The USAF Weapons School at Nellis AFB, Nev., prepares its students to take the force through combat.

Weapons School

Photographs by Paul Kennedy and Guy Aceto, Art Director

A crew chief caps the seeker on an AIM-9 Sidewinder as he tends to an aircraft from the F-15E division of the USAF Weapons School, Nellis AFB, Nev. He'll make certain that this aerial classroom is ready for tomorrow's lessons.
With its bull's-eye and cross hair design, a “Target Arm” patch like the one at left identifies a superior weapons officer with in-depth technical expertise, an excellent instructor, and an expert in combat employment—a graduate of the USAF Weapons School. Those wearing patches like this one (earned before 1992, when the word “Fighter” was dropped) have completed five and a half months of flying and classroom study covering fighters, bombers, command and control, intelligence, or search and rescue and have trained to become the primary instructors and tacticians of their units, serving their commanders as technical advisors.

Students for this “graduate school” are handpicked, experienced, instructor-qualified flyers. A student in the F-15C division, for example, usually has five years in the Eagle, with 300 hours of instructor pilot time. At Nellis, the officer completes thirty-four sorties and 236 hours of classroom instruction. Real-world operations tempo might preclude a comprehensive postflight briefing, but here such debriefs are long and exacting, with every aspect of performance carefully critiqued.

An office is where you keep your paperwork. This crew chief checks his in the shadow of a refueling truck. Crew chiefs and support personnel at Nellis are some of the best in the Air Force. With so many different types of aircraft flying such varied sorties, maintenance must be top-notch.
The USAF Weapons School has kept pace with changes in the Air Force. It was opened in 1949 as an F-80, F-84, and F-86 gunnery school, later training its graduates for the Korean War. With the addition of the F-4, F-111, F-15, A-10, and F-16 aircraft in the 1970s, the school moved away from its gunnery focus. Instruction for radar controllers and intelligence officers began in the 1980s. "Fighter" dropped from the school's name when, in 1992, most of Strategic Air Command and Tactical Air Command merged to become Air Combat Command, and the 8-1 and 8-52 divisions joined the Nellis school.

The Weapons School consists of seven flying divisions—for the A-10, B-1, B-52, F-15C, F-16E, F-16, and HH-60—and the intelligence and command-and-control operations divisions. One of the latest additions to the school's curriculum is combat search and rescue. Eight trainees per year, flying the HH-60H, will prepare for this vital role. Top, one of the school's helicopters lands back at base. Above right, a crew unpacks after the day's sorties.
The Weapons School covers so many disciplines that there is not always enough space under one roof for them all. The addition of the HH-60 meant moving the F-15E division into what had been the school’s lounge area (above), where plaques from previous classes still hang on the wall. The benefits of housing the divisions together outweigh the inconveniences, however. “This is the classic example of the synergistic effect,” said Lt. Col. Jeffrey W. Leeper, F-15C division commander, “because through the six months that the students are here, they get academics in all of the different areas that some of them may not have even known about before, and they live together with people from different disciplines.” He added, “As the course goes on, we integrate the other students and instructors, all work together, and come up with the better way to do it.”

Nellis graduates two classes per year, in June and December. The largest class, for F-16s, graduates twelve students per cycle. The F-15E class is one of the smallest, with three pilots and three weapon systems officers per class. Above right, an F-15E blocks in after a morning sortie.
The intelligence division supports each flying division through mission planning and evaluation of threats and targets. "Intel needs to know just about everything there is to know from an academic standpoint," said Lt. Col. James D. Cantwell, former deputy commandant. Students in the intelligence division receive the heaviest load of academic instruction—408 hours. At right, on a portable unit identical to equipment at their home squadrons, 1st Lts. Mike Stevenson, A. J. Ajello, and Daniel Simpson check information on an upcoming sortie.

A portion of the information the students use is classified. Behind this vault door is the school's library, containing records dating to 1949, including actual combat accounts from the Korean War through the Persian Gulf War. As befits a graduate-level course, students present briefings, write a paper for publication, and must pass numerous written exams. Some of the work is stored in this vault, to be used by future students as research material. This wealth of information is also available to combat units through state-of-the-art distribution systems.

The school's B-1 division is at Ellsworth AFB, S. D., and its B-52 division is located at Barksdale AFB, La. For the final two weeks of school, all divisions gather at Nellis for a mission-employment phase—a composite force-on-force operation that serves as the culmination of five months of training. At right, one of the 2d Bomb Wing's B-52Hs awaits its crew.
Before beginning "class" over the training ranges, students and instructors rub elbows one more time in life support. The training area is "a huge expanse of airspace," said Colonel Cantwell, "and we've got a lot of good, technical targets out there in the desert that we can employ against, [using] lots of live weapons."

The large range area at Nellis allows the safe use of many types of live bombs, rockets, and missiles, which adds realism to the training. At left and below, A-10s wait in the live ordnance loading area before launching for the range. Live Mk. 84s and Sidewinders are used against targets. Rounding up large numbers of adversaries to train against presents difficulties. USAF's increased operations tempo means most flyers have had their fill of TDY. The school has staff whose primary responsibility is arranging adversary support, and each division has points of contact charged with ensuring the right number and type of adversaries for the school's different phases.

The A-10, F-15E, F-16, B-1, B-52, and intelligence divisions place heavy emphasis on air-to-ground training. They use a building-block approach, starting with box patterns on the conventional range, surface attack tactics, nuclear weapons, and Joint Air Attack Team (for the A-10), then working up to live weapons employment on tactical targets.
The instructors take their jobs seriously, interested not in publicity but in their students, who often go on to become the Air Force's senior leaders. Above, F-16 instructor Capt. Scott Bishop waits his turn to teach class out on one of the Nellis ranges. Instructors also go to combat units to fly, teach, and learn how the school curriculum should be adjusted to keep pace with real-world demands. Operation Desert Storm, for example, demonstrated the value of the Weapons School graduate to combat planners but also pinpointed a need for more emphasis on precision guided munitions and night employment instruction.

Role models and experts on the elements of today's integrated force, those who are called "Target Arm" bring special expertise to warfighting commanders and improve the readiness of the combat air forces.