Orbiter
May 2014

Heritage Festival Draws Crowd With Music, Food

May 29, 2014

By Chantel Carter

Bright flower settings and oriental fans adorned A1 Titan IVA and IVB as the Aerospace Asian Pacific American Association (AAPAA) presented its annual Heritage Festival on Thursday, May 29.

The event celebrated diverse leadership and expanding opportunities in the workplace. Keynote speaker Yiu Man So, senior principal engineer at Raytheon Space and Airborne Systems emphasized the importance of diversity leadership and noted that “diversity leadership benefits companies.”

Ehru ("Chinese fiddle") musician Yun-He Liang gave a masterful performance of three songs at the AAPAA Heritage Festival. (Photo: Eric Hamburg)

AAPAA’s event introduced many to different aspects of Asian culture. Aerospace employees were encouraged to try different Asian foods and candies. Entertainment came by way of the Bhangra dancers troupe Got Bhangra, as well as an exciting Ehru (“Chinese fiddle”) performance by award-winning musician Yun-He Liang. The final performers were Taiko drummers from the Taiko Center of Los Angeles.

Awards and Recognitions, May/June 2014

by Matthew Kivel
May 28, 2014

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 Matt Kivel at matthew.k.kivel @aero.org. Include a photo related to the award, if available.

The Aerospace Corporation

The Aerospace Corporation has been honored by Chief Learning Officer magazine, receiving the publication’s Silver LearningElite Award.

Marilee Wheaton, chief learning officer of The Aerospace Corporation, accepted the Silver LearningElite award from Chief Learning Officer magazine. (Photo: Chief Learning Officer magazine)

Aerospace's chief learning officer, Marilee Wheaton, accepted the award at the 2014 LearningElite Gala, which took place on the evening of March 30 at The Ritz-Carlton, Laguna Niguel. The LearningElite program honors "the best organizations for learning and development" by recognizing "those organizations that employ exemplary workforce development strategies that deliver significant business results."

The Aerospace Institute was praised by the LearningElite judging panel, which stated that: "TAI's impact on the industry and external customers and stakeholders at large is significant, and its STEM activities to bring up the next generation of engineers are expansive nationally and include multiple programs." Aerospace was ranked 40th out of the 58 organizations recognized at the gala.

Aerospace Corporate Communications Video Team

Aerospace's Corporate Communications video team recently won a Bronze Award at the 35th annual Telly Awards for its documentary on the Robert H. Herndon Memorial Science Competition.

Lester Chung, Laura Johnson, Diana Orr, and Frank Rohmer comprised the team that filmed, produced, directed, and edited the 44-minute documentary.

Founded in 1979, the Telly Awards honors "outstanding local, regional and cable TV commercials and programs as well as video and film productions, and web commercials, videos, and films." Each year, the Tellys receives over 12,000 entries from all 50 states and many foreign countries.

Social Conscience on Display at Herndon Science Fair

by Matthew Kivel
May 23, 2014

Aerospace's 37th annual Robert H. Herndon Memorial Science Competition was held on May 22 in El Segundo, following the annual East Coast installment of the competition, which took place on April 3 in Chantilly.

Dr. Sherrie Zacharius and Dr. Walter Buell interview students from Manhattan Beach Middle School about their experiment on using tide movement and currents to power an underwater turbine. (Photo: Elisa Haber)

In the early morning hours, local middle- and high-school students arrived on the El Segundo campus and set up booths in the A5-A8 courtyard. The energetic group of young scientists, dressed in button-down shirts, ties, and dresses, huddled around their respective projects, adjusting and perfecting the experiments while simultaneously rehearsing their presentations. Each of the booths offered a unique exhibit — some grander and more ambitious than others, but as a whole, the projects explored a wonderfully diverse array of scientific and technological concepts.

This year's crop of students exhibited an acute social consciousness in developing experiments and technologies that tackled societal and environmental issues. Sustainability and resource conservation were themes that consistently recurred throughout the science fair. Water, both as an energy source and as a necessity for human life, inspired a number of projects including an affordable desalination system, an air-to-water converter, and an underwater turbine. Another set of students used water as a proving ground for its custom-built, underwater remotely operated vehicle.

A team from Bert Lynn Middle School in Torrance ambitiously set its sights on America's obesity epidemic and the nation's

accelerating addiction to smartphones. These students proposed that high obesity levels are, at least partially, tied to the extensive use of electronics and communication devices for recreational and practical purposes. Ingeniously, the team developed a bike-powered charging device for the iPhone, allowing users to charge their coveted phones while undertaking a challenging workout in the process.

A team from Bert Lynn Middle School tackled the problem of obesity and devised an exercise bike-cell phone charger. (Photo: Elisa Haber)

All of the students' work was evaluated by a panel of judges, which observed the various projects and asked pointed questions of the young scientists. The students often responded enthusiastically and thoughtfully, eager to engage in lengthy discussions of the science behind the experiments. During the science fair, a group of students that had submitted essays instead of physical projects to the competition were taken on a guided tour of the Aerospace facilities.

After the science fair concluded, the students reassembled at an awards ceremony in Titan IVA and IVB where they were served lunch and watched a documentary on last year's Herndon Memorial Science Competition. Mary Herndon, wife of the late Robert Herndon, was in attendance and received an award and keepsake to celebrate her 37 years of service to Aerospace and, more specifically, the science competition. A ten-minute documentary celebrating her life and work was screened, and upon its conclusion, the audience gave her a warm ovation.


Kayla Salmon of Gunston Middle School in Arlington, Va., explains her experiment to judge Capt. Vera Northcutt. (Photo: Amanda McCarty)

Gwynne Shotwell, president and chief operating officer of SpaceX, delivered the event's keynote address, encouraging the students to consider their STEM pursuits as viable career options. She closed with a short and engaging video about the work taking place at SpaceX and the company's goals for the future, which includes landing humans on Mars.

Finally, awards and monetary prizes were presented to the top two essays and the top three teams for both middle and high school. Upon winning first place in the high school team competition, students from Morningside high school bounded onto the stage, celebrating joyfully, unable to contain their emotion. The team embraced and many of the individual students shed tears of joy, crying and laughing as they posed for photos with their newly won medals and checks. It was a touching and beautiful finale to a remarkable day of learning and achievement.

East Coast Competition Winners

High School Experiment

1) Kheelum Brown, McKinley Tech, "Antimicrobial Study"

2) John Toner, Wakefield High, "Study in Insulation"

3) Bridget Hart, Yorktown High, "Pykrete"

Middle School Experiment

1) Matthew Kolodner, R. Clemente MS, “Laser Com”

2) Kelton Williams, Jefferson MS, “Quantum Levitation”

3) Andrew Komo / Noah Kim, Takoma Park MS, “Cryptography”

High School Essay

1) Abhinav Seetharaman, Briar Woods HS, “Investigating the Effect of Heat Transfer on Light Therapy”

2) Kelly Hayes, Briar Woods HS, “Cloning of Human Embryos Leads to Advances in Stem Cell Research”

Middle School Essay

1) Kaela Peters, W. Irving MS, “Adhesives as Alternatives to Sealing Heart Defects”

2) Gabriella Lozano, W. Irving MS, “The Need for Waste-to-Energy on Ships”

West Coast Competition Winners

High School Experiment

1) Morningside High School

2) Clark Magnet High School

3) Manual Arts High School

Middle School Experiment

1) Manhattan Beach Middle School

2) Dana Middle School

3) Robert E Peary Math/Science Middle School

High School Essay

1) Kobi Kelley, Verbum Dei HS, “Powerful Stem Cells”

2) Jorge Medina, Dominguez HS, “The End of Moore’s Law and the Quantum Computer: Thinking Small to Solve a Big Issue”

Middle School Essay

1) Omar Rashad, Bert Lynn Middle School, “The Sensitivity of Pain”

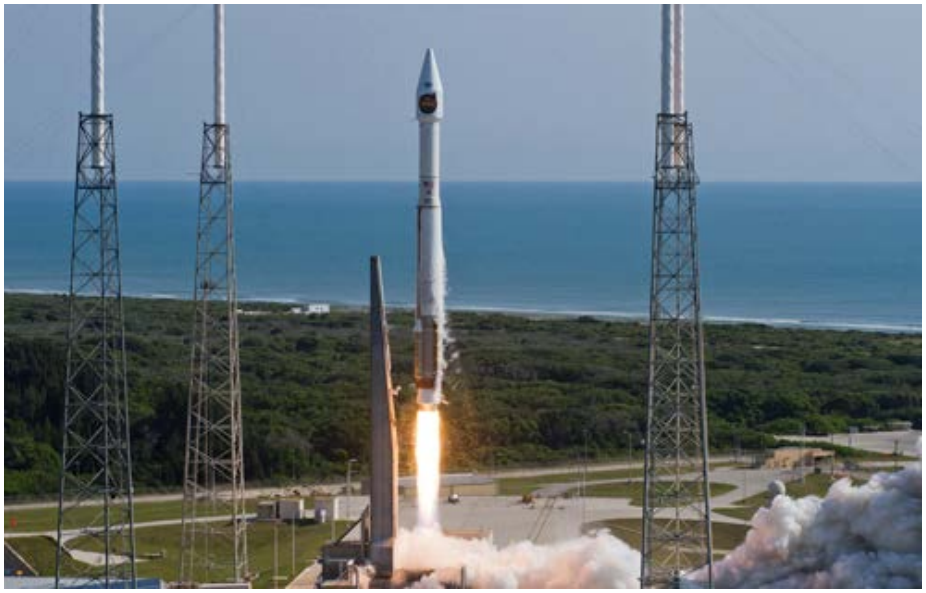
2) Melita Jackson, Dana Middle School, “Self-Driving Cars, What it Takes to Make Them a Reality”

National Security Satellite Launches to Orbit

May 22, 2014

A national security satellite successfully launched to orbit from Cape Canaveral Air Force Station aboard an Atlas V rocket on Thursday morning, May 22. Ray Johnson, Aerospace vice president for Space Launch Operations, issued the following statement:

“I’m very pleased to announce the successful launch of Atlas V and its NROL-33 satellite. The vehicle lifted off of space launch complex 41 here at the Cape at 9:09 a.m. EDT. After a 38-minute mission we separated the spacecraft right on target. After spacecraft separation we successfully completed a third burn of the Centaur upper stage to reenter the upper stage. The countdown operation was extremely smooth with no major issues. This launch came just six days after we completed the successful Delta IV/GPS IIF-6 mission. The Aerospace launch team has done an outstanding job of supporting both of these operations. Congratulations to the launch team and the NRO team as they start their NROL-33 mission. Thank you.”



An Atlas V rocket launches from Cape Canaveral AFS on May 22. (Photo: United Launch Alliance LLC)

Space and Cyberspace Meet

May 21, 2014

Space and cyberspace crossed paths at Cyber 1.4, a national conference sponsored by the Space Foundation, on Monday, May 19, at The Broadmoor Hotel in Colorado Springs, Colo.

Cyber 1.4 focused on senior leadership views on Department of Defense and industry cyber activities, with emphasis on current issues, international aspects and the evolving challenges posed by cyberspace.

Aerospace’s Jandria Alexander, principal director of the Cyber Security Subdivision of the Communications and Cyber Division, was a member of a panel titled “We’re All in This Together: A Shared Stake in a More Secure Cyber Domain.”

“You can’t apply cyber requirements universally across the board,” Alexander said. “You need to have the ability to tailor to given sectors.”

The Aerospace team in front of the company's booth at the 30th Space Symposium. (Photo: Jeff Wong)

She noted that the key for government and industry officials is “getting cyber lessons-learned out and taking advantage of what we learned in one sector and applying it to another.”

The Cyber 1.4 conference was held immediately before the official opening of the 30th Space Symposium, held at the same

location. The Space Foundation bills the Space Symposium as “the premier gathering of the global space community.”

As it has for many years, Aerospace was well-represented at the Space Symposium by a leadership contingent that spent time meeting with government, military, and industry decision-makers.

The Aerospace booth was also a popular attraction in the symposium’s exhibit hall.

The Space Symposium opened on Monday evening, May 19, and will continue through Thursday, May 22.

Delta IV Lofts Sixth GPS IIF

May 19, 2014

A Delta IV rocket successfully launched the sixth GPS IIF satellite to orbit on Friday evening, May 16.

Ray Johnson, vice president, Space Launch Operations, issued the following statement:

“I’m very pleased to announce the successful launch of Delta IV and its GPS IIF-6 satellite. The vehicle lifted off of Space Launch Complex 37 at the Cape right at the opening of the launch window at 8:03 EDT on Friday night. We completed a successful SV separation after a three-hour and 19-minute mission. The Delta IV flight was very clean with no significant flight issues. Congratulations to both the Delta IV and the GPS teams.

Now we need to turn our focus to this Thursday’s Atlas V/NROL-33 launch from the Cape. The Atlas team is at the Cape going through final preparations and reviews. Thank you.”

A Delta IV rocket lifts off Friday, May 16, carrying the GPS IIF-6 satellite. (Photo: United Launch Alliance, LLC)

Portraits Program Honors Fallen Heroes

by Kimberly Locke
May 15, 2014

They are stories that touch the heart and the mind, even the spirit. And it’s the brave men and women behind those stories who were the focus of the Portraits of the Fallen memorial program held May 14 in El Segundo. The event was VTC’d to the Albuquerque and Colorado Springs offices and Vandenberg Air Force Base.

Though their lives were lost while serving in the Iraq and Afghanistan conflicts, their stories live on in this traveling memorial exhibit of individual portraits that capture a special smile or pensive look characteristic of that particular soldier.

The artists volunteer their time to create these five-inch-by-five-inch portraits while working with the fallen soldier’s family and friends to capture their essence. The lunchtime program included the showing of a video featuring many of the portraits, which are currently on exhibit at the Richard M. Nixon Presidential Library and Museum in Yorba Linda, Calif., through July 6.

Following opening remarks by Jason Bayonne, national secretary for the Aerospace Military Veterans, and the presentation of colors by U.S. Marine Corps Color Guard, Headquarters and Support Company, 2nd Battalion, 23rd Marine Regiment, Pasadena, attendees received an introduction to the memorial exhibit from founder and curator Sherry Moore.

Moore, a veteran herself, is an advocate for the important role of artists and art as a means for fostering a deeper communication between the public and the men and women serving in the U.S. military.

The project was started in 2011 and, to date, some 150 portraits have been completed. Thus far, the exhibit features only

fallen service members from California. However, Moore has plans to expand the project's scope to include soldiers from other states in addition to including each soldier's story through an interactive touch-screen approach.

A Marine color guard added military regality to the portraits program. (Photo: Heather Golden)

In May of 2013, the first curated exhibition of 150 portraits took place at the University of Southern California. On Memorial Day, 2013, the exhibit was featured on two networks, both national and local.

Moore told attendees she was "humbled" to be curator of the exhibit and to work with the artists who volunteer their time and talent to create these visual interpretations of the fallen soldiers. She also explained the time she takes to select what she termed as "the right hero" for the selected artist to paint.

The program included remarks by Jill Sykes, a Blue Star mother and painter of one of the many portraits. Sykes shared her personal experience with the exhibit and how creating one particular portrait touched her as an artist and mother of an active duty service member. She also commented on what "an amazing sight it is to see all of the portraits lined up" on exhibit.

Employee Gail Johnson-Roth, principal director, Enterprise Systems Engineering Office in the Corporate Chief Engineer's Office, offered her perspective of the exhibit as a proud mother of U.S. Army Spc. Daniel Cagle, who was killed in action in 2007.

As the mother of a fallen soldier, Johnson-Roth said that for her, the exhibit serves as a visual reminder that she is "not alone in her grief." She praised the artists for their creativity and for their ability to capture a special quality in each of the soldier's persona from a simple photograph or two, true even with her son's portrait. His portrait captures what she called, ""his smirking grin and twinkle in his eye as if he knows something you don't."

Johnson-Roth said that as a mother, "you want to believe you are responsible for your children's amazing accomplishments. However, I realize I am the one learning from him." She explained that her son was a "natural leader who never wanted to lead" yet it was his courage and loyalty to his friends that have remained with them as well as being an inspiration to his fellow Army soldiers.

From left, Jill Sykes, one of the program artists; Gail Johnson-Roth, Gold Star mother of Army Spc. Daniel Cagle, who was killed in action in May 2007; and Sherry Moore, founder of the Portraits of the Fallen Memorial. (Photo: Heather Golden)

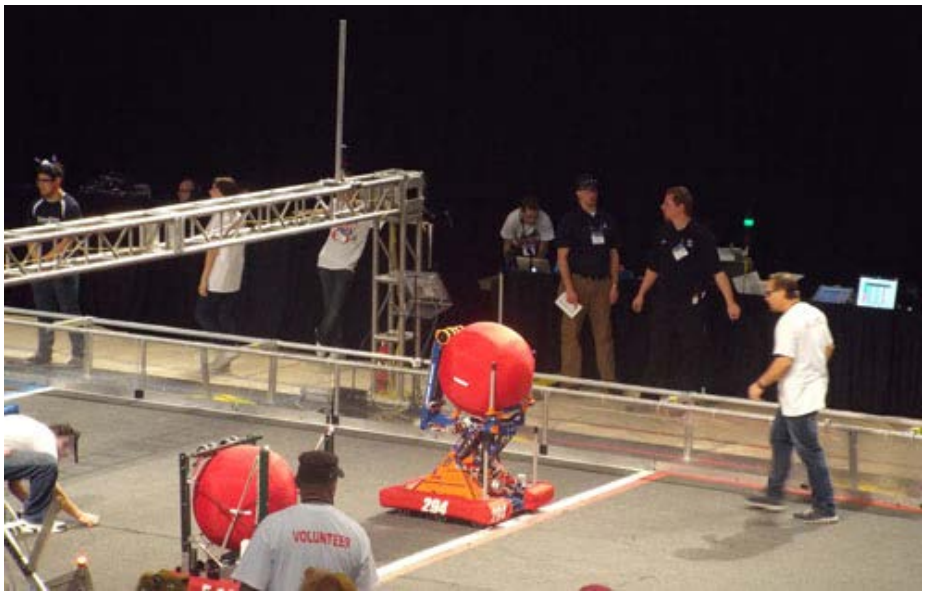
"Daniel died as he lived, in the lead, and he would not have wanted it any other way. Service before self," she added.

The program was sponsored by the Aerospace Military Veterans (AMV) group and cosponsored by the Aerospace American-Indian and Alaskan-Native Council and the Aerospace Latino Members Association. Stephen Cathers, senior member of the technical staff, Applied Computer Systems Department, performed the National Anthem and Chaplain Brandon Parker, U.S. Air Force captain, Air Force Space Command, 61st Air Base Group Headquarters, gave the invocation.

For more information about this traveling exhibit, visit http://portraitsofthefallenmemorial.org.

Robotics Teams Win With Aerospace Assistance

by Kimberly Locke
May 12, 2014



The Beach Cities Robotics' robot, No. 294, prepares to take a shot during the regional competition in Long Beach. (Photo: Robert Stevens)

The excitement is infectious. As the high school teams prepare for the final rounds in the FIRST® (For Inspiration and Recognition of Science and Technology) Robotics Competition® (FRC), the world's largest such event, crowds cheer on the students who have practiced days, weeks, months leading up to this moment.

The more than 12,000 students who compete in this annual event have been mentored by teams of professionals in the science, technology, engineering, and math (STEM) fields eager to share their knowledge and skills with the next generation of technical workers. To, as they say, "pay it forward."

Two such technical professionals are Aerospace employees Daniel Judnick and Robert Stevens. Judnick, a member of the technical staff who supports the NASA Ames Research Center at Moffett Field, helped lead his robotics team, the "Cheesy Poofs," to the 2014 FRC World Championship held in St. Louis, Missouri, in April. The team was undefeated in the qualification rounds of the Curie Division and paired with three other teams for elimination matches, which they successfully competed in to capture the crown and title, "world champs." No easy feat considering the dozens of competition rounds leading up to the final matches.

The Cheesy Poofs' robot, No. 254, winner of the FIRST Robotics World Championship. (Photo: Daniel Judnick)

FRC's website states its mission is "to show students of every age that science, technology, and problem-solving are not only fun and rewarding, but are proven paths to successful careers and a bright future for us all."

The competition is aptly referred to on the FRC website as, "The varsity Sport for the Mind" and "combines the excitement of sports with the rigors of science and technology." Teams of anywhere from about 10 to nearly 100 students are challenged to raise funds, design a team "brand," hone teamwork skills, and build and program robots to perform prescribed tasks against a field of competitors. It's as close to "real-world engineering" as a student can get. This is all done under strict rules, limited resources, and time limits.

The robots are built to perform like athletes on the field, performing such maneuvers as throwing balls over a truss, catching balls, and putting as many balls in goals as possible.

Judnick first became involved in the competition last year. He acknowledges that preparing for such an intense competition takes lots of practice. "Typically," explained Judnick, "the kickoff for the FRC season is right after New Year's but we try and keep them involved in related projects all year." From the kick-off date on, he said, team members work six days a week until the championships. To ensure the students are able to make continuous improvements to their robot, Judnick said his team built two of them, so that when one is packaged up for travel to the next round of competition, there's another identical robot to test improvements.

Preparation also comes in stages as students who are just beginning to compete are given increased responsibility over time. "It's also a multi-year process as we train the students from their first year to the expectation that the upperclassmen will take on a larger role within the team framework, including leadership positions," said Judnick.

But it's not just the preparation and projects leading up to the FRC that matter, he added. "We try and have the students understand not only what we are doing but why we are doing it. We are trying to prepare them for careers in the STEM fields, so understanding the thought process behind a task, such as the process for completing a trade study, is one of the key things we want to impart on our students," Judnick explained.

Daniel Judnick, left, and Robert Stevens at the FIRST Robotics world championships. (Photo: Daniel Judnick)

Stevens, senior engineering specialist, Vehicle Concepts Department, Engineering and Technology Group, helped mentor the "Beach Cities Robotics," aptly named as its team members live in the South Bay. The team won the Los Angeles regional portion of the FRC held in Long Beach, California, and consequently earned a spot in the world championship competition.

Stevens first became involved with robotic competition when his son was nine and received a LEGO® robot kit. He has continued to volunteer to mentor an FRC team every year since then. "I've found there's no better way to show kids how to work as a member of a technical team than to be on one. They learn how to brainstorm, perform trade studies, prototype, design within constraints, perform analyses, code software, meet deadlines, manage the configuration, fabricate parts, build their robot, test it, then operate it," explained Stevens.

He added that participating students also get the benefit of developing their soft skills such as leadership, how to communicate ideas, and showing their work to others.

Stevens said he's noticed his team members work harder when they know their robot is going against other robots in the "field of battle," as he calls it. "FIRST promotes FRC as a 'sport for the mind' and that's exactly what it is."

Judnick and Stevens share not only an affinity for team competition and its manifestation in the FRC but for what the experience teaches the students on a character level. It's the spirit of cooperation that runs like a thread through both of their experiences with the student teams. "FRC promotes the idea of cooperation in that you try to win but also help other teams along the way. We spend a lot of time at tournaments helping other teams make fixes to their robot, or 'robotic first aid.' We try to act as gracious professionals, another key FRC tenet, while winning," Judnick said.

Stevens also acknowledged the 'gracious professionalism' that comes from being a part of the competition. He then explained how another team that knew his team didn't have access to a field where they could practice operating their robot offered their field to practice on. "We ended up going head to head against them in the regional finals and I thought how classy that was for them to look at the big picture and exemplify such gracious professionalism."

As for Stevens' team, Beach Cities Robotics celebrated their victory by going out for hamburgers and reliving the moment with team members. And as for the world champs, the Cheesy Poofs, the celebration, Judnick said, "is ongoing."

In addition to Judnick and Stevens, there are many others at Aerospace who mentor FRC teams. This year's mentors include:

• Bruce Arnheim
• Devon Feaster
• Lornett Hill
• Daniel (Dan) Marten, retiree
• Ray Meadows
• Scott McLean
• Vincent (Vince) Reher
• James Swenson, retiree
• Timothy Wright

Dr. Martin Ross: Expanding the Boundaries of Climate Science

May 07, 2014

Interviewed by Lindsay Chaney

Dr. Martin Ross, senior project engineer in the Launch Systems Division, leads research concerning the effects of space

systems on the stratosphere at The Aerospace Corporation. He is the lead author of a recently published scientific paper in a new journal from the American Geophysical Union called Earth's Future. The paper, published April 28, is entitled "Radiative Forcing Caused by Rocket Engine Emissions."

Name: Martin Ross
Hometown: Los Angeles
Spouse: Linda Ottobre
Children: Elizabeth and Christine, 20-somethings
Years at Aerospace: 26

Dr. Martin Ross recently published new research on the effects of rocket engines on the Earth's climate. (Photo: Elisa Haber)

In his own words, Ross discusses his new research and what influenced him to become an engineer.

Radiative Forcing, What it Is

Radiative forcing is the change in the radiation balance between the sun and the Earth possibly caused by human activities.

One of the things I've become interested in over the past few years is that space activities are a potentially important impact to this radiation balance above about 20 kilometers.

That includes rocket exhaust and re-entering space debris that burns up.

I find it amusing and troubling that when the press reports on re-entering satellites they always talk about things burning up like they disappear. In fact, a cloud of particles is created that affects the radiation balance.

As far as rocket exhaust goes, we looked at gases such as CO2 and H2O, and particles, such as soot from hydrocarbon-fueled rocket engines and alumina from solid rocket motors. What we found was that CO2 is a total non-issue by orders of magnitude compared with the particles.

It's disturbing to see in the press discussions of CO2 from rockets like it means anything substantial. Surprisingly, it's all about the soot.

Effects of Alumina

The other surprise we found was that alumina particles were known to reflect sunlight, so people thought they would cool the atmosphere. But we found that alumina absorbs upwelling infrared energy from the Earth and this absorption wins out over the reflection of sunlight.

So, alumina is a net warmer of the Earth's atmosphere, exactly the opposite of the commonly accepted wisdom.

This is important because solid rocket motor use is increasing again after the retirement of the space shuttle, which accounted for much of the solid motor use before 2010.

Earth's Future

Earth's Future is a new journal trying to establish a new point of view for Earth systems science. It's a cross-discipline look at how the Earth will look decades from now if current trends continue.

There's a little bit of philosophy in the journal, which resonates with my interest in academic philosophy. Since 2004, I've been an adjunct professor at Embry-Riddle Aeronautical University, where I teach a class in the history of scientific thought.

Our paper is one of the first to be published in Earth's Future.

A lot of the calculation heavy lifting was done by Patti Sheaffer in the labs, who is the co-author of the paper.

Engineer Origins

My father read to me in a big green chair every night, this book called "You Will Go to the Moon" and I thought that was the

greatest thing ever – going to the moon.

Both of my parents were teachers, so they showered me with books. Every time I expressed an interest in something, books would appear, as if by magic.

My father attended summer school at the University of Michigan getting his master's degree, so we spent summers in Ann Arbor. My brother and I knew every inch of that city by the time he was done.

So there was no question I was going to U of M. I didn't apply anywhere else.

Largest Football Stadium in the World

I always sold my tickets to the U of M football games, so I could buy more books, LOL. They have the largest football stadium in the world, you know – not that I ever attended a game.

I got a good engineer's education.

When I graduated I went to Ford Aerospace for two years, working guidance and control stuff.

UCLA and Aerospace

I ended up at UCLA because I met my future advisor at a meeting held by the American Geophysical Union, where I was going to talk about the influence of the magnetosphere on control systems of satellites.

This guy, Dr. Gerald Schubert, to whom I owe a great debt of gratitude, reignited within me my love of pure science.

I spent six years at UCLA getting a masters and Ph.D. in space physics. Dr. Schubert was a fantastic advisor.

By the time I graduated, Jerry was a consultant at Aerospace, and he talked me into coming here.

Jerry, if you're reading this, I'll get you.

Top Engineering Students Get Leadership Advice

May 06, 2014

A dozen top students from the California State University Long Beach College of Engineering came to the Aerospace El Segundo campus on Friday, May 2, to meet with Dr. Wanda Austin as part of the college's Dean's Leadership Series.

The students were accompanied by Dean Forouzan Golshani, who explained that the purpose of the leadership series was to introduce the top-performing students to different styles of leadership through meetings with notable leaders in fields that included business, civic groups, the military, and sports.

Dr. Rami Razouk kicked off the session with an introduction and overview of The Aerospace Corporation for the students. Austin followed with a speech about her background, career path, and leadership philosophy. Both Austin and Razouk then answered questions from the students.

Dr. Wanda Austin met with top engineering students from Cal State Long Beach as part of a college leadership series. (Photo: Eric Hamburg)

The meeting was held in the Dr. Sally Ride Boardroom.

General Managers in Leadership Transitions

May 05, 2014

Corporate leadership selections have been made following the promotion of Dr. Malina Hills to vice president of Space Program Operations.

Scott Gustafson

General Manager Scott Gustafson will move from the Space-Based Surveillance Division to general manager of the MilSatCom Division. Russ Averill, general manager of the Systems Engineering Division, will become the general manager for SBSD. Kevin Bell , associate general manager of SED, will take on additional responsibilities in his new role as general manager.

The leadership transitions take effect when Hills assumes her new role July 1.

“These moves result from the corporate succession planning process and our efforts to match our leaders with new opportunities where they can excel and bring top-notch thinking to our customers’ issues,” said Dr. Dave Gorney, senior vice president for Space Systems Group. “We continue to focus on delivering 100 percent mission success to our customers.”

Dr. Rami Razouk, senior vice president, Engineering and Technology Group, highlighted the moves as a great example of having a corporate structure that allows talent to move between the Aerospace engineering support matrix and program offices, as well as between locations, all to the ultimate benefit of the customers. “This is how Aerospace maintains its vibrant technical adviser role in national security space and other programs of national significance,” he said.

Russ Averill

Gustafson has been general manager of SBSD since May, 2008. He joined Aerospace in 1987 as a member of the technical staff (MTS) in the Fluid Mechanics Department and rose through a series of management positions. He earned his bachelor’s degree in chemical engineering from Purdue University and holds a master’s degree in the same discipline from Stanford University.

Averill has been general manager of SED since July, 2011. He joined the company in 1996 as an MTS in the Plans and Analysis Office. A year later, he transferred to Directorate L and was promoted to senior project leader. He later held management positions in Directorate L and SED. He holds a bachelor’s degree in aerospace engineering from the U.S. Naval Academy and a master’s in electrical engineering from the Naval Postgraduate School.

Bell, who has been associate general manager of SED since last October, joined Aerospace in 1992 as an MTS in the Vehicle Systems Division. He later worked in Albuquerque and Washington, D.C.-area offices in positions of increasing responsibility. He has B.S. degrees in both mechanical engineering and aerospace engineering from the University of California, Davis, and an M.S. degree in aerospace engineering from Stanford University.

Kevin Bell

Tai-Chi Demo Kicks Off Heritage Month

May 02, 2014

Master Zhao gave a Tai-Chi demo as part of Asian Pacific American Heritage Month. (Photo: Elisa Haber)

The Aerospace Asian Pacific American Association (AAPAA) presented a Tai-Chi talk and demonstration with Master Zhao on May 1. This event kicked off Asian Pacific American Heritage Month, which will also feature a Heritage Festival on May 29.

May Notes

by Carolyn Weyant
May 01, 2014

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

Christine Fry, for the recent passing of her mother, Frances Wires.
Gary and Kathy Nilges, for the recent passing of their father and father-in-law, William Nilges.
Bob Tsutsui, for the recent passing of his mother, Margaret Tsutsui.

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

May Obituaries

by Carolyn Weyant
May 01, 2014

Sincere sympathy is extended to the families of:

Harold Cha, member of the technical staff, hired Jan. 12, 1981, retired Feb. 1, l996, died March 14.
Arthur Dodge, member of the technical staff, hired Jan. 9, 2006, died April 12.
Howell Dyson, research associate, hired Dec. 1, 1964, retired Oct. 1, 1996, died March 28.
Eileen Frasher, administrative secretary, hired Oct. 17, 1986, retired Oct. 1, 1993, died April 5.
Thomas Hill, senior project leader, hired July 11, 1988, retired Aug. 1, 2005, died March 22.
Albert Hook, project engineer, hired Dec. 14, 1971, retired Oct. 1, 1993, died March 31.
Price Keeler, member of the technical staff, hired June 27, 1966, retired March 1, 1981, died March 21.
William Sampson, member of the technical staff, hired Nov. 14, 1960, retired Jan. 1, 1998, died March 23.

Leonard Schilb, project engineer, hired May 9, 1967, retired Oct. 1, 1996, died April 7.
John Tucker, member of the technical staff, hired March 26, 1973, retired April 1, 2009, died April 12.
Kenneth Wong, member of the technical staff, hired Jan. 2, 1973, retired March 1, 1996, died Feb. 16.

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

May 2014 Anniversaries

by Carolyn Weyant
May 01, 2014

45 YEARS

Engineering and Technology Group: Albert Merrill

40 YEARS

Operations and Support Group: Jocelyn Crone

30 YEARS

Civil and Commercial Operations: Frank De Luccia

Space Systems Group: Douglas Daughaday, David Kim, Bill Sutton

25 YEARS

Engineering and Technology Group: Clark Hanley

Space Systems Group: Peter Hypolite, Chester Orciuch, Francis Sheehan, Jacob Vogler

20 YEARS

Engineering and Technology Group: Sharon Teerawatananont

15 YEARS

Engineering and Technology Group: Gary Fisher, Jonathan Korn, Ronald Smith, Yoshimi Takeuchi, Gary Zinger

National Systems Group: Gerard Fisher, Stephen Johnson, Thomas Morgan, Theofanis Rantis

10 YEARS

Engineering and Technology Group: Kenneth Austin, Julie Fant, James Gilbertson, Robert Markin, Wayne Martin, Jeffrey Murphy, Joanne Tagami, Wayne Yenne

National Systems Group: Timmie Sue Mcarthur

Operations and Support Group: Lisa Golden, Amaneece Harrison, William Taylor

Systems Planning, Engineering and Quality: Jonathan Thompson

5 YEARS

Executive Office: Lee Shelton

National Systems Group: Margaret Alvarez, Jeffrey Walters

Operations and Support Group: Sandeep Malhi

Space Systems Group: Ronald Nott