

2017 *GIVING BACK*
CSR Corporate Social
Responsibility

THE AEROSPACE CORPORATION



**“ In recognizing the humanity
of our fellow beings, we pay
ourselves the highest tribute. ”**

-Thurgood Marshall





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CSR

INTRODUCTION LETTER



Dear Reader,

It is with great pride that I introduce The Aerospace Corporation's inaugural Corporate Social Responsibility Report for 2017.

Nearly 400 years ago, the English poet John Donne famously wrote "No man is an island..." in a poem that rejected the pull of isolationism. This call to remain immersed and interconnected with humanity and the surrounding world could apply to any modern enterprise. As this report details, Aerospace's ties to our neighbors across the nation not only reflect our commitment to community, but also an enduring commitment to our own people.

As it turns out, corporate social responsibility is not only good for human kind and the bottom line, but also for a company's timeline. According to a study that examined attributes that help companies reach 100 years of operation, engagement with community was a key factor in promoting a corporation's longevity. Companies and communities simply need each other.

From supporting STEM and mentoring our youth to training teachers and assisting neighbors in need, Aerospace has long recognized that our work for our fellow citizens is a vital investment in both them and ourselves. We also champion diversity, which is the prescription for confronting adversity in this rapidly evolving and challenging era in space. This is what we do because this is who we are.

The following pages capture the many amazing ways that Aerospace has been shaping the future of our communities. It is my hope that the stories found here will inspire you to deepen your commitment to such efforts, both today and for many years to come.

Steven J. Isakowitz
President and CEO

➤ Steve Isakowitz, CEO of The Aerospace Corporation, and a multitude of children on Take Your Kids to Work Day



OUR **COMMITMENT**

STEM

Inspiring and nurturing the next generation of engineers and scientists, who will shape and secure the future of our nation

Commitment to Our People Where They Live and Work

Establishing long-term, positive change by connecting with and enriching our communities, and helping our neighbors across the spectrum of community challenges—on both personal and corporate levels

Diversity and Inclusion

Cultivating a rich tapestry of top talent from many walks of life—for optimized creativity and innovation

Sustainability

Demonstrating honorable corporate citizenry by meeting our own needs without jeopardizing the needs of future generations

STEM *Science, Technology, Engineering, and Mathematics*

ENDOWMENT

Carlos Rivas Will Not Be Defined by Circumstances

Face it.

The kid has heart.

Carlos Rivas of Verbum Dei High School brought his A-game to Aerospace, and we simply loved it! An enthusiastic candidate for the 2017 Dr. Wanda M. Austin STEM Endowment scholarship, this super scholar impressed us and won us over.

To be considered for the scholarship, Carlos and other bright high school contestants submitted an essay describing their interest in pursuing a STEM career, recommendation letters, academic transcripts, and a statement of financial need. After careful consideration of the submissions, Aerospace selected the top two candidates for a final interview with the selection committee.

This win for our future as a nation wouldn't be complete without some history as to how Carlos got to where he is. At a field trip to the Air & Space exhibits at the California Science Center in Los Angeles, an eight-year-old Carlos set his sights on the stars and emphatically declared he was going to be an aerospace engineer. The rest, as they say, is history.

But, living in a low-income, single-parent household in the community of Watts in Los Angeles is not easy. It didn't matter, though. Carlos discovered his passion for education, and *nothing* was going to stop him from learning. Carlos continued to study hard—focusing on advanced math and science—and throughout middle and high school, even worked on building rocket models! His unrelenting passion for engineering also led him to establish the Engineering Club at Verbum Dei High School, where he served as the club's president.

Carlos now attends St. John's University in Collegeville, Minnesota, pursuing his physics degree, which will launch him on a trajectory to becoming an aerospace engineer—with us, here at The Aerospace Corporation.

Carlos Rivas, 2017 Dr. Wanda M. Austin STEM Endowment scholarship awardee >>





VERBUM DEI HIGH SCHOOL



Verbum Dei High School is an all-boys Catholic institution. Aerospace participates in their 10-month corporate work-study program, which helps offset part of the tuition (currently \$28,000) for their students.

◀ Aerospace team from left to right: Ricardo Guevara (3 years at Aerospace), DeAnthony Garcia (1 year), Ruben Rocha (3 years), Daniel Avina (1 year), Michael Stith (1 year), and Michael Carrillo (1 year)

The **STEM Endowment Scholarship** is awarded annually to a promising student from a Title 1 high school in the Los Angeles area. This four-year scholarship provides a financial stipend, internships, and ongoing educational support from career STEM professionals.

Heydy Arias of Montebello High School was the inaugural 2016 Dr. Wanda M. Austin STEM scholarship recipient. We now have two winners, a number that will grow each year.



Heydy Arias (center), with Dr. Wanda M. Austin and Ambassador Barbara Barrett, Chairman of the Board of Trustees, The Aerospace Corporation

INSPIRING THE NEXT

GENERATION TOWARD SPACE EXPLORATION



The National FIRST Robotics Competition

Illuminating That Spark within Kids to Open a World for Them—and Us

We're going to Mars. That's all there is to it. But humans can't safely explore deep space without robots first laying the exploratory groundwork, and then providing crucial life-sustainment—which is only one of many reasons it behooves us to impart a desire in young people to delve into the cutting-edge world of robotic technology. Could you imagine if the entire galaxy were mapped by flotillas of tiny robotic craft, lighting the way for humans to safely follow?

Each year, dozens of Aerospace's science and engineering experts volunteer to mentor middle and high school robotics teams for the annual FIRST (For Inspiration and Recognition of Science and Technology) Robotics competition, where students get hands-on bot-building experience. One team of many—the "RoboSkunks" of Augustus Hawkins High School—designed, programmed, built, tested, adjusted, and pitted their robot against the best the Southern California region has to offer in the Stronghold Games.

« Students from the "Roboskunks" team of Augustus Hawkins High School fine-tune their robot



➤ Sherman Indian High School students, after visiting Aerospace STEM experts on February 14, 2017

STEM Outreach to the Native-American Community

For the first time, Aerospace had the honor of hosting students from Sherman Indian High School, an all-Native American boarding school located in Riverside, California. Their visit, hosted by the Aerospace American-Indian and Alaskan-Native Council employee resource group, featured sessions with some of our leading technical experts as well as visits to the Aerospace space debris garden and nearby Flight Path Museum, home to Aerospace's Space Gallery Exhibit.

Constitutional Rights Foundation

Giving Inner-City High School Students the Start They Need

For the seventh consecutive year, Aerospace has welcomed inner-city youth into our internship program, sponsored by the Constitutional Rights Foundation. High school students are given hands-on experience and mentoring that can energize them to seek a bright future in STEM.

Dreaming Big Across the Country at Aerospace's 40th Annual Robert H. Herndon Memorial Science Competition

If you ever wanted to learn how to create an interplanetary device to support plant life or create prosthetics for cats, you should have hung out at this premier math and science competition, because you would have gotten your fill of all kinds of knowledge. One student studied the sound spectrum of violins to determine the material with the best sound-transmission properties—talk about merging the arts, math, and science!

The Chantilly, VA event in May 2017 boasted 50-plus students from 23 different schools. Forty middle- and high-schoolers presented experiments to a panel of 17 judges, while the other students participating in the essay competition got to attend technical demos.

On the West Coast, cloudy skies didn't deter competitors as 120 students from 18 schools participated in El Segundo, CA. Young women rocked it this year, clinching first-place wins in both the middle- and high-school essay categories and in the middle-school experiment category for their invention of a hanging alarm clock.

➤ First-place Robert H. Herndon Memorial Science Competition winners from the Sherman Oaks Center for Enriched Studies (left to right): Graciela Arancibia, Sofia Arancibia, Kayla Kossoff, Zoe Ramirez, and Vaidehi Zala



“ **When they’re shown what engineers do, 76% of girls get interested in engineering.** ”

- American Association of University Women

Welcome to the STARS!

Getting a Taste of the Mission Control Center

Are we human because we gaze at the stars, or do we gaze at the stars because we’re human? Regardless of the answer, it’s the pioneering mind that yearns to reach for the stars—whether hurtling through space in a formidable rocket or holding down the fort at mission control.

To present a taste of this quest from terra firma, the Aerospace Spacelift Telemetry Acquisition and Reporting System (STARS) facility in El Segundo, CA, which looks very much like NASA’s Mission Control, hosts tours for local students of all ages. In November 2016, for instance, an eighth-grade class from St. James School in Torrance, CA had the opportunity to learn about how Aerospace employees monitor the health of live rocket launches by capturing and studying realtime telemetry and pinpointing anomalies that could stall or even scrub a launch.

One thing eventually becomes clear to these kids: There is so much more to a launch than the final countdown.

The Aerospace STARS facility hosts STEM tours for curious K-12 students that feature hands-on, interactive learning experiences >>



Electrifying Rockets Sparks Enthusiasm

The Electrifying Rockets presentation caused quite a buzz at the fourth annual K-12 STEM Symposium at the Nysmith School in Herndon, VA on March 25, 2017. Aerospace employees taught 900-plus students, parents, and teachers the basics of open and closed electronic circuits, featuring a hands-on electronic greeting card project.

≡ Ed Swallow and Terita Norton speak with students



The Reward of Being of Service

Aerospace-Mentored Team Seizes National CyberPatriot IX Championship

Each year, unpaid Aerospace volunteers take high schoolers under their wing just to get to experience a reward that reaches far beyond money or recognition—that of imparting a legacy of knowledge to young and eager learners. This past year, Aerospace volunteers from Chantilly, VA tirelessly helped guide Team Togo from North Hollywood High School to winning the much-coveted first-place title of 2017 CyberPatriot IX Open Division National Champions. Now *that* is what we call “service” excellence!

We Blended Them with Science!

The Washington Teacher Training Seminar

Aerospace partnered with the MIT Club of Washington in November 2016 to host a STEM seminar for Washington, D.C.-area middle and high school teachers of STEM. The seminar cultivates cross-curricular understanding in STEM by sharing the results of recent research and analysis. Senior Aerospace engineers touched upon national security space missions and demonstrated the latest technologies.

After the event, participants enjoyed a tour of the Udvar-Hazy Air and Space Museum.

GIVING BACK

TO OUR COMMUNITIES

“ *We make a living by what we get, but we make a life by what we give.* ”
- Winston Churchill



Paying It Forward

It's been found that, not only do receivers benefit from acts of altruism, givers do, too. Volunteerism and giving have been found to improve health, reduce stress, increase self-esteem, and instill gratefulness for what we have and for the opportunity to be of service.

It's also been found that companies that give and employees who volunteer share a strong, meaningful connection, and the bond that's created is worth more than money. Maybe that's why people enjoy working here—because we at Aerospace care about giving back, and we certainly try our best to do so.

Aerospace doesn't pay its people to volunteer; they do so out of their own desire. In 2017, our employees gave of their time most generously, to the tune of 4,288 volunteer hours.

Aerospace volunteers from Chantilly, VA band together to sort nonperishable food items for distribution to needy families >>



The Importance of Not Just Doing Well—But of Doing Good

The Holiday Food and Gift Drive

For many of us, the holidays are merrily spent with loved ones, eating to our heart's content. Not so with many impoverished individuals and families—many simply go hungry and are lacking in necessities that many fortunate people take for granted.

This is why the Aerospace Holiday Food and Gift Drive marks its 26th year—we want to help. In FY17, Aerospace volunteers in El Segundo, CA donated more than 3,000 gifts and 2,000 pounds of nonperishable food items (a 50% increase from the previous year). Organizations and individuals benefiting from this heartfelt collection included the 1736 Family Crisis Center, which helps victims of domestic violence and homeless youth, and Los Angeles Children's Hospital.

This spirit of generosity was also present throughout our offices across the country where employees gave to assorted charities. The Aerospace Women's Committee sponsored the Albuquerque, NM and Kirtland Air Force Base Holiday Drive, providing personal care items to seniors living at the South Valley Care Center nursing facility, as well as a toy, clothing, and gift drive benefitting foster children and the Court Appointed Special Advocates of the Pikes Peak Region in Colorado Springs, CO.

In Chantilly, VA, the Aerospace Black Caucus' Holiday Food Drive continued the giving tradition, providing nonperishable food items to the Western Fairfax Christian Ministries Food Pantry.

Now *that* is good exercise for the heart.

Giving Without the Thought of Getting

Angels Do Indeed Exist

Aerospace employees understand the heart-rending fact that many children, due to difficulties in their home and life—through no fault of their own—have lost their belief in the magic of the holiday season. Life has dealt them blow after blow, and they've simply learned to expect very little, if anything, from anyone.

Numerous employees in Colorado Springs, CO and El Segundo, CA donated their personal time and money toward the "Angel Tree" to make the holiday wishes of underprivileged children come true, and hopefully bring a sparkle to their eyes. The Angel Tree is a fir tree on which each ornamental tag represents a request from a child in need—a toy, a stuffed animal, or sometimes even just a warm coat or a pair of shoes. Aerospace volunteers take a tag (or two!) and then fulfill the child's wishes.

Volunteers also monitored donation collection bins, stored the gifts for safekeeping, helped perform item pick-ups, sorted food and gifts, and wrapped toys for delivery. Aerospace employees opened their hearts more than ever last year, donating an astounding 3,315 gifts to local children and exceeding the previous year's amount by 603 gifts, an increase of 22%.

Volunteers entered the new year with a light heart, knowing they brightened lives, put a sparkle in eyes, and brought dignity, joy, laughter, and smiles to scores of grateful children. The Angel Tree program would not be possible without these anonymous Aerospace angels.

The Power of Clothing

The Annual Women's Week Clothing Drive

What is it about wearing a good suit and good shoes that makes us feel confident, energized, inspired, even brave? We put on a well-tailored suit, and suddenly, we become *phenomenal*.

Surely, this is psychological, but it is exactly the self-confidence—not to mention practical—boost that disadvantaged women need to enter the workforce and shine. Good work clothes afford these career women in the making an opportunity to leave their pasts behind and start anew, as they step confidently into their job interviews.

The Aerospace Women's Committee of Chantilly, VA spearheaded the annual clothing drive to help make this happen. New or gently worn women's business clothing was collected to benefit low-income women.

Aerospace employees showed their generosity, donating more than 1,200 pieces of clothing and approximately \$200 worth of toiletries over a five-day period. Donations were provided to Clothes the Deal (El Segundo, CA), Women Giving Back (Chantilly, VA), and Springs Rescue Mission (Colorado Springs, CO).

Putting Our Money Where Our Mouth Is

America's Charities Employee Giving Campaign

We can't live forever. But, we can do things that live forever.

Aerospace employees pay it forward and invest in our nation's future by voluntarily participating in the America's Charities employee giving drive, in which they can give to their choice of 800 charities. Among them is the Aerospace STEM Endowment Fund, which provides critical support and resources to disadvantaged students pursuing academic and vocational goals in the STEM disciplines. By contributing to the fund, Aerospace employees demonstrate their support for STEM scholarships, grants, and teacher education programs.

In 2017, Aerospace employees pledged \$125,025 to America's Charities. The largest recipient was the STEM Endowment Fund, which received \$18,590. The payoff? The stability of our future and the future of our national security.

Honoring the "Guardians at the Gate"

Armed Forces Day

To honor the U.S. Air Force for all they do, Aerospace proudly participated in the 58th annual Armed Forces Day celebration in Torrance, CA. Employees staffed an Aerospace booth featuring a variety of materials illustrating the corporation's decades-long commitment to the Space and Missile Systems Center. Many Aerospace employees also participated in the 5K run/walk held as part of the weekend festivities, which drew hundreds of attendees from around Southern California.



Staking Our Claim in the Hot Sand

The Aerospace Summer Games

Bedecked in bright orange t-shirts, 150 Aerospace employees, led by coach (and CEO) Steve Isakowitz, cut a formidable presence at the Aerospace Summer Games.

Held annually at Dockweiler State Beach in El Segundo, CA, the summer games bring together local aerospace and aviation companies for a fun-filled day of friendly competition. More than 2,000 people representing 23 companies gathered on Saturday, July 29 to participate in events such as volleyball, sand soccer, tug of war, watermelon eating, or simply to enjoy a sunny day at the beach and cheer on their colleagues.

With attendance bolstered by the summer 2017 interns, this year for the first time, Aerospace fielded a max-capacity roster in every division for all 10 events.

Top Right: Coach Steve Isakowitz gives his Aerospace team the big thumbs-up for giving it their all at the Aerospace Summer Games

Below: The Aerospace team digs into the sand for a strong foothold during the tug of war



DIVERSITY AND INCLUSION

Honoring and Supporting Our Diverse Employees

Employee Resource Groups (ERGs)

Without differences in humanity, life would be so gray. It's this diversity among people that makes the workspace lively and dynamic—and studies show that diversity is a key driver of innovation and success on a global scale for business.

Aerospace's ERGs are a tremendous resource for their active and essential role in business day-to-day activities as well as initiatives like recruiting, professional development, community outreach, and more.

These groups are employee-run and for employees, a benefit to embrace both our differences and our similarities in a tradition that has been cultivated for decades.

Aerospace Latino Members Association

Aerospace Asian Pacific American Association

Aerospace Black Caucus

Aerospace Lambda Alliance

Aerospace American-Indian and Alaskan-Native Council

Aerospace Women's Committee

Aerospace Totally Adaptable Group

Aerospace Military Veterans

It Starts at the Top

Executive Diversity Council (EDC)

Chaired by Aerospace CEO Steve Isakowitz, the EDC is a senior-level governing body for the company's diversity and inclusion strategy. The EDC sets the company's diversity and inclusion goals, and ensures accountability for processes and outcomes. In FY2017, the EDC joined as a signatory to the nationwide collective, CEO Action for Diversity and Inclusion (www.ceoaction.com). The largest CEO-driven business commitment to advance diversity and inclusion within the workplace, this group encompasses more than 350 CEOs of the world's leading companies and business organizations.

Emphasizing Diversity in Our STEM Internships

Strengthening the DNA of Student Careers in STEM Where It Counts— at the Beginning

We at Aerospace profoundly believe in creating opportunities, especially for our young people in underrepresented categories. One of the ways we do that is by creating internships that welcome women and minorities. In 2017, Aerospace had 215 interns, 98 of whom are from a diverse background, and 63 of whom are women. Our interns come to us from schools coast to coast.

Recognizing Excellence in Engineering

The Black Engineer of the Year Award (BEYA)

There's no mistaking it—STEM industries are roaring and only getting bigger. In fact, employers are having a tough time quickly filling jobs that require STEM skills. Sadly, there are a multitude of job openings seeking engineering candidates that today stand unfilled.

To deepen the talent pool and pave the way for the hidden talent to emerge and gain traction, the BEYA STEM Conference brings professionals and students together from a wide variety of STEM-related fields for three days to share their experiences and information. The conference helps students, educators, and STEM professionals from around the country network and build relationships while participating in numerous seminars and workshops that explore every facet of STEM career paths.

Aerospace is proud to participate in the BEYA STEM Conference, and we are even more proud of our 2017 BEYA winners: Dr. Glenn Bean, Mr. Basil Etefia, Dr. Sherrica Holloman, and Mr. Blake Kimbrough.

The Brooke Owens Fellowship Program

Mentoring Exceptional Undergraduate Women

Dear to The Aerospace Corporation's heart, this highly competitive, paid internship and mentorship program honors the memory of beloved space industry pioneer and accomplished pilot Brooke Owens. This program is designed to energize, inspire, and train exceptional undergraduate women seeking a career in aviation or space exploration. Every applicant selected is paired with two mentors: one at her host institution and another from elsewhere in industry.

Aerospace sponsored three "Brookies": Jocelyn Clancy, B.S. in astronautical engineering, University of Southern California; Katherine Carroll, B.S. in aerospace engineering, University of Illinois at Urbana-Champaign; and Makiah Eustice, B.S. in aerospace engineering, Texas A&M University.



Karolyn Young and Eric Johnson are two GEM alumni of the National GEM Fellowship. Karolyn, principal director, Space Superiority Division, earned a Master of Science in aerospace engineering from the University of Michigan in 1986. Eric, project engineer also within the Space Superiority Division, earned a Master of Science in computer science from the University of Southern California in 2008.

Unearthing Our Nation's Hidden Gems

Funding Five Graduate Technical Degrees Annually

The National GEM (Graduate Degrees for Minorities in Engineering) Consortium's mission is to enhance the value of the nation's human capital by increasing the participation of underrepresented groups (African Americans, Native Americans, and Hispanic Americans) at the master's and doctoral levels in engineering and science.

A dedicated member since 1978, Aerospace now employs 83 GEM Fellows as well as 18 known GEM alumni the corporation sponsored. We select and fund three master's degrees and two doctoral degrees annually. As a corporate member, Aerospace stands tall in the ranks with Raytheon, Northrop Grumman, Johns Hopkins Applied Physics Lab, MIT Lincoln Labs, Cisco, and Intel.

Aerospace sponsored five GEM Fellows last summer: David Jovel, Georgia Institute of Technology; Justice Mason, Princeton; Allyssa Paul, University of Southern California; Michael Thompson, Stanford; and Alejandro Trujillo, MIT.

We are very proud of all of them!

PROTECTING OUR ENVIRONMENT

Commuter Programs at Aerospace

Aerospace commuter service programs have been contributing to improving the air quality of the Los Angeles basin, Colorado Springs, and the Washington, D.C. areas while reducing our country's dependence on crude oil.

Our programs have removed approximately 275 vehicles from our roads each work day. This amounts to an average annual reduction in carbon emissions and greenhouse gases of 2,800 tons and saves 113,800 gallons of gas per year!

I-Love-to-Ride-My-Bi-cy-cle!

Employees Bike to Work for Air Quality

- Cut air pollution.
- Save gas.
- Get fit.
- Look younger.
- Feel good.
- Get the thumbs-up from your doctor come physical time.

What's not to love about bicycling to work?

To support these admirable endeavors, Aerospace also participates in the Annual Bike-to-Work Challenge each year with other El Segundo employers. The Aerospace Employees' Association Cycling Club and Aerospace Commuter Services sponsored a challenge on May 16 to see who could bring in the most bicycle commuters. All cyclists who rode their bikes to work that day, regardless of starting point or whether they rode with the group, received a free continental breakfast and promotional items. Aerospace also co-hosted a "pit-stop" at the El Segundo/Nash Green Line Station in honor of the cyclists who participated.

All this, *and*—you just can't be sad while riding a bike.

Protecting Trees, Wildlife, Marine Life, and Our Local Waterways

El Segundo Kicks Off Improved Recycling Program

Aerospace is serious about its recycling program. Fifty-five blue recycle bins are available in 12 locations across the El Segundo campus. These bins can hold glass, plastic, aluminum, and cardboard. We shred all our paper. Aerospace is also investigating composting as a viable option for the future. Each of these endeavors helps to heal the planet.

Chantilly, VA Campus' Ongoing "Green Initiatives"

Erosion and Sedimentation Control

Aerospace's commitment to going green is bicoastal. The Aerospace Chantilly campus aggressively implements the following: tree protection; stream restoration; water-efficient landscaping; an erosion control plan; use of Earth-friendly cleaning products; a complete switchover to energy-efficient LED lighting; and elimination of CFCs (chlorofluorocarbons) in heating, ventilation, air conditioning, and refrigeration systems.





BUSINESS

ETHICS

Above All, Treat People Fairly, Honestly, and with Dignity

Our Employees. One of Aerospace's fundamental values is Commitment to Our People. We are committed to honesty, fairness, and integrity in dealing with our employees. What's more, we are committed to providing equal opportunity for our employees and a workplace free from any form of harassment based on race, sex, age, color, creed, religion, physical challenge, national origin, veteran status, or any behavior contrary to the fundamental human dignity of the individual.

Our Customers. Our commitment to our customers requires that we serve them to the absolute best of our ability, with integrity and objectivity, and strive to set the standard for technical excellence in the application of space technology to ensure the success of their mission.

Our Suppliers. We pledge to deal with our suppliers in a fair and open manner and in a spirit of free and transparent competition, showing favoritism to none and with our decisionmaking process influenced only by considerations of quality, performance, and price.

