

August 2026



*Corey J Beitler's*

# ***"Distelfink Airlines"***

***An Online Aviation Newsletter***

## ***A Classic Sopwith Camel Model***



***Embraer E170***

***Hallmark American Gyro AG-4 Crusader Ornament***

***1:100 Scale North American B-25J Mitchell "Briefing Time"***

***Laird-Turner LTR-14 Meteor***

***Grumman J4F-1 Widgeon***

***The Goodyear Blimp On The Move***

*This colorful model of a Sopwith Camel World War I fighter was manufactured in the early 2000s by Authentic Models. The model features wonderful details such as fabric-over-wooden-frame construction for the fuselage and wings, a metal engine cowling and exhaust ports, a wooden propeller and tail skid, and metal-spoke wheels with real rubber tires.*

## FROM THE EDITOR'S DESK

### *Sopwith Camel Model, J4F-1 Widgeon, Goodyear Blimp, AG-4 Crusader Ornament*

Greetings Everyone:

Welcome to the August edition of "Distelfink Airlines"! I hope all my readers are doing well! Here in the United States, the summer is drawing to a close, and students are heading back to school. The end of summer also means the end of the summer portion of the airshow and aviation event season. Do not fear, though; "Distelfink Airlines" has several events still to cover in September and October. I am hoping some of these events will make it into the newsletter over the next few months.

The featured content of this edition is an interesting model from my personal collection. This Sopwith F.1 Camel model was made by the company Authentic Models in the early 2000s. Unlike most model airplanes today, which are made of die-cast metal or plastic, this model of the iconic World War I fighter is made using a wooden frame and fabric covering, similar to how the actual aircraft was built. This construction style gives this Sopwith Camel model a very realistic appearance. The model also features some excellent smaller details such as flight instruments in the cockpit, metal spoke wheels, a wooden tail skid, and the wind-driven fuel pump mounted to one of the aircraft's struts. I thought this was a neat model to feature in the newsletter this month for something different due to its vintage styling and colorful paint scheme. I love this unique model and that it is part of my extensive model airplane collection.

The "Aircraft of Special Interest" section this month features the Grumman J4F-1 Widgeon. The Widgeon was a small amphibious aircraft used throughout World War II by the U.S. Coast Guard and the U.S. Navy for anti-submarine warfare and coastal patrol missions along the U.S. coastlines. Unfortunately, the Widgeon was found to be underpowered and could only operate close to the shoreline due to its limited performance, payload, and range. The restored Widgeon featured in this section of the newsletter is a rare survivor of the type and was seen at the Mid-Atlantic Air Museum's World War II Weekend back in June.

"One Last Thing" features some photos of the Goodyear Blimp flying over the Lehigh Valley region of Pennsylvania earlier this month. The blimp, which is actually a semi-rigid airship, was flying over the area while on the way to Niagara Falls, New York, for a corporate event at a Goodyear manufacturing facility located there. The blimp was flying nice and low, and the skies were perfect to take a few photos of this lighter-than-air craft as it passed overhead in the early afternoon.

Finally, the "Aviation Memorabilia" section features this year's Hallmark "Sky's The Limit" series ornament. This year's ornament (the 30th in the series) is a replica of the American Gyro AG-4 Crusader aircraft. This prototype, four-seat, twin-engine, experimental aircraft showed considerable promise in flight trials during the 1930s. Unfortunately, the American Gyro company ran into financial trouble, investigated for stock market fraud, and was forced to shut down before any production aircraft were built. The AG-4 Crusader ornament should be a hit for the upcoming holiday season with aviation enthusiasts.

Thank you again for supporting my aviation photojournalism efforts and "Distelfink Airlines" this year. Please feel free to share the newsletter with whoever you wish and invite them to join the newsletter's official social media pages listed below.

Regards,

-Corey

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# What's Inside:

## Aviation Sightings:

### **Embraer E170**

*The base model variant of the successful E-Jet family of twin-engine, narrow-body, short-to-medium-range regional jets used worldwide by mainline and regional airlines to serve lower-demand routes and offer passengers the same amenities and features found on larger jet airliners.*

## Aviation Memorabilia:

### **Hallmark American Gyro AG-4 Crusader Ornament**

*The 30th aircraft selected for Hallmark's popular "Sky's The Limit" series of airplane Christmas ornaments is a replica of the prototype four-seat, twin-engine experimental aircraft from the 1930s, known for its innovative, futuristic design.*

## Aircraft Models:

### **1:100 Scale North American B-25J Mitchell "Briefing Time"**

*An excellent, small-scale, value-priced die-cast model of the Mid-Atlantic Air Museum's restored example of the famous World War II medium bomber.*

## Special Feature:

### **A Classic Sopwith Camel Model**

*Manufactured by Authentic Models as part of their Flight Collection of home décor items in the early 2000s, this model of the iconic World War I fighter aircraft features vintage styling, intricate details, and a colorful paint scheme that will delight aviation enthusiasts of all ages.*

## Museum Aircraft Spotlight:

### **Laird-Turner LTR-14 Meteor**

*This racing aircraft, designed and flown by the famous 1930s air-racing pilot Roscoe Turner, won the closed-course Thompson Trophy Race at the 1938 and 1939 National Air Races.*

## Aircraft Of Special Interest:

### **Grumman J4F-1 Widgeon**

*The variant of the small twin-engine amphibious aircraft used by the U.S. Coast Guard for maritime patrol, anti-submarine warfare, and search-and-rescue missions along the U.S. coastlines during World War II.*

## One Last Thing:

### **The Goodyear Blimp On The Move**

*On Tuesday, August 4, 2026, Wingfoot Two, one of four semi-rigid airships operated by Goodyear for advertising and television broadcasting use, passed through parts of Pennsylvania and New York while en route to a corporate event in Niagara Falls, New York.*

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### Embraer E170



*An Envoy Air Embraer E170 operating under the American Eagle brand arrives at the Lehigh Valley International Airport after a flight from the Chicago O'Hare International Airport. Based in Irving, Texas, Envoy Air operates more than 1,000 flights daily to over 150 destinations in the United States, Canada, Mexico, the Caribbean, and South America under American Airlines' American Eagle regional airline brand. The airline operates a fleet of 179 aircraft, all of which are Embraer E170 and E175 regional jets.*

The Embraer E170 is a variant of the Embraer E-Jet family of twin-engine, narrow-body, short-to-medium-range regional jets designed and produced by the Brazilian aerospace manufacturer Embraer. The E-Jet family was designed to complement Embraer's earlier ERJ family, the company's first jet-powered regional aircraft. The E-Jet family includes the E170, the stretched E175, the significantly larger E190, and the E195, a stretched version of the E190. The E-Jet family also served as the design foundation for the Lineage 1000 business jet. The E-Jet family has been a commercial success due to its ability to serve lower-demand routes and offer passengers the same amenities found on larger jet airliners. The E-Jet family is used by mainline and regional airliners worldwide and is extremely popular with regional airlines in the United States.

After the sales success of the ERJ family during the early 1990s, Embraer began examining its options for producing a complementary regional jet which would be larger and more advanced than the ERJ family. Initially planned as a development of the ERJ 135 with a new wing and larger fuselage, Embraer eventually chose to go with a clean-sheet design instead. Two versions of the new aircraft would be produced initially: the base model, the E170, powered by General Electric CF34-8E engines, and the E190, a stretched version with a larger wing, a larger horizontal stabilizer, two additional overwing emergency exits, and more powerful General Electric CF34-10E engines. The prototype of the E-Jet family flew for the first time in 2002, with the first E170s entering service in March 2004. The E190 and E195 entered service later that year. The stretched variant of the E170, the E175, entered service in 2005. In the 2010s, Embraer introduced the larger E-Jet E2 family, featuring more fuel-efficient Pratt & Whitney PW1900G engines and other improvements, to replace the E-Jet family. As of 2026, the first-generation E175 remains in production to meet order demands from regional airlines in the United States.

The E170 typically seats 66 to 76 passengers in a four-abreast, single-class layout and is powered by a pair of General Electric CF34-8E turbofan engines. In typical operations, the E170 cruises at a ceiling of 41,000 feet (12,728 m) at a speed of 495 miles per hour (871 km/h; 470 kn). The E170 has a range of 2,470 miles (3,982 km; 2,150 nmi) and a maximum takeoff weight (MTOW) of 85,098 pounds (38,600 kg).





# Hallmark American Gyro AG-4 Crusader Ornament



*The American Gyro AG-4 Crusader is the 30th airplane featured in Hallmark's long-running "Sky's The Limit" series of Keepsake Christmas ornaments representing historic American aircraft. Throughout the series, the aircraft ornaments have been sculpted by Hallmark artist Lynn Norton. The AG-4 Crusader was an experimental twin-engine aircraft designed by Thomas Miles Shelton in 1933, and notable for its innovative, futuristic design.*

For 30 years, Hallmark Cards Inc. has produced a series of Christmas ornaments replicating historic American aircraft as part of its Keepsake ornament product line. The "Sky's The Limit" series has featured many famous aircraft in ornament form since its debut in 1996, including the Wright Flyer, the Ryan NYP "The Spirit of St. Louis" flown by Charles Lindbergh, and the Lockheed Vega 5B flown by Amelia Earhart on her record-breaking solo flight across the Atlantic Ocean in 1932. In addition to these famous and historic American aircraft, lesser-known aircraft types have also been featured in the series, such as the Harlow PJC-2, an airplane designed by aeronautical engineer and professor Max Harlow and his students at the Pasadena Junior College during the 1930s. For 2026, the aircraft chosen for the "Sky's The Limit" ornament series is the American Gyro Crusader AG-4, an ultra-rare experimental twin-engine aircraft from the early 1930s notable for its innovative, futuristic design.

The American Gyro AG-4 Crusader was a small twin-engine aircraft designed by Thomas Miles Shelton in 1933 as the Shelton Flying Wing. The AG-4 Crusader was designed using wind tunnel testing and featured a twin-engine, twin-boom design with a teardrop-shaped, streamlined fuselage accommodating four people. The airplane was all-metal construction, skinned with flush-riveted aluminum and featured individual rudders on each tail boom and trailing-edge flaps on the wings. Initially designed with fixed, conventional landing gear, the AG-4 was later tested with hydraulically operated retractable landing gear. The AG-4 was flight tested in Denver, Colorado, in 1935 and produced some impressive performance figures, posting a top speed of 233 miles per hour (375 km/h), a cruise speed of 210 miles per hour (338 km/h), and a range of approximately 520 nautical miles (600 mi, 970 km). The prototype, with its impressive performance and futuristic design, drew interest from famous aviators of the time, including Amelia Earhart and Howard Hughes. Plans were drawn up to build an enlarged six-person commercial version of the aircraft known as the AG-6 Buccaneer. Despite the design's promise, the AG-4 Crusader never entered production, as American Gyro folded in 1938 when the company was investigated for securities fraud.

Hallmark's ornament faithfully captures several distinctive features of the American Gyro AG-4 Crusader in miniature form, including its twin-boom design, teardrop-shaped fuselage, and the prototype's unique copper color scheme. This excellent ornament of an unusual, rare aircraft from the early 1930s is now available at Hallmark.com and Hallmark retail locations throughout the United States and Canada.





*The futuristic design and impressive performance of the AG-4 Crusader attracted interest from notable aviators Amelia Earhart and Howard Hughes. Unfortunately, American Gyro folded in 1938 due to securities fraud investigations before any production examples of the AG-4 Crusader could be built.*



*The American Gyro AG-4 Crusader ornament is an excellent replica of the actual aircraft. The ornament captures many distinctive features of this ultra-rare experimental aircraft from the 1930s, including its teardrop-shaped fuselage, twin tail booms, and unique copper color scheme.*



### 1:100 Scale North American B-25J Mitchell “Briefing Time”



*This excellent, value-priced, 1:100-scale die-cast model of a North American B-25J Mitchell bomber is manufactured by Daron Worldwide Trading Inc. as part of its Postage Stamp Series of small-scale, die-cast model airplanes. Daron Worldwide Trading Inc. has issued its die-cast B-25J Mitchell model in several paint schemes. This example of the model is painted as “Briefing Time”, a restored B-25J Mitchell belonging to the Mid-Atlantic Air Museum in Reading, Pennsylvania.*

The North American B-25 Mitchell is a twin-engine bomber designed and built by North American Aviation during World War II. The bomber was named in honor of Brigadier General William “Billy” Mitchell, a pioneer of U.S. military aviation, and considered the father of the modern U.S. Air Force. Over 10,000 B-25s were built before and during World War II, and the aircraft was used in every theater of operations in the conflict. The B-25 is famous for its role in the Doolittle Raid in April 1942, a daring mission in which 16 B-25s under the command of James H. Doolittle took off from the deck of the aircraft carrier *U.S.S. Hornet* and bombed targets on the Japanese mainland, including Tokyo. Designed as a medium bomber, the B-25 was adapted to many other roles during the war, including anti-submarine warfare, anti-shipping, reconnaissance, gunship, and VIP transport. Following World War II, many B-25s remained in service in secondary roles until the late 1950s.

In March 1939, the U.S. Army Air Corps issued a proposal for a medium bomber capable of carrying a 3,000-pound (1,400 kg) bomb load over a range of 2,000 miles

(3,200 km) at a maximum speed of 300 miles per hour (480 km/h). Another requirement in the proposal was that the new bomber be powered by a pair of one of three engine choices: the Wright R-2600-92 Twin Cyclone, the Wright R-2800, or the Wright R-3350. A short development schedule was also specified, with the winning contractor expected to begin delivering production aircraft within 24 months of the production contract being issued.

North American Aviation’s response to the proposal was an aircraft modified from the NA-40B, an unsuccessful bomber prototype design developed by the company in the early 1930s. The revised NA-40B design was designated the NA-62 and was larger, with a wider fuselage to accommodate a bomb bay and a side-by-side cockpit arrangement. The new bomber would have a mid-mounted wing and use a twin-fin tail unit. The NA-62 was also designed to be easy to maintain and repair in the field. North American Aviation’s main competition in the proposal was the Martin Model 179, the aircraft that would become the B-26 Marauder.



In August 1939, after an extensive evaluation process, the Model 179 was declared the winner, as it was superior to the North American Aviation design and the other four submissions received. North American Aviation's effort, despite being the second-best design, was also awarded a production contract. This was due to the urgency to acquire modern aircraft with war on the horizon, and Martin declaring it could not deliver its production contract for 384 aircraft within the specified time. North American Aviation's production contract called for 184 aircraft. The new bomber was powered by the Wright R-2600 engines and designated the B-25.

During preliminary flight testing by North American Aviation test pilots and engineers in August 1940, it was noted that the B-25 had a severe roll-yaw condition. U.S. Army Air Corps test pilots noted the B-25 had a tendency to Dutch roll and demanded that it be corrected. Initially, the B-25's wing had a constant dihedral, a continuous upward angle from the fuselage to the wingtip. Starting with the tenth production aircraft, the dihedral was eliminated at the outer wing panels, flattening the wing. This change gave the B-25 its distinctive gull-wing configuration and solved the aerodynamic problem. The vertical tail also went through five design revisions be-

fore the design was finalized. Once these design problems were solved, flight crews found the B-25 was easy and forgiving to fly, and its tricycle landing gear provided excellent visibility while taxiing on the ground. A constant complaint about the B-25 was its noisy engines, which were located in nacelles and mounted close to the fuselage. The B-25 was also an exceptionally sturdy aircraft and could withstand considerable punishment in combat operations.

The first large production order for the B-25 Mitchell was 1,025 B-25Cs in September 1940. This order was later increased by an additional 1,000 aircraft. In June 1941, another production order was authorized for 1,200 improved B-25Ds; this order was later increased by an additional 1,090 aircraft. As B-25 production increased, improvements made included increased defensive armament, increased offensive armament capabilities, self-sealing fuel tanks, more powerful engines, and aerodynamic refinements to the airframe. In 1943, the solid-nosed B-25G and B-25H variants, with additional nose armament installed for ground-attack and anti-shiping missions, were introduced. In December 1943, the B-25J, the most-produced B-25 variant and the final production variant, was introduced.



*Most models in the Postage Stamp Series are molded in the "gear-up" configuration and therefore do not include landing gear. As a result, the models can only be displayed using the included plastic display stand. This stand is small in size, especially for larger aircraft models in the series such as the B-25 Mitchell. Since the B-25 can tip over while on the stand if bumped due to its size and weight, the model should be displayed in a safe place on a desk or shelf where it will not be accidentally bumped.*





*The Postage Stamp Series 1:100 scale North American B-25J Mitchell die-cast model represents excellent value. The model's mold accurately recreates the B-25's distinctive shape, including its iconic twin-fin tail unit. The model also features clear canopies for the cockpit, bombardier, and gunner positions, separate pieces for the defensive machine guns, and rotating propellers.*

Most B-25s operated in U.S. Army Air Forces service during World War II were used against the Japanese in Asia and throughout the Pacific. The B-25 was used extensively in the campaigns in the Aleutian Islands, Papua New Guinea, the Solomon Islands, New Britain, and in China and Burma. During the war in the Pacific, the B-25's usefulness and capabilities as an attack aircraft emerged. B-25s engaged in anti-shipping missions, flying at mast-height and using skip bombing tactics to sink many enemy vessels. The introduction of the solid-nose B-25G and H variants in 1943 allowed the U.S. Army Air Forces to expand their anti-shipping and ground-attack capabilities in the theater. In Burma, B-25s were used to destroy enemy bridges.

In the Mediterranean and Italy, B-25s were operated by the U.S. Army Air Forces' Ninth and Twelfth Air Forces, which attacked Axis airfields, vehicle columns, and ground positions. These B-25s also flew sea sweeps and coastal patrols. The B-25 took part in the North African and Invasion of Sicily campaigns. In 1943, some Ninth Air Force B-25s were transferred to England to support the assault on Germany. In November 1944, these bombers attacked and destroyed enemy electric locomotives along the Brenner Pass.

The U.S. Navy and Marine Corps also used the B-25 Mitchell during World War II. Designated the PBJ in U.S. Navy and Marine Corps service, the bomber was initially used for coastal patrol and anti-submarine duties. Later, squadrons operating PBJs transitioned to attack missions, using bombs, torpedoes, and radar-directed rockets. U.S. Marine Corps PBJs also conducted radar-directed night strikes against enemy shipping.

Several other Allied air forces also operated B-25s during the war, including the Soviet Air Force, the Brazilian Air Force, the Royal Air Force, and the Dutch Air Force. The Soviet Air Force operated large numbers of the B-25 as tactical day bombers and ground-support aircraft. The Royal Air Force also received significant numbers of B-25s as part of the Lend-Lease Program. These aircraft were primarily used as medium bombers, with a few modified for photographic reconnaissance missions.

Postwar, the B-25 Mitchell was rapidly phased out of frontline service in the newly formed U.S. Air Force. The U.S. Air Force flew its last B-25 mission in 1960. Despite its phase-out and retirement in the United States, the B-25 was used in several postwar conflicts overseas. B-25s saw combat in the Nigerian Civil War and the Indonesian National Revolution.



This 1:100 scale die-cast model of a North American B-25J Mitchell bomber is part of the Postage Stamp Series of collectible die-cast model airplanes from Daron Worldwide Trading Inc. This series of models features die-cast replicas of aircraft in various scales. The series is a “fit-to-box” product line, meaning all models in the series are made in a scale so they fit a common box size. Although not especially popular with die-cast model airplane collectors, the Postage Stamp Series is a popular product in aviation museum gift shops, as the models are an affordable gift item for museum visitors. This B-25 die-cast model is painted in the colors and markings of “Briefing Time”, the restored B-25 Mitchell owned by the Mid-Atlantic Air Museum in Reading, Pennsylvania.

Daron Worldwide Trading Inc. did an excellent job recreating “Briefing Time” as a small-scale die-cast model. The B-25 model has the correct shape, and despite its small size, features many intricate details, such as separate parts for the gun turrets and pitot tube, clear cockpit parts, and rotating propellers. Another excellent feature of this model is its markings. The unique “Briefing Time” nose art, as well as the B-25’s insignias and markings, are all accurately reproduced on the model. The B-

25 Mitchell features excellent paint and markings application for a model in an affordable product line.

The shortcoming of this model is the small plastic display stand included with the B-25 model. Unfortunately, the two pieces of the display stand do not fit together well, and the stand arm is loose when attached to the base. The display stand is also small for the model’s size, as the B-25 is one of the larger and heavier offerings in the Postage Stamp Series of die-cast models. Since the display stand’s base is so small, the B-25 can easily tip over and sustain damage if the model is accidentally bumped.

The 1:100-scale North American B-25J Mitchell “Briefing Time” die-cast model from Daron Worldwide Trading Inc. is an excellent replica of the B-25 in the Mid-Atlantic Air Museum’s impressive collection of historic aircraft. The model is also a great value-priced, die-cast replica of one of the most versatile medium bombers of World War II, and an aircraft that made significant contributions to the Allied victory in the conflict. This model will delight anyone who has visited the Mid-Atlantic Air Museum and seen “Briefing Time” in person at the museum’s annual World War II Weekend living history event and airshow, or during a museum visit.



*Daron Worldwide Trading Inc. did an excellent job recreating the Mid-Atlantic Air Museum’s B-25J Mitchell “Briefing Time” as a small die-cast model. The manufacturer went to great lengths to recreate the well-known and distinctive nose art of “Briefing Time”, as well as the other national insignias and squadron markings found on the actual aircraft.*



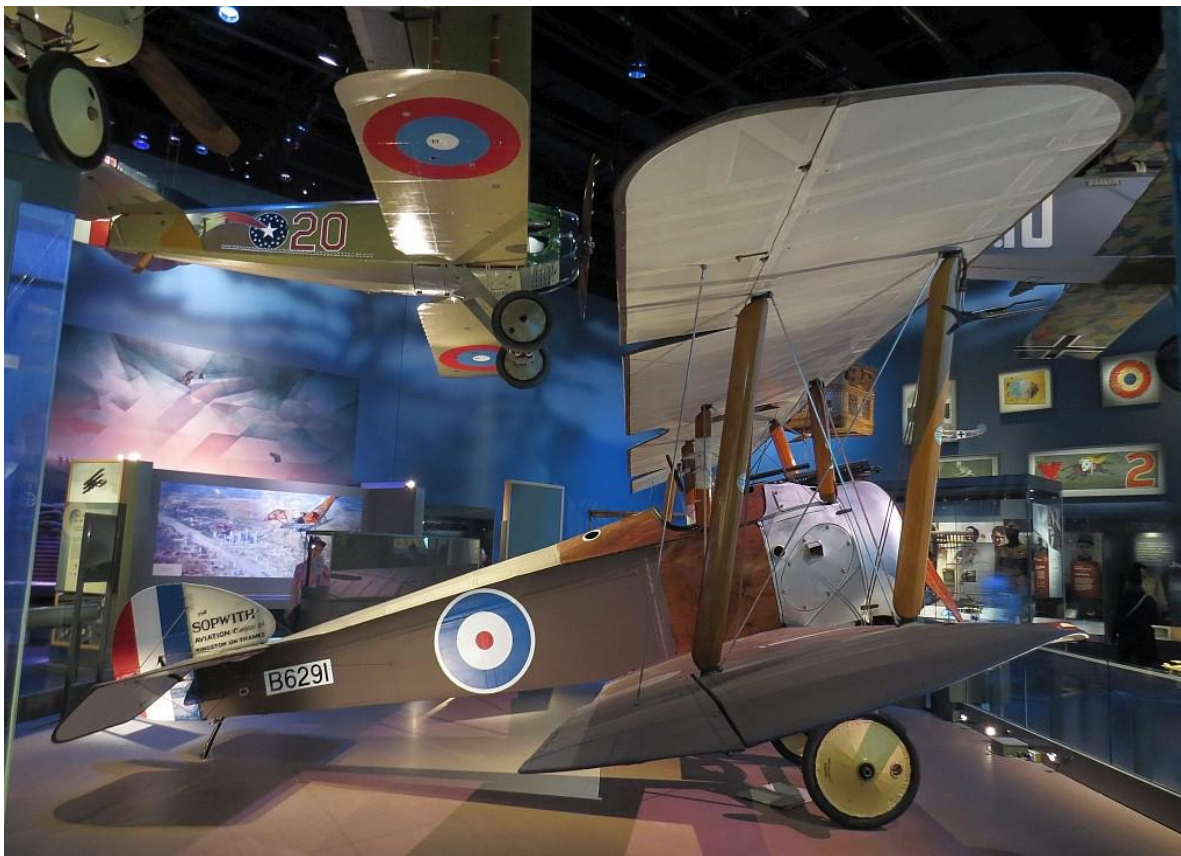
# ***A Classic Sopwith Camel Model***



*This excellent model of the famous World War I fighter aircraft features classic styling, vintage patina, intricate details, and a colorful paint scheme that will delight aviation enthusiasts of all ages.*

A wooden display stand was available for the Authentic Models desktop-sized Sopwith Camel, but was sold separately. This display stand allowed the model to be displayed at a raised height on a desk or bookshelf. Alternatively, the model could be displayed on its landing gear or, due to its lightweight design, be hung from a ceiling with minimal difficulty.





Although over 5,400 Sopwith Camels were built during World War I, only eight original examples survive in aviation museums worldwide. This Sopwith F.1 Camel is on display in the National Air and Space Museum's flagship location on the National Mall in Washington, D.C.

The Sopwith F.1 Camel is a British World War I single-seat biplane fighter aircraft introduced on the Western Front in 1917. Developed by the Sopwith Aviation Company as a successor to the Sopwith Pup, the Camel became one of World War I's best-known fighter aircraft. Pilots flying Camels were credited with downing 1,294 enemy aircraft, more than any other Allied fighter that flew in the conflict. After it became obsolete as a fighter late in the war, Camels switched to ground-attack missions, attacking enemy troop positions and supply dumps.

When it became clear that the Sopwith Pup was no match for newer German fighters, such as the Albatros D.III, which entered service in 1916, the Camel was developed to replace it. As an interim measure, the British government purchased Nieuport 17s from the French to give the Sopwith Aviation Company time to develop the Camel. The Sopwith Aviation Company realized the new fighter needed to be faster and have heavier armament. Sopwith's chief designer, Herbert Smith, headed the effort to produce the Camel.

Early in its development, the Camel was referred to as the "Big Pup". The new fighter featured a distinctive metal fairing over the breeches of the machine guns, intended to prevent them from freezing at altitude. This fairing created a "hump", leading pilots to call the new Sopwith fighter the "Camel". Although this name has stuck with the fighter through history, it was never officially used. On December 22, 1916, Sopwith chief test pilot Harry Hawker flew the prototype Camel for the first time. In May 1917, the British War Office issued a production contract for 250 examples of the new fighter. Throughout 1917, a total of 1,325 Camels were produced. Almost all these Camels were the initial F.1 variant. By the time Camel production ended, over 5,400 examples of the fighter had been built.

The Camel was a conventional design for the era, with a wire-braced wooden box-girder fuselage structure, an aluminum engine cowling, plywood panels around the cockpit, and a fabric-covered fuselage, wings, and tail. Although similar in design to the Pup that preceded it, the Camel had a noticeably bulkier fuselage.



The bottom wing of the Sopwith Camel was rigged with 5° of dihedral, while the top wing did not have any dihedral. This dihedral meant the gap at the wingtips was less than at the roots. Suggested by Sopwith works manager Fred Sigrist, this change simplified the aircraft's production. An unusual design feature of the Camel was that the fighter's top wing had a central section cutout in an effort to improve upward visibility for the pilot.

The Camel was also the first British fighter aircraft to feature twin machine guns as standard armament. Two 0.303-inch (7.7 mm) Vickers machine guns were mounted in front of the cockpit and synchronized to fire through the propeller. Initially, the Sopwith-Kauper mechanical-linkage synchronizer of the firm's own design was used on the Camel. In service, these units wore out quickly, and from November 1917 onward, the more accurate and easier-to-maintain hydraulic-link Constantinesco-Colley synchronizer system was adopted. In addition to the machine guns, four 20-pound (9kg) Cooper bombs

could be carried for ground attack missions.

Several different rotary engines powered production examples of the Sopwith Camel. The two most common engines installed were the 130-horsepower Clerget 9B on Camels operated by the Royal Flying Corps and the 150-horsepower Bentley BR1 on Camels operated by the Royal Naval Air Service. To get the aircraft into service as quickly as possible and avoid production delays, several different engines were also adopted to power the Camel.

Unlike the Pup that preceded it, the Sopwith Camel developed a reputation as difficult to fly. The Camel had light, sensitive controls, which gave the fighter outstanding maneuverability but challenging handling characteristics that took time to master. The Camel's difficult handling was attributed to the close placement of the pilot, fuel tank, engines, and guns (90% of the aircraft's weight) in the first seven feet (2.1m) of the aircraft and to the strong gyroscopic effects of the rotating mass of cylinders, which was common with rotary engines of the time.



*The Authentic Models Sopwith Camel model features many details that are accurate to the iconic World War I fighter. The construction of the model's wings and fuselage, fabric stretched over a wooden frame, is similar to that of the actual aircraft. The model also features a full set of rigging and control cables, replicated with sturdy thread.*



*Another distinctive feature of the Sopwith Camel was that the fighter's top wing had a central section cutout to improve upward visibility for pilots. Authentic Models accurately replicated this on their model of the World War I fighter.*



When taking off with a full fuel load, the aircraft's center of gravity was often pushed beyond the rear-most safe limit. Many inexperienced pilots crashed when trying to take off with a full load of fuel. The Camel was also tail-heavy and lacked a variable-incidence tailplane, so pilots had to apply constant forward pressure on the control stick to maintain level flight at low altitude. Any stall with the Camel usually resulted in a dangerous and often unrecoverable spin. The Camel's rotary engine generated torque that gave the fighter unusual flight characteristics. The engine's torque caused the Camel to turn more slowly to the left with a nose-up attitude, but it also allowed the Camel to turn much more quickly to the right with a nose-down attitude.

Due to its dangerous reputation, a two-seat training variant of the Camel was developed. This was accomplished by removing the Camel's main central fuel tank and replacing it with a smaller one, which allowed room for the installation of dual controls and a second seat. These two-seat training variants

and extensive dual-flight instruction helped ease the transition process to the Camel for new pilots.

The Sopwith Camel entered service on the Western Front in June 1917 with the No. 4 Squadron of the Royal Naval Air Service. By February 1918, 13 British squadrons had the Camel as their primary equipment. In service, the Camel performed better than the German Albatros D.III and D.V fighters. Together with the Royal Aircraft Factory S.E. 5a and the SPAD S.XIII, the Camel helped the Allies establish air superiority over the Western Front for a time.

The Royal Naval Air Service used a variant of the Sopwith Camel, designated the 2F.1, as a shipboard and parasite fighter. These aircraft were suitable for launching from platforms mounted on the turrets of major battleships and also operated from the earliest British aircraft carriers. The Camels were also deployed from "aircraft lighters", special barges positioned in the English Channel. These barges were towed fast enough so the Camels could take off from them in defense against enemy air raids.





*In addition an accurate shape and construction, the Authentic Models desktop-sized Sopwith Camel features several separate detailed parts that capture distinctive elements of the original aircraft. Some of these parts include the twin Vickers machine guns, the flight instruments and control stick in the cockpit, and the wind-driven fuel pressure pump and pitot-static air tubes mounted on the appropriate bracing struts.*

Another important role for the Camel was home defense and night fighting. Beginning in July 1917, Camels were assigned to home defense squadrons to intercept German bombers flying daylight raids over Great Britain. When the Germans switched to night bombing, the Camel proved capable of flying night operations and was used throughout 1918 to intercept and shoot down German bombers on evening raids. Aircraft assigned to home defense duties were quickly modified with navigation lights to serve as night fighters. A small number of Camels were more extensively modified, with the Vickers guns replaced by Lewis guns mounted on the top wing. The cockpit was also moved rearward so the pilot could reload the guns. This modification, which became known as the "Sopwith Comic", allowed the guns to be fired without affecting the pilot's night vision and permitted the use of incendiary ammunition, which was unsafe to fire from the Vickers guns.

By mid-1918, the Camel was obsolete as a fighter aircraft, as its speed and altitude performance were

outclassed by newer German fighters such as the Fokker D.VII. However, the Camel remained viable as a ground-attack aircraft and was used extensively for infantry support missions, dropping bombs and strafing enemy troop positions and supply dumps. The Camel played an important role in helping the British Army contain the German spring offensive of March 1918 by attacking enemy troop positions.

The Sopwith Camel proved to be one of World War I's best fighters. In addition to the British Royal Flying Corps and Royal Naval Air Service, Camels were used extensively by Allied squadrons during the conflict. Belgian, American, Canadian, and Australian squadrons all flew the Sopwith Camel in combat operations. Postwar, the Camel was operated in small numbers by the air arms of several European nations. Postwar, some British Camel squadrons saw action as part of the Allied intervention into the Russian Civil War in 1919 and 1920. These squadrons performed ground-attack, reconnaissance, and escort missions supporting White Russian forces and Royal Navy warships in the Caspian Sea region.



As one of World War I's most famous fighter aircraft, the Sopwith Camel has been the subject of numerous models over the years. Authentic Models manufactured this charming and interesting replica of the Sopwith Camel in the early 2000s. This model was sold fully assembled and decorated. An optional wooden display stand was available for an additional cost and could be used to display the model on a shelf or desk in a den or study.

Based in the Netherlands, Authentic Models manufactures a variety of furniture, lighting, home décor, and toys. The company prides itself on offering items with vintage styling and finishes that tell stories and help people connect with history and childhood memories. As part of its home décor product lines, Authentic Models has sold models of ships, automobiles, and aircraft. The models usually come in two sizes, a smaller desktop or shelf version and a larger version designed to hang from the ceiling in a den or study. This Sopwith Camel was one of many models sold in a Flight Collection product line of

aviation-themed items, which also included paperweights, mobiles, ornaments, and balance toys.

The desktop version of the Sopwith Camel by Authentic Models has several positive attributes. The model's size is perfect for a desk or shelf, with a 15-inch (38 cm) wingspan and a 10.5-inch (27 cm) length. Authentic Models also used a variety of materials in the model's construction. Unusually for a preassembled World War I aircraft model, the Sopwith Camel features wings and a fuselage that are built from a wooden frame and covered with stretched fabric, much like the original aircraft. This construction technique gives the Sopwith Camel model a vintage and realistic appearance. Metal is also used on certain parts of the model, including the engine, cowling, and exhaust ports. The Sopwith Camel also features a realistic wooden propeller and landing gear with metal spoke wheels and real rubber tires. Finally, the model features realistic rigging and control cables, with Authentic Models using thread to simulate these wires and cables on the Sopwith Camel.

*Although inaccurate from a historical perspective, the desktop-sized Authentic Models Sopwith Camel model features bright colors and markings that make the Sopwith Camel an attractive display piece for a desk or bookshelf in a den or study, or hanging from the ceiling in a child's bedroom.*



Authentic Models also did an excellent job capturing some intricate details of the Sopwith Camel on their model of the World War I fighter. The cockpit includes leather around its edge and a detailed seat, control stick, and instrument panel inside. The model also features the wind-driven fuel pressure pump and the pitot-static air tubes, which were mounted on bracing struts on the Sopwith Camel. Finally, the Camel's twin machine guns are present, mounted in front of the cockpit under the distinctive hump fairing, just like on the actual aircraft.

Finally, the Authentic Models desktop Sopwith Camel model features a colorful paint scheme which makes it an attractive display piece. Although not historically accurate, the bright yellow wings and ivory fuselage stand out on any desk or bookshelf. The attractive color scheme will brighten up any den or study and will also delight any child if the model is displayed hanging from the ceiling in their bedroom. The Camel's British roundels and tail markings also add a nice selection of color to the model.

The matte finish throughout the model gives the Sopwith Camel a vintage appearance, which someone would expect when buying a vintage model airplane at a yard or garage sale.

Despite its charming appearance and intricate details, the Authentic Models desktop model of the Sopwith Camel does have some notable shortcomings. One shortcoming is the display stand. When these models were sold in the early 2000s, the display stand was an optional purchase and not included with the model. As a result, when buying this model on the secondhand market today, some sellers do not have the display stand. Since this model is out of production and over 20 years old, locating the display stand can be extremely difficult. Fortunately, the model can also be displayed on its landing gear or hung from a ceiling. The display stand is also over 10 inches (25 cm) high. When the model is placed on the stand, the entire setup is extremely tall and usually fits only on a desk or top shelf of a shelving unit. As a result, the Sopwith Camel has limited display options when it is placed on the stand.



*Although the Sopwith Camel model displays well on the optional wooden display stand, the stand is taller than it should be. When the model is displayed on the stand, the combined setup creates a significant footprint on a desk or shelf because of its height. Because of this height, display options for the model are limited when it is on the stand.*



*The desktop-sized Authentic Models Sopwith Camel makes a nice companion piece to the company's desktop-sized Curtiss JN-4 "Jenny" model, which was released at the same time as the Sopwith Camel. Both models are now extremely hard to find on the secondary market, as they have been out of production for years, but well worth adding to a model airplane collection. They feature a classic style and vintage patina not found on modern models.*



Another shortcoming of the Authentic Models Sopwith Camel desktop model is some inaccuracies compared to the actual aircraft. Although the spoke wheels give the model vintage styling, World War I aircraft generally had wheel covers to prevent the wheels from clogging with mud and debris while operating off the often wet grass airfields on the Western Front. Another inaccuracy is that the model's lower wings lack the dihedral that the actual aircraft did. Finally, as noted earlier, the model's color scheme does not represent any Sopwith Camel that flew in World War I.

Finally, Authentic Models aircraft models are known to be fragile due to the materials used in their construction, and the Sopwith Camel model is no exception. The delicate fabric covering on the wings and fuselage can be easily pushed through with a finger or ripped against a rough surface. The thread used for the model's rigging wires and control cables can also get caught while cleaning with a feather duster or dust cloth and can detach or break entirely. The

rubber tires can also dry out and crack if the model is displayed in extremely warm temperatures. This model, with its small parts and delicate construction, is an adult collectible and only suitable as a décor item for children if hung from the ceiling and out of their reach.

Authentic Models Sopwith Camel desktop model is an interesting display piece and an excellent replica of one of World War I's iconic fighter aircraft. The replica brings back the idea of a vintage-style aircraft model into the modern world. The fabric-covered, wooden-frame wings and fuselage, detailed metal accent parts like the engine, exhaust ports, and cowling, and a colorful paint scheme and markings bring back the early days of model airplane building in flying model clubs. The desktop-size Sopwith Camel model makes an excellent complement to the desktop-size Curtiss JN-4 "Jenny" model also made by Authentic Models several years ago. Displayed together, these two models will be a conversation piece in any study or den and take their owners back to the days of World War I aviation.



### Laird-Turner LTR-14 Meteor



*The Turner LTR-14 Meteor racing aircraft, designed and flown by the famous 1930s air-racing pilot Roscoe Turner, hangs on display inside the National Air and Space Museum's flagship location on the National Mall in downtown Washington, D.C. Turner won the closed-course Thompson Trophy Race at the 1938 and 1939 National Air Races flying the LTR-14 Meteor.*

The Laird-Turner LTR-14 Meteor, also known as the Turner RT-14 Meteor, was a racing aircraft designed by and flown by the famous 1930s air-racing pilot Roscoe Turner. Feeling that his 1934 Thompson Trophy Race-winning Wedell-Williams racing aircraft was starting to be outclassed by newer designs, Turner contracted with the Lawrence W. Brown Aircraft Company of California to build a new racing aircraft. The aircraft was designed by Turner himself and engineered by Professor Harold Barlow of the University of Minnesota.

The new racing aircraft featured a fuselage constructed of chrome-moly tubing with spruce and fabric fairings. The fuselage was covered from the engine to the cockpit with metal, and Irish linen was used rearward of the cockpit. To protect the underside of the fuselage that was covered in fabric from damage due to runway debris, a metal strip was fastened along the bottom. The stabilizers were made of wood, and the tail, elevators, and rudders were constructed of steel tubing. All tail surfaces of the LTR-14 were covered with fabric. The rudder was faired smoothly into the rear section of the

fuselage to improve airflow over it at high speeds.

An interesting aspect of the LTR-14's design was its extremely short wings. The LTR-14's wingspan measured only 22 feet (6.70 m), and the wing also had a narrow chord. The two solid wing spars were made of laminated spruce, with reinforced plywood being used for the wing ribs. The wing's leading edge was constructed of metal for added strength.

The engine chosen to power the LTR-14 Meteor was the large Pratt & Whitney R-1380 Twin Wasp radial engine. This 14-cylinder, air-cooled, radial engine developed 1,000 horsepower at 2,000 revolutions per minute at full power. This large engine made the LTR-14 considerably heavier than most other racing aircraft it would compete against in air racing competition. The advantage of using this larger engine was that it could be pushed considerably harder than smaller engines, and it allowed the LTR-14 to reach higher top speeds than its competitors. This reliable radial engine powered many other famous American aircraft, including the Douglas DC-3 commercial airliner.



When Roscoe Turner traveled to California to perform test flights with the new aircraft, he felt it was too heavy to fly with its short wings. The LTR-14 Meteor was never flown with its original wing configuration. Instead, the airplane was taken apart and shipped by train to Chicago, Illinois, where renowned racing aircraft designer and builder Matty Laird completely revamped it.

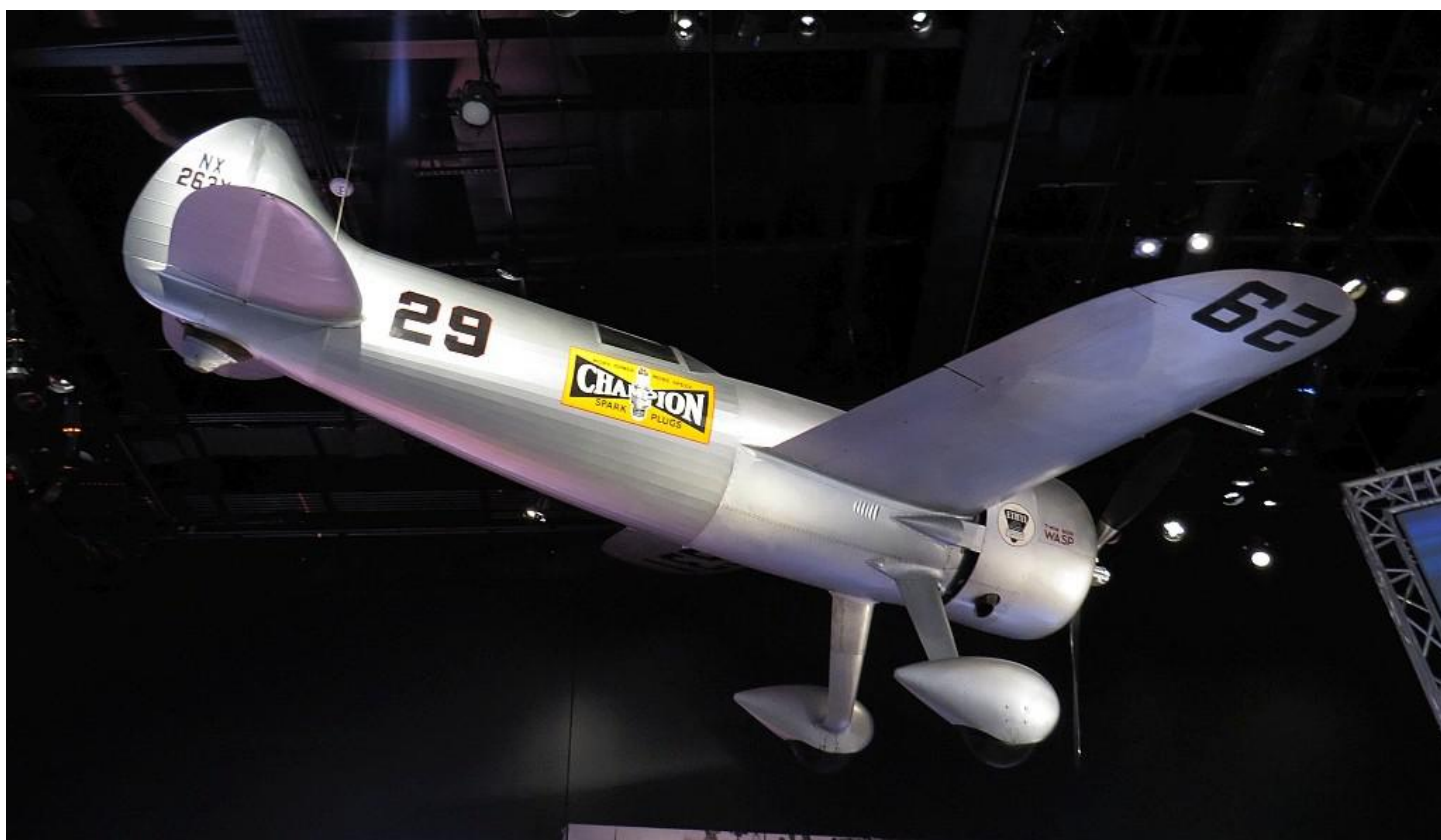
Using Turner's own design for a new wing, Laird rebuilt the wings of the LTR-14 Meteor, adding about 3 feet to the span (.914 m), giving the wing a total span of 25 feet (7.62 m). Laird also added manually controlled flaps to the wings to reduce the Meteor's landing speed, addressing another of Turner's concerns about the Meteor's original configuration. To improve the aircraft's center of gravity, Laird made the fuselage slightly longer and moved the engine's location slightly back from its original position on the airframe.

The LTR-14 Meteor began its racing career at the 1937 National Air Races. For the 1937 National Air Races, Turner and the Meteor were sponsored by Ring Free Oil, so the aircraft was called the *Ring Free Meteor*.

Turner led the field for most of the Thompson Trophy Race, but on the final lap, the sun blinded him, and he cut inside a pylon. When Turner went back to circle the missed pylon, two aircraft passed him. Turner and the LTR-14 Meteor finished in third place with an average speed of 253.802 miles per hour (408.454 km/h).

Turner returned to the National Air Races in 1938 with the LTR-14 Meteor. For 1938, Roscoe Turner and the LTR-14 Meteor were sponsored by the Pump Engineering Service Corporation of Cleveland, and the aircraft was named the *Pesco Special*. The LTR-14 Meteor was essentially the same aircraft from the previous year, with only minor changes. One of the most visible changes to the LTR-14 was the addition of wheel pants to the landing gear, a further attempt to streamline the aircraft for competition. In 1938, the National Air Races also featured a significant rule change: the same aircraft could not compete in both the cross-country Bendix Trophy Race and the closed-course Thompson Trophy Race. Turner elected to enter the LTR-14 Meteor in the closed-course Thompson Trophy Race.





Another significant change at the 1938 National Air Races that created difficulties for Turner was the course size and layout. The course used for the 30-lap Thompson Trophy Race was only 10 miles (16 km) long. The smaller course did not favor larger racing aircraft such as the *Pesco Special*, as it was not long enough for them to reach their full top speeds.

Throughout most of the 1938 Thompson Trophy Race, Turner flew the *Pesco Special* in second place, trailing behind Earl Ortman in his Marcoux-Bromberg Special. Turner purposely flew a wide line around all the pylons, making sure not to cut one. On the race's sixth lap, the Marcoux-Bromberg Special began trailing smoke due to engine trouble, and Turner passed Ortman to take the lead. Turner led the remaining laps and won the 1938 Thompson Trophy Race, becoming the first two-time winner of the prestigious air racing event. Turner's average speed for the race was 283.416 miles per hour (456.113 km/h), with his fastest lap being 293 miles per hour (471.54 km/h). For Earl Ortman, it was heartbreak again in the Thompson Trophy Race, as he had finished

second for the third time in a row, having also finished runner-up in 1936 and 1937.

Despite Turner contemplating retiring from air racing after the 1938 National Air Races, the air racing veteran returned to the 1939 National Air Races, entering the LTR-14 Meteor in the Thompson Trophy Race. For 1939, Champion Spark Plugs sponsored Turner, and the Champion logo adorned each side of the LTR-14 Meteor's fuselage below the cockpit. In promotional materials at the event, the LTR-14 Meteor was referred to as *Miss Champion* in light of this sponsorship.

Roscoe Turner got off to a slow start in the 1939 Thompson Trophy Race and started the race in fourth place. Turner was plagued again by a cut pylon, missing one on the event's second lap. After going back to circle it, Turner found himself in last place. As the race continued, the horsepower of the R-1830 Twin Wasp engine in the LTR-14 Meteor began to offer a distinct advantage, and Turner started moving back up through the seven-aircraft field. Turner would win the Thompson Trophy Race for an unprecedented third time.



After the 1939 Thompson Trophy Race, Roscoe Turner announced his retirement from air racing competition as one of the most decorated pilots in its history. He had won the Bendix Trophy race once and the prestigious Thompson Trophy Race three times. The aviator had also competed in the 1934 MacRobertson Trophy Air Race, a long-distance competition from England to Australia, finishing third overall, with Turner and his team flying a brand-new Boeing 247 airliner lent to him by United Airlines. He had also won the Harmon Trophy in 1933 and 1939. In 1975, Roscoe Turner was posthumously inducted into the Aviation Hall of Fame.

After he retired from air racing competition, Roscoe Turner returned to Indianapolis to operate the Turner Aeronautical Corporation. He also founded an airline, Turner Airlines, later known as Lake Central Airlines, which flew domestically in the United States. Lake Central Airlines merged with Allegheny Airlines in 1968. Turner operated the Turner Aeronautical Corporation until he died in 1970.

After achieving glory with the LTR-14 Meteor at the Na-

tional Air Races, Turner hung the aircraft from the rafters of the main hangar at the Turner Aeronautical Corporation, where it remained for many years. After Turner's death, the aircraft was removed from the rafters, restored, and placed in the short-lived Turner Museum, which was built near his main hangar in Indianapolis.

It was Roscoe Turner's wish that the LTR-14 Meteor would one day be part of the Smithsonian Institution's national aircraft collection. When the short-lived Turner Museum closed in 1972, the LTR-14 Meteor and many other personal artifacts and documents belonging to Roscoe Turner were transferred to the National Air and Space Museum. Today, Roscoe Turner's LTR-14 Meteor can be viewed in the National Air and Space Museum's flagship location on the National Mall in Washington, D.C. The aircraft is displayed in the *Nation of Speed* gallery, which features aircraft and artifacts that tell the story of America's fascination with speed, including the Brawner-Hawk No. 2 STP-Ford race car, which Mario Andretti drove to victory in the 1969 Indianapolis 500.



### Grumman J4F-1 Widgeon

(1940)



*The Grumman J4F-1 Widgeon is a military variant of the Grumman G-44 Widgeon, a five-person, twin-engine, amphibious aircraft built for the U.S. Coast Guard. Grumman designed the Widgeon for the civilian market as a similar but smaller, less expensive alternative to the company's larger G-21 Goose. The U.S. Coast Guard purchased 25 J4F-1 Widgeons for anti-submarine, maritime patrol, and search-and-rescue operations during World War II. The U.S. Navy also purchased the Widgeon, designated the J4F-2, and used the aircraft as a small maritime patrol and utility aircraft. Smaller numbers of the Widgeon also served with the U.S. Army Air Corps (later, the U.S. Army Air Forces), where they were designated the OA-14, the Civil Air Patrol, and the Royal Navy's Fleet Air Arm, where they were known in service as the Gosling.*

### Grumman J4F-1 Widgeon

**Crew:** 2 (Pilot, Radioman/Flight Mechanic)

**Passenger Capacity:** 3 (Seated) or 1 (Stretchered Patient)

**Length:** 31 ft 1 in (9.47 m)

**Wingspan:** 40 ft (12.19 m)

**Height:** 11 ft 5 in (3.48 m)

**Wing Area:** 245 sq ft (22.8 m<sup>2</sup>)

**Powerplant:** Ranger L-440-5 air-cooled inverted six-cylinder inline engine (x 2)

**Range:** 920 nmi (1,480 km, 800 nmi)

**Cruise Speed:** 138 mph (222 km/h, 120 kn)

**Maximum Speed:** 165 mph (265 km/h, 143 kn)

**Empty/Gross Weights:** 3,240 lb/4,525 lb (1,470 kg/2,052 kg)

**Service Ceiling:** 14,600 ft (4,450 m)

**Armament:** 325 lb (147 kg) depth charge, general-purpose bomb, or droppable canister containing a life raft and survival gear on external rack mounted underneath starboard wing (x 1)



# A Small Maritime Patrol Amphibian

## Super Widgeons

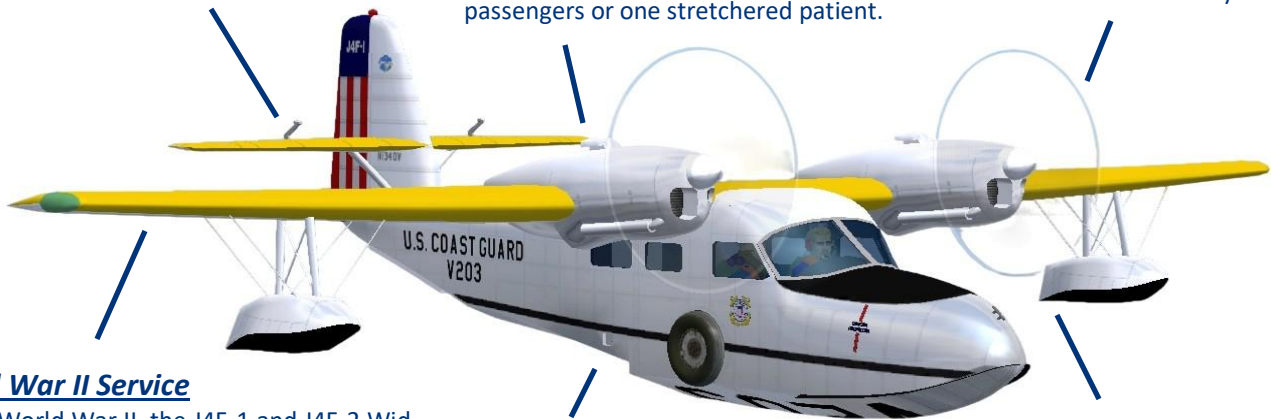
Postwar, many surviving Widgeons were sold as surplus to civilian operators and extensively modified through "Super Widgeon" conversion programs. These programs focused on fitting Widgeons with more powerful radial or inline engines from Continental or Lycoming, which drove constant-speed, three-blade propellers manufactured by Hartzell or McCauley. These updated engines and propellers significantly improved the aircraft's cruise speed, climb rate, water handling, and single-engine flight performance. Additional upgrades offered as part of Super Widgeon conversion programs included installing modern avionics, electrically or hydraulically operated retractable landing gear, optional retractable wingtip floats, and updated cabin seats and interiors.

## Cabin

Unlike the G-44 civilian version of the Widgeon, the J4F-1 and J4F-2, operated by the U.S. Coast Guard and U.S. Navy, respectively, featured a stretcher hatch located on top of the fuselage aft of the wings. This allowed a stretchered patient to be lowered into the aircraft during a search-and-rescue mission. Due to its small size, only one stretchered patient could be carried in the aircraft's cabin. The Widgeon could also be entered by crew and passengers through a two-piece cabin door located aft of the left wing. Although the Widgeon was designed for single-pilot operations, the U.S. Coast Guard and U.S. Navy typically used two-person flight crews. With this crew arrangement, the cabin could accommodate three seated passengers or one stretchered patient.

## Engines & Propellers

The Widgeon was originally powered by a pair of 200-horsepower Ranger L-440-C5 air-cooled, inverted, six-cylinder, inline engines driving Sensenich 82RS-72 fixed-pitch, two-blade wooden propellers. In operational service, it was quickly discovered that the Widgeon was underpowered and had poor single-engine performance with these small engines. With the original engines, Widgeons had marginal climb rates and difficulty executing safe turns when one engine was out. As a result, during World War II, most Widgeon flight operations were conducted close to shore bases for safety.



## World War II Service

During World War II, the J4F-1 and J4F-2 Widgeons operated by the U.S. Coast Guard and the U.S. Navy flew anti-submarine patrols along the U.S. coastlines. On August 1, 1942, a J4F-1 flown by U.S. Coast Guard Patrol Squadron 212 based out of Houma, Louisiana, attacked a German U-boat off the Louisiana coast. Although the U-boat was reported as sunk, it is now known that the attack was unsuccessful. On July 11, 1942, a Widgeon operated by the Civil Air Patrol (CAP) succeeded in sinking a German U-boat off the coast of Florida with a depth charge, claiming the CAP's first U-boat kill of the war. In addition to anti-submarine patrols, Widgeons also flew search-and-rescue missions to search for and recover aircrew who went down on training flights and sailors from merchant ships sunk or damaged by U-boat attacks.

## Landing Gear

The Widgeon was designed as an amphibian capable of operating on both land and water. For land operations, the Widgeon featured main landing gear that retracted into the hull at the waterline and a retractable tailwheel located at the rear of the aircraft. The conventional landing gear was extended and retracted by a mechanical system manually operated with a hand crank in the cockpit. For water operations, the Widgeon featured a watertight hull and stabilizing floats located under each wing. An anchor was located in the bow of the aircraft so the Widgeon could be secured on bodies of water. After World War II, Grumman produced an improved version of the Widgeon, the G-44A. The G-44A had a redesigned hull, improving its handling qualities on water.

## External Stores

Due to its small size and engines, the Widgeon was not capable of carrying large quantities of external stores, which limited its effectiveness as a search-and-rescue and maritime patrol aircraft. For anti-submarine warfare, the Widgeon could carry a single depth charge or general-purpose bomb on a rack mounted directly underneath the starboard wing. This rack could also carry a droppable canister containing a life raft and survival gear for search-and-rescue missions.



# The Goodyear Blimp On The Move



*Wingfoot Two, one of four Zeppelin NT (LZ N07-101) semi-rigid airships operated by Goodyear for advertising and television broadcasting use, flies over eastern Pennsylvania near the Lehigh Valley on its way to Niagara Falls, New York, on Tuesday, August 4, 2026. Although technically incorrect since its new airships are semi-rigid lighter-than-air craft, Goodyear continues to refer to its fleet of airships as the Goodyear Blimp for marketing and promotional purposes.*

People living in parts of Pennsylvania and New York had the opportunity to see the Goodyear Blimp *Wingfoot Two* flying overhead on the afternoon of Tuesday, August 4, 2026, as the iconic lighter-than-air craft traveled to a corporate event held at Goodyear's manufacturing facility in Niagara Falls, New York. *Wingfoot Two* is one of four semi-rigid Zeppelin NT airships operated by the Goodyear Tire & Rubber Company (commonly known as Goodyear) for advertising and the broadcasting of aerial views of parades, concerts, and sporting events on television.

Goodyear has a long and proud history with lighter-than-air craft, building hundreds of rigid airships and blimps throughout the 20th century, mostly for the U.S. Navy. The company built its first airship for commercial purposes in 1925. Most of the lighter-than-air craft built by Goodyear were blimps, which are non-rigid airships without an internal support structure. Instead of an internal support structure, the pressure of the lifting gas within the blimp's envelope maintains the vessel's shape. In 2011, Goodyear entered into a partnership with the German Luftschiffbau Zeppelin company to replace its aging GZ-20A blimps, which had been in operation since the early 1970s, with new Zeppelin NT semi-rigid airships. These airships feature an internal lightweight skeleton constructed of aluminum and carbon-fiber trusses for structural strength. The Zeppelin NT airship also features other design advances, such as quieter engines, thrust-vectoring propellers, and a glass cockpit equipped with fly-by-wire flight controls. The first Zeppelin NT built for Goodyear, christened *Wingfoot One*, entered service in 2014, with the third U.S.-based airship, *Wingfoot Three*, entering service in 2018.

The Zeppelin NT (designated the LZ N07-101 by Goodyear) is 246 feet (75 m) long, 65 feet (19.8 m) wide, 58 to 64 feet (18 to 19.4 m) tall, and weighs 19,500 pounds (8,845 kg). The envelope, made from a lightweight blend of polyurethane, polyester, and a material similar to Kevlar, holds 300,000 cubic feet (8,495 m<sup>3</sup>) of helium lifting gas. The LZ N07-101 is powered by three 200-horsepower, four-cylinder Lycoming engines, which drive four Hoffmann three-bladed propellers, allowing the airship to reach speeds up to 73 miles per hour (117.5 km/h). Although the LZ N07-101 can fly at a ceiling of 10,000 feet (8,340 m), the airship typically operates at altitudes of 1,000 to 2,000 feet (300 m to 610 m). The gondola accommodates a two-pilot flight crew and up to 12 passengers. The airship can be equipped with cameras for aerial views during television broadcasts and fitted with the Goodyear Eaglevision LED display system to generate bright messages and images in daytime and evening skies.







**Distelfink  
Airlines**

Est.  
2013



*My late grandfather, John Brey, and I at the 2007 Geneseo Airshow. This was one of the few times that we had our photo taken together at an airshow.*

## ABOUT

### **DISTELFINK AIRLINES**

*The story of "Distelfink Airlines" begins in the early 1990s when my late grandfather, John Brey, began building and flying remote control model aircraft in his retirement. He enjoyed the hobby and quickly amassed a large fleet of model airplanes, which filled his garage and woodworking shop. He gave a name to his fleet of aircraft, "Distelfink Airlines". For the symbol of his fleet, he chose the Pennsylvania Dutch/German hex sign featuring the "Distelfink", a colorful bird that is a symbol of good luck and happiness. This hex sign and symbol is very common on Pennsylvania Dutch/German barns in Eastern Pennsylvania and is an important part of our local culture. He had custom "Distelfink" decals made for all his airplanes and had T-shirts made with "Distelfink Airlines" printed on them. It wasn't long before curious people began asking about "Distelfink Airlines" and what it was. My grandfather told anyone who asked that "Distelfink Airlines" was a new startup airline that was going to be offering service between the Lehigh Valley International Airport and Philadelphia International Airport with more routes to come soon.*

*In addition to flying his model airplanes, my grandfather enjoyed attending airshows and we traveled to airshows together for almost 20 years. He also enjoyed local aviation history and was particularly fascinated by the history of the Consolidated TBY Sea Wolf, a torpedo bomber that was built locally in Allentown, Pennsylvania during World War II. He also remembered when famous aviator Amelia Earhart visited the Lehigh Valley in the early 1930s to raise funds for her failed attempt to become the first woman to fly around the world.*

*Established in 2013 in memory of my grandfather, "Distelfink Airlines" is an online aviation newsletter that carries on a tradition of sharing a love for aviation that my grandfather shared with me. This newsletter features photographs and writings on a variety of aviation topics. The logo that was chosen for "Distelfink Airlines" is the hex sign that my grandfather chose for his fleet of remote control model aircraft many years ago. This proud symbol of local Pennsylvania Dutch/German culture is joined by a pair of Consolidated TBY Sea Wolf torpedo bombers, the aircraft that was built locally in Allentown during World War II and is such an important part of our local aviation history. Thank you for reading "Distelfink Airlines" and sharing in the passion for aviation that my grandfather shared with me.*

*"Distelfink Airlines" is an online newsletter featuring the aviation photography and writings of Corey J. Beitler. Contributions from guest photographers and writers are sometimes featured and are used only with prior permission. Public domain and/or copyright free images are utilized for some articles. All text and images are copyright to the original owners and may not be reproduced or reused without permission.*