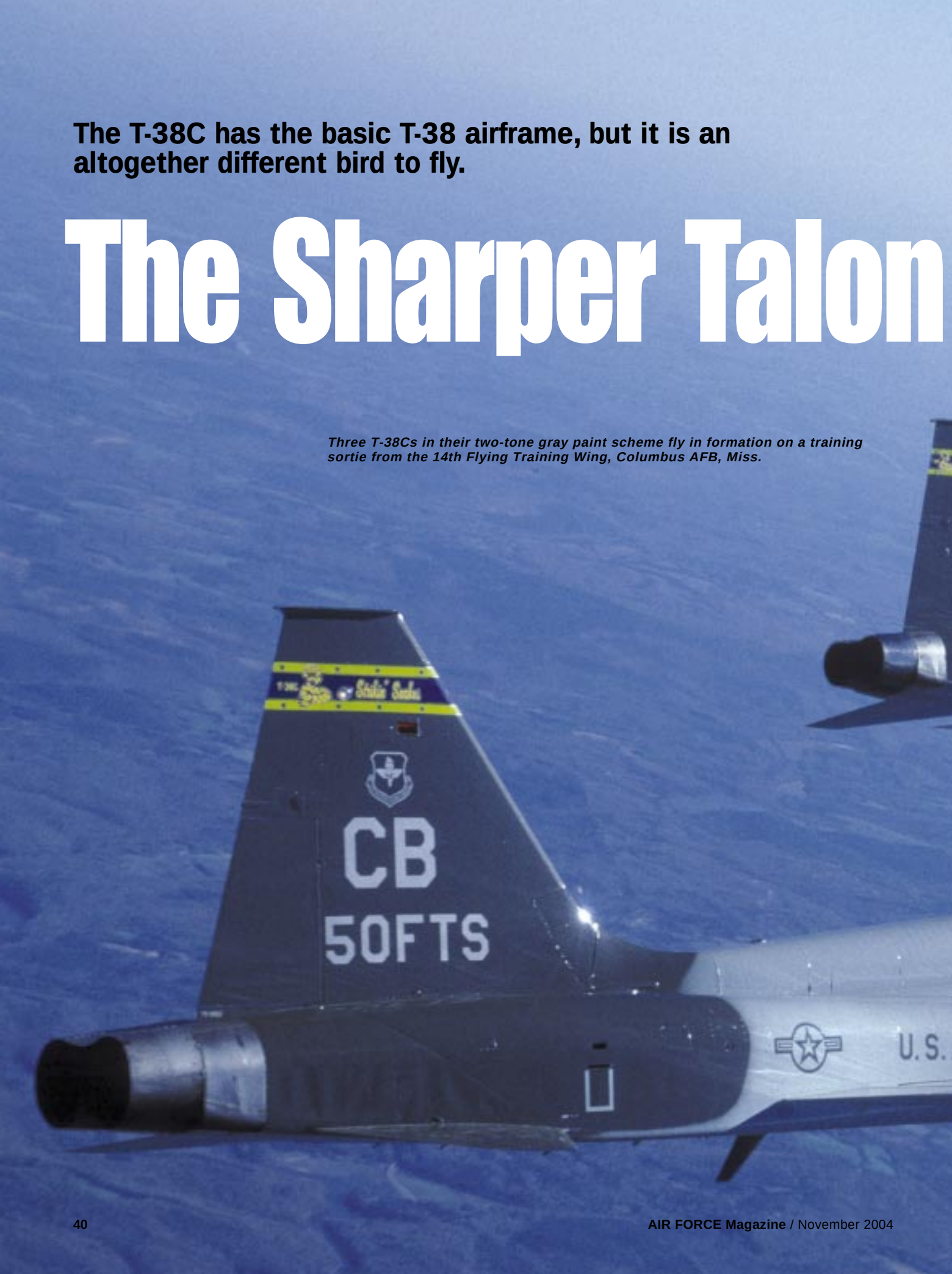
The T-38C has the basic T-38 airframe, but it is an altogether different bird to fly.

The Sharper Talon



Three T-38Cs in their two-tone gray paint scheme fly in formation on a training sortie from the 14th Flying Training Wing, Columbus AFB, Miss.

Photography by Greg L. Davis

The 14th Flying Training Wing at Columbus AFB, Miss., has been flying the new "glass cockpit" T-38 Talon since 1999, when two T-38C aircraft arrived for initial operational test and evaluation. The 14th helped pave the way for production of the converted trainer and became the first specialized undergraduate pilot training (SUPT) unit to exchange all its T-38As for the C model.

The term glass cockpit refers to the digital systems that replaced the T-38's 40-year-old analog instrument package. The new cockpit more closely resembles those found in current and future fighters.

Here, a T-38C student pilot (at right) at Columbus reviews his checklist as his instructor pilot (IP) looks on.

Photos by Greg L. Davis

At left, a T-38C IP indicates he is starting engine No. 2. Visible is the aircraft's new head-up display (HUD), part of the upgraded avionics package. Below, an IP and his student in the trainer's tandem seats prepare for takeoff.

The 50th Flying Training Squadron at Columbus trains student pilots in the bomber-fighter track. They are taught advanced aircraft handling, tactical navigation, fluid maneuvering, and more. With the advent of the upgraded T-38C, the transition from trainer to today's sophisticated combat aircraft has become smoother.

USAF received its first T-38s in 1961 and made no major changes to the aircraft (except replacing wings) until 2000. They began a life extension program dubbed Pacer Classic, which includes both the avionics upgrade and a propulsion modernization program. Once T-38A and B models receive the glass cockpit upgrade, they are redesignated C models.

Photos by Greg L. Davis

Advanced training in the 50th FTS emphasizes two- and four-ship formation flying, such as that seen in the photo above.

At right, T-38Cs fly a two-ship formation while inverted.

The new cockpit (below) includes the large-field-of-view HUD, multifunctional displays, up-front control panels, electronic engine displays, an integrated Global Positioning System/inertial navigation system, and a traffic collision avoidance system. The head-up display permits the IP and student to maintain situational awareness without having to constantly refocus inside the cockpit to operate or check aircraft systems.

At left, T-38C student pilots review materials for the next block of instruction.

Columbus is also home to another venerable trainer, the T-37 Tweet. The 14th FTW's 37th and 41st Flying Training Squadrons teach basic flying skills in these trainers, which feature side-by-side seating.

Photos by Greg L. Davis

Above, IPs and their students head out for training in T-37s. Columbus is slated to replace its T-37s with the new T-6A Texan II aircraft.

The 48th FTS at Columbus provides training in the T-1A Jayhawk (at left) for student pilots who are on the tanker and airlift track of SUPT.

Columbus is also host to an Air Force Reserve Command associate unit that provides IPs to augment the active duty instructor cadre.

At right, four T-38Cs await takeoff clearance as a T-37 lands in the background.

According to the Air Force, the new paint scheme on the upgraded Talons cuts the cost to paint an aircraft by $2,000 and lets the service run more of the trainers through base paint shops each year.

Photos by Greg L. Davis

Once fighter-bound student pilots complete SUPT and receive their aeronautical rating, they must undergo yet more T-38 training. After Columbus, they move on to Introduction to Fighter Fundamentals taught at either Moody AFB, Ga., Randolph AFB, Tex., or Sheppard AFB, Tex. Only Moody has already received its full roster of upgraded T-38Cs.

USAF plans to upgrade all of its A and B model T-38s to C status by 2008 and make propulsion upgrades through 2011. Besides providing state-of-the-art training, the T-38C will reduce maintenance time and cost, Columbus officials have said.

After completion of the Pacer Classic program, the T-38C Talons could remain in service through at least 2020. ■