



# AIR FORCE TECHNICAL APPLICATIONS CENTER

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**FOR IMMEDIATE RELEASE**

Release 17-04-13/001  
April 13, 2017

## Persistent surveillance gives squadron its global purpose

By Susan A. Romano, AFTAC Public Affairs



**PATRICK AIR FORCE BASE, Fla.** – Deep within the walls of a four story structure along Florida’s Space Coast sits a squadron of Airmen whose number one mission is to detect, identify and locate nuclear explosions anywhere in the world.

The Technical Surveillance Squadron, a subordinate unit to the Air Force Technical Applications Center, operates 24/7/365 and provides persistent and collaborative surveillance in direct support of AFTAC’s nuclear treaty monitoring mission.

Lt. Col. Ehren Carl, commander of TESS, oversees the daily operations and his squadron’s 60+ personnel.

“The Technical Surveillance Squadron conducts multi-domain ops in land, sea, air, space and underwater,” said Carl. “The Airmen who execute this mission are the gatekeepers of all the near-real-time operational data we receive in the AFTAC Operations Center.”

AFTAC maintains a global network of nuclear event detection sensors called the U.S. Atomic Energy Detection System – the largest sensor network in the U.S. Air Force. In the event of a possible nuclear explosion, USAEDS sensors that are positioned worldwide and in space detect the explosion, and that data are transmitted to Carl’s Airmen in the AOC.

“Our analysts review the incoming data to determine what kind of explosion may have occurred,” he said. “We use precision equipment to establish if the explosion was a naturally-occurring event such as a lightning strike, an earthquake or a volcanic eruption, or a man-made event such as an explosion. If an analyst determines the event may be nuclear in nature, we conduct further analysis and our seismic PhDs get involved in the process. The information our Airmen handle during events like this has the potential to – and actually has – reach the desk of the president of the United States. That’s how critical our mission is.”

TESS is a relatively new squadron at AFTAC. Activated in October 2015, it was part of a five-squadron stand up as the center took steps to reorganize after becoming a wing equivalent in August 2014. Carl is first to take command of the surveillance squadron.

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## **2-2-2 TESS**

“Forging a new identity in the midst of other major organizational changes was a hurdle that was tough to overcome,” said Carl. “But TESS Airmen – and all the members of AFTAC, quite frankly – are incredibly resilient and innovative. They find ways to come together to achieve the established goals while taking care of each other regardless of the circumstances. We are a pretty tight-knit family here.”

A squadron is considered to be the Air Force’s most basic unit, responsible for vital, day-to-day operations. Air Force Chief of Staff Gen. David L. Goldfein recently called squadrons “the beating heart of the Air Force.” He further referred to them as “the engines of innovation and esprit de corps,” where standards are set, excellence is fostered and healthy work environments are cultivated.

“It’s where the job gets done,” said Carl. “My Airmen take great pride in our mission and their role in our nation’s security. As a leader, I’m tasked with establishing the vision, providing the resources and setting the conditions to enable the men and women of TESS to execute their daily responsibilities. When they’re given the responsibility as well as the authority to execute their taskings, they will exceed your expectations every time.”

Exceed they have. In 2016 along, TESS Airmen reacted quickly to two separate North Korean-declared nuclear tests, setting in motion full AFTAC alert team responses that ultimately provided information to the White House and the National Security Council.

“In January and September 2016, our sensors detected underground disturbances in the vicinity of North Korea’s reported nuclear tests,” said Carl. “Our initial findings were based on seismic activity, which we quickly analyzed, packaged and elevated to our national decision makers. Our information makes it all the way to the top. We have E3s and E4s who directly impact the U.S. response to these events. It’s an incredible amount of responsibility and our Airmen manage it brilliantly.”

He added, “2016 was an important year for us. It’s been a very long time since AFTAC has had to respond to two nuclear tests in a single year. It’s critical that we’re constantly poised and ready to act; our nation relies on it. We were ready for the last two and we’ll be ready for the next one, should that ever happen.”

Col. Steven M. Gorski, AFTAC’s commander, realizes his organization has the indispensable responsibility as the Department of Defense’s sole organization whose mission is to detect and report technical data from foreign nuclear explosions. He also understands how his squadrons are the crucial element in executing that mission.

“AFTAC’s reorganized structure, which includes the squadron designations, better reflects the center’s global mission and the importance of the work we perform,” said Gorski. “As General Goldfein so aptly said, squadron commanders and their Airmen have the most profound and lasting impact on Airmen and their families. In order for us to adhere to and sustain the Air Force Core Values – Integrity-Service-Excellence – it must begin in our squadrons. Lt. Col. Carl and the rest of the superior squadron commanders here at AFTAC have been charged with enormous responsibility, and I am consistently impressed with their ability to lead by example in an extremely complex environment and ops tempo.”