



**COMBAT SYSTEMS OFFICER TRAINING
GRADUATION CEREMONY**



Thursday, March 19th, 2026
National Naval Aviation Museum
Naval Air Station Pensacola, FL

SEQUENCE OF EVENTS

ENTRANCE OF OFFICIAL PARTY

PRESENTATION OF THE COLORS

NATIONAL ANTHEM

*AIC Aja Copeland
451st Flying Training Squadron*

INVOCATION

Chaplain CDR Jeremy Selitto, USN

NARRATOR

*Captain Emilie Dunlop
479th Operations Support Squadron*

OPENING REMARKS

*Colonel Shane Muscato
Commander, 479th Flying Training Group*

GUEST SPEAKER

*Colonel Nelson E. Tirado
Battle Watch Commander, USSTRATCOM*

PRESENTATION OF
AERONAUTICAL ORDERS AND WINGS

AWARDS

AIR FORCE SONG

DEPARTURE OF OFFICIAL PARTY

OFFICIAL PARTY

COL SHANE P. MUSCATO

COMMANDER,

479TH FLYING TRAINING GROUP

COL NELSON E. TIRADO

BATTLE WATCH COMMANDER,

USSTRATCOM



Colonel Shane P. Muscato

Colonel Shane P. Muscato is the Commander of the 479th Flying Training Group at Pensacola Naval Air Station, FL. The Group includes four squadrons, 500 personnel, and 24 T-6 Texan II and trains over 300 Combat Systems Officers each year for the U.S. Air Force, Air Force Reserve Command and Air National Guard. Additionally, the Group supports over 1,500 Air Force personnel in the Pensacola, FL area.



Prior to joining the 479 FTG, Colonel Muscato was the Division Chief for the Special Operations Forces and Personnel Recovery Capability Development Team as a member of Air Force Futures, Headquarters United States Air Force at the Pentagon, Arlington, VA. As the leader of this team, he directed the establishment of requirements for the special operations and personnel recovery formations of the Air Force to meet future operational needs. Furthermore, his team conducted wargaming and analysis of these future capabilities and provided updates to the Air Force's future force design to enable affordable, timely, and accurate effects in future conflicts.

Colonel Muscato was commissioned via the United States Air Force Officer Training School, Maxwell Air Force Base, AL. He is a master navigator with over 3,100 hours. He has deployed in support of numerous operations including ENDURING FREEDOM, IRAQI FREEDOM, NEW DAWN, FREEDOM'S SENTINEL and INHERENT RESOLVE. Colonel Muscato has commanded at the squadron level, expeditionary squadron level, and as the Combined Joint Special Operations Air Component-Afghanistan Deputy Commander.

Colonel Nelson E. Tirado

Col Nelson Tirado is a Battle Watch Commander at USSTRATCOM, Offutt AFB, NE. He serves as the lead trainer and evaluator for the Global Operations Center, enabling the command and control of the Nation's strategic forces, and is responsible for decision-making, force direction, management, and planning. Colonel Tirado is also certified to lead national-level emergency conferences with senior military and civilian leaders, including the President of the United States (POTUS), and ensures CDRUSSTRATCOM's capability to posture and launch OPLAN 801X forces. He is authorized to act in the commander's absence.



Colonel Tirado was born at Eglin AFB, FL. He obtained his commission through the Reserve Officer Training Corps in 2001. Following graduation from pilot training in 2004, he was assigned to the 45th Reconnaissance Squadron, where he served as an instructor and evaluator pilot in the RC-135. He then moved to NAS Pensacola, FL, where he served in the 455th Flying Training Squadron as an evaluator pilot for UCSO training in the T-6A before attending the Army Command and General Staff College in Fort Leavenworth, KS. Following school, he was assigned to the Joint Functional Component Command for Intelligence, Surveillance, and Reconnaissance.

In 2016, Lieutenant Colonel Tirado returned to Offutt AFB and served as the Director of Operations for the 45th Reconnaissance Squadron, then commanded the 343d Reconnaissance Squadron from May 2018 through May 2020. Following command, he attended the National War College. Prior to his current position, Colonel Tirado was the deputy executive officer to the USSTRATCOM Commander and Director of the Commander's Action Group, where he coordinated the Commander's congressional testimony and drafted assessments and memorandums to the White House, Congress, Secretary of Defense, and Chairman of the Joint Chiefs of Staff.



1st Lt Samuel R. Busa

Hometown	Raynham, MA
Aircraft	F-15E, WSO
Assignment	Seymour Johnson AFB, NC



1st Lt Kenneth L. Cordova

Hometown	Littleton, CO
Aircraft	F-15E, WSO
Assignment	Seymour Johnson AFB, NC



Capt Alexander H. Cunningham

Hometown	Kansas City, MO
Aircraft	MC-130J, CSO
Assignment	Kirtland AFB, NM



1st Lt Tyler R. Dunning

Hometown	Celina, TX
Aircraft	MPRIS
Assignment	Beale AFB, CA



1st Lt Manuel A. Lalane Tristan

Hometown	Los Angeles, CA
Aircraft	F-15E, WSO
Assignment	Seymour Johnson AFB, NC



1st Lt Alex E. Lyle

Hometown	Chesapeake, VA
Aircraft	RQ-170, EWO
Assignment	Creech AFB, NV



2d Lt Derek M. Otto

Hometown	Anderson, IN
Aircraft	RQ-170, EWO
Assignment	Creech AFB, NV



1st Lt Cameron H. Peaslee

Hometown	Colorado Springs, CO
Aircraft	RQ-170, EWO
Assignment	Creech AFB, NV



2d Lt William T. Pham

Hometown	Colorado Springs, CO
Aircraft	C-130H, NAV
Assignment	Cheyenne ANG Base, WY



1st Lt Emily E. Refner

Hometown	Allegan, MI
Aircraft	B-52, WSO
Assignment	Barksdale AFB, LA



1st Lt Gabriel Roman

Hometown	Anaheim, CA
Aircraft	MC-130J, CSO
Assignment	Kirtland AFB, NM



Outstanding Instructors

CSO Fundamentals Simulator Instructor	Capt Samuel Morehead
Electronic Warfare Simulator Instructor	Capt Nicholas Ronci
Tactical Fundamentals Simulator Instructor	Maj Curtis Zoss
Radar Scope Interpretation Simulator Instructor	Lt Col Mary Spafford
T-6 Simulator Instructor Pilot (CSI)	Daniel Higgins
T-96 Simulator Instructor Pilot (CSI)	Robert Rasmussen
T-96 Transition Instructor	Maj Joshua Irvin
T-96 Military Training Routes Instructor	Maj Clinton Brandt
Multi-Crew Synthetic Training System Instructor	Maj Robert Reynaud
T-6 Instrument Instructor Pilot	Maj Jeffrey Guanch
T-6 Navigation Instructor Pilot	Capt Paul Mueller
Active Duty Academic Instructor	Capt Victoria Beck
Civilian Academic Instructor (CAI)	Cynthia Curry
Active Duty Intel Instructor	(T)Sgt George Hayden
Integration Instructor	Maj James Harris

Squadron Commanders

479 STUS

Lt Col Austin Lohman

479 OSS

Lt Col Michael Matchett

455 FTS

Lt Col Benjamin Hoffman

451 FTS

Lt Col Joshua Lancaster

Graduate

Flight Commander

Capt Aaron Johnson

History of the 479th Flying Training Group

The 479th Flying Training Group (FTG) traces in lineage to World War II. In September 1943, Lt Col Leo Dusard was tasked with standing up a new fighter group. He began by selecting key personnel from the 329th Fighter Group (FG), and on October 15th the 479 FG was activated at Grand Central Air Terminal in California.

Following the reassignment of Lt Col Dusard, Lt Col Kyle Riddle took the reins of the 479 FG and quickly deployed the group to Europe. On April 16th 1944, 145 officers and 910 enlisted members deployed to Wattisham Royal Air Station near the village of Ipswich, England.

Only 11 days after arriving in Wattisham, the 479 FG participated in its first combat mission. Maj John H. Lowell led 34 P-38F *Lightnings* on a sweep over Holland and Belgium. On May 31st 1944, Capt Frank Keller of the 435th Fighter Squadron (FS) recorded the group's first kill by destroying a Junkers Ju-88 *Zerstorer* on the ground near Humfeld, France. Then, on July 29th, Capt Arthur Jeffrey made history as the first pilot to shoot down a rocket-propelled aircraft, a Messerschmitt Me-163 *Komet*, over Germany. On Thanksgiving Day 1945, the 479 FG boarded the *USS Enterprise* to return home to the United States. Upon return, the 479 FG was deactivated on December 1st 1945 at Camp Kilmer.

After World War II, the 479 FG was activated and deactivated several times:

- December 1952, 479th Fighter-Bomber Group, George AFB, California, North American P-51 *Mustang*.
- June 1953, 479th Fighter-Bomber Group, North American F-86F *Sabre*
- June 1954, 479th Fighter-Bomber Group, F-100A *Super Sabre*
- October 1957, group deactivated
- 26 July 1991, 479th Fighter Group, Holloman AFB, New Mexico, AT-38 *Talon*
- November 1991, group deactivated
- November 1998, 479th Flying Training Group, Moody AFB, Georgia, AT-38C & T-6A *Texan II*
- 21 June 2007, group deactivated

Finally, on October 2nd, 2009, the 479 FTG was activated at NAS Pensacola, Florida, under the Command of Col Travis A. Willis. The unit's mission is to train the Air Force's next generation aviator, the Combat Systems Officer (CSO). The 479th uses the T-6A *Texan II* and multiple aircrew training devices to this end.

* The group's three fighter squadrons (434th, 435th, and 436th) aircraft didn't have cowling colored markings like other Eight Air Force fighter groups. Rather, the *479th Lightnings* were distinguished only by their colored tail rudders.

The Evolution of the Combat Systems Officer

Combat Systems Officers (CSO) can follow their roots back to the advent of multi-crew bi-planes in WWI. During this time, CSOs fulfilled multiple roles to include navigators, observers, ordnance delivery, and intelligence gatherers on enemy positions across Europe. For many years, their duties on aircraft were not well defined. It wasn't until the historic "Southern Cross" flight across the Pacific Ocean in May of 1928 that the navigator's mission really began to take form.

Fourteen years after the historic "Southern Cross" flight, the United States entered World War II. In many World War II aircraft, to include the mighty B-26 flown by our 451st Bomber Squadron (BS) and 455th BS, the cockpit was designed for two crew members. As was typical with these aircraft, one seat was assigned to the navigator. In addition to navigation duties, the navigator also had bombardier responsibilities. This led to the affectionate term "bombigator", referring to this multi-purpose crew position.

After WWII, CSO aircrew duties were expanded to maximize U.S. Air Force aircraft combat capabilities. Vietnam-era aircraft and tactics paved the way for the three distinct aircrew roles CSOs perform today. These specialties include Weapon Systems Officer (specializing in weapons employment), Electronic Warfare Officer (expert in electromagnetic spectrum exploitation), and Panel Navigator (expert in aircraft positioning, time control, and orchestrating airdrop). Since their inception, these three separate aircrew specialties have sustained the U.S. Air Force's air superiority around the world. From OPERATION DESERT STORM, to OPERATION ALLIED FORCE, to OPERATION ENDURING FREEDOM, to OPERATION IRAQI FREEDOM, CSOs have been the backbone of the US Military's operational successes.

Today, the Combat Systems Officer title designates an aviator that is trained to perform duties either as an Electronic Warfare Officer, Weapon Systems Officer, or a Panel Navigator. And while the crew position's duties and name may have transformed over the years, its fundamental role to the lasting success of the United States Air Force has not. The demand for CSOs will only continue to grow in the 21st century as our nation upholds its global commitments and remains postured to defend our interests around the world.

As trained experts, Combat Systems Officers graduates project airpower in the interests of the United States in the following aircraft: AC-130J, B-1B, B-52, C-130H, EA-18G, EC-130, F-15E, HC-130J, MC-130J, RC-135, RQ-170, and U-28 aircraft.

The Air Force Song

by Robert Crawford

*Off we go into the wild blue yonder,
Climbing high into the sun;
Here they come zooming to meet our thunder,
At 'em now, Give 'em the gun! (Give 'em the
gun!)
Down we dive, spouting our flame from under,
Off with one helluva roar!
We live in fame or go down in flame. Hey!
Nothing'll stop the U.S. Air Force!*



For photos of today's events... Find us on Facebook!

<http://www.facebook.com/479FTG>