



NOV/DEC
2024

News from the field of the premiere DoD Youth STEAM education program.

Team Guam Places 3rd in Team Alliance Finals at the First Global Competition in Athens, Greece

Members of the robotics team under DoD STARBASE Guam flew over 7,000 miles to compete in the First Global Competition at the Peace and Friendship Stadium in Athens, Greece. This year competition was themed on “Feeding the Future” which focused on the complex issue of technology and its role in supporting sustainable food ecosystems. Team Guam consisted of five members from private and public high schools across the island including Simon Sanchez High School, Okkodo High School, and Father Duenas Memorial School. Under the mentorship of Dr. Leah Beth Naholowaa and Mr. Roderick Hidalgo, the team worked diligently over the last several months to design and construct their robot, develop possible solutions to address food sustainability locally, and mentally prepare for the event.



Team Guam’s members included Alicia Bacani (Okkodo High School), Rhoderick Calunan (Simon Sanchez High School), Justin Ryley, Landon Brewster, and Ethan Dela Cruz. With their robot, Team Guam competed in 12 rounds alongside alliance counterparts, working cooperatively in an intricate simulation to effectively secure food, balance resources, and create a sustainable food system to provide the world with equitable, safe, nutritious, and environmentally responsible food. Team Guam worked their way up through the rankings, claiming the number one spot in the playoffs allied with representatives from Estonia, Singapore, and Trinidad and Tabago. Their cumulative score qualified them to move to the final alliance round where they secured 3rd place overall in First Global, surpassing 40 other alliances after four intense days of competition. Based on their individual match scores, Team Guam ranked 17 out of 193 countries.

(Continued on page 2.)



“Invention strictly speaking, is little more than a new combination of those images which have been previously gathered and deposited in the memory; nothing can come from nothing.” – Sir Joshua Reynolds

(Continued from page 1.)



The First Global Competition took place from September 26-29 and is an annual, olympic-style robotics event featuring countries from around the world with competitors who are heavily involved in robotics and the realm of Science, Technology, Engineering, and Math. The intent of the competition is to highlight the thousands of changemakers who want to make a difference in their communities and influence the world with their innovative strategies to address global issues. The competition offers participants of all ages an avenue to apply their 21st-century critical thinking and abilities to solve pressing challenges through a collaborative competition that builds their self-confidence, leadership skills, imagination, and vision to achieve their most ambitious dreams.

STARBASE Tulsa Shines at 138th Fighter Wing Family Day

On Sunday, September 8, 2024, STARBASE Tulsa participated in the 138th Fighter Wing Family Day at the Tulsa Air National Guard Base. The event exceeded expectations with a remarkable turnout of families and children.

One of the day's highlights was the tinfoil boat challenge, which was organized by our enthusiastic volunteers, Sue and JC. Kids of all ages eagerly lined up to design their tinfoil boats and put their creations to the test in a competition to see whose boat could hold the most washers without sinking. The excitement peaked when a new record was achieved, with an impressive 87 washers in a single boat!

The event provided an exceptional opportunity to engage with the community and reconnect with familiar faces, as many of the participating children had previously taken part in STARBASE Tulsa's summer camp or academy programs, adding a special touch to the day. In addition, it was wonderful to see cadets from the Thunderbird Challenge Program, a significant National Guard Youth Program in Oklahoma, taking part in the event.

This successful event marks a promising start to our outreach efforts for the 2024-2025 school year. It was a perfect afternoon filled with fun, learning, and community spirit. A heartfelt thank you to everyone who joined us and helped make the day so memorable. We eagerly anticipate many more successful events in the coming year!



Kansas DoD STARBASE Sites Strengthen Programs through Collaboration

DoD STARBASE staff from all five Kansas locations (Kansas City, Manhattan, Salina, Topeka, Wichita) convened in Topeka June 24-26, 2024, for their annual Professional Development Workshop. Through their collaboration across the state, they built on each other's innovative teaching and learning strategies. Kansas STARBASE knows it has an exceptional opportunity to impact the next generation through DoD STARBASE, and these workshops provide their teams with tools to execute their mission at a higher level.

The Kansas DoD STARBASE Advanced 3.0 Teaching Team, composed of 18 staff members across all five sites, met in person on the first day. This workshop provided the teachers with an opportunity to further prepare to teach cadets at the JROTC camp they supported in July. Collaborators from the Los Alamitos site tuned in virtually to work with their respective teaching teams. The rest of the Kansas staff joined the workshop on the second day when each site showcased new ideas implemented during their basic program, summer camps, advanced programs, and outreach, followed by a Q&A session. The third day was dedicated to exploring innovative teaching strategies to enhance engagement. Directors, Deputy Directors, and teachers participated in breakout sessions, where representatives from each site collaborated to brainstorm ways to boost student engagement and incorporate effective inquiry-based teaching and learning strategies in selected STARBASE classes. The meeting concluded with each breakout group delivering presentations on their key takeaways.

Non-profit Kansas STARBASE, Incorporated made this workshop possible through their generous support. They also hosted a reception for outgoing STARBASE Salina Site Director Dixie Tipling. Dixie was instrumental in the development and expansion of STARBASE in central Kansas. During her tenure, Dixie envisioned offering more opportunities to underserved areas, and she accomplished this by adding a double classroom. Special guests included the Board President, Briar Conner; Director of the Joint Staff for the Kansas National Guard, BG Paul Schneider; and the Adjutant General for Kansas, Maj. Gen. Michael Venerdi.

By investing in ongoing learning and professional growth, Kansas STARBASE aims to empower their instructors to deliver high-quality instruction that inspires and engages students—specifically implementing teaching and learning strategies that maximize student engagement. When asked what was most beneficial about the workshop, Molly Campbell, Deputy Director in STARBASE Manhattan, wrote that it was “seeing how other sites maximize engagement with specific classes, and seeing site’s summer programs.” This annual event provided an avenue for each Kansas STARBASE Site to share their best ideas, steal other’s best ideas, and build stronger programs across the state!



AFRL Marks 20th Anniversary of DOD WPAFB STARBASE Program with More Than 47,000 STEM Students Supported to Date

The Air Force Research Laboratory, or AFRL, celebrated the 20th anniversary of the Department of Defense STARBASE Wright-Patt program Oct. 4, 2024, at the Wright-Patterson Air Force Base Child Development Center in Dayton, Ohio.

Since 2003, more than 47,000 students have participated in the DOD Wright-Patt STARBASE program. Wright-Patterson was among the first active-duty bases to launch a STARBASE program. "STARBASE is a shining example of what we can accomplish when the military, educators and community join forces to invest in our youth," said AFRL Commander Brig. Gen. Jason E. Bartolomei. "That's a pretty powerful thing."

STARBASE Wright-Patterson is the only program in Ohio and one of the first across the country to earn Center of Excellence-Level III status, designating it as a high-performing program in 2022. It is one of six locations to receive that top distinction, according to the proclamation read by Ohio Director of Military and Veteran Relations Tammy Puff and signed by Gov. Mike DeWine and Lt. Gov. John Husted.

"This isn't just a normal STARBASE," Bartolomei said. "This is one of the best STARBASEs. That's a big accomplishment, and my understanding is that the demand is so high that there's a waiting list to participate. I think it speaks volumes to the success of the program."

The success of the program is rooted in a strong partnership with the Department of the Air Force, Wright-Patterson Air Force Base, local schools, and community organizations, he said. "We owe a massive debt of gratitude to the educators, the mentors and volunteers who poured their hearts and souls into this program," Bartolomei added.

The past 20 years have seen significant advancements in STEM-related activities and career fields.

"STARBASE has stood the test of time by adapting to an ever-changing landscape of technology and education, leveling up our programs with cutting-edge tools and techniques from robotics and coding to 3D printing and cyber defense," Bartolomei said.

STEM fields are reshaping national defense, said Bartolomei, emphasizing their importance to the Department of the Air Force. The mission of AFRL is to keep Air and Space Forces ahead through cutting-edge science and technology.

Bartolomei highlighted that AFRL focuses on the same areas that STARBASE students are currently exploring. STARBASE is vital to the mission, as investing in future talent accelerates progress, he added. The program cultivates a pipeline of skilled individuals who will drive innovation and maintain technological superiority for years to come. The successes of these students underscore STARBASE's transformative impact, extending beyond just science and technology.

(Continued on page 5.)



(Continued from page 4.)



“This program teaches our kids to be critical thinkers, problem solvers and team players, skills that apply anywhere their dreams may take them,” Bartolomei added

While there are more than 90 STARBASE locations, Michael J. O’Toole, director, Civil-Military Programs, Office of the Assistant Secretary of Defense for Manpower and Reserve Affairs-Reserve Integration praised the DOD STARBASE Wright-Patt program as a model for STARBASE locations nationwide.

“For the last 20 Years, STARBASE Wright-Patt has been serving the greater Dayton, Ohio student population with exciting, hands-on, minds-on activities in partnership with our participating school districts to introduce STEM concepts and encourage youth to explore these courses of study and career fields as they get older,” O’Toole said. “I could not be prouder of our collective efforts and would like to thank our community partners and the United States Air Force in their continued support to this important youth outreach program.”



[Adapted from: <https://www.afrl.af.mil/News/Article-Display/Article/3941186/afrl-marks-20th-anniversary-of-dod-wpafb-starbase-program-with-more-than-47000/>]

Celebrating 30 Years with STARBASE Kelly



On August 15, 2024, STARBASE Kelly marked a significant milestone with its 30th Anniversary Celebration, bringing together past and present staff, community partners, and supporters for an afternoon of reflection and anticipation for the future. The event took place at the facility on Lackland Air Force Base, Kelly Field, where attendees celebrated three decades of dedication to STEM education in San Antonio.

The festivities began with an inspiring speech by Col. Douglas Jeffrey, the newly appointed 433rd Airlift Wing Commander. In his remarks, Col. Jeffrey highlighted the critical role of STEM education in shaping the community's future and expressed immense pride in hosting STARBASE Kelly, a program that has positively impacted thousands of young minds over 3 decades.

The event was a heartfelt reunion, with former and current staff sharing memories and envisioning the next 30 years of STARBASE Kelly's mission. Among the attendees were current and past members of the Wing, community partners, and three of the five STARBASE Kelly Directors, whose collective leadership has been instrumental in the program's success.

As the celebration concluded, the sentiment was clear: STARBASE Kelly's legacy of fostering curiosity and innovation in youth is stronger than ever, with a bright future ahead. Here's to another 30 years of inspiring the next generation of leaders and innovators!

A Call for Participation

Throughout the year, this newsletter will continue to spotlight the achievements, partnerships, and tips of the participants of the DoD STARBASE program. Please share your achievements, success stories, and helpful tips with us at email@dodstarbase.org.

STEM Takes Flight with Deirdre Gurry and STARBASE Burns Flat

STARBASE Burns Flat is always looking for innovative ways to make learning engaging and relevant for 5th-grade students and to strengthen the military connection within the program. This led to a serendipitous meeting with a remarkable individual.

While standing on the tarmac of the flight line at the Clinton-Sherman Airport discussing how to enhance military ties, a small plane touched down. Out hopped a fiery red-headed pilot, Deirdre Gurry. With an accomplished background in aviation and the U.S. Air Force, Ms. Gurry immediately captivated the team with her experience. Her enthusiasm for both aviation and education made her an instant ally for the STARBASE Burns Flat Academy.

Ms. Gurry was invited to visit STARBASE, and she was thrilled with what she saw. "How can I help you?" she asked after touring their facilities. The program didn't hesitate to take her up on the offer. Ms. Gurry has since invited program participants to her airplane hangar, where she's helping students connect aviation with real-world math. During a recent visit, a fun video teaching our metric measurement lesson, challenging the students to label oil drums that had lost their labels during shipment, was created (see video here: <https://bit.ly/deirdregurry>). As a retired military pilot, Gurry has also volunteered to fly in occasionally to share with STARBASE cadets on STEM career days!

Ms. Gurry's passion for aviation is matched by her commitment to education. As the owner and instructor of Aviaspire, LLC, she provides flight instruction and FAA certificate processing. Her impressive career includes roles as an airport director, a T-37 instructor pilot, and a C-17 pilot. She also holds degrees in mechanical engineering, general management, and military operational art and science, making her an expert in her field.

In addition to her professional achievements, Ms. Gurry is deeply involved in her community. She volunteers with Oklahoma Women in Aviation and has received numerous accolades, including the prestigious Geraldyn M. Cobb Military Aviation Distinguished Service Award.

Her collaboration with STARBASE is a unique opportunity for students to learn STEM principles through hands-on, real-world applications in aviation. With her energy, expertise, and love for teaching, Ms. Gurry is helping students in the Burns Flat area soar to new heights!



FROM PTC

Need a little help navigating OnShape? Check out this new STARBASE Navigation Overview from PTC.

CLICK HERE!