



# The Testers From Tucson

The Air National Guard-Air Force Reserve Command Test Center, or "AATC," seeks low-cost improvements for the whole force.

Photography by Jim Haseltine



*A quartet of F-16C fighters, loaded with ordnance, head for the live weapons range at Nellis AFB, Nev. The aircraft belong to a combined Air National Guard-Air Force Reserve weapons test unit.*

**I**f you thought the Guard and Reserve flew every kind of mission except flight test, think again. The Air National Guard-Air Force Reserve Test Center, AATC, located at Tucson Arpt., Ariz., organizes and implements the testing of munitions, software, and other equipment flown by the Air Reserve Components. The ARC has its own money to install economical upgrades in its aircraft, and sometimes these prove so successful—like night vision goggles—that they are adopted by the active force. **[1]** F-16C releases flares on a test mission. The aircraft is loaded for bear, with air-to-air missiles, satellite guided bombs, extra fuel tanks, and a Litening pod for target designation. **[2]** A three-ship of AATC F-16 Block 30s prepares to test CBUs, or cluster bomb units, over the Nellis range.



**[3]** Two CBU-103 Wind-Corrected Munitions Dispensers are riding on a recent addition to the F-16: the BRU-57 dual-smart weapons rack, which doubles the load an F-16 can carry on a single pylon. **[4]** Lt. Col. Bruce Brown signals after completing his preflight procedures and taxis for a mission at Davis-Monthan AFB, Ariz., where the AATC maintains a detachment for test flights.



**[1]** A pair of the AATC's seven F-16s en route to the Barry Goldwater Range complex in southern Arizona, where they will release GBU-38 Joint Direct Attack Munitions, or JDAMs. Missions are flown with operationally representative loads to heighten realism. **[2]** The center's flagship "AT" F-16 awaits ordnance at the live load area of Davis-Monthan. **[3]** Two GBU-24 2,000-pound laser guided

bombs are "ripple"-released over the Goldwater range. **[4]** The center's headquarters at Tucson Airport. The center uses National Guard and Reserve Equipment Account funds to rapidly buy and test commercial, off-the-shelf hardware and software that can improve the capability of its aircraft. It also carries out tests for every major command that uses equipment fielded by the Guard, from

F-15s and helicopters to bombers. The Litening targeting pod and the Situational Awareness Data Link are just two systems first explored by the AATC that have now spread into the active force. **[5]** MSgt. Ruben Perez secures a JDAM to a BRU-57 rack for a test mission as TSgt. Harold Lewis maneuvers the loader.

**[1]** Col. Mike Schwamm flies fingertip formation with an AATC F-16 en route to a sortie on the Nellis range. **[2]** An F-16 maneuvers under the sun. The AATC's motto is "Test and Innovation for the Air Reserve Component," but it performs both developmental and operational test missions for the Total Force. **[3]** During a series of test missions to prove out the latest F-16 software, SCU-7, the team dropped more than 150,000 pounds of weapons in 10 days. Perez (l) and TSgt. Mitzi Eggers load munitions. **[4]** An F-16 launches an AGM-65 Maverick missile in a live-fire software test. **[5]** What the well-dressed Falcon is wearing, from wingtip to centerline: AIM-120 AMRAAM and AIM-9 Sidewinder dogfight missiles, BRU-57s, with two WCMD cluster bombs, extra fuel tanks, and a Sniper targeting pod.





**[1]** TSgt. Saul Dojaquez monitors an engine run on an AATC F-16 between missions. The AATC aircraft bear the tail flash of the the Arizona Air National Guard, and are hosted by the Guard's 162nd Fighter Wing. **[2]** A JDAM is released during SCU-7 testing. Software updates tell the aircraft's computers how to recog-

nize and "talk to" loaded ordnance, identify threats, and help the pilot employ weapons. The "tapes" must be periodically updated to add new weapons, new versions of weapons, and revised threat profiles. **[3]** An F-16D two-seater rolls in to launch a Maverick missile. **[4]** The real deal: Live GBU-38 JDAMs await a test

mission, double mounted on a BRU-57. **[5]** An AGM-65K Maverick is launched by AATC Vice Commander Lt. Col. Leonard Dick. The TV-guided Maverick was headed for retirement, but proved its utility in Iraq during the early part of the decade. The K model extends its range with better resolution.

**[1]** Brown inspects a Triple Ejector Rack loaded with two CBU-87 cluster bombs during the preflight walk around. **[2]** Maj. Chad Greer checks out conditions en route to a sortie over the Goldwater Range. Note the AATC patch, which gives equal billing to the Guard and Reserve. **[3]** The unit's sole F-16D, loaded up with a Litening targeting pod, a Sidewinder, and four LAU-131 rocket pods bearing 2.75-inch rockets. **[4]** Left to right, Eggers, Lewis, and Perez upload a smart rack on an F-16 wing. **[5]** A 2,000-pound JDAM leaves the wing of an AATC F-16 during a SCU-7 test sortie. The JDAM uses Global Positioning System satellite guidance and routinely strikes within 16 feet of its intended target. Its accuracy has almost single-handedly changed the calculus of strike from sending multiple aircraft to a single target to sending one aircraft to destroy multiple targets.





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*[1] A four-ship of F-16s bearing JDAMs and Litening pods line up en route to a live-fire test mission. [2] An AATC F-16 carrying an AIM-120 AM-RAAM, AIM-9 Sidewinder, and a GBU-38 JDAM. The blue color indicates a nonlive weapon. [3] An F-16 breaks away, revealing its weapons load. [4] A last look at an AATC F-16 during SCU-7 tests. In addition to threats and weapons functions, the software updates also add electronic warfare improvements and air-to-air capability enhancements. For the F-16 Block 30, mission capability is doubled. ■*