The skies over Key West, Fla., fill with Eagles, Hornets, Tigers, and Fulcrums for a joint exercise.

Agile Archer

Photography by Erik Hildebrandt

A German Luftwaffe MiG-29 leads a US Navy F/A-18C and an F-15A from the Florida Air National Guard.

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Exercise Agile Archer 2002 took place at NAS Key West, Fla., from Sept. 4 to Oct. 5. Hosted by the Florida Air National Guard's 125th Fighter Wing, the joint exercise gave US participants an opportunity to conduct dissimilar air combat training against one of the most capable potential foes—the MiG-29 Fulcrum.



At left, a MiG-29—showing the AA-11 Archer infrared guided missile that lent its name to this exercise—leads an ANG F-15 Eagle (at top of photo) and a US Navy F/A-18 Hornet in a turn over Gulf waters.

The 125th Fighter Wing is based at Jacksonville Airport, Fla. One of its missions is to intercept aircraft penetrating sovereign US airspace. The wing transitioned to F-15s in 1995 and, with this mission in mind, began actively seeking opportunities to train in air-to-air combat. In May 2000, the 125th headed to Laage Air Base in northeast Germany for Exercise Agile Archer 2000. They spent nearly three weeks there, becoming the first US-based wing to deploy to Laage as a unit.

> Laage is home of the German 1st Squadron of Fighter Wing 73—the Steinhoff Wing—equipped with MiG-29s from the now-defunct East German Air Force. The wing's mission since German reunification has been air defense. Because it has MiGs, it also routinely hosts fighter aircraft from other air forces seeking to train against the Fulcrum.

Below, a German MiG gets ready for an Agile Archer training mission from Key West.





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The deployment to Laage inspired the 125th to organize Agile Archer 2002. It was a complex undertaking. More than 100 aircrews participated. This included F-15 pilots from the 85th Test and Evaluation Squadron, Eglin AFB, Fla., and the 131st Fighter Wing (ANG) in St. Louis, Mo. Navy aircrews came from the fleet and from the Naval Strike and Air Warfare Center—home of the Top Gun school. Aircrews from the Steinhoff Wing included some of the top MiG-29 pilots in the world.

Other Navy aircraft at Agile Archer were the F-14 Tomcat and the F-5 Tiger II at right, in camouflage as an aggressor aircraft.





The Key West area offered good flying weather for Agile Archer as well as extensive airspace. At left, an F-15 leads a MiG and an F/A-18 as the three major players prepare to mix it up. Supersonic, all-weather, and highly maneuverable, the F-15 Eagle was designed for air superiority. Its multimission avionics—such as a head-up display, advanced radar, and inertial and tactical navigation systems—give it an edge over current adversary aircraft.



Above, a German crew chief works on his MiG.

The MiG-29 air superiority fighter has been in service since 1985 and is flown by Iraq, Iran, and North Korea. Its speed, thrust-to-weight ratio, and maneuverability make it comparable to the F-15, F-16, and F/A-18. One advantage: MiG pilots use a helmet-mounted sight and the AA-11 Archer; the missile follows the pilot's line of sight. American F-15C/ Ds are to be modified with a helmetmounted "look and shoot" system.

The early morning light shows a flight line crowded with MiGs and F/A-18s. An all-weather fighter and attack aircraft, the Navy's F/A-18 handles interdiction and close air support.



Left to right, a MiG, an F/A-18, and an F-15 cruise over water.

Most Agile Archer scenarios featured one or two US fighters vs. one MiG. In the one-against-one basic fighter maneuvering missions, the simulated combat usually started with the adversaries turning directly toward one another, neither starting with a positional advantage. In the twoagainst-one engagements, the US fighters generally began the dogfight with the enemy at a positional advantage—defensive air combat maneuvering.









Agile Archer pitted US aircrews against "enemy" pilots as proficient and experienced as any they might face. The training missions from Key West gave the Air National Guard and Navy pilots insight on a highly capable adversary aircraft—and training in how to use the strong points of their aircraft to meet the challenge. ■



