



# THE BRUISERS



## P-47 THUNDERBOLT GRUMMAN'S F6F HELLCAT

Republic's P-47 Thunderbolt and Grumman's F6F Hellcat were U.S.-built fighters cut from the same cloth. Both were designed in Long Island New York and the pair represented the pinnacle of American industrial might. Built around the same type of big, air-cooled Pratt & Whitney R-2800 engine, the duo were basically the same size and shape, one serving the Army and the other for the Navy.

Made solid, heavy, and powerful, the two fighters were well known for their ability to take great punishment and still return home safely. In the last years of the war, the two planes dominated the skies, taking on aerial foes and making life miserable for Axis ground forces.

The P-47 Thunderbolt came first. The United States military was influenced by fighter designs like the Spitfire and Bf 109. The Army knew it needed better aircraft to take on potential enemies in air-to-air combat. When Republic's Russian-born designer Alexander Kartveli met with Army Air Force officials in June of 1940, he came away with an intimidating set of requirements. They wanted speed, heavy armament, great protection (armor and self-sealing fuel tanks), and exceptional range. It was clear that nothing Republic had, in the air or even on the drawing board, would do.

The plane that Kartveli and his crew came up with was a large, heavy interceptor. The XP-47B made its maiden flight on May 6, 1941. The heart of the new machine was its Double Wasp engine. The powerplant had flown in Vought's F4U



Flying warbirds is hardly ever a clean job. Here, exhaust streaks the side of the Hellcat after a performance over the crowds at Seafair, near Seattle.

a year before. The eighteen-cylinder behemoth made the Corsair America's first single-engine fighter to fly at more than 400 miles-per-hour.

While the R-2800 was the heart of the Thunderbolt, its turbo supercharger was its lungs. Located behind the wings, this device collected and compressed air, feeding "sea-level" air to the plane's engine at high altitudes.

The lines of the P-47 were scribed around the union between its powerplant and turbo charger. More accurately, the Thunderbolt got its "jug" shape from the maze of air ducts in its belly, funneling air from the nose to tail and back again. The turbocharger was driven by exhaust gasses from the engine. Clean cool air was scooped from a large opening under the engine. Some of this air cooled oil, while additional air was compressed, then cooled, then sent back to the R-2800 in the nose. Each function required a pipe or duct system to move air through the fuselage.

In service, pilots and ground crew liked the duct system throughout the fighter's belly because it protected a flyer in a hard, wheels-up landing and the "crush zone" protected vital parts of the aircraft, allowing it to be repaired quickly.

The other thing that pilots adored about the P-47 was its heavy compliment of guns. With the plane's landing gear ingeniously mechanically compressed when raised, the designers had enough room in the wings to shoehorn in eight .50-caliber guns. The new era of air-to-air combat stressed incredible punching power to violently and quickly smash enemy aircraft.

When the first P-47s went to Europe in April of 1943, they weren't immediately accepted by American pilots. The Thunderbolt (or, as flyers called it, the Jug) was a monster. Used to deft planes like the Spitfire, the P-47 seemed like a delivery truck.

However, the P-47's huge size allowed it to fly much farther than a Spitfire. Thought built as an interceptor, the Jug would be used most often in the early days as an escort plane. The P-47 could carry 305 gallons of fuel in its fuselage and external drop tanks too. It was not enough to stay with the heavy bombers through an entire mission, but kept them in the fight much longer than the Spitfire.

When far-flying Mustangs arrived on the scene to escort American bombers, many P-47s switched roles again. The timing couldn't have been better. As Allied troops stormed ashore in France, Jugs took on the job of ground attack aircraft. The P-47 was uniquely suited for the task—burly airframe, heavy

guns, and a durable engine.

Above all, the Thunderbolt was known to be almost supernaturally tough. Tales of Jugs that had buzz-sawed through the trees, smashed into the side of a German truck, or came home with an engine cylinder completely shot away were often more truth than fiction. Down near the ground, hunting tanks, trucks, and trains was the most dangerous spot for a flyer. Pilots grew to love the P-47 because it nearly always gave them a fighting chance to come home.

The Flying Heritage Collection's P-47D-40-RA Thunderbolt was built in Evansville, Indiana, in the last months of World War II. According to the Army Air Forces Statistical Digest, the U.S. Government acquired the plane for around \$83,001.00 (the average for the year).



Flown by remote control, a Navy flyer brings a pilotless Hellcat drone in for landing during a training session in Florida.

Evansville was the second Republic factory building P-47s, the other site being Farmingdale in Long Island, New York. This second factory was built inland, which was thought to be out of range of even the boldest Nazi bombing attacks. Evansville's first P-47s left the factory as the building was still being constructed in mid-1942. In total, the Indiana plant built 6,242 of the 15,683 Thunderbolts produced.

The FHC's aircraft was delivered to the Army and accepted on June 27, 1945. Its first stop was Independence Army Airfield in Southeast Kansas. There, the plane was put into storage until May of 1947. At that time, the P-47 was moved to Tinker Army Air Field in Oklahoma. While the plane was at Tinker, the U.S. Army Air Forces became the U.S. Air Force and Tinker became an Air Force base. As well, the Thunderbolt's designation changed from P-47 (for Pursuit) to F-47 (for Fighter).

On February 26, 1948, the plane was transferred to an Air National Guard (ANG) unit in New York. The 138th Fighter Squadron flew out of Hancock Field near Syracuse. The squad-

ron was assigned to the ANG's 174th Fighter Wing and was the first post-WWII Air National Guard unit to operate in New York State.

In 1950, the FHC's Thunderbolt was briefly assigned to Griffis AFB in Rome, New York, while still attached to the 138th. When the 138th transitioned to F-51D Mustangs, the Thunderbolt was transferred to the 141st Fighter Squadron (ANG) at Mercer County Airport near Trenton, New Jersey.

After a quick visit to Olmstead AFB near Harrisburg, Pennsylvania, in early 1951, the FHC Thunderbolt and its unit moved to Turner AFB near Albany, Georgia, in March. Turner was a Strategic Air Command (SAC) base, and the overarching 108th Fighter Group became SAC's 108th Fighter Bomber Wing.

On November 28, 1951, the 108th went from SAC to Tactical Air Command (TAC). On January 2, 1952, the 108th and its F-47s moved from Turner to Godman AFB near Fort Knox, Kentucky. On December 1, 1952, the FHC's F-47 was transferred to the newly-formed 405th Fighter Bomber Wing, still stationed

## CAPACIOUS COCKPIT

While the size of the average man stayed about the same, the size of the average fighter plane, and its cockpit, increased during World War II. This image shows the spacious working space in the Flying Heritage Collection's P-47 Thunderbolt. It's not surprising that the interior of America's biggest single engine fighter of the war would have the largest cockpit too. It was so commodious, in fact, that it *causk* *standed* pilots of all nations to take notice. Pilots who *transitioned* from flying Spitfires in RAF Eagle Squadrons were shocked by the size of the plane. Compared to flying in the cozy cockpit of the Supermarine's bantam defensive fighter, the inside of the Jug seemed disturbingly roomy. British observers wryly observed that one might slip off the seat, fall to the cockpit floor, and really hurt themselves. When a P-47 was captured, the Germans were equally puzzled by the Thunderbolt's interior. Luftwaffe General Adolf Galland wrote that the cockpit was big enough to walk around in. Other German pilots, used to the comfy if-not-cramped cockpit of the Bf 109, felt that everything was out of reach. Another speculated that a pilot might be able to dodge bullets simply by loosening his shoulder straps and leaning to one side or the other as he flew.



Moving in close, one can see an image of the photo aircraft, a Cessna O-2, double-reflected in the Hellcat's cowling.





at Godman.

By April of 1953 the FHC's F-47 had been moved back into storage at Tinker AFB. In July, the plane was transferred to Naval Air Station Dallas/Hensley Field to be overhauled by TEMCO Aircraft, presumably for eventual transfer to a Latin American country. In September of 1953, the plane was, in fact, acquired by Brazil's Força Aérea Brasileira (FAB). The F-47 became known as aircraft 4192.

Pilots in Brazil had flown P-47s since their combat in Italy during WWII. By early 1952, around 51 P-47/F-47s had been supplied to Brazil through Lend-Lease agreements. The FHC's aircraft came in a batch of 24 additional planes. The fighter was assigned to the 2º Esquadron do 5º Grupo de Aviação (2nd squadron of the 5th group), based in Natal in the northeastern portion of the country. The group was more of a training unit

than a fighter squadron—Brazil had acquired Gloster Meteors that had taken over the marquee job of frontline defense.

The F-47 fighter was moved to the air depot at São Paulo on February 18, 1957, and then assigned to another unit at Fortaleza on July 11. The plane was moved back to the depot at São Paulo again on January 18, 1958, for another refurbishment.

In January of 1960, the plane was allotted to the Centro Tecnológico de Aeronáutica at São José dos Campos near São Paulo. The school used the now-outdated fighter for ground instruction. Later, the plane was preserved at Campo Grande (in the west-central region of Brazil) and then transferred back to Natal, where it was seen and photographed displayed outdoors in 1986. The plane was one of around nine F-47s preserved as monuments or in museums around Brazil. Some sources say that the plane was under the jurisdiction of the Museu Aeroes-

pacial in Rio de Janeiro when it was sold to Airplane Sales International of Santa Monica, California, in 1988.

Shipped back to the U.S., the dismantled fighter arrived in Chino, California, in September of 1988. When purchased by Victor Haluska and the Santa Monica Propeller Inc. in mid-1990, the plane was registered with the FAA as N7159Z. Around mid-1993, the plane went to Dick Wixom and Wixair Inc. of Janesville, Wisconsin.

In 1997, a full restoration was begun on the aircraft in Rialto, California. The job was undertaken by WestPac Restorations co-owned by Bill Klaers and Alan Wojciak. According to a 1999 *Air Classics* magazine article, "WestPac has become the leading Thunderbolt restoration shop."

In July of 1998, the Flying Heritage Collection purchased the P-47 as work continued. The new owner required an ex-

ABOVE: Flown by remote control, a Navy flyer brings a pilotless Hellcat drone in for landing during a training session in Florida. OPPOSITE PAGE: Ro qui ute nonsedi volore pariat pernam, ulluptasitas dolorem volo veliant que aut placerspe prate re, siminct atetur? Lore dernate stinctio ium nem et posam excerati omnitiore porerum quosanihit libus sin nessed exero

tremely thorough airworthy restoration completed to exacting original standards. In a 2005 interview, Klaers told *Air Classics* about the new developments in the field of aircraft restoration. His comments were probably influenced by his work on FHC's Thunderbolt: "It has become a very serious business with extremely dedicated collectors who are demanding the highest detail and quality of restoration work. One can compare it a bit to all the work that is undertaken on very rare auto restorations. It has gotten to the point where no detail is too small."

The P-47 came out of restoration and was first flown in 2006.



C30 M0 Y20 K40

C36 M0 Y47 K5

C50 M5 Y0 K40

C63 M28 Y0 K0

C8 M8 Y20 K25

C0 M31 Y95 K0

C20 M10 Y5 K15

C0 M10 Y40 K15