

Kingcobra

Venomous Survivor

It is easy to assume that the number of surviving examples of a type is a reflection of production numbers, or how useful, or even famous or popular an aircraft was. While these are all reasons for rates of preservation, they are also overlaid by the more significant factor of both *when* a type was produced and *where* it was used. The Bell P-63 Kingcobra is a perfect example of this. Far less widely used or critical in combat than its forebear, the Bell P-39 Airacobra, the Kingcobra was used by the Soviet Union and otherwise in secondary roles in the Continental USA. Because of this US use, the Kingcobra has been disproportionately better represented than the P-39 in survivor numbers for many years, despite not seeing frontline combat use with the USAAF.

A Better Airacobra

The Kingcobra was a development of the earlier P-39 intended to address its deficiencies. Ultimately, it was a completely new type, with the configuration of the Airacobra, also encompassing several enhancements in fighter (or Pursuit) design, notably the incorporation of a laminar flow wing. Development started with the XP-39E, and

quickly led to the first XP-63, a larger machine with the laminar flow wing and a two-stage supercharged engine. Significant orders in the panic days of mid-1941 were placed, but when the aircraft were ready, the USAAF decided they preferred the P-51, so the P-63s were mainly destined for the Russian Front, via an Alaska-Siberia ferry route. The Russians used the Kingcobra for air cover of the ground forces, though this role has been mistranslated as 'tank busting' – now known not to be their job.

The main US role was the bizarre 'Pinball' programme where P-63s were stripped of equipment, plated in a ton of armour, painted orange and used as air-to-air gunnery targets for bomber crews firing frangible bullets. Hits detected by sensors lit up lights on the aircraft.

In a 1945 swansong, a batch of just over a hundred were delivered to France's Armée de l'Air, but just missed W.W.II, though they were used in the First Indochina War. Before entering preservation proper in recent years, a remarkable number of surviving Kingcobras found a new career as air



Operated by Larry Haven, this racer built up from multiple airframes featured a very small canopy and clipped wings with 'Horner' tips. [via author]

Several P-63 racers were heavily modified, the P-63C, NX62995 the 'Tucker Special' seen here with a remarkably abbreviated wing span of 25 ft 9 in (7.85 metres) cropped by 12 ft 9 in (3.89 metres)! [via author]





LEFT: Operated by John Sandberg, 44-4393 was flown as Race No.28, N62822, 'Topsy Miss' in the 1970s featuring a remarkable all red scheme and, as seen here, a chrome spinner. [via author]

BELOW: The later career of N62822, was as a warbird, based in the UK with the Fighter Collection, in this photograph at a foggy IWM Duxford. It was later lost in a fatal accident. [J Kightly]

LEFT: Rightly, Bell Aircraft were proud of their production run, as well as their innovation, but true success eluded them until they moved into a whole new area of flight and developed the Bell 47 helicopter. [via author]

BELOW: Russian accounts of the Kingcobra have been little known in the west, and downgraded in the histories as a 'capitalist' aircraft in the Soviet era. [via author]



BELOW: The National Museum of the USAF's P-63E 43-11728 was donated by Bell Aircraft in 1958. Although lacking the armour plate and the other "pinball" features, it is marked and painted in the unusual colour scheme of an RP-63A. [NMSUSAF]



ABOVE: The ex-Frank Bormann P-63C-5, 43-11223, now N163FS operated by the Legacy Flight Museum, one of the four fliers. [Mike Shreeve]

RIGHT: Wearing the name 'Little Toots' and carrying the often required drop tanks (the P-63 had a short range for the era) this example is ready to go to Russia. The Wings Museum near Balcombe, Sussex in the UK are restoring an ex-Soviet P-63 wreck as 43-11137 in these colours. [via author]





LEFT: P-63C Kingcobra 44-4011, seen at Victory Air Park in Moscow, is a reconstruction from a hulk found on Shumshu Island, Kuril Group, Russia. A P-63A is also preserved at Monino. [via author]

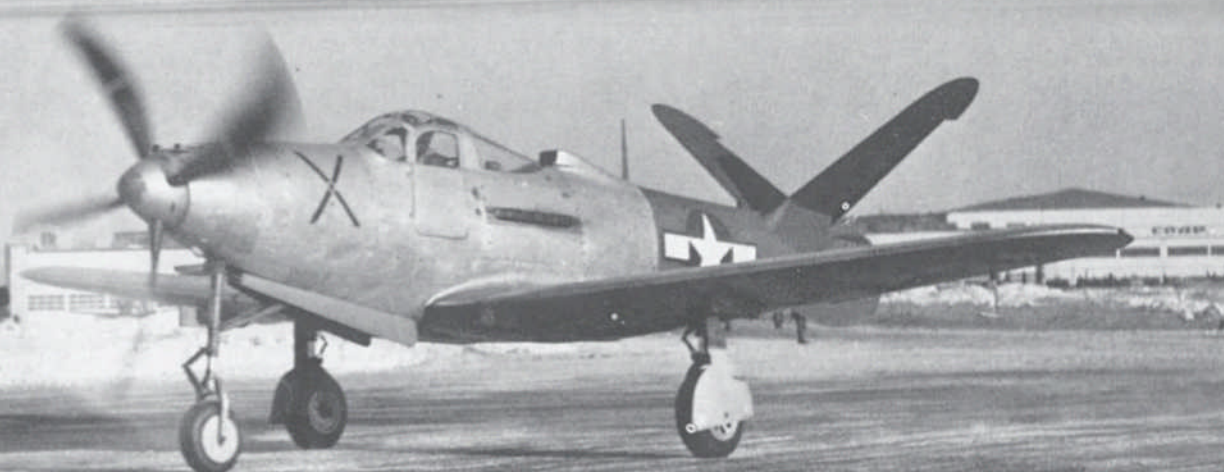
BELOW: P-63A 42-69080 restored for the Yanks Air Museum, Chino, California. [J Kightly]



racers, relatively cheap examples being easy to find, resulting in no less than thirteen known P-63 Kingcobras being listed in 1974, and numbers that have remained relatively steady until the twenty-first century. Since the air racing era, a handful of examples have been regular fliers, though two British-based examples were lost in fatal crashes, while a significant number of wrecks have been obtained from the former Soviet Union. Today, four examples are airworthy, two (both profiled in this issue) recently restored to the air.



Not used by the US in combat, the Kingcobra was available for a number of experimental roles, including the then-revolutionary swept wing trials and the less widely adopted butterfly 'v' tail on the XF-63N. [via author]



Dixie King

The Dixie Wing of the Commemorative Air Force recently re-flew their Bell P-63A-6 Kingcobra 42-68941 on Saturday 18 February 2017. It had been forty years since its last flight, with the past sixteen years under restoration. It took off just after 1:00 pm local time, in the hands of pilot Jim Dale, from the Atlanta Regional Airport, Georgia, home of the Dixie Wing.

Built in the winter of 1944, Bell construction number 33-11 was rolled out of the Bell plant in Niagara Falls, New York State, on 24 February, where it was formally accepted by the United States Army Air Force as a P-63A-6 and given serial number 42-68941. However the aircraft was retained by Bell for a period, it is believed to test various improvements trialled on the type. It then was used in 1945 by NACA (National Advisory Committee for Aeronautics, the predecessor of NASA) at the Ames Research Center at Moffett Field in Mountain View, California. Bought by a CAF 'Colonel' in the mid 1960s it flew with the organisation until 1975. A long, ultimately successful legal battle had to be fought over ownership, and an earlier restoration was stopped by the Mississippi river flooding the hangar. Registered N191H, it will be returned to its NACA scheme (with 'TEST' written on the nose), an unusual recognition of the importance of this role. **James Kightly**



LEFT: The P-63 breaks over the cameraman on one of the first test flights. [John Willhoff]

BELOW: This coloured image shows the notable, original and important scheme the aircraft is intended to be returned into. [CAF Dixie Wing]



LEFT: Jim Dale, the pilot, after the first flight. The Dixie Wing applied the names of the penultimate two project managers to the cockpit door as they both passed away before the project's completion. [John Willhoff]



ABOVE: In the early seventies, the aircraft flew in a French Armée de l'Air scheme before being grounded. [CAF]

RIGHT: The remarkably clean airframe and laminar-flow wing is obvious from this angle. [John Willhoff]



Return of the 'Cobras



Among the important warbirds operated by the Commemorative Air Force, the Bell fighters are arguably the most distinctive and rare. The CAF operates one of two currently flyable P-39 Airacobras and two of four flyable P-63 Kingcobras. Recently, during the Wings Over Houston airshow, the CAF displayed the fighters together and *Luigino Caliaro* was there to capture them in the air.

P-39Q Airacobra N6968

The Airacobra is operated by the Central Texas Wing based in San Marcos, Texas, and returned to the sky in 2015 after almost five years under rebuild following a landing accident in July 2010. Damage was significant as about 75% of the wing leading edge, the left main landing gear door, the centre-line drop tank, both wing flaps, and a small portion of the left horizontal surface were damaged. It was nonetheless flown back to San Marcos with the landing gear locked down. The repair process took considerable time and was a great effort by the CAF me-

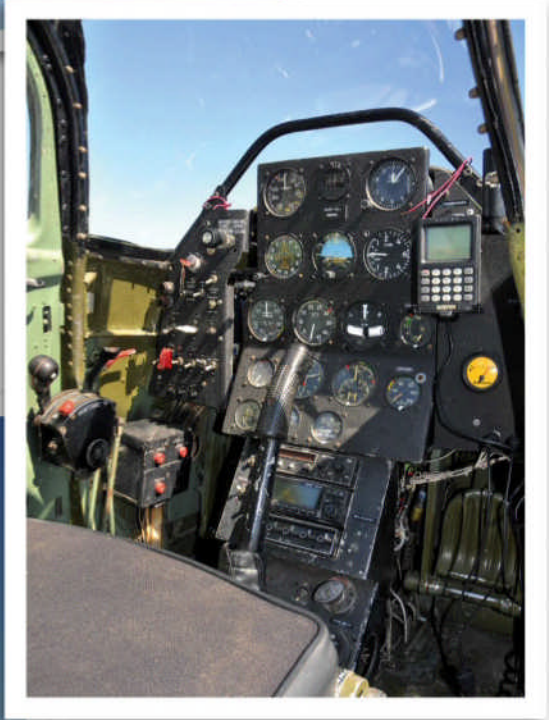
chanics and volunteers. Numerous technical issues and problems delayed returning 'Miss Connie' to the sky. It finally made its first flight on 15 March 2015.

The aircraft, a Bell P-39Q-5-BE (serial 42-19597), was the second Q-5 built and was officially delivered to the USAAF on May 25 1943, but remained on loan to Bell at Buffalo, New York, to July 1943. On 29 December 1943, it was flown to Cincinnati, Ohio, and then transferred to Laredo, Texas, in January 1944. By June 1944 it had been transferred to Harlingen, Texas, to support gunnery training. On 20 July 1945, it was making

a cross-country flight to the Reconstruction Finance Corp scrapyard to be disposed of when the engine failed and the pilot landed at a crop dusting strip in Hobbs, New Mexico. The USAAF abandoned the obsolete aircraft and it was later moved to a schoolyard display at Capitan High School in Lincoln, New Mexico. It was subsequently bought by Joe Brown of Hobbs, New Mexico. He donated the hulk to the CAF in 1962. At the time the aircraft had only 392 flying hours. The P-39 was dismantled and trucked to Harlingen where, in 1968, Don Hull of Sugarland, Texas, began the restoration to flying condition.



CLOCKWISE FROM LEFT TO RIGHT: The 'cobras pose for the camera. While similar in concept, the P-63 was certainly a refinement of the original design; The Airacobra banks away; The 'car doors' could be jettisoned to facilitate an emergency exit; There is no mistaking an Airacobra on the ground. [All images Luigino Caliaro]



The P-39 flew again on 21 October 1974. John Stokes, founder and first leader of the CENTEX Wing, bought the aircraft and again donated it to the CAF. After several years on static display, the Airacobra returned to flight on 9 June 2001 and for some years flew in the unusual livery (for a U.S. based warbird at the time) of an aircraft operated by the Russians. It then was painted as a P-39 used by the 350th Fighter Group in North Africa and Italy, before being involved in a minor landing incident in April 2005, at Fredericksburg Airport, Texas, where the pilot had diverted to due to bad weather. The aircraft

left the runway and rolled into a fence resulting in minor damage to the propeller and a wing leading edge.

After repairs, it was repainted as the P-39N used by Second Lieutenant Bill Fiedler of the 347th Fighter Group based at Guadalcanal. Fiedler was the only American pilot credited with five aerial victories while flying the Airacobra. He scored his first aerial victory on 26 January 1943 when he shot down a 'Zero' over Wagina Island while escorting B-17 Flying Fortresses. His second kill, on 4 February 1943, came during an attack on a retreating Japanese convoy. Fiedler claimed another

'Zero' in the fight. In April 1943, he transferred to the 68th Fighter Squadron and, on June 12 1943, more than ninety U.S. fighters managed to intercept fifty 'Zeros' flying a sweep towards the Russell Islands. More than thirty aerial victories were claimed by the Americans and one of them was a 'Zero' bagged by Fiedler ten miles (16 kilometres) from Cape Esperance. Four days later, a large Japanese attack force of around fifty Aichi D3A 'Val' dive-bombers, and more than fifty 'Zeros', was detected on its way to attack Allied ships off Guadalcanal. The Airacobras were the last aircraft to engage the Japanese bombers. The 'Zeros' were scattered during the battle which allowed the P-39 pilots to attack the vulnerable 'Vals' with little opposition. The Airacobra pilots claimed six destroyed and Fiedler earned his ace status with two bombers confirmed destroyed.

A couple of weeks later, Fiedler's luck ran out. On 30 June, while at the end of the runway waiting to take off, his Airacobra was hit by a P-38 Lightning that suffered an engine failure. Both aircraft exploded. Fiedler was pulled from the burning wreckage alive, but severely burned, and died a few hours later.



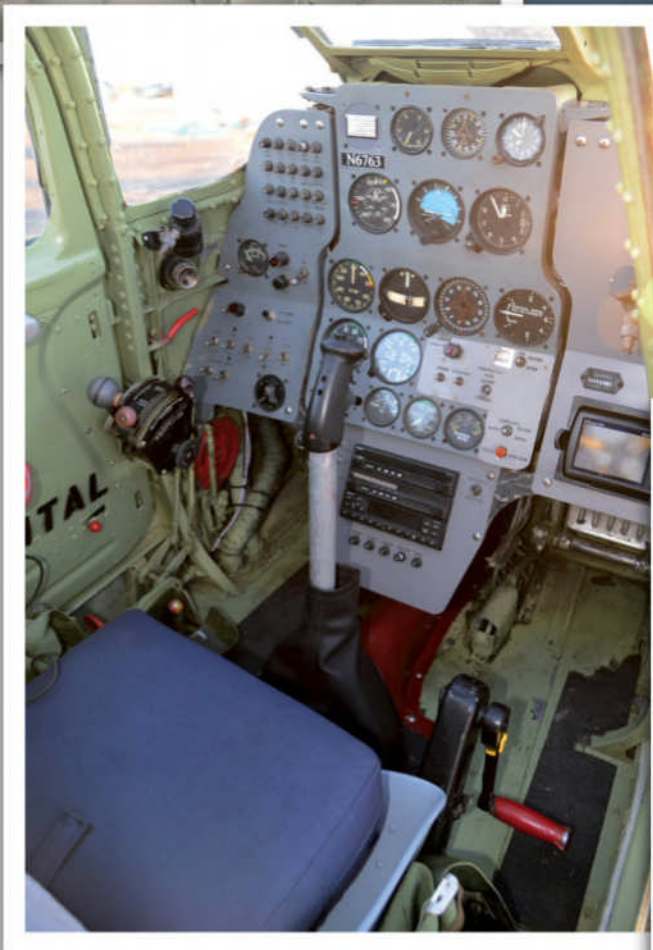
P-63F Kingcobra N6763

Another rare Bell aircraft owned and operated by the CAF is one of only four regularly flown Kingcobras in the world (the others being the Palm Springs Air Museum's P-63A, Legacy of Flight Museum's P-63C, and the Dixie Wing's P-63A – see page 37) The CAF's Bell P-63F Kingcobra (serial 43-11719) is maintained by the P-63 Sponsor Group based in Pearland, Texas. It is one of the rarest warbirds flying today as it was one of only two F-models ever manufactured. This particular version was based on the P-63E, but is powered by an Allison V-1710-135 engine rated at 1,425 hp (1,062 kW).

The story of this Kingcobra is remarkable. It was accepted by the USAAF on 13 September 1945. The other P-63F was accepted during the preceding April. Neither of these aircraft saw much service with the Army Air Force, particularly 43-11719. In 1946, with only 24.1 hours total time, it was sold on to the civilian market. Bought by a Mr. H.L. Pemberton, it competed in the 1946 Thompson Trophy Race in Cleveland, Ohio, but was beaten by 'Tex' Johnston flying a P-39Q.

The Bell fighters were a popular early choice for racing as they were cheaper to buy from the War Assets people than a Mustang, Lightning or Corsair. A good one was available for about \$1,000. One could be adventurous with modifications to the engine as well. Surplus Allison's were available for \$75 still in their shipping 'can'. The Kingcobra also looked fast with its slim fuselage cross-section and laminar flow wing, and it was fast. Only the Mustang had less drag area, at 4.63 square feet, than the P-63 (5.03 square feet). However, contrary to the Mustang, most of the Kingcobras were not heavily modified for racing (and this example never was).

Going through several owners, '11719 moved about the country from Indiana to Florida, and then to Georgia. While based in Georgia, another very famous pilot, R.A. 'Bob' Hoover, put fifteen minutes on the aircraft at an airshow in Alton, Illinois, in May 1971. The Cobra's racing career was not quite over, however. Wearing race



number four and owned by Jack Flaherty of Hollister, California, '11719 flew in the 1976 Reno Air Races. Bill and Don Whittington of Ft. Lauderdale, Florida, became the owners shortly after and chose to donate the aircraft to the CAF. Outside of an unscheduled stop for orientation and fuel in Mexico, the ferry flight from Florida went off without a hitch and the Kingcobra joined the fleet in 1981. Major airframe problems manifested themselves quickly, however, and the aircraft would require major structural repairs to the spar in the right wing, and, later, extensive repair to the door framework. By August 1983 it was

declared airworthy once again, but needed more sponsors to properly fly and maintain it. Colonel John Kohlhaus became a major sponsor and was joined in the coming years by Colonels Mike Collier, Scott Rozzell and John Stofer. For several years the Kingcobra was operated by the CAF painted in a Soviet scheme, but, after some further restoration work, it appeared in the original silver livery applied when it was in service with the USAAF. On 15 October 2013, the aircraft suffered a gear-up emergency landing at Sky West Airport in southern Midland County, Texas. After the crash the P-63, its fate uncertain, sat dis-



CLOCKWISE FROM LEFT TO RIGHT: Extensive repairs were performed on the door framework in the early 1980s; The taller tail is the most recognisable difference to the P-39 when in flight; A minimal frontal drag area made the P-63 a popular post-war racer; Compare this layout with the Airacobra's on page 39.



assembled in its hangar for almost eighteen months. Fortunately, soon after, a new P-63F Sponsor Group was formed. Funds were raised and restoration work began in the Spring of 2015. The main efforts were concentrated on the engine, propeller and reduction gear box. As forced landings go, the aircraft had not suffered too much structural damage. Just over one year later, the Kingcobra returned to the skies again. On 14 April 2016, it took off from its new home base at Pearland airport, near Houston, Texas. Mark Allen, sponsor group pilot, and leader of the CAF group 'Tora Tora Tora', was at the controls.

After the photo session, the author had the opportunity to talk with the sponsor group's other pilot, Craig Hutain. He has the good fortune to currently fly both of the Bell fighters. Craig has more than 31,000 flying hours as an airline and warbird pilot. He also flies the P-51 Mustang, T-6, and BT-13, and has six years as a regular airshow pilot in the CAF's 'Tora Tora Tora' display group under his belt. He is the perfect person to ask when investigating the differences between the Airacobra and Kingcobra. "I first flew the P-39 in March 2015 after the last repair. I now have more than thirty hours in it. I flew the P-63 for the first time in May 2016 and I have more than twenty hours in the type. ... I find the Airacobra to be an agile and quick plane. It has good slow speed manoeuvrability due to a 'lift' wing airfoil. The P-63 is fast, but has heavy controls in the roll, especially at high speed, nice elevators. Smokes out of the hole on takeoff! Handling it requires a little more attention because of the laminar flow airfoil. Low speed manoeuvring can be a bit tricky. The Kingcobra also accelerates very quickly going downhill. I also find that both airplanes are marginally quieter than the Mustang. Having the engine and the stacks behind the pilot makes them a bit less noisy. Neither airplane has a particularly good air vent system, but with the ex-

haust heat behind the pilot, they are both comfortable, temperature-wise, as well.

The lack of nosewheel steering on both makes for a somewhat challenging taxi. The brakes on the P-39 are pretty old school, so it is a bit more difficult. Also, as said, the P-39 tends to get hot on the ground very quickly. The P-63 has a wider main gear, and thus is a bit easier to handle on the ground. We are investigating the addition of aileron 'servo tabs' as a means of making it more comfortable in the roll. In my opinion, both are awesome airplanes. For example while doing an airshow earlier this year, I had the opportunity to fly the P-39 in formation with a P-40 and a P-51. I was a bit worried that I would have a hard time keeping up with them. I found out, much to my surprise, that the P-39 is a rocket compared to the P-40! Apparently, the lack of frontal area really makes a huge difference. Also, the sound of both the P-39 and P-63 is amazing. The exhaust stacks are just different enough from the P-40 that they really growl. Great sounding airplanes! I think both are highly misrepresented in the U.S. inventory due to the lack of a two-stage supercharger. If we had the opportunity to get an honest, open account of the airplane's performance in Russia, and the Eastern front, I believe that the plane would have a much better reputation."



Flightpath

Bell P-39Q Airacobra N6968, serial 42-19597, and
Bell P-63F Kingcobra N6763, serial 43-11719.
[Photography by Luigino Caliaro]

