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**FOR IMMEDIATE RELEASE**

Release 17-08-22/001  
Aug. 22, 2017

### **AFTACers thrill young STEM minds, get surprise visit from HAF 3-star**

*By Susan A. Romano, AFTAC Public Affairs*

**PATRICK AIR FORCE BASE, Fla.** – Members of the Air Force Technical Applications Center here traveled to Orlando Aug. 10 to showcase several science-related experiments at the Organization of Black Aerospace Professionals 41st Annual Convention and Career Exposition.

The group of eight Airmen were joined by members of the U.S. Air Force Academy to interact with Central Florida children at OBAP's Youth Day to offer hands-on activities for experiential learning.

OBAP's three-day aerospace conference was designed to unify, engage and empower aviation professionals from diverse backgrounds. Youth Day was dedicated to students between the ages of 12 to 18 to give them an opportunity to interact with members of the Air Force and other STEM-related agencies.



Maj. Jeremiah Betz, AFTAC's STEM outreach coordinator and deputy director of radiochemistry lab operations, oversaw his team's displays, which included seismometer equipment, liquid nitrogen experiments, a quantum levitation demo, a musical Tesla coil and a table full of Oobleck.

Oobleck, a term taken from a Dr. Seuss book, is a non-Newtonian fluid – a concoction of corn starch and water that, when mixed together, forms a substance that acts differently from a normal liquid and normal solid.

"The kids were mesmerized by the Oobleck display," said Betz. "They were fascinated when they could take a hammer to the mixture and it would feel hard like a solid, but when the hammer was gently placed on top of the surface of the mixture, it would slowly sink to the bottom of the container. It's a great way to teach them about the differing properties of liquids and solids."

AFTAC, the Department of Defense's sole organization responsible for nuclear treaty monitoring, has more than 1,000 personnel who have vast scientific experience and educations: chemists, physicists, nuclear engineers, biologists, mathematicians, geologists and seismologists, just to name a few. They are highly sought after by schools, companies and organizations to assist with STEM-related events. OBAP was no exception.

More than 80 teens who attended the convention cycled through AFTAC's demonstrations, and all seemed delighted by what they experienced.

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## 2-2-2 OBAP

Brian Owens, a 12-year old from West Oaks Elementary School in Orlando, could barely contain his excitement.

"This was the most fun I've ever had!" he exclaimed. "I love doing stuff like this because it's so exciting and we get to actually touch the experiments. I really liked seeing the liquid nitrogen freeze the racquetball and then the Air Force guy who busted it to pieces with a hammer. That was so cool!"

Audra Saldaña, founder of TechPays Foundation, accompanied her two sons, Xen and Xeric, to the science demos and was impressed by what she saw.



"I go out of my way to expose my boys to events like this," she said. "Any opportunity that gives them the chance to broaden their knowledge is exactly what they need to succeed. This convention in particular allows them to see things first-hand and learn from experts in their fields—real people who are actually doing the jobs they're talking about. I tell my boys the world is a big place and they can do anything and be anything they want, and I appreciate the Air Force guys coming out to be with our kids."

The center civilian Human Resources Program Manager, Rose Day, is also AFTAC's spearhead on cooperative outreach programs that involve socio-economically challenged youth in the area. She works closely with senior Air Force officials in the Pentagon's Diversity and Inclusion Office (A1V), who let her know about OBAP's annual convention and encouraged her to get involved.

"We had some really special children come into our event room to interact with our Airmen," she said. "You know you've made a huge impact when you see teens breaking out their cell phones to post videos of our demos and selfies with our Airmen to their social media pages! We also had the opportunity to interact with the students at the Youth Luncheon. I sat with a sophomore from Spruce Creek High School in Port Orange, Fla., who humbly told me about his 3.5 grade point average and how he wants to play basketball in college. When I showed him photos of the Air Force Academy's Division I basketball team, he was floored and had no idea that opportunity was available to him. That's when you know you've made a difference."

The AFTAC team was treated to a special unexpected guest when Air Force Assistant Vice Chief of Staff Lt. Gen. Stayce D. Harris visited the STEM demo ballroom. Harris, the first black woman to become an Air Force lieutenant general, attended the OBAP convention, not just as the Air Force senior representative, but also as an OBAP Hall of Fame inductee.

Harris spent time with each AFTAC Airman to observe their demos and find out more about their role in nuclear treaty monitoring.

"Before I met them today, I had already heard so much about AFTAC's 9S100s (the Air Force specialty code for AFTAC's enlisted Airmen) and their amazing accomplishments and skill levels," said Harris. "It was a delight for me to spend time with each of them and learn more about their respective jobs at AFTAC. It's obvious we are in extremely capable hands with our treaty monitoring responsibilities, and I'm proud of the important work they are performing each and every day. I really enjoyed smashing a frozen racquetball with a hammer, too!"

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### 3-3-3 OBAP

Capt. Henry L. Sims Jr., AFTAC's Director of Wing Inspections, showcased the quantum levitation demo for the visiting students. He was also one of the first people to step up and volunteer to participate at the convention because it is an issue that is very close to his heart.

"We need to take a proactive role to ensure people of all colors are prepared to fairly compete for roles within science, technology, engineering and math," said Sims. "I grew up in a town that was named the poorest in the entire state of Georgia, and exposure to opportunities like the one OBAP provided was pretty much non-existent. With the help of many mentors, however, I was blessed enough to find a way to make it where I am today, and I have dedicated my life to make the path to success a little less bumpy for our youth."



Sims added, "Never in a million years would I have thought that someone like me who grew up with basically nothing would go from abject poverty to being an Assistant Professor of Aerospace Studies at the University of North Carolina-Chapel Hill to demonstrating quantum levitation to a group of minority students to meeting General Harris. I will continue to pay it forward."