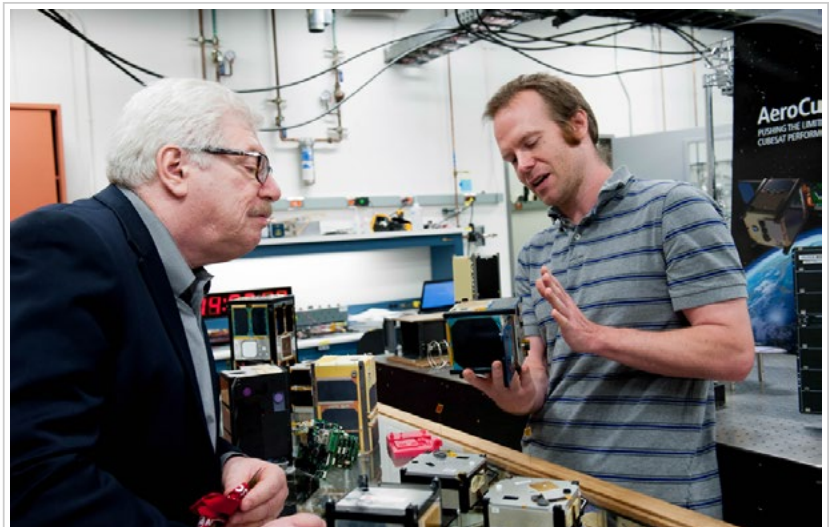
L.A. Times Columnist Tours Aerospace

August 09, 2016

Los Angeles Times columnist Michael Hiltzik toured some of The Aerospace Corporation's signature laboratories at the El Segundo campus on Monday, Aug. 8.

In the Microsatellite Systems laboratory, Brian Hardy, senior scientist, spoke with Hiltzik about Aerospace's role in the development of small satellites and also described the capabilities of each AeroCube satellite – spacecraft measuring 10 centimeters on a side.

Hiltzik toured the Laser Materials laboratory where Henry Helvajian, senior scientist, discussed Aerospace's laser technology innovation and capabilities. Hiltzik also toured the Spacelift Telemetry Acquisition and Reporting System (STARS) facility where Bruce Mau, principal director of Launch Enterprise Engineering, explained Aerospace's support to national security space launches.



Brian Hardy, right, explains AeroCube satellite capabilities to Michael Hiltzik. (Photo: Elisa Haber)

Hiltzik was invited to Aerospace by the Aerospace Employees Association (AEA) Book Club. At a lunch-hour presentation, the Pulitzer-Prize-winning journalist spoke and answered questions about his most recent book, "Big Science – Ernest Lawrence and the Invention that Launched the Military-Industrial Complex."

2016 August Obituaries

by Elaine Young
August 01, 2016

Sincere sympathy is extended to the families of:

Arthur Allione, member of technical staff, hired Aug.21, 1972, retired Dec.1, 1993, died June 26, 2016.
John Barber, member of technical staff, hired Feb. 13, 1967, retired April 1, 1979, died June 13, 2016.
Grover Belden, member of technical staff, hired May 1, 1961, retired Jan. 1, 1994, died June 16, 2016.
Wade Blocker, member of technical staff, hired Feb. 20, 1961, retired March 1, 1988, died July 29, 2015.
Oliver Drummond, member of technical staff, hired Jan.23, 1967, retired April 1, 1993, died Feb.1, 2016.
Alice Folkart, member of technical staff, hired July 23, 1984, retired Jan.1, 2007, died June 6, 2016.
John Gobble, member of administrative staff, hired April 9, 1974, retired Sept. 1, 1995, died July 21, 2016.
Doris Hall, member of administrative staff, hired Dec. 10, 1973, retired June 1, 1979, died July 24, 2016.
John Heney, member of technical staff, hired May 19, 1983, retired Oct. 1, 1990, died July 1, 2016.
Diane Holly, administration secretary, hired Feb.12, 1968, retired Jan.1, 2007, died June 26, 2016.
Harold Kaufman, project engineer, hired Oct. 8, 1964, retired Oct.1, 1990, died July 2, 2016.
Kenneth Sandoval, engineer specialist, hired Oct. 16, 1962, retired Sept. 1, 1995, died July 2, 2016.
Anh Tran, member of technical staff, hired July 24, 1989,
Jerry Trent, safety engineer, hired April 21, 1989, retired Sept 1, 2004, died July 9, 2016.
Gloria Turner, member of administrative staff, hired May 13, 1974, retired April 1, 2002, died July 5, 2016.
John Wessel, member of technical staff, hired Feb. 25, 1974, retired April 1, 2005, died July 6, 2016.

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

August 2016 Notes

by Elaine Young
August 01, 2016

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

Anibal Jaimes, on the recent passing of his grandfather, Jesus Jaimes.

August 2016 Anniversaries

by Elaine Young
August 01, 2016

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Engineering and Technology Group

Robert Nesbitt

Enterprise Information Services

Karen Olds

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Engineering and Technology Group

Barry Pataky, Norman Chen, Robert Prager, Thomas Bostick, Victoria Jackson

Enterprise Information Services

Shirley Dohzen

Operations and Support Group

Charlotte Lazar-Morrison, Jacqueline Jones

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Engineering and Technology Group

Carlton Nealy, John Maul Jr

Space Systems Group

Bonnie Troup, Peter Broussinos

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Engineering and Technology Group

Gretchen Lindsay, Ted Winer

National Systems Group

Bruce Wendler, Tracy Dutton

Space Systems Group

Charles McGee Jr, Eva Allen-Neldner

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Engineering and Technology Group

Charles Wang, Joseph Bannister, Thelma Mangahas

Enterprise Information Services

John Kilpatrick

National Systems Group

John Creamer III, Robert Carlisle III

Systems Planning, Engineering, & Quality

Hugh McKay

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Engineering and Technology Group

Anthony Lim, Hyun Kim

Enterprise Information Services

Rodney Beck

National Systems Group

Marion Thompson, Michael Fortanbary

Space Systems Group

Leslie King

Systems Planning, Engineering, & Quality

Gregory Meholic

10

Engineering and Technology Group

Brian Smith, David Tratt, Justin Lee, Kurt Roettiger, Ronald Bloom,

Ryan Speelman

National Systems Group

Andre Choi, Michael Prendergast

Space Systems Group

Adrio DeCicco, Daniel Salem, Nasir Muhammad,

Systems Planning, Engineering, & Quality

Richard Truesdell

5

Engineering and Technology Group

Ashley Peltz, Jeffrey Meech, John McHale, Joshua Davis,

Luke Florer, Nathan Johnson-Williams, Robert Stevens,

William Nunan, Yanina Landa

Enterprise Information Services

Kevin Klenk

National Systems Group

Myrna Milliser

Operations and Support Group

Juan Simon, Mark Brown, Nancy Liu

Space Systems Group

Kiana Ross

Systems Planning, Engineering, & Quality

Daniel Pettibone, David Cannon, David Richardi

These articles are reprinted from the Orbiter, a publication of
The Aerospace Corporation
2310 E. El Segundo Blvd.
El Segundo, CA 90245-4691

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