

Thunderbirds

The Thunderbirds began performing 50 years ago this month. They still thrill the crowds.



birds at 50

Photo by Erik Hildebrandt



Photography by Erik Hildebrandt, TSgt. Kevin Gruenwald, and SSgt. Sean M. White, with additional photos from Marty Winter

Based at Nellis AFB, Nev., the US Air Force Air Demonstration Squadron—better known as the Thunderbirds—fly F-16C Fighting Falcons. The T-birds have performed spectacular aerial maneuvers for more than 300 million spectators around the world.



The Thunderbirds began performing in air shows in June 1953, having been activated only two weeks earlier at Luke AFB, Ariz., as the 3600th Air Demonstration Unit. Their purpose: To serve as “ambassadors in blue,” supporting the Air Force’s recruiting efforts and demonstrating both the professionalism of USAF personnel and the power of the high-performance jets that were at the time new to the American public.



USAF historic photos via Marty Winter



In an August 1953 photo (above), the Thunderbirds fly Republic Aviation F-84G Thunderjets, the first aircraft type used for their demonstrations. In 1955, they transitioned to the swept-wing F-84F Thunderstreak (left). By that time, they had already taken their precision flying beyond the US to South America and Central America. The “smoke” trailing from the F-84s helped spectators follow the path of the aircraft as they performed. Today, the aircraft generate the contrail by pumping a paraffin-based oil into the exhaust nozzle, where it instantly vaporizes.



Above, Thunderbirds in their current aircraft, F-16s, create a mirror-image effect in a “Calypso Pass.” At right, SSgt. Jason Owens cleans a wing. Such attention to all aspects of maintenance is one reason the team can safely perform the kind of precise maneuvers shown at far right.



USAF photos by SSgt. Sean M. White



Photo by Erik Hildebrandt

The first supersonic jet fighter, the North American F-100 Super Sabre became the third aerial platform for the Thunderbirds. The T-birds adopted it in 1956. That year, the team also moved to its current home at Nellis, where it is part of the 57th Wing.



At left, a rare color photo of the Thunderbirds flying F-105Bs. The team flew this aircraft for only six shows in 1964 before it made the transition to the F-100D. During the 13 years that they flew F-100 C and D models, the Thunderbirds traveled to Asia, Europe, and Africa.





Below, F-4Es head into a “Line-abreast Loop.” Phantom IIs were front-line fighters in Vietnam when the Thunderbirds began using them in 1969. The Phantom was the first and only aircraft type to be flown concurrently by the Thunderbirds and the Navy’s aerial demonstration team, the Blue Angels.





In the 1974 air show season and for eight years thereafter, the team flew the T-38 Talons shown here. The world's first supersonic trainer was fuel-efficient, less costly to maintain, and sleek. The Thunderbird version had a red-and-blue striped paint scheme, called a winged stinger, on the belly.

The 1974 season was short—35 shows in four months. Today, the Thunderbirds perform in 88 shows from March to November.



USAF historic photos via Marty Winter



The arrival of F-16As (left) in 1983 marked a return to the T-bird role of demonstrating front-line fighters. They were replaced by C models in 1992.

Pilots of the current F-16Cs (on facing page) carry out approximately 30 maneuvers while demonstrating formation flying and solo routines. The Thunderbirds team includes eight pilots, some 130 enlisted people, four support officers, and three civilians. Officers serve two-year tours with the squadron, while enlisted personnel serve three to four years. All airmen are selected through competition. Pilots need a minimum of 1,000 hours of military jet experience to apply for the team and then complete 120 training flights. Ground crews undergo rigorous screening and a 21-day training program.



Above, a crew chief works on a T-bird F-16. At right, crew chief SSgt. Blaine Edinger signals to an air show crowd that the engines will start in one minute.

Named for the half-eagle, half-hawk bird of North American legend, the Thunderbirds have for a half-century demonstrated the precision of USAF pilots and aircraft.



USAF photos by TSgt. Kevin Gruenwald



Photo by Eric Hildebrandt