



**The 435th Flying Training Squadron at Randolph AFB, Tex.,  
teaches the basics that turn a pilot into a fighter pilot.**

**Photography by Guy Aceto, Art Director, and Paul Kennedy**

# ***Fighter Pilot 101***

*The 435th FTS puts students through a six-week course of flying and academics, giving them skills that must be second nature by the time they engage in aerial combat. Here, two AT-38 Talons keep a tight formation on the way to a training area.*



Staff photo by Guy Aceto

After completing Specialized Undergraduate Pilot Training, students who are selected to fly fighter aircraft must first master some basic skills via Introduction to Fighter Fundamentals. Currently two Air Education and Training Command squadrons—the 435th FTS at Randolph AFB, Tex., and the 49th FTS at Columbus AFB, Miss.—teach IFF. Air Force Magazine spent time with the 435th FTS for this pictorial.

At right, with Randolph's landmark "Taj Mahal" in the background, students and instructors from the 435th step to their jets for the first class of the day.



Photo by Paul Kennedy

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At left, a contractor employee performs crew chief duties, helping to strap a student into an AT-38. Below, an IFF student and instructor are ready to go.

IFF also provides some training for Weapons Systems Officers who will fly the backseat in F-15Es.



Staff photo by Guy Aceto

Today's sortie features high-aspect basic fighter maneuvers with one fighter vs. one fighter. The object is not to learn to employ the AT-38 in combat but to practice and understand maneuvers and countermaneuvers that fighters have in common. As the student moves through the curriculum, sorties will advance to multiple aircraft engagements.

IFF has five training tracks: three for US pilots (air-to-air, dual role, and air-to-ground); one for WSOs; and another for international students. Though all the pilots experience 18 to 19 sorties, different training tracks mean that those bound for F-16 or A-10 units, for example, get a little more time at air-to-ground sorties than those heading for F-15s and an air superiority role.



Staff photo by Guy Aceto



*The flying pace is fast and furious, with at least three sets of sorties a day. Above, a student and instructor are on the way to the range. Once there, the formation spreads out, and two aircraft position themselves for the exercise. A couple of “g awareness” turns prepare them for the sustained four to six g’s they’ll pull during the sortie.*



*Fight’s on! The engagements are quick. After a couple of turns—and if the student has the right reactions to the situation—the instructors terminate the fight and set it up again. Repetition is the key to understanding the dynamics of “the merge.” That is the point where opposing aircraft are within visual range and begin combat flight maneuvers.*



*The AT-38 Talon’s range and fuel consumption on these kinds of sorties limit them to about an hour. But it’s an hour full of twists and turns. The horizon is rarely horizontal and the learning curve is steep. For fighter pilots to survive in the arena of aerial combat, these maneuvers must become as natural as breathing.*



The AT-38 is only slightly different from the T-38 the students flew during SUPT. It has a notional gunsight and a centerline hardpoint that the ground crew below is using to attach an SUU-20 bomb dispenser. The weapons pod contains as many as six small blue practice bombs that produce white smoke on contact with the ground.



After the sortie comes the debrief. Student and instructor carefully go over the engagement. Using tapes from the AT-38's gunsight, they reconstruct events, noting what the student did well and what needs work. At right, Capt. Joel Cook uses models to illustrate a point to his student.

The 435th FTS has about 40 AT-38 Instructor Pilots assigned or attached to the unit. In addition to producing new fighter pilots, the 435th FTS also conducts Upgrade IP training.



The squadron's life support shop maintains gear for both instructors and students. At left, TSgt. Philip Benjamin, NCOIC 435th Life Support, covers some details with his troops (l-r) Amn. Andrew Miller, SrA. Vincent Davis, SrA. Raymond Hoyt, SSgt. David Charbonneau, and SrA. Robert Bouchard. The flight suits of Davis, Charbonneau, and Bouchard signify that they have attained the higher five and seven skill levels.

What is life support? Its title is the clue—without the shop's hard work the pilots don't go. Life support personnel maintain and provide equipment like helmets, oxygen, and parachutes, as well as survival gear.



Before IFF there was Lead-In Fighter Training, which was conducted by Tactical Air Command, primarily at Holloman AFB, N.M., by a 435th FTS predecessor, the 435th Tactical Fighter Training Squadron. The program was restructured in the early 1990s and transferred to Air Training Command about the time ATC was redesignated AETC.



The lineage of the 435th starts in October 1943 when it was activated as the 435th Fighter Squadron at Glendale, Calif. The 435th, under various designations, saw action as a fighter unit in the European theater of World War II and in Southeast Asia during the Vietnam War.



The 435th FTS—known as the “Black Eagles”—was activated in May 1998 at Randolph, where it occupies three prefabs. Above, the temporary buildings and camouflage netting on the deck facing the flight line give the unit a deployed look—a situation its students will soon become accustomed to.



*In Fiscal 1999, 131 students entered IFF and UIP and 121 graduated. Although there were no women in this particular class, their presence is not unusual since the Air Force began training them in fighters in July 1993.*



*Thirty-six training days of IFF include about 70 hours of academics, covering topics such as physiology as well as basic fighter maneuvers and surface attack.*

*Student pilots spend 18 to 19 hours flying actual sorties and many additional hours flying the simulator. At right, 2nd Lt. Brett Comer looks over his mission card before a sim flight. Long hours spent “in the box” translate into a better grasp of basic fighter and combat maneuvers. Mastering those basics is key to progressing to operational aircraft.*



*Many instructors here are contractors—most former military pilots—with hundreds of hours in the Talon. The Air Force IPs, too, have loads of flying hours, plus combat time. Until Desert Storm, Air Force pilots who flew in combat could only be found in the senior ranks that flew in Southeast Asia. It is not unusual today to find younger Air Force pilots who have real-world combat flying time. Current IFF instructors include veterans from the Gulf War, Allied Force, and a pilot who shot down an Iraqi MiG violating the Northern Watch no-fly zone. The knowledge they can impart directly to today’s crop of fighter pilots is invaluable. They also serve as a reminder to students to take their training very seriously.*



Above, an AT-38 with 435th FTS markings takes time for a photo over downtown San Antonio on the way back to Randolph. The F in their unit name is for "Flying," but to the 435th personnel, it really stands for "Fighter."

Plans call for the IFF program to move to Moody AFB, Ga., in Fiscal 2001, but no specific dates have been set.



Photo by Paul Kennedy

Another change coming for IFF is the introduction of an AT-38 upgrade. The Air Force began testing the T-38C at Columbus last year for both SUPT and IFF use. The upgrade will bring the fighter into the glass-cockpit age and provide capability to simulate aerial gunnery and missile attacks using either an F-16 or generic head-up display.



No matter where the program calls home, the IFF mission will remain the same: Prepare tomorrow's fighter pilots by training them in the concepts, tactics, and maneuvers they will need to survive in a fight. IFF improves airmanship and develops the confidence, discipline, and unique mind-set an Air Force fighter pilot needs to accomplish the mission. ■