



# Viper

**Airmen from USAF and foreign nations come to the 56th Fighter Wing at Luke AFB, Ariz., to become Viper pilots.**



# University

Photo by Guy Aceto

Photography by Guy Aceto and Paul Kennedy

A two-seat F-16D fighter jet is parked on a tarmac under a large, complex metal sunshade structure. The aircraft is dark in color, and the sunshade is made of a grid of metal beams. The scene is brightly lit, suggesting a sunny day. In the background, other aircraft and ground crew members are visible, though they are out of focus.

At Luke AFB, Ariz., SrA. Eric Hayes of the 308th Aircraft Maintenance Unit marshals a two-seat F-16D for a training mission. The sunshades protect the fighters from desert heat. Hayes' blue coveralls are an optional maintenance uniform at Luke; they are more comfortable and durable than BDUs but may not be worn with rank.

In Arizona, skies are relatively empty and flying weather is good year-round, providing a highly suitable setting for USAF's 56th Fighter Wing, the largest fighter training unit in the world. The wing has some 200 aircraft on the ramp and averages about 150 flying missions per day. The huge number of sorties stems from the fact that Luke trains not only USAF F-16 pilots and maintainers, but those of many other countries as well.

Some 26 foreign nations fly the versatile F-16 fighter and most send their air and ground crews to Luke to learn alongside USAF crews. The shared training and experience strengthens the ties between the US and its allies.

At right, Vipers, as the F-16s are known by its crews, from the 308th Fighter Squadron spin up for another training sortie.



Photo by Paul Kennedy



At left, one-seat and two-seat F-16s lift off. These fighters may "turn"—take off, land, undergo servicing, and launch again—three or four times on any given day. Before joining an operational Air Force unit, the typical USAF pilot will put in two years at Luke, learning the skills of both air-to-ground and air-to-air combat.

The 56th FW and Luke are part of USAF's Air Education and Training Command. Last year, the wing produced 431 F-16 pilots and 725 crew chiefs. The wing logged more than 37,000 sorties and more than 50,000 flying hours. The first F-16s arrived at Luke in 1980, and the wing has been minting fresh Viper pilots ever since.

Arizona's blistering heat and harsh, direct sunlight can cause serious problems for even the most rugged fighters and support gear. The simple and flexible sunshades, shown at right, have proved to be an effective and relatively cheap solution. They not only provide protection for the fighter aircraft but also keep the aircraft cool enough for maintainers to handle them. The maintainers also get some relief from the oppressive desert heat.

These sunshades are similar to those that the Air Force uses at bases and austere facilities in the equally harsh climate of Southwest and Central Asia.





Don Gresham (at left and below) is a civilian instructor at Luke. Civilian employees play a big role in the wing's training operation. Here, Gresham discusses the finer points of flying the F-16 with future instructor pilots.



Photo by Paul Kennedy



Classroom time is important, and everyone pays attention. Above, Maj. Shigenao Suzuki of the Japan Air Self-Defense Force listens closely during a lecture. Suzuki will take this course work home and share it with JASDF pilots flying Japan's new F-2 fighter, a larger derivative of the F-16. At right is Capt. Nadir Ruzzon, training to be an F-16 instructor in the Italian Air Force.



Foreign students learn side by side with USAF pilots. The classmate bonds pay dividends later, when allied pilots who trained together find it easier to communicate and cooperate over a future battlefield. While here, foreign students become part of a large F-16 community and get to sample the American way of life.

At left, Maj. Steve Harrold (right) makes a few last points to 1st Lt. Kenyatta Ruffin. Ruffin is in the basic F-16 course and is only a few short sorties away from becoming one of USAF's newest Viper pilots.

Luke boasts some of the most advanced simulators in the Air Force. The device at right and below projects imagery on pentagonal panels that simulate 360 degrees of view.

Ten of these sophisticated machines are now in USAF service. Of these, Luke has four, and they are constantly booked.

Luke also has 10 other simulator devices, though they are not as sophisticated as these full-up weapon system trainers. These WSTs can be linked to those at other bases, for exercises and practice missions, and can link with any other simulator on base to create "formation" missions.

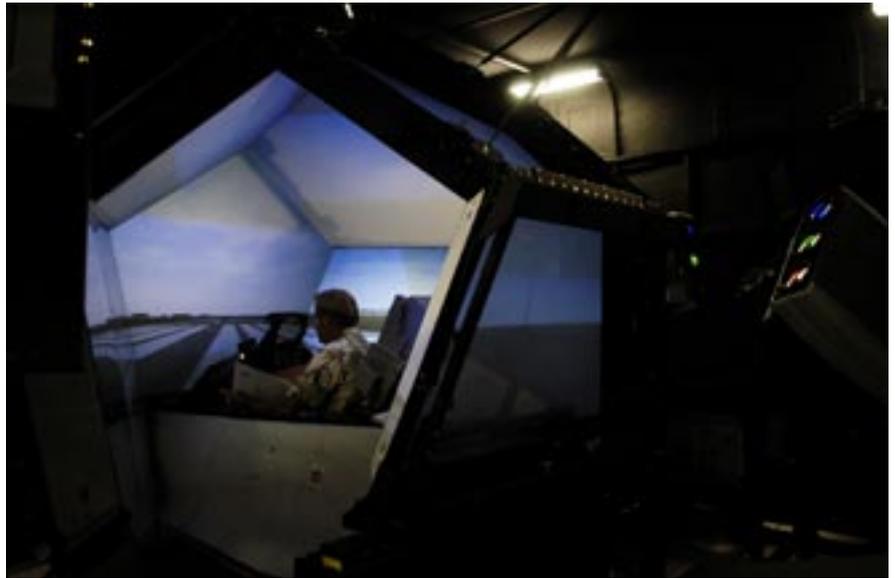


Photo by Guy Acesto



In the simulator above, Richard Roller, a civilian in the sim shop, sets up the machine for a night vision goggles training sortie.

Solid experience with NVGs is a must for F-16 pilots, given that nighttime operations are increasing around the world. Simulators such as these make it possible for missions to be flown under weather, lighting, or emergency conditions a Viper pilot might experience in the real world.



With 150 training sorties a day and flights by transients and other missions, Luke's tower is one of the busiest places on base. This is a challenge for air traffic controllers such as A1C Amber Miller (above and right) and A1C Anthony Porras (background, right).





In addition to providing pilot training, Luke personnel conduct training of F-16 maintenance specialists. A1C Joseph Joynes, above, is an avionics technician with the 63rd Aircraft Maintenance Unit. Note the green star under the canopy rail—Joynes is working on F-16D tail no. 90-778, whose pilot shot down an Iraqi MiG in the days of the no-fly zones.

At right, a crew chief gets a fist-pump “salute” from a pilot taxiing out on a mission.



The sunshades make the sprawling flight-line look smaller but busier. There seems to be no letup in the taxiing of aircraft.

The 425th FS trains only the pilots of Singapore, whose jets are among the newest in the world. The two-seat Block 52 F-16 at right is recognizable by the extended avionics spine enveloping the root of the dorsal fin. While it flies here and carries the Luke tailcode and Air Education and Training Command shield, it belongs to Singapore and wears that country's roundel (on fuselage, near tail).

The 21st FS trains pilots from Taiwan, using a mixture of US and Taiwanese instructor pilots. These two units add to the international flavor of this wing.



Photo by Paul Kennedy



Not too far from Luke is the Barry M. Goldwater Range complex—nearly two million acres of isolated Sonoran desert and 57,000 cubic miles of airspace—a national asset and crucial to the training of combat pilots. Nearly as large as the Nellis complex in Nevada, the Goldwater Range supports some 45,000 sorties a year.

On the range is Gila Bend Air Force Auxiliary Field, where students practice flying against a wide variety of electronic threats.

At left, technician Debbie Root watches pilots' performance on the highly instrumented gunnery range and scores their shots against a target.



Luke is a total force base, with Air Force Reserve Command's 944th Fighter Wing located there. Above and right, 944th F-16s line up for another sortie. Note the Litening II targeting pod on the center aircraft at right.





Photo by Paul Kennedy



At top, an F-16D gets a last-chance check before launching. Behind it, a Singaporean F-16 taxis into position on the runway.

Above, an F-16C comes in for a landing. At right, an instructor in a two-seat Viper flies chase on a solo student performing a "touch and go" quick landing/takeoff. Students perform this maneuver countless times to develop a surety on the stick in the process of landing.

Proficiency in the versatile F-16 requires lots of flying—air-to-air dogfighting, air-to-ground munitions attacks, electronic warfare, defense suppression, and strafing.



Luke has been graduating F-16 pilots since 1981 and has built a reputation as a home for F-16 pilots worldwide. The camaraderie and professionalism developed here promise to build allies for years to come.

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