

November 2023



Corey J Beitler's

# "Distelfink Airlines"

An Online Aviation Newsletter

★ Celebrating 10 Years Of Publication! ★

## Golden Age Air Museum Great Pumpkin Fly-In



*Airbus A319ceo*

*John Jenkins Designs 1/35 Scale Macchi M.C.72*

*Sopwith F.1 Camel*

*Grumman F6F-3K Hellcat*

*Sopwith Pup*

*Hubley Bell XFM-1 Airacuda Toy Airplane*

Renowned vintage aircraft restorer and pilot Andrew King brings the Golden Age Air Museum's 1929 Waco GXE in for a landing during the museum's Great Pumpkin Fly-In held last month. The museum sells ride flights in this aircraft, with the rides being available during the museum's special events and also during regular museum hours.

## FROM THE EDITOR'S DESK

### *Great Pumpkin Fly-In, Two Sopwith Fighters, Hubley Airacuda Toy Airplane*

Greetings Everyone:

It has been an incredible year of growth for this newsletter. As the end of 2023 quickly approaches, the 10th anniversary year of the newsletter has been a huge success. Three times this year, the newsletter set a record for the number of readers in a month, and just last month, the newsletter reached the milestone of having over 1,000 readers in a month. I am humbled people think so much of this publication and the content I share with it. I hope to continue the growth I am experiencing with the newsletter in 2024. But for now, let's get into this edition, the November 2023 edition of "Distelfink Airlines".

The feature for this edition is a photo feature about the Golden Age Air Museum's Great Pumpkin Fly-In. Unlike last year, this year's fly-in was affected by weather conditions. Rainy conditions and high winds kept many visitors and fly-in aircraft from attending. On Sunday, the weather cleared, but the high winds made flying conditions challenging. A few fly-in aircraft did make it to the museum Sunday, and the museum flew biplane rides and pumpkin bombing flights for a good portion of the day until the winds increased beyond what was considered safe. Flying in the windy conditions was challenging for the museum pilots, and their efforts are to be commended for flying as much as they did on Sunday to get people in the air to drop their pumpkins and for biplane rides. The feature has photos of the fly-in aircraft, some of the aircraft used for the pumpkin bombing flights, and to fill things out, some pictures of the museum collection as well. As always, it is a pleasure to cover events at the Golden Age Air Museum, and the museum staff always makes me feel so welcome. I am looking forward to covering events at the Golden Age Air Museum in 2024.

Two British fighters built by Sopwith are featured in this edition of the newsletter. The "Aircraft of Special Interest" section has the Sopwith Pup, with a photo of the Golden Age Air Museum's excellent reproduction aircraft included. The "Flying Colors" section has the colorful Sopwith F.1 Camel that was flown by British ace Norman Miers MacGregor. The Old Rhinebeck Aerodrome has a reproduction Camel painted in MacGregor's colors in their museum. At one time, this aircraft flew in the Aerodrome's airshows but has been relegated to museum display for the past several years. I also want to thank a colleague, David Eckert, for making an excellent flight simulator model of the Camel and choosing MacGregor's colors as one of the color schemes as it came in handy for this section of my newsletter.

Finally, a very interesting vintage toy airplane is featured in this edition of the newsletter. When the Hubley Manufacturing Company produced their toy Bell XFM-1 Airacuda in the 1930s, they thought they were producing a toy airplane of the next innovative military aircraft to serve with the U.S. Army Air Corps. As it turned out, the real Airacuda turned out to be a failure and only 13 were built before the production contract was canceled. Today, Hubley's toy Airacuda is a rare collector's piece, and represents a relatively unknown aircraft in U.S. military aviation history. The example featured was part of my grandfather's toy and model airplane collection and was one of his favorite pieces.

There is lots of great aviation content in this edition, with some great photographs of airplanes and so much more. As always, please feel free to share the newsletter with anyone you wish. If you haven't already, please consider joining the newsletter's social media groups on Instagram and Facebook. The Instagram username and Facebook group link are listed below. As always, thank you for reading and supporting my aviation photojournalism efforts.

Regards,  
-Corey

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*The toy manufacturing company captured a moment in time when it produced a toy airplane of Bell's futuristic-looking but failed concept of a bomber destroyer aircraft in the late 1930s.*

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### Airbus A319ceo



*An Allegiant Air Airbus A319ceo on approach to the Lehigh Valley International Airport in Allentown, Pennsylvania. Allegiant Air operates a fleet consisting entirely of Airbus A320 family aircraft. The airline operates a fleet of 34 Airbus A319s and 92 Airbus A320s. These aircraft are all the older current engine option variants. All Airbus A320 family aircraft share the same type rating, meaning pilots can fly either variant without the need for further training.*

The Airbus A319 is a member of the Airbus A320 family of short-to-medium range, narrow-body, twin-engine commercial passenger airliners manufactured by Airbus. The Airbus A319 carries 124 to 156 passengers and has a maximum range of 3,700 nmi. The A319 is a shortened-fuselage variant of the A320 and entered service in 1996 with Swissair.

The first variant of the A320 family was the A320, which was launched in 1984 and first flew in 1987. The A320 pioneered the use of fly-by-wire control systems and side stick controls in commercial aircraft. After the successful launch of the A320, Airbus concentrated on offering a stretched version, the A321, which was introduced into service in 1994. After strong sales of both the A320 and A321, Airbus began to look at offering shortened variants of the A320. The development of the A319 was at the request of Steven F. Udvar-Hazy, the former president and CEO of aircraft leaser ILFC. Airbus created the A319 by shrinking the fuselage of the A320, removing four fuselage frames fore and three fuselage frames aft of the wing. Minor software updates were needed to the avionics systems to accommodate different handling characteristics, but the aircraft was otherwise unchanged. With its shortened fuselage, the A319's wingspan is wider than its length. Airbus began offering the A319 in 1992 as a direct competitor to Boeing's 737-300/-700. The first delivery of the A319 took place to Swissair in 1996. Since its introduction, the A319 has been popular with low-airliners such as EasyJet, and over 1,400 were delivered to airline operators worldwide. The success of the A319 led Airbus to offer an even shorter version of the A320 family, the A318. In 2010, Airbus began offering a new version of the A320 family, the A320neo (new engine option). The shortened A319neo has new, more efficient engines, airframe improvements, and the addition of winglets (called "sharklets" by Airbus). The original variant of the A319 is now called the A319ceo (current engine option).

The Airbus A319 pictured here is an aircraft operated by ultra-low-cost U.S. airline Allegiant Air and was photographed landing at Lehigh Valley International Airport in Allentown, Pennsylvania. Allegiant Air is headquartered in Las Vegas, Nevada, and operates flights to over 130 destinations throughout the United States. Allegiant Air operates out of smaller hubs and regional airports, with most flights traveling to popular vacation destinations.







### John Jenkins Designs 1/35 Macchi M.C. 72



*John Jenkins Designs 1/35 scale Macchi M.C. 72 is an excellent replica of the record-breaking Italian racing seaplane. The model's impressive size and detail make it a great conversation piece in any model airplane collection. The model includes a miniature replica of a docking trolley to display it on, similar to the trolley used to move the real M.C. 72 in and out of the water.*

The Macchi M.C. 72 was an experimental racing seaplane built by the Italian aircraft company Macchi Aeronautica. Designed by Mario Castoldi for competition in the 1931 Schneider Trophy race for seaplanes and flying boats, the M.C. 72's development was delayed by mechanical defects and missed competing in the event. In 1933 and 1934, the M.C. 72 set world speed records for piston engine-powered seaplanes. The latter record still stands to this day.

The M.C. 72's was constructed of wood and metal and had a sleek, streamlined design. The wing and float surfaces of the aircraft were covered with radiators for water and oil cooling. The M.C. 72 was powered by a Fiat AS.6 supercharged V24 engine. This engine was essentially two V-12 engines coupled together, driving contra-rotating propellers.

As flight testing began with the M.C. 72 in preparation for competition in the 1931 Schneider Trophy contest, mechanical defects began to emerge with the engine. Two test pilots were killed flying the M.C. 72 while trying to get speed out of the aircraft and diagnose prob-

lems with the engine. With the 1931 Schneider Trophy contest approaching and engine problems not resolved, Macchi and the Italian government withdrew the M.C.72 from the event. Italy's withdrawal from the contest left Great Britain to compete alone and win the contest for a third time in a row, retiring the Schneider Trophy permanently to the nation.

Eventually, Macchi continued their research with the M.C. 72. British fuel expert F. Rodwell Banks was invited by Macchi to the Fiat engine plant to examine the engine. He quickly discovered the problem was that the air-fuel mixture was too lean when the aircraft was traveling at high speeds, which caused backfiring and then explosions in the air induction system. Banks helped create a special fuel mixture for the M.C. 72's AS.6 engine that eliminated this problem.

On April 10, 1933, the M.C. 72 finally lived up to its promises when Warrant Officer Francesco Agello set a world speed record of 424 mph. On October 23, 1934, Agello set another record when he flew the M.C. 72 to another world record speed of just over 440 mph.





After this record-breaking flight, the M.C. 72 was never flown again. Today, the sole surviving M.C. 72 of the five built is on display in the Italian Air Force Museum near Rome. Three of the ultra-rare Fiat AS.6 engines that powered the M.C. 72 survive. Recently, one of these engines was restored by a team of experts from the Italian Air Force Museum and fired up for the first time in more than 80 years. Recently, in recognition of its technological engineering achievements, the M.C.72 recently received the prestigious American Society of Mechanical Engineers Landmark Award.

The John Jenkins Designs Macchi M.C. 72 model is another excellent addition to the company's portfolio of stunning aircraft models. The model is 1/35 scale and made of mixed media materials. The company's model of the M.C. 72 replicates the aircraft flown by Warrant Officer Francisco Agello when he set the world speed record in 1934.

As with other aircraft models manufactured by John Jenkins Designs, the craftsmanship and attention to detail are excellent. The model has many authentic details that the original aircraft did, such as the wing and float radiators, contra-rotating propellers, wing bracing wires, and accurate markings. The model also includes a

neat replica of a beaching trolley to display the model on a bookshelf or desk. An optional clear display stand can be purchased to display the model as if it were in flight.

Although the model has an accurate paint scheme and the paint application is excellent, the weathering is excessive. Built for speed, Macchi kept the M.C. 72s spotless and polished. The model, unfortunately, appears a bit too dirty for a realistic, sleek record breaking look. The colors are also duller than they should be, and photographs of the surviving example show the red should be much brighter and glossy. Another drawback of this model is that the pilot figure cannot be removed from the cockpit if desired.


Although a famous aircraft, the M.C. 72 has been rarely offered as a prebuilt model. John Jenkins Designs honored the history of this masterpiece of Italian aeronautical engineering by offering an outstanding model in large size and with impressive detail. The John Jenkins Designs Macchi M.C. 72 is an excellent representation of an aircraft that pushed technical boundaries to set a speed record for piston-engine seaplanes that may never be broken. This excellent model will be a conversation piece in any model airplane collection.



*The excellent details of the Macchi M.C. 72 from John Jenkins Designs include the contra-rotating propellers, wing and float radiators, and the bracing wires for the wings and the floats. Although of excellent quality, the paint finish, with its high degree of weathering, does not accurately represent the actual colors of the M.C. 72 as well as it could. The real M.C. 72 was painted in a glossy red that is considerably brighter than what is portrayed on the model.*



## Sopwith F.1 Camel

(1917) 



*The Sopwith Camel is a British fighter aircraft built during World War I and introduced to the Western Front in 1917. The Camel was developed by the Sopwith Aviation Company as a successor to its earlier Sopwith Pup. Although the Camel was difficult to fly, it was highly maneuverable in the hands of experienced pilots and well-suited to the turning, low-speed dogfights of the era. The Camel became one of the most famous aircraft of World War I, and its pilots were credited with downing 1,294 enemy aircraft, the most of any Allied fighter aircraft. In addition to being used as a fighter and later as a ground-attack aircraft, variants of the Camel were built for use on aircraft carriers, as night fighters, and as two-seat trainers. The Camel seen here is a reproduction and part of the collection at the Old Rhinebeck Aerodrome.*

### Sopwith F.1 Camel

**Crew:** 1

**Length:** 18 ft 9 in

**Height:** 8 ft 6 in

**Wingspan:** 28 ft

**Wing Area:** 231 sq ft

**Powerplant:** Clerget 9B nine-cylinder air cooled rotary piston engine (x1)

**Range:** 260 nmi

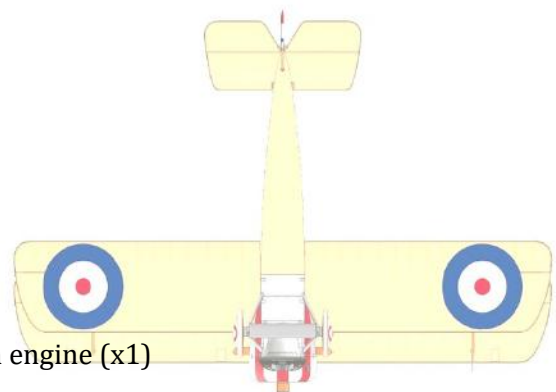
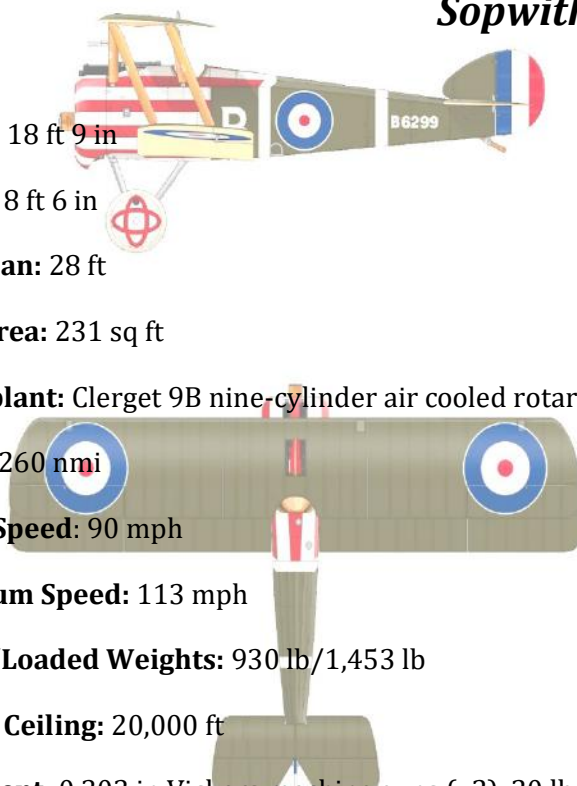
**Cruise Speed:** 90 mph

**Maximum Speed:** 113 mph

**Empty/Loaded Weights:** 930 lb/1,453 lb

**Service Ceiling:** 20,000 ft

**Armament:** 0.303 in Vickers machine guns (x2), 20 lb bombs under fuselage for ground-attack missions (x4)







### *Sopwith F.1 Camel B6299, Flt Lt. Norman M. MacGregor, Royal Naval Air Service, No. 10 Squadron, Tétèghem, France, November 1917*

*Flight Lieutenant Norman Miers MacGregor DSC was a British World War I flying ace and was credited with seven aerial victories during the war. MacGregor entered the Royal Naval Air Service (RNAS) on February 12, 1916. As a probationary sub-flight lieutenant, he was assigned to the HMS President. On July 25, he was granted seniority and commissioned as a sub-flight lieutenant. After his commission, MacGregor was assigned to No. 6 (Naval) Squadron in France.*

*Flying the new Sopwith Camel fighter, MacGregor gained his first aerial victory on June 28, 1917, when he and Flight Sub-Lieutenant F.C. Winter destroyed a DFW reconnaissance aircraft. After three more aerial victories, MacGregor transferred to No. 10 (Naval) Squadron, where he achieved his most significant aerial victory. On September 15, 1917, MacGregor and other members of his squadron engaged in a dogfight with the famous Jasta 11 over Moorslede. During this dogfight, MacGregor shot down and killed the then commander of Jasta 11 and 33-victory ace Kurt Wolff. With the victory, MacGregor became the first Allied pilot to shoot down a Fokker Dr.I Triplane in combat.*

*In February 1918, MacGregor was awarded the Distinguished Service Cross (DSC) for his skill and courage in aerial combat. Later that year, the Royal Naval Air Service merged with the Royal Flying Corps (RFC) to become the Royal Air Force, and the No. 10 RNAS Squadron became the No. 210 Squadron of the RAF. A few months later, MacGregor scored his seventh and final aerial victory when he downed a German Albatros D.V. MacGregor survived the war and lived a long life after, passing away in 1981 at age 85.*

*MacGregor's colorful Sopwith Camel, B6299, is shown here. The red and white striped colors represent the B Flight of the No. 10 Naval Squadron, as does the white letter "B" on the fuselage.*



# **Golden Age Air Museum Great Pumpkin Fly-In**



*The annual event at the museum featured fly-in aircraft, a small car show, biplane rides, hay rides, a candy drop for children, and the opportunity to bomb a marked target next to the runway by dropping a pumpkin from an aircraft.*

Golden Age Air Museum pilot Mike Damiani brings the museum's 1970 Breezy homebuilt aircraft in for a landing during the museum's Great Pumpkin Fly-In held last month. A few lucky raffle winners received a ride in this aircraft during the fly-in, which had to be an interesting flight experience given the cold and windy conditions on the Sunday of the event.







*The picturesque setting of the Golden Age Air Museum, a grass airfield surrounded by farmland and nearby mountains, creates beautiful photo opportunities for aviation photographers, especially in the fall when the foliage is in peak color. In this photo, the museum's 1929 Waco GXE biplane sits on the airfield with a beautiful backdrop of fall color during the recent Great Pumpkin Fly-In event.*

A trip to the Golden Age Air Museum located near the town of Bethel in scenic Berks County, Pennsylvania, takes museum visitors back to the early days of aviation. Located at the Grimes Airfield, the Golden Age Air Museum was established by the Dougherty family in 1997. The museum is dedicated to collecting, restoring, and displaying aircraft, aero engines, and artifacts from the "Golden Age of Aviation". This period in aviation history saw great advances in the design of aircraft, with airplanes evolving from wood and fabric-covered biplanes to all-metal monoplanes. These airplanes and the pilots who flew them, such as Charles Lindbergh, Jimmy Doolittle, and Amelia Earhart, captured the imagination of the public, with stories of their record-breaking flights making the front pages of newspapers throughout the country.

The Golden Age Air Museum has a collection of over 30 aircraft and several vintage automobiles. One of the highlights of the museum collection is a rare air-worthy original 1918 Curtiss JN-4D "Jenny", an airplane that was a favorite of the barnstormer pilots.

The museum also has built several World War I reproduction aircraft, including a 1918 Fokker Dr.I Triplane. The museum recently inducted into its collection a reproduction 1918 Spad X.III French-built World War I fighter. This reproduction aircraft took the museum's volunteer staff over 12 years to build.

The Golden Age Air Museum recently held its final public event of the 2023 season, the Great Pumpkin Fly-In, on October 21 and 22. Unfortunately, the weather conditions and high winds prevented a large turnout of fly-in aircraft. In spite of the weather, a good crowd visited the museum, and the museum pilots flew pumpkin bombing flights as wind conditions allowed. The event also featured hay rides, a candy drop for children, a small car show, and biplane rides in the museum's 1929 Waco GXE.

This feature highlights some of my photographs taken around the museum at this year's Great Pumpkin Fly-In on Sunday, October 22. More information about the Golden Age Air Museum is available at the museum's website, [www.goldenageair.org](http://www.goldenageair.org).





Unfortunately, the high winds and weather conditions kept many fly-in aircraft away from the 2023 Great Pumpkin Fly-In. However, a few pilots were able to make it to the event with their aircraft on Sunday. One of the airplanes that made it in was this classic 1947 Luscombe 8A. This light airplane has seating for two people side-by-side in the cockpit and is powered by a 65-horsepower Continental engine. This Luscombe and its owner are regular attendees at fly-ins at the Golden Age Air Museum.



Although the weather conditions were cold and blustery, biplane rides in the museum's 1929 Waco GXE were available for most of the day on Sunday. These biplane rides take up to two people on a scenic flight over the museum grounds, the local farmlands of Berks County, and the nearby mountains of the Blue Ridge. Although a fun experience any time of the year, the biplane rides are especially popular with museum visitors in the fall, when the fall foliage in the area is at its peak color.







*Eric Lunger and his pink Aeronca L-16 are a familiar sight in the skies and on the ground at the Golden Age Air Museum. Eric flies this aircraft during the museum's flying circus airshow events and at the Great Pumpkin Fly-Ins, flying museum visitors to drop their pumpkins for the pumpkin bombing contest. The L-16 was a military version of the Aeronca Champion that was used extensively as a liaison aircraft during the Korean War. Following the war, many L-16s saw service with the Civil Air Patrol.*

*Another aircraft to make it into the fly-in despite the windy conditions was this 1965 Cessna 210E. Introduced in 1957, the Cessna 210 Centurion was a single-engine, six-seat, high-performance, light aircraft that featured retractable landing gear. During its production run, the Cessna 210 Centurion was manufactured in 26 different variants and has been widely used by flight schools, private operators, and air taxi services. When production ended in 1986, 9,240 Cessna 210s had been built.*





The Beechcraft Bonanza was a different approach to the high-end general aviation market when it debuted in 1947. Unlike the Cessna 195, with its large radial engine, fixed landing gear, and high wing, the Bonanza had an easier-to-maintain, horizontally opposed six-cylinder engine, a retractable tricycle undercarriage, and a low-wing configuration. The Bonanza ended up being a huge success, and updated variants are still in production by Beechcraft today. This Bonanza is a 1967 E33 variant.



When it was introduced, the Beechcraft Bonanza was a relatively fast aircraft, being an all-aluminum design when most light aircraft were still constructed of wood and fabric. One of the distinctive features of the Model 35 Bonanza was its V-tail, equipped with combination elevator-rudders called "ruddervators". The V-tail Model 35 Bonanza was built from 1947 to 1982. In 1960, the Model 33 introduced a conventional tail configuration to the Bonanza. This Bonanza is a 1964 Model 35.







In addition to the pumpkin bombing and biplane rides, the Golden Age Air Museum hangars were open during the Great Pumpkin Fly-In, and visitors could explore the museum's collection of airplanes, automobiles, and artifacts. This aircraft is the museum's 1918 Spad X.III reproduction. Building this reproduction of the famous French World War I fighter took museum volunteers 12 years to complete. Some final work is being completed on the aircraft before any test flights are flown.

The Golden Age Air Museum's Cessna 195 "Businessliner" sits tucked away in one of the museum's hangars out of the wind and cold during the Great Pumpkin Fly-In. This 195 was the first aircraft to be acquired by the museum in the mid-1980s. The Cessna 190/195 was produced between 1947 and 1954. Expensive to own and maintain, most 195s were bought for use as business aircraft and marketed by Cessna to corporations. Today, the Cessna 195 is considered one of the finest classic aircraft ever built.





The Piper PA-28 Cherokee is a family of light aircraft built by Piper Aircraft designed for air taxi, flight training, or personal use. Aircraft in the PA-28 Cherokee family can seat either two or four people, depending on the variant. The PA-28 Cherokee debuted in 1960, and upgraded models remain in production today. Since its introduction, over 32,000 Cherokees have been built, making it the fourth most-produced aircraft in aviation history. The Cherokee pictured here is a 1974 PA-28-180 model.



Another aircraft to see in the museum hangars during the Great Pumpkin Fly-In was the museum's reproduction 1918 Fokker Dr.I Triplane painted in the personal colors of German ace Lothar von Richthofen. The museum's Dr.I is unique among reproduction aircraft in that it is powered by an original Le Rhône rotary engine from World War I. The Fokker Dr.I Triplane is probably the most famous World War I aircraft, thanks to its association with the German ace Manfred von Richthofen, the "Red Baron".







Airplanes in the Golden Age Air Museum collection are carefully arranged in the museum hangars so no space is wasted. This airplane is the museum's 1932 Pietenpol Air Camper. Bernhard H. Pietenpol designed this homebuilt aircraft in 1929 to prove an airplane could be built using an automobile engine. Plans to build the airplane were published in 1932, and thousands of Pietenpols have been built since by amateur aircraft builders. This Pietenpol is powered by a Ford Model A engine.

The Beechcraft Bonanza has been in continuous production longer than any other aircraft in aviation history, with over 17,000 examples built since the type was introduced in 1947. As aviation technology has evolved, new modernized and updated variants of the Bonanza have been introduced by Beechcraft. This colorful Bonanza is a 2014 G36 variant. The G36 variant was introduced in 2006 and introduced a glass cockpit update to the Bonanza with the Garmin G1000 system.





*The blustery conditions made biplane rides and pumpkin bombing flights challenging for the pilots on Sunday afternoon. It is a testament to the skill of the Golden Age Air Museum pilots that so many flights were completed in the windy conditions for the museum visitors. Unfortunately, later in the afternoon, the wind conditions worsened and grounded all flying activities. This is Andrew King in the Golden Age Air Museum's 1929 Waco GXE setting up for a landing following a biplane ride flight.*



*Gerry Wild flew several pumpkin bombing flights in his Piper J-3 Cub during the fly-in. Designed as a trainer in the 1930s, the Cub's simplicity and affordability made it popular as a general aviation and bush aircraft. The Cub's performance also made it suited to a variety of military liaison roles such as reconnaissance and artillery spotting. Thousands served in World War II as the L-4 Grasshopper. Wild's Cub has clipped wings, which helps make the Cub easier to handle in high winds.*





*The Golden Age Air Museum's Aeronca 7AC Champion was also used as one of the aircraft to take museum visitors up to drop their pumpkins during the fly-in. Commonly known as the "Champ", the Champion is one of the world's most-produced light aircraft and remains popular with private pilots. During the fly-in, the Champ was piloted by Paul Dougherty Jr., President of the Golden Age Air Museum, with his daughter Caroline taking some turns flying the aircraft as well.*

*Neil Baughman flew several pumpkin bombing flights during the fly-in in this red Luscombe 8A. To facilitate easier bombing for the museum guests, the Luscombe's passenger door was removed from the aircraft, certainly making for a colder ride than usual when flying in this aircraft. Neil is very active as a volunteer with the Golden Age Air Museum and has flown several aircraft from the collection during special events held at the museum. Here, Neil is bringing the Luscombe 8A in for a landing.*





Andrew King lines up the Golden Age Air Museum's 1929 Waco GXE for take-off during the Great Pumpkin Fly-In. With the winds increasing at this time, this was one of the last bi-plane ride flights of the day. Unlike a modern airport, the Grimes Airfield, where the Golden Age Air Museum is located, resembles a flying field from the barnstorming era. The airfield has a grass runway and is surrounded by scenic farmland. In fall, the Blue Mountain ridge is vibrant with fall foliage colors as well.



Gerry Wild brings his clipped-wing Piper J-3 Cub in for a landing at the fly-in after taking a museum visitor up for a flight to drop their pumpkin for the bombing contest. With almost 20,000 built from 1938 to 1947, the Piper Cub is one of the most iconic flight training and light aircraft ever built. Today, classic Piper Cubs are still prized as bush aircraft in Alaska and Canada. Gerry Wild's Cub is missing one of its wheel pants, but it does not affect the aircraft's flight performance and is not a safety issue.







During the Great Pumpkin Fly-In, raffles are down for rides in the museum's 1970 Breezy homebuilt aircraft. Known for its unobstructed view for the pilot and passenger, the Breezy was designed by Charles Roloff, Robert Liposky, and Carl Unger. The Breezy debuted in 1964, and amateur builders use a set of wings from another aircraft, such as a Piper PA-12, to complete the picture. In this picture, museum pilot Mike Damiani is landing the Breezy after giving a lucky raffle winner a ride.

With the flying curtailed for the rest of the day due to high winds, the few fly-in aircraft that had been in attendance headed for home along with the visitors that came by car. This airplane is a 1952 Cessna 180 Skywagon departing the museum. The Cessna 180 Skywagon was a four or six-place, fixed conventional-gear aircraft for general aviation use. Just under 6,200 Skywagons were built by Cessna between 1953 and 1981. Many of the Skywagons built are still in use as personal and utility aircraft.





The Golden Age Air Museum's Taylorcraft BC-12D getting some late afternoon sunshine during the Great Pumpkin Fly-In. The Taylorcraft BC-12D was moved out of its hangar to allow other museum aircraft to be put away for the day after high winds ended flying activities at the fly-in. The Taylorcraft B two-seat light aircraft was built in several variants during the 1930s and 1940s. This Taylorcraft BC-12D was built in 1946 and is one of the museum's recently completed restoration projects.



Before leaving for the day, there were a few minutes to tour the museum hangars one last time. The museum hangars keep the aircraft safe when the museum is closed during the winter months. This aircraft is the museum's rare 1932 Taylor E-2 Cub. When the E-2 Cub was introduced in 1930, it was advertised as being safe and affordable for the average person to fly. The museum acquired this E-2 Cub in 1991 after it had been in storage for over 50 years and restored it to original airworthy condition.







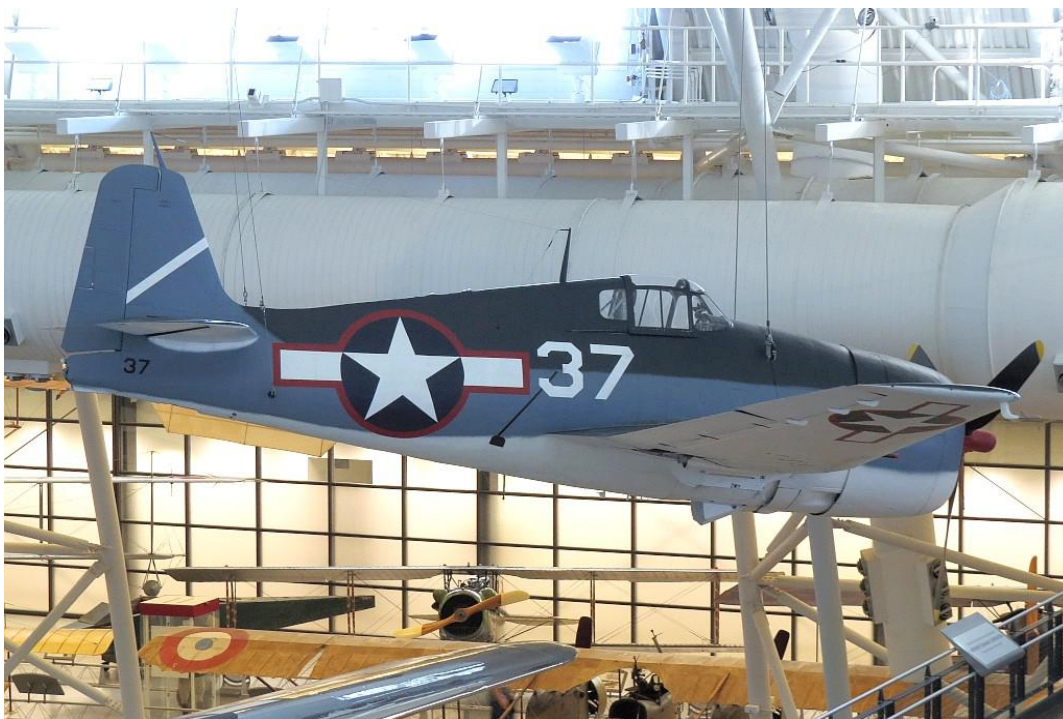
*In addition to its collection of aircraft, the Golden Age Air Museum has a collection of vintage automobiles as well. These classic vehicles are kept in running condition and are used by the cast of characters in the museum's flying circus airshow events. The museum's automobile collection has its own spot in one of the museum hangars. The automobiles pictured here are a 1923 Studebaker Light Six Touring Car, a 1927 Ford Model TT Truck, a 1930 Ford Model A Roadster, and a 1932 Chevrolet Sedan.*

*Aircraft from the Golden Age Air Museum collection safely in one of the museum hangars following the Great Pumpkin Fly-In. The Golden Age Air Museum is open on weekends, May through October. The museum also holds special events throughout the season including, fly-ins, flying circus airshows and a radio-controlled model meet where the museum aircraft collection is flown for museum visitors. The Golden Age Air Museum is worth a visit for anyone interested in aviation.*





### Grumman F6F-3K Hellcat



*A Grumman F6F-3K Hellcat on display at the National Air and Space Museum's Steven F. Udvar-Hazy Center in Chantilly, Virginia. The Hellcat was not a revolutionary fighter aircraft but built upon the time-tested techniques developed by Grumman to design aircraft that were simple to fly and maintain, rugged, and easy to manufacture. Introduced in 1943, the Hellcat played a critical role in winning the war in the Pacific, being a versatile aircraft suitable for a wide range of missions.*

The Grumman F6F Hellcat was originally conceived as an advanced version of the U.S. Navy's main fighter aircraft in the early days of World War II, the F4F Wildcat. The Wildcat's original successor, the Vought F4U Corsair, showed great promise when it first flew in 1940, but its development was slowed by problems, including the prototype crashing during a test flight. In June 1941, as a safeguard against the slow development of the Corsair, the U.S. Navy asked Grumman to design an improved version of the Wildcat.

The Wildcat had been designed in the 1930s, and its performance was not up to the modern standards of the time. The most pressing need for the Wildcat was a more powerful engine, which also required the use of a larger propeller. The more powerful engine and larger propeller required a larger wing area and an increase in the areas of the vertical and horizontal tail surfaces. The wing was also lowered from the mid-fuselage position to accommodate new hydraulically operated landing gear that replaced the obsolete manual system on the Wildcat. The new aircraft, the F6F Hellcat, ended up being an entirely new fighter. Although it was a new aircraft, the F6F was not revolutionary, it used the time-tested Grumman engineering concepts of being simple, rugged, and easy to manufacture.

The prototype Hellcat first flew in June of 1942. Initially, performance was not up to expectations, and Grumman replaced the original Wright-Cyclone R-2600 1,600-horsepower engine with the Pratt & Whitney R-2800-8 Double Wasp engine that developed 2,000 horsepower. This engine would also power the Corsair and is regarded as one of the best radial engines ever produced. In addition to the new engine, the Hellcat received an improved propeller manufactured by Hamilton Standard, replacing the original unit from Curtiss.

Grumman was so confident in the Hellcat's design and performance that it started production before the prototype completed flight testing. The continued development problems with the Corsair and the first-hand combat experience in the Pacific against the Japanese A6M Zero revealed the Wildcat's shortcomings. The F6F Hellcat was desperately needed in the Pacific theatre.



The Hellcat proved to be superior to the Japanese A6M Zero in most performance categories, especially at high altitudes. The Hellcat's rugged construction allowed it to absorb considerable battle damage in combat, and its six .50-caliber machine guns could make quick work of the lightly armored A6M Zero. During World War II, the British and American Hellcat pilots claimed the destruction of 5,203 Japanese aircraft in the Pacific, 13 German aircraft in Europe, and had a kill ratio of 19 to 1.

The Hellcat saw very little modification during the war, with the initial production variant, the F6F-3, serving throughout the conflict. In mid-1944, Grumman introduced an improved variant, the F6F-5. The F6F-5 had a more powerful engine, additional armor plating, spring tabs on the ailerons for increased maneuverability, and ordinance racks that allowed the Hellcat to carry bombs and rockets. Some Hellcats were equipped with radar for use as night fighters and a few were built for photo reconnaissance. One of the last versions to be used by the U.S. Navy was the F6F-5K, a Hellcat modified for use as a target drone. When production ended in November


1945, Grumman had built 12,275 Hellcats. This impressive production total was a testament to the Hellcat being simple to build and Grumman plant management fostering a family atmosphere for its workers by providing modern services such as child care.

The National Air and Space Museum's Grumman F6F-3K Hellcat was delivered to the U.S. Navy as an F6F-3 in 1944. It was used in a training role until February 1945, when it was converted to an F6F-3K target drone. In June and July of 1946, the F6F-3K was used to monitor radioactivity during the Operation Crossroads atomic bomb test at Bikini Atoll. After its final flight in 1947, the F6F-3K was assigned to the National Air and Space Museum in 1948. After spending some time on loan to the USS Yorktown Museum in South Carolina, the F6F-3K was returned to the National Air and Space Museum in 1982. In 1983, volunteers from Grumman Aerospace restored the aircraft, completing the work in 1985. After being placed in storage, the F6F-3K Hellcat was placed on display in the Steven F. Udvar-Hazy Center when the facility opened in 2003.





### Sopwith Pup

(1916) 



*The Sopwith Pup is a British single-seat biplane fighter aircraft that was built by the Sopwith Aviation Company. The Pup entered service on the Western Front in the autumn of 1916 with the Royal Naval Air Service and the Royal Flying Corps. The Pup had good maneuverability and pleasant flying characteristics and quickly proved itself superior to the early German Fokker, Halberstadt, and Albatros biplanes. The Pup was eventually outclassed by newer German fighters, but was not fully replaced on the Western Front until the end of 1917. Surviving Pups were then used in Home Defence units and as advanced trainers. The Pup was also used for aircraft carrier deck landing and takeoff experiments. The Pup seen here is a reproduction aircraft that is part of the aircraft collection of the Golden Age Air Museum in Bethel, Pennsylvania.*

### *Sopwith Pup*

**Crew:** 1

**Length:** 19 ft 3.75 in

**Height:** 9 ft 5 in

**Wingspan:** 26 ft 6 in

**Wing Area:** 254 sq ft

**Powerplant:** Le Rhône 9C nine-cylinder air-cooled rotary piston engine (x1)

**Range:** 293 nmi

**Cruise Speed:** 80 mph

**Maximum Speed:** 100 mph

**Empty/Maximum Takeoff Weights:** 787 lb/1,225 lb

**Service Ceiling:** 17,500 ft

**Armament:** 0.303 in Vickers machine guns (x1), Le Prieur incendiary air-to-air rockets (x8)



# British World War I Fighter

## Shipboard Use

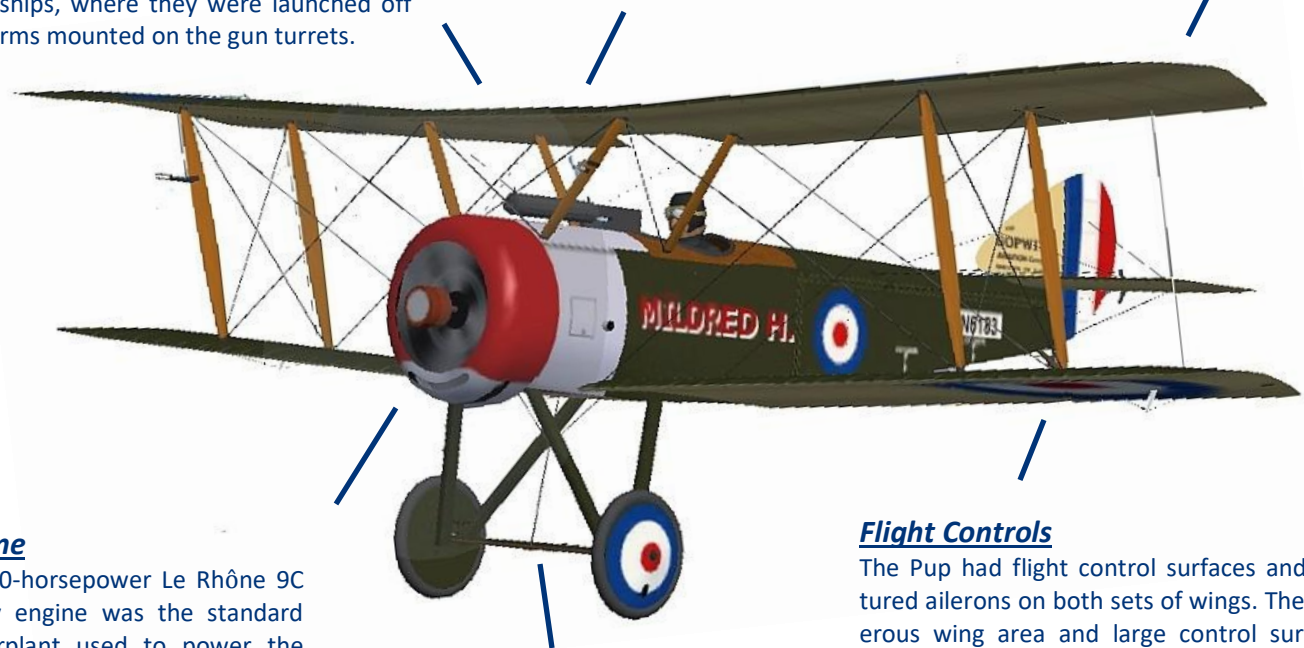
The Pup's docile handling qualities made it ideal for pioneering experiments with aircraft carriers. On August 2, 1917, a Pup flown by Squadron Commander Edwin Harris Dunning became the first aircraft to land aboard a moving ship, the *H.M.S. Furious*. Unfortunately, Dunning was killed on his third landing attempt a few days later when the Pup fell off the side of the ship. Dunning was knocked unconscious in the mishap and drowned in the cockpit before he could be rescued. Pups were later used as ship-based fighters on three British carriers, and others were deployed on cruisers and battleships, where they were launched off platforms mounted on the gun turrets.

## Armament

The Pup was armed with a single .303 in Vickers machine gun. The gun was synchronized to fire through the propeller by the Sopwith-Kauper synchronizer. The Pup was lightly armed compared to most German fighter aircraft, which were equipped with twin machine guns. The armament of only a single machine gun was also a weakness as the Pup was defenseless if the gun jammed, a common problem because of the poor manufacturing quality of ammunition at the time. Some Pups assigned to Home Defence duties were equipped with Le Prieur incendiary rockets for use against German Zeppelin airships.

## Nickname

The Pup was officially named the Sopwith Scout. The "Pup" nickname came about as pilots who flew the aircraft considered it the "pup" of the larger, similar-looking, two-seat Sopwith 1 1/2 Strutter. The nickname stuck, and the aircraft became widely known as the Sopwith Pup. The new name set a precedent, and all later Sopwith types, except for the Sopwith Triplane, were named after animals.



## Engine

The 80-horsepower Le Rhône 9C rotary engine was the standard powerplant used to power the Sopwith Pup. Sopwith Pups assigned to Home Defence duties were fitted with the more powerful Gnome Monosoupape engine rated at 100 horsepower. This engine gave the Pups assigned to Home Defence duties an improved climb rate and top speed needed to catch German bombers at altitude. Pups fitted with this engine were distinguishable by additional vents in the cowling face.

## Markings

The Pup shown here, N6183, was flown by Flight Lieutenant James Alpheus Glen as part of the 3 Naval Squadron based at Marieux, France, in May 1917. The Canadian ace scored four victories flying this Pup, named "Mildred H", after his girlfriend at the time. Glen would finish the war ranked as a Captain with 15 victories and was awarded the Croix de Guerre and the Distinguished Service Cross for his gallantry, skill, and leadership as a pilot.

## Flight Controls

The Pup had flight control surfaces and featured ailerons on both sets of wings. The generous wing area and large control surfaces gave the Pup an excellent rate of climb and made the aircraft very maneuverable and pleasant to fly due to low wing loading. Although noted for docile handling qualities, the Pup was sensitive to pitch movements, had a slow roll rate, and was longitudinally unstable. An innovative feature of the Pup and other Sopwith aircraft built during World War I was that the wings had clear panels in certain sections. These panels were designed to allow ground crews and mechanics to inspect the pulley system for the flight controls inside the wings without removing the fabric from the wing surfaces.





# Hubley Bell XFM-1 Airacuda Toy Airplane



*Hubley captured a moment in time when it made a toy airplane of Bell's XFM-1 Airacuda in the late 1930s. Bell thought the Airacuda, built as a bomber destroyer, would be an innovative aircraft in military aviation. As it turned out, despite its futuristic design, the Airacuda proved to be overcomplicated, difficult to handle, and too slow, with only 13 built before the production contract was canceled. Today, Hubley's toy Airacuda, manufactured in small numbers, is a sought-after piece for toy airplane collectors.*

Since the early days of aviation, toy and model airplanes have fascinated children and adults as miniature representations of the actual aircraft they represent. Sometimes, these toy and model airplanes end up representing aircraft that end up being failures because of flawed concepts or design problems. One of these toy airplanes was the Bell XFM-1 Airacuda made by the Hubley Manufacturing Company in the 1930s.

The Bell XFM-1 Airacuda was a heavy fighter aircraft developed by the Bell Aircraft Corporation in the mid-1930s. The Airacuda was created by Bell in an effort to break into the aviation business. Designed as a bomber destroyer, the Airacuda was powered by two engines mounted in pusher configuration and carried two 37 mm cannons manned by gunners mounted in the engine nacelles. The Airacuda was also armed with two machine guns in the mid-fuselage for defense against enemy fighters. Unlike most large aircraft of this era, the Airacuda featured a streamlined, futuristic design. The Airacuda carried a crew of five, including the pilot, co-pilot/navigator/fire control officer, gunners, and radio operator. The XFM-1 Airacuda flew for the first time on September 1, 1937.

Unfortunately, the revolutionary concept proposed by Bell for the Airacuda was flawed from the start. The aircraft was too heavy to maneuver in a dogfight against enemy fighters and too slow to catch many of the bombers it was supposed to intercept. The Allison V-1710-41 engines, mounted in the pusher configuration, frequently overheated, meaning the Airacuda had to be towed to the takeoff position before the engines were started. The Airacuda needed an independent auxiliary power unit to run the aircraft's complicated electrical system and engine fuel pumps. The Airacuda also had nasty spin characteristics when flown on one engine, resulting in the loss of two aircraft in accidents. Eventually, the surviving Airacudas equipped one squadron and were operated from 1938 to 1940, mostly on promotional photo flights. In 1942, the surviving Airacudas were scrapped.

Hubley Manufacturing Company produced this die-cast metal toy replica of the Airacuda in the late 1930s. For this era, the toy is an impressive size with remarkable detail and features moving propellers, rotating turret guns, and retractable landing gear. Unfortunately, Bell's Airacuda being a failure meant that Hubley's toy, meant to capture the debut of a futuristic aircraft, was less popular, and the production run of the toy was limited. Today, surviving examples of Hubley's toy Airacuda are a rare reminder of this forgotten aircraft of the late 1930s.









**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.*