



Paced by USAF's 20th Fighter Wing, US and NATO forces and more than 100 aircraft staged a full-scale "invasion" of North Carolina.

Photography by Rick Llinares



Operation Iron Thunder, a large-force exercise of air, sea, and land forces, played out over four days last July around the coast of North Carolina. Aircraft came from as far away as Washington state to the west and Europe to the east. Hosted by the 77th Fighter Squadron of Shaw AFB, S.C., it unfolded much like a Red Flag exercise, with flying operations extending hundreds of miles from Jacksonville, Fla., in the south to Norfolk, Va., in the north. Because the exercise simulated modern air and surface threats, participants were exposed to combat-like conditions for an extended period.

Right, three new F-22 Raptors from the 1st FW, Langley AFB, Va., form up in an echelon formation. The three (top to bottom) were piloted by USAF Capt. William Creeden, Capt. Jonathan Gration, and Capt. Brandon Zuercher. F-22s and F-15Cs from Langley flew together.





The US and NATO forces simulated a full-scale invasion along North Carolina's coastline. Left, Maj. Kevin Pugh, F-16CJ pilot of the 77th FS, leads a Viper pair at the outset of the exercise. The "Gamblers" of the 77th FS came up with the concept of the exercise and acted as the host unit throughout the training period. A total of 42 F-16CJs participated in the exercise with other F-16s from the 55th FS, 77th FS, and 79th FS.

Right, Col. Thomas Lohr (I) and Maj. Dana Nelson of the 459th ARW guide their KC-135R refueler on final approach to Andrews. The 459th ARW was one of five KC-135 wings to participate in the exercise. Others included the 100th ARW from RAF Mildenhall, Britain; the 107th ARW with the New York Air National Guard; the 117th ARW of the Alabama ANG; and the Reserve 916th ARW from Seymour Johnson AFB, N.C.







Top left, a US Navy F-14 Tomcat—Felix 21—sweeps its wings for speed. It is flown by Lt. Cmdr. Dave Faehnle, with Lt. Michael Petronis in back. Tomcats of Navy Fighter Squadron (VF) 31 served as Iron Thunder's Red Air element. It was the final large-force exercise for the legendary Tomcat, which officially retired last month.

Top right, an A-10 attack aircraft of the 74th FS, Pope AFB, N.C., is readied for action in Iron Thunder. The 74th FS is one of two A-10 squadrons assigned to the 23rd Fighter Group.

Below, Lt. Justin Allen flies the lead Navy F/A-18, followed by a second Super Hornet flown by Lt. Cmdr. Jeff Blake. The F/A-18 "Gunslingers" of Navy Strike Fighter Squadron (VFA) 105 assisted with Red Air duties during the exercise.





Above, Navy Lt. William Grant (in top Tomcat) and Lt. Nick Smith (below), both of VF-31, fly two F-14s in trail formation off Felix 21. The squadron hails from NAS Oceana, Va., near the Navy's giant base at Norfolk.

Right, a Gunslinger of the Navy's VFA-105, NAS Oceana, supports Iron Thunder. This aircraft is painted in a brighter scheme to honor the carrier air wing commander, Capt. James Cook. Each squadron in a Navy air wing dedicates a single aircraft in this manner. VFA-105 had previously operated F/A-18C Hornets and upgraded to the Super Hornet.





Left, Air Force MSgt. Kevin Beccard (far right in photo), a 459th ARW boom operator, confers with Lohr (at far left) after an Iron Thunder mission. Tanker aircraft provided critical support to the exercise's tactical aircraft, as did E-3 Airborne Warning and Control System (AWACS) and E-8 Joint Surveillance Target Attack Radar System (Joint STARS) aircraft.

Below, an AV-8B Harrier of Marine Corps Attack Squadron (VMA) 231 out of MCAS Cherry Point, N.C., takes off to provide direct support for Marine Corps landing operations.



Above, a KC-10 of the 514th ARW, McGuire AFB, N.J., deploys its boom. KC-10s refueled Air Force, Navy, and Marine Corps aircraft.







Top left, an Air Force C-17 transport delivers marines to a drop zone near the coast of North Carolina. Top right, a marine prepares to hit the road. Under escort from other Blue Air forces, the C-17s flew just above the surface of the Atlantic Ocean before gaining altitude for the drop. Meanwhile, in the air, three AWACS aircraft participated in the operation. The one shown at right is of the 965th Airborne Air Control Squadron, Tinker AFB, Okla. Another Royal Air Force E-3 flew in from Waddington, Britain.





Left, an F-15C fighter of the 71st FS's "Ironmen" provides air superiority for Blue Air during the exercise. The 71st is based at Langley as part of the 1st FW.



Right, an F-22 of the 27th FS at Langley, maneuvers into refueling position behind one of the KC-135 tankers. The Raptors were critical components of air superiority missions during Iron Thunder.



At left, MSgt. Zerrik King, a Reservist with the 459th ARW, works to reinstall a newly serviced boom onto one of the unit's KC-135s at Andrews AFB, Md. The high-speed boom can transfer fuel at a rate of up to 6,500 pounds per minute.

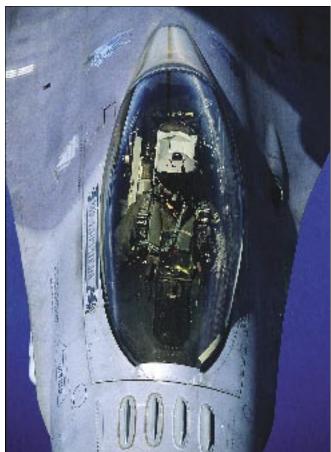
Below, an E-8 Joint STARS from Robins AFB, Ga., helps provide airborne battlefield management during the exercise.



Above, this EA-6B Prowler jammer of the Marine Tactical Electronic Warfare Squadron (VAQ) 4 from MCAS Cherry Point provides electronic warfare support for Iron Thunder aircraft.







Top left, TSgt. Richard Carlton assists the crew of a KC-135 from the 459th ARW as they complete final preflight checks at the Andrews flight line in preparation for a morning mission.

Top right, an F-16CJ pilot keeps an eye on what's above him. F-16CJ pilots sharpened their skills to prepare for future air defense suppression missions.

Right, a pair of A-10s flies over the Atlantic. Built for survivability, the A-10 can carry up to 16,000 pounds of ordnance on its 11 stations.



At left, Beccard, one of the senior boom operators with the 459th ARW, delivers fuel to an F-22 of the 1st FW. He has more than 19 years as a boom operator, instructor, and evaluator, with more than 5,900 flight hours.

Iron Thunder gave US and NATO military forces a chance to display their capabilities. The operation was an invaluable opportunity for pilots to participate in a realistic invasion scenario and work with a host of other units and sister services. ■