September 2023

Corey J Beitler's

"Distelfink Airlines"

An Online Aviation Newsletter

★ Celebrating 10 Years Of Publication! ★

2023 Visit Atlantic City Airshow

The U.S. Air Force Thunderbirds Air Demonstration Squadron fly in diamond formation during the 2023 Visit Atlantic City Airshow: A Salute To Those Who Serve. The airshow, celebrating its 20th anniversary this year, was attended by nearly 500,000 spectators that gathered on the beaches and boardwalk of Atlantic City for the annual end-of-summer event.

FROM THE EDITOR'S DESK

Atlantic City Airshow, Airbus A400M Atlas, A Chat With Thunderbird #4

Greetings Everyone:

As summer draws to a close, "Distelfink Airlines continues to bring you airshow and aviation event coverage during its 10th anniversary year! There are many smaller airshows and aviation events still to come this year, so stay tuned for more great content as we head into the fall months.

Featured in the September edition of the newsletter is a photo review of the 2023 Visit Atlantic City Airshow: A Salute To Those Who Serve. This traditional end-of-summer airshow held over the beaches and boardwalk of Atlantic City celebrated its 20th anniversary, and a crowd of almost 500,000 spectators shows that the event remains popular with aviation enthusiasts and the public in the surrounding region. The airshow was once again headlined by the U.S. Air Force Thunderbirds and featured a rare North American airshow demonstration of an Airbus A400M Atlas military transport aircraft. The airshow also featured one of the last public airshow demonstrations ever for the U.S. Marine Corps McDonnell Douglas/Boeing AV-8B Harrier II attack aircraft as it is being retired and replaced with the Lockheed Martin F-35B Lightning II. Unfortunately, the U.S. Air Force Thunderbirds performance at the airshow had to be shortened due to haze, which caused low visibility and unsafe flying conditions. The hazy conditions also made photography of the airshow a challenge all day. I once again had media credentials for this airshow and had the opportunity to attend the Thunderbirds arrival media day opportunity on Monday and the actual airshow on Wednesday. I want to thank Lauren Schiavo from Thomas Boyd Communications for having me as credentialed media for this event and allowing me to make the trip from Pennsylvania to cover it in my newsletter. I would also like to thank Andrew Moseley from the 177th Fighter Wing of the New Jersey National Guard for hosting the media day for the Thunderbirds at the 177th Fighter Wing and allowing me the opportunity to attend that event as well. I look forward to continuing to cover the Visit Atlantic City Airshow: A Salute To Those Who Serve for many years to come.

Also featured in this edition of the newsletter is a look at the Airbus A400M Atlas military transport aircraft. As mentioned previously, an A400M Atlas operated by the German Luftwaffe made a rare North American airshow appearance during the recent Visit Atlantic City Airshow. The "Aircraft of Special Interest" section of the newsletter has a special look at the A400M and some of its unique design features and impressive performance capabilities.

During the Visit Atlantic City Airshow media day, I had the opportunity to talk to U.S. Air Force Thunderbirds Slot pilot, #4 Maj. Lauren "Threat" Schlichting, briefly about her career and time with the Thunderbirds. A brief write-up about that conversation is featured in the "One Last Thing" section of the newsletter. I want to thank Maj. Schlichting for her time in taking a few minutes to talk with me during the media event. As she finishes her time with the Thunderbirds over the next few months, I wish Maj. Schlichting nothing but the best going forward with wherever her life takes her, and I thank her for her dedication and service to our nation as a pilot in the U.S. Air Force.

There is plenty of great aviation content in this edition. Please check everything out, and as always, feel free to share the newsletter with whomever you wish. If you haven't already, please consider joining the newsletter's social media groups on Instagram and Facebook. The links are listed below. As always, thank you for reading and supporting my aviation photojournalism efforts.

Regards,
-Corey

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What's Inside:

Boeing 737-800

A Boeing 737-800 operated by Sun Country Airlines on approach to the Lehigh Valley International Airport in Allentown, Pennsylvania. This 737-800 operated by the airline wears a special livery commemorating Sun Country Airlines 40th anniversary of operations. Sun Country Airlines operates a fleet of 54 Boeing 737NG series aircraft.

The Boeing 737-800 is a variant of the Boeing 737 Next Generation series, also known as the 737NG or 737 Next Gen, of narrow-body twin jet engine aircraft produced by Boeing Commercial Airplanes. Launched in 1993 as the third generation derivative of the Boeing 737, the series includes four variants, the –600/-700/-800, and -900, seating between 108 and 215 passengers. The 737NG series also served as the basis for three military variants of the 737, the Boeing 737 AEW&C, C-40 Clipper, and the P-8 Poseidon maritime patrol aircraft.

Boeing's design work on the 737NG series began when regular customer United Airlines opted to buy the more technologically advanced Airbus A320 with fly-by-wire flight controls. Boeing realized that the 737 Classic series (-300/-400/-500 variants) needed to be updated to remain competitive. The new 737NG variants featured a redesigned wing with greater area and a wider span. Additional improvements to the 737NG series included more efficient CFM International CFM56-7 turbofan engines, a glass cockpit, greater fuel capacity, an increased maximum takeoff weight, and lightweight carbon brakes and winglets on later variants. Finally, Boeing offered updated and redesigned interior configurations to improve passenger comfort. The 737-700 was the first variant of the 737NG series to enter airline service, with Southwest Airlines introducing the type in 1997. Other variants of the 737NG included the –600/-800, and –900 models. The –800 variant of the Boeing 737NG series was the best-selling model and is the most widely-used narrow-body aircraft in commercial airline service worldwide. Over 7,000 737NG series aircraft were built by Boeing from 1996 to 2019. In 2020, Boeing ended production of the commercial variants of the 737NG to concentrate on production of the improved fourth-generation 737 MAX series, introduced in 2017.

The Boeing 737-800 pictured here is one operated by Sun Country Airlines and was photographed landing at the Lehigh Valley International Airport in Allentown, Pennsylvania. Sun Country Airlines is an ultra-low-cost passenger and cargo airline headquartered in Minneapolis, Minnesota. Sun Country Airlines operates over 120 passenger routes to 94 destinations in the United States, Canada, Mexico, Central America, and the Caribbean. The airline also operates charter flights and is a contract cargo operator for Amazon Air.


suncountry


suncountry

Hobbymaster 1/72 Scale Lockheed F-117A Nighthawk

Hobbymaster's recent release of their 1/72 scale Lockheed F-117A Nighthawk model replicates F-117A #84-0828. This aircraft is one of the F-117As that has been reactivated and used for weapons testing and aggressor training at the Tonopah Test Range in Nevada. Hobbymaster's excellent F-117A model features pieces to display the bomb bay doors open or closed, the canopy open or closed, and the landing gear extended or retracted. These optional parts give collectors several options to display the model in a collection.

The Lockheed F-117A Nighthawk is an American single-seat, twin-engine, subsonic stealth attack aircraft designed by Lockheed and operated by the U.S. Air Force. The F-117A was the first aircraft to become operational using stealth technology. Although sometimes referred to as the "Stealth Fighter", the F-117A was designed strictly as an attack aircraft.

Lockheed's secretive Skunk Works began work on the F-117A after the Vietnam War. The aircraft's design and production were top secret, with most top officials in the Pentagon not even aware of its existence. To help keep the aircraft's development secret, many of its avionics and weapons systems were adapted from other aircraft, such as the B-52 Stratofortress, F-16 Fighting Falcon, and F-15E Strike Eagle. These systems were listed as "spares" in budget requests for the other aircraft to keep the F-117A's development secret.

The F-117A flew for the first time in 1981 and reached initial operating capability in 1983. Still kept secret from the public, rumors began to fly in the press about a stealth fighter operated by the U.S. Air Force designated the "F-19". The crashes of two prototype F-117As and the U.S. Air Force keeping the details secret from the press fueled further rumors about the aircraft. In 1988, a grainy photo of the F-117A shown at a Department of Defense press conference finally confirmed the existence of the Nighthawk to the public.

The F-117A was widely used during the 1991 Gulf War. It was later used during Operation Allied Force over Yugoslavia in 1999, where one was shot down by a surface-to-air missile. After serving in Operation Enduring Freedom in 2001 and again in Operation Iraqi Freedom in 2003, the U.S. Air Force made plans to retire the F-117A Nighthawk. The F-117A was officially retired in 2008, with the F-22 Raptor taking over most of the type's missions. Despite its official retirement, a portion of the F-117A Nighthawk fleet remains active, and the aircraft have been flown periodically since 2009. Recently, some F-117As have been used as aggressor aircraft in combat exercises to train U.S. Air Force fighter pilots in tactics against stealth aircraft and to test new radar-absorbing coatings and paint for the F-22 Raptor.

Hobbymaster's latest release of its 1/72 scale die-cast Lockheed F-117A Nighthawk model represents aircraft #84-0828. This F-117A has been operating at the Tonopah Test Range in Nevada since 2020. This aircraft was also operated during Sentry Savannah in 2022, a large combat exercise that brings Air National Guard personnel and units from across the U.S. to the range to do ground training, cruise-missile training, and weapons-drop training. This F-117A also wears a special logo, "40 Years Owning The Night", to commemorate the 40th anniversary of the first flight of the F-117A.

Hobbymaster's 1/72 scale F-117A Nighthawk model does an excellent job of capturing the shape of the actual aircraft. This shape and the use of radar-absorbing materials in its construction is what allowed the F-117A to evade radar detection. Hobbymaster also did an excellent job replicating other distinctive features of the F-117A on this model, such as its twin tails and the unique arrangement of the nose pitot tubes.

The model also features some functionality and display options as well. The bomb bay doors and the cockpit can be displayed as open or closed. Two different ordinance loads are included to display in the open bomb bay. A pilot figure is included with the model to install in the cockpit. Similar to other Hobbymaster models in their 1/72 "Air Power Series", the F-117A includes optional position landing gear to display the model with the landing gear extended or retracted, and a display stand.

Unfortunately, the display stand is the disappointing aspect of this model. The design of the display stand does not allow the F-117A to be displayed with its bomb bay doors open and the bombs in the release position. One positive point for the display stand is that it supports the model well, and its design was probably a compromise, as the top of the arm of the display stand had to support the Nighthawk model's unique shape.

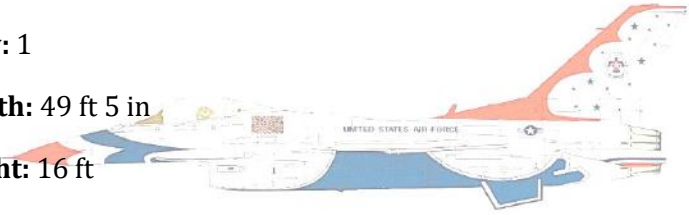
Hobbymaster's 1/72 scale Lockheed F-117A Nighthawk die-cast model has been released in several paint schemes since its introduction. This latest release is an excellent tribute to the F-117A's recent use in U.S. Air Force service despite its official retirement status. Recently, documents circulated that show the U.S. Air Force plans to continue to use the F-117A Nighthawk as a stealth aggressor aircraft and for research and weapons testing into the 2030s. This model represents the F-117A Nighthawk in its new role and the people who are flying and maintaining it to serve that new role, to train our pilots for combat with stealth aircraft.

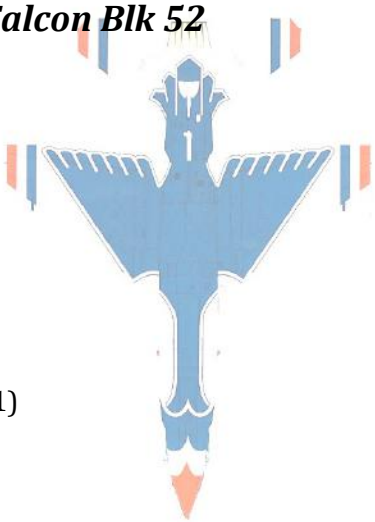
Hobbymaster's 1/72 scale Lockheed F-117A Nighthawk is an excellent model, but some aspects of the model could use improvement. The model's design does not allow it to be displayed with its bomb bay doors opened when it is on the display stand. Similar to other models in Hobbymaster's "Air Power Series", some of the smaller parts included with the model, such as the ordinance loads, require patience to install and do not fit tightly, resulting in them easily falling off if the model is bumped.

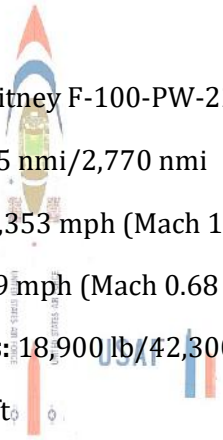
Lockheed Martin F-16C Fighting Falcon Blk 52 (1994)

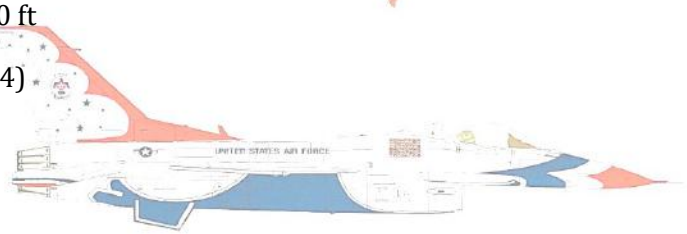
The Lockheed Martin F-16C Fighting Falcon is a multirole fighter aircraft originally designed by General Dynamics. Initially designed as an inexpensive and easy-to-maintain day air superiority fighter with a revolutionary fly-by-wire flight control system, the F-16 has evolved into an all-weather multirole aircraft. Since production began in 1976, more than 4,000 F-16s have been delivered to more than 20 nations worldwide. Upgrades to the F-16s radar, avionics, engine, and weapons system have allowed the design to remain competitive with newer fighter aircraft. The F-16 Fighting Falcon is the aircraft currently flown in aerial demonstrations by the U.S. Air Force Thunderbirds. The F-16C Block 52, an upgraded variant powered by a Pratt & Whitney F-100-PW-229 turbofan engine, reached initial operating capability in 1994.

Lockheed Martin F-16C Fighting Falcon Blk 52









Crew: 1

Length: 49 ft 5 in

Height: 16 ft

Wingspan: 32 ft 8 in

Wing Area: 300 sq ft

Powerplant: Pratt & Whitney F-100-PW-229 afterburning turbofan (x1)

Range/Ferry Range: 295 nmi/2,770 nmi

Maximum Top Speed: 1,353 mph (Mach 1.8) at 40,000 ft

Cruise Speed: 520 to 649 mph (Mach 0.68 to Mach 0.84)

Empty/Loaded Weights: 18,900 lb/42,300 lb

Service Ceiling: 58,000 ft

Armament: 20 mm M61A1 Vulcan 6-barrel rotary cannon (x1), wing-tip air-to-air missile launch rails (x2), under-wing weapons pylons stations (x6), under-fuselage weapons pylons stations (x3) for a total weapons capacity of 17,000 lb of Air-to-air missiles, Air to-surface missiles, Anti-ship missiles, bombs, external pods or fuel tanks

Lockheed Martin F-16C Fighting Falcon Blk 52, U.S. Air Force Air Demonstration Squadron "Thunderbirds", #1 Team Leader/Commander Lt. Col. Justin Elliot, Visit Atlantic City Airshow, Atlantic City, New Jersey, 2023

The "Thunderbirds" are the official air demonstration squadron of the U.S. Air Force. The Thunderbirds were formed in 1953 and are the third oldest aerobatic formation team in the world. The team's name originates from the "thunderbird", the legendary creature that appears in the mythologies of several indigenous cultures of North America. The Thunderbirds are assigned to the 57th Wing and based at Nellis Air Force Base in Nevada. The mission of the Thunderbirds is to display the pride, precision, and professionalism that the U.S. Air Force represents to people worldwide through airshow performances and flyovers.

The Thunderbirds perform approximately 75 demonstrations and flyovers during the airshow season, which runs from March to November. During their history, the Thunderbirds have performed over 4,000 aerial demonstrations in 58 countries. An estimated 300 million people have seen the Thunderbirds perform. The Thunderbirds aerial demonstration is a mix of formation flying and solo routines, highlighting the precision and training of U.S. Air Force pilots and the capabilities of the F-16 Fighting Falcon aircraft. The entire demonstration includes about 30 maneuvers and runs about an hour and fifteen minutes. The Thunderbirds squadron consists of eight pilots (six are demonstration pilots), four officers, three civilians, and over 130 enlisted personnel. Officers serve two-year terms on the team, while the enlisted personnel serve three or four-year terms.

The Thunderbirds have flown several aircraft during their history. Currently, the team flies the F-16C and F-16D Fighting Falcon Blk 52 variants. The single-seat F-16Cs are used in the aerial demonstrations, while the F-16Ds serve as spare aircraft and are used for Thunderbirds media and VIP flights. The F-16s flown by the Blue Thunderbirds wear the team's famous red, white, and blue paint scheme and carry the mythical "thunderbird" symbol on the underside of the aircraft. The F-16C shown here is flown by Thunderbird #1, Team Leader/Commander, Lt. Col. Justin Elliot.

2023 Visit Atlantic City Airshow

The 20th anniversary edition of this end-of-summer event showcased a wide variety of civilian and military aircraft to an estimated crowd of nearly 500,000 in the New Jersey coastal resort city.

One of the highlights of the 2023 Visit Atlantic City Airshow: A Salute To Those Who Serve was a rare demonstration of an Airbus A400M Atlas military transport aircraft. The A400M is used primarily by European air forces, and visits to North America of this aircraft type are rare. The A400M that flew as part of the Visit Atlantic City Airshow is operated by Germany's Luftwaffe.

A Lockheed Martin F-16C Fighting Falcon from the 177th Fighter Wing of the New Jersey Air National Guard pulls water vapor out of the air as it climbs during the 2023 Visit Atlantic City Airshow. Based at the nearby Atlantic City International Airport, the 177th Fighter Wing's flyover of the airshow is always a favorite with the local crowd.

Atlantic City, New Jersey, has a rich connection to aviation history. As early as the pioneer era, Atlantic City was connected with aviation. In 1910, an aviation meet called the Atlantic City Air Carnival brought over 100,000 people to the beach to see aviation pioneers Walter Booking, Glenn Curtiss, and many others fly their pioneer flying machines. Soon after the event, Atlantic City's first airport at the now-closed Bader Field opened for business, bringing passenger air service to the city.

During World War II, the U.S. Navy operated a Naval Air Station at the site of the present-day Atlantic City International Airport. Today, that airport is home to the U.S. Coast Guard Air Station Atlantic City, the 177th Fighter Wing of the New Jersey Air National Guard, and the Federal Aviation Administration's (FAA) William J. Hughes Technical Center evaluation and research center. Since 2003, the annual Atlantic City Airshow has showcased some of the top pilots in the industry and some of the world's most advanced aircraft in an airshow above the beach and boardwalk that thrills thousands that attend the event each year to mark the end of the summer season at the shore.

For the 2023 edition of the Atlantic City Airshow, the event celebrated its 20th anniversary. This year's airshow was hosted by Visit Atlantic City, a non-profit organization whose mission is convention development in Atlantic City. The organization creates visitor spending and economic impact within the city by organizing conventions, meetings, and special events. The airshow once again had the theme of "A Salute To Those Who Serve", honoring both current members of our military and veterans as well as first responders and front-line healthcare workers.

The 2023 edition of the Visit Atlantic City Airshow was held on August 16 and was headlined by the U.S. Army Golden Knights Parachute Team and the U.S. Air Force Thunderbirds Air Demonstration Squadron. Visit Atlantic City estimates attendance for the event reached nearly 500,000 people. The following photographs showcase some of the highlights of the 2023 Visit Atlantic City Airshow.

After a brief delay due to low cloud ceilings, the 2023 Visit Atlantic City Airshow: A Salute To Those Who Serve opened with a performance by the U.S. Army Golden Knights Parachute Team. As has been tradition at the airshow, the Golden Knights had the honor of opening the by bringing down the American flag during the playing of the national anthem to open the event. In addition to performing at airshows, the U.S. Army Golden Knights also participate in parachute team competitions throughout the year.

Two members of the U.S. Army Golden Knights approach the landing area attached to each other. The two Golden Knights will break the connection just before landing in the marked landing zone on the beach at the 2023 Visit Atlantic City Airshow. The ram-air parachutes used by the team are very maneuverable and are steerable using the attached steering lines. The maneuverability of these ram-air parachutes allows them to be flown in formations or with jumpers attached to one another.

A highlight of the Visit Atlantic City Airshow each year is the flyover by units of the New Jersey Air National Guard. The flyover is the perfect way to honor all of the members of the New Jersey Air National Guard in front of the local community. The flyover also serves as a demonstration of how aerial refueling takes place. In this photograph, two Lockheed Martin F-16Cs from the 177th Fighter Wing and a Boeing KC-135R Stratotanker from the 108th Wing fly down the beach during the airshow.

The Airbus Helicopters H145 (formerly Eurocopter EC145) is a twin-engine light utility helicopter that first flew in 1999 and entered service in 2001. The H145 can carry up to nine passengers and two crew members depending on the configuration. Over 1,500 H145s have been built since the type's introduction, and the helicopter is used by civilian and military operators worldwide for a variety of roles, including medical evacuation (MedEvac) services. This H145 is operated by Jefferson Health.

The AgustaWestland AW139 is a popular helicopter type used by law enforcement and emergency medical service agencies worldwide. The New Jersey State Police use the AW139s in their fleet primarily for law enforcement search and rescue operations, but the helicopters are fully equipped to provide MedEvac services as well. The New Jersey State Police not only provide a flyby with one or more of their AW139s for the airshow but also provide extra personnel for security and traffic control as well.

The Northrop T-38 Talon was the world's first supersonic training aircraft. Over 1,100 T-38s were built between 1961 and 1972. The T-38 has been in service as a jet trainer for over 50 years with the U.S. Air Force, which continues to be the largest operator of the type. T-38s are also used as a trainer and chase aircraft by NASA. This pair of T-38Cs are from the 80th Flight Training Wing at Sheppard Air Force Base in Texas. The lead aircraft wears a special heritage paint scheme.

A newcomer to the Visit Atlantic City Airshow in 2023 was Kyle Fowler flying his Long-EZ homebuilt aircraft in an aerobatic demonstration. The Long-EZ was designed by the Rutan Aircraft Factory and plans were first made available to build the aircraft in 1976. An unusual feature of this aircraft is that the nosewheel is retractable but the main landing gear is not. The Long-EZ is not capable of advanced aerobatics, but its unique delta wing canard design certainly creates an interesting profile in the sky.

The largest aircraft to appear at the 2023 Visit Atlantic City Air Show was a U.S. Air Force Lockheed C-5M Super Galaxy. The C-5M is one of the world's largest military aircraft, and provides the U.S. Air Force with heavy intercontinental-range strategic airlift ability. Since its introduction in 1969, the C-5 has supported all U.S. military operations in all conflicts and has also supported disaster relief missions. This C-5M is operated by the 436th Air Mobility Wing based at Dover Air Force Base.

Another strategic airlift aircraft operated by the U.S. Air Force represented at the Visit Atlantic City Airshow was the Boeing C-17A Globemaster III. The C-17A commonly performs strategic and tactical airlift missions, transporting troops and cargo throughout the world. The type has also been used for medical evacuation and humanitarian aid missions. This C-17A is operated by the 732nd Airlift Squadron, part of the 514th Air Mobility Wing stationed at McGuire Air Force Base.

The Visit Atlantic City Airshow always features a search and rescue demonstration from the MH-65 Dolphin helicopters from Coast Guard Air Station Atlantic City. USCG Air Station Atlantic City recently upgraded to the MH-65E variant of the Dolphin helicopter. The upgrades to the MH-65E variant of the Dolphin include a glass cockpit, a digital flight control system, and a digital weather radar system. These upgrades make the MH-65E variant of the Dolphin a much more capable search and rescue helicopter.

An MH-65E Dolphin from USCG Air Station Atlantic City performs a simulated rescue during the Visit Atlantic City Airshow. The MH-65E is used for many missions with the U.S. Coast Guard, including medevac-capable search and rescue, spotting for ice breakers, pollution control, drug interdiction, maritime law enforcement, and homeland security patrols. All MH-65 Dolphin helicopters are painted in this high-visibility orange paint scheme, designed to be highly visible in all weather conditions.

A wave from a crewmember of one of the MH-65E Dolphin helicopters as they fly past the beach at the Visit Atlantic City Airshow. USCG Air Station Atlantic City is located at the Atlantic City International Airport and operates 11 MH-65E Dolphin search and rescue helicopters. The facility is staffed by over 250 U.S. Coast Guard aviation personnel, reservists, and support staff. The air station is responsible for keeping two MH-65Ds on alert at all times with a 30-minute response time when dispatched.

World War II aviation history took center stage at the Visit Atlantic City Airshow with Tom Duffy and his restored North American B-25 Mitchell "Take-Off Time". The B-25 was one of World War II's most versatile medium bombers and used for a variety of other roles including gunship, anti-submarine warfare, and VIP transport. The B-25 is famous for use during the Doolittle Raid, in which 16 of the bombers took off from the aircraft carrier U.S.S. Hornet to bomb Japan in early 1942.

In addition to "Take-Off Time", Tom Duffy has several other restored World War II aircraft in his collection, including a P-51 Mustang and a Corsair. Duffy doesn't bring the aircraft in his collection to many airshows, so whenever one of his warbirds shows up at an event, it is a treat for aviation enthusiasts. At the Visit Atlantic City Airshow, Duff decided to have a little fun with "Take-Off Time", and did a simulated bombing run over the ocean, dropping a bunch of watermelons instead of bombs.

One of the big highlights of the 2023 Visit Atlantic City Airshow was a rare North American airshow appearance of an Airbus A400M Atlas military transport aircraft. This military transport aircraft is sized between the Lockheed C-130 Hercules and the Boeing C-17 Globemaster III. For a large aircraft, the A400M has impressive speed, range and maneuverability. The A400M that appeared at the Visit Atlantic City Airshow is one of 42 that are operated by the Luftwaffe or German Air Force.

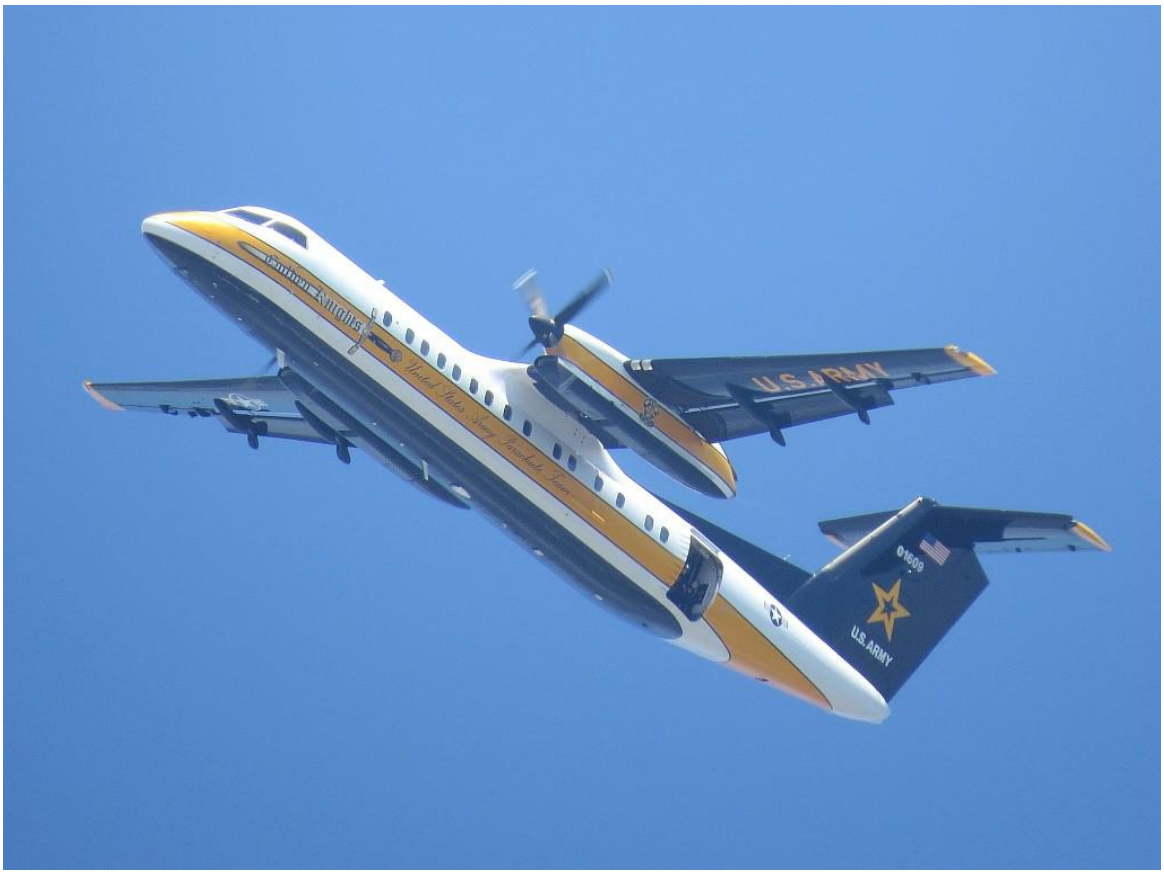
Similar to both the C-130 Hercules and C-17 Globemaster III, the A400M Atlas has an opening rear loading ramp that can be used to load vehicles and oversized cargo into the aircraft's cargo hold. In addition to its use as a military transport aircraft, the A400M Atlas can also be fitted for use as an aerial refueling tanker and as an electronic surveillance aircraft. Currently, Airbus Defence has delivered just over 100 A400Ms and they are operated by the air arms of eight countries worldwide.

Another newcomer to the lineup of the Visit Atlantic City Airshow this year was Patrick McAlee in his Pitts S-1 biplane. First designed in the 1940s, Pitts Specials dominated aerobatic competitions in the 1960s and 70s and are still flown in many lower-level aerobatic competitions. Today, the Pitts Special is still in production by Aviat Aircraft, which also supplies plans for the aircraft to home-builders. When Patrick McAlee is not flying airshows in his Pitts S-1 biplane, he is flying as a commercial pilot.

Another highlight of the 2023 Visit Atlantic City Airshow was one of the last airshow demonstrations ever of the McDonnell Douglas/ Boeing AV-8B Harrier II by the U.S. Marine Corps. Currently, the U.S. Marine Corps is transitioning from the AV-8B to the new Lockheed Martin F-35B Lightning II. The U.S. Marine Corps expects the AV-8B to be fully retired from service by late 2025 or early 2026. The AV-8B demonstration was flown by Maj. David Noss from Marine Attack Squadron VMA-231 "Ace of Spades".

The AV-8B Harrier II is a ground-attack aircraft and capable of vertical or short takeoff and landing (V/STOL). Thanks to its powerful Rolls-Royce jet engine and rotating exhaust nozzles, the AV-8B can hover and fly backward. The AV-8B can fulfill a multitude of roles including armed reconnaissance, close air support of ground troops, and day or night ground-attack missions. This AV-8B is operated by Marine Attack Squadron VMA-231 "Ace of Spades" based at MCAS Cherry Point in North Carolina.

The U.S. Army Golden Knights Parachute Team jumped twice during the 2023 Atlantic City Airshow, once in the morning and again in the afternoon. Before the team jumped, the team's jump aircraft, a de Havilland C-147A, circled several times overhead. The team drops wind indicators from this aircraft to help them determine when and where to jump high above the airshow location. The Golden Knights also use the C-147A to travel to the sites of airshows and competitions throughout the year.



A member of the U.S. Army Golden Knights Parachute Team descends to the landing zone at the Visit Atlantic City Airshow, bringing with him the POW-MIA flag. The ram-air parachutes used by the U.S. Army Golden Knights have a forward speed of up to 30 miles per hour and are steered using the attached steering lines. Pulling down on the right or left steering lines will allow a jumper to turn right or left. To slow down their forward speed, a jumper pulls both sets of steering lines together.

World War II aviation again took center stage at the 2023 Visit Atlantic City Airshow during the afternoon performances. The hazy conditions did not stop Jim Beasley Jr. and Ed Shipley, flying as the Horsemen, from flying an excellent two-ship formation aerobatic display in a pair of restored North American P-51D Mustangs. Introduced in the later years of World War II, the P-51 offered superb range and high performance, and quickly became one of the best fighter aircraft fielded by the Allies.

Jim Beasley Jr. and Ed Shipley perform as the Horsemen in a two-ship P-51D Mustang demonstration during the 2023 Visit Atlantic City Airshow. The P-51's superior performance was in large part because of its streamlined airframe and Rolls-Royce Merlin engine license built by Packard. The P-51 was used for many roles during World War II including bomber escort, fighter-bomber, and reconnaissance. Redesignated the F-51, the Mustang was also used as a fighter-bomber during the Korean War.

It was great to see Scott Francis back in action at the 2023 Visit Atlantic City Airshow with his MXS aerobatic aircraft. Francis had been away from the airshow scene for a period of time after striking a bird with his MXS, causing extensive damage that resulted in the aircraft needing major repairs. Francis flies up to 30 airshows a year with his MXS aircraft and also flies at the Flying Circus in Bealeton, Virginia. When not flying airshows with his MXS, Scott Francis is a pilot for a major U.S. airline.

After a lengthy delay due to hazy conditions at the Atlantic City beach and boardwalk, the skies finally cleared enough for the U.S. Air Force Thunderbirds to perform a limited flight demonstration at the 2023 Visit Atlantic City Airshow. Here, Thunderbird #6, Opposing Solo Maj. Eric Tise, performs the slow-speed pass, highlighting the low-speed maneuverability of the F-16 Fighting Falcon. This maneuver is possible thanks to the F-16's powerful engine and advanced fly-by-wire flight control system.

The U.S. Air Force Thunderbirds perform the Five Card Loop during the Visit Atlantic City Airshow. For this maneuver, Thunderbirds #1-#4 are joined by Thunderbird #5, the Lead Solo. For the 2023 airshow season, the Lead Solo position is flown by Maj. Daniel Katz. Unfortunately, due to the hazy conditions at Atlantic City on the day of the airshow, none of the trademark opposing passes by the Thunderbirds solo pilots could be completed safely, so they were scratched from the demonstration.

The U.S. Air Force Thunderbirds perform the Diamond Burner 360 maneuver during their demonstration. This maneuver is a favorite among airshow spectators as it offers plenty of noise with the Thunderbirds using the afterburners on their F-16s. The U.S. Air Force Thunderbirds pilots flying in the diamond formation are #1 Commander/Team Leader, Lt. Cmdr. Justin Elliot, #2 Left Wing, Capt. Zachary Taylor, #3 Right-Wing, Maj. Jake Impellizzeri, and #4 Slot, Maj. Lauren Schlichting.

The U.S. Air Force Thunderbirds set up to perform the inspiring Delta Break to finish their shortened performance at the 2023 Visit Atlantic City Airshow. It was unfortunate that the hazy conditions did not allow the Thunderbirds to perform their full demonstration, but pilot and spectator safety is always the first priority during any Thunderbirds airshow demonstration. Hopefully, the U.S. Air Force Thunderbirds can return to the Visit Atlantic City Airshow in 2024 and perform their full demonstration.

Naval Aircraft Factory N3N-3

A Naval Aircraft Factory N3N-3 on display at the National Air and Space Museum's Steven F. Udvar-Hazy Center in Chantilly, Virginia. The N3N-1 and the improved N3N-3 variant were built in seaplane and land-plane configuration and used by the U.S. Navy as a primary training aircraft. This N3N-3 was one of the last biplanes in the U.S. Navy inventory when it was retired from use as an aviation familiarization training aircraft at the U.S. Naval Academy in Annapolis in 1959.

The Naval Aircraft Factory N3N was an American tandem-seat, open cockpit, primary training aircraft built by the Naval Aircraft Factory in Philadelphia, Pennsylvania during the 1930s and 1940s. The N3N would serve throughout World War II as one of the primary training aircraft used by the U.S. Navy.

Development of the N3N began in the 1930s to meet a U.S. Navy requirement for a new primary flight training aircraft to replace the Consolidated NY-2 and NY-3 that had been in service since the early 1920s. One of the unique requirements for the aircraft was that it was to be designed both as a seaplane and a land-plane. Although the N3N appeared outwardly similar to the NY-2 and NY-3, the new aircraft had a much different structure. The N3N featured extruded aluminum construction using bolts and rivets, with removable side panels for ease of inspection and maintenance. Internally, the wings were constructed of all metal, but covered in fabric, as were the aircraft's tail and fuselage. The seaplane version of the N3N used a single large float under the fuselage with two smaller floats on the outer tips of the lower wings for stability. The land version of the N3N used fixed conventional landing gear.

After successful flight testing at Philadelphia and Anacostia, the U.S. Navy ordered the production of the aircraft with a 220-horsepower Wright J-5 radial engine. Service trials with the prototype N3N recommended minor modifications. The Naval Aircraft Factory built 179 of the first variant, the N3N-1. Two prototype N3Ns were modified with a 240-horsepower Wright J-6-7 Whirlwind radial engine. Since the Naval Aircraft Factory was an aviation firm wholly owned and operated by the U.S. Government, the U.S. Navy was able to buy the rights and tooling for the Wright R-760 series engine, and the Naval Aircraft Factory built their own engines. These Navy-built engines were installed on Navy-built airframes. In addition to a more powerful engine, the N3N was modified with a redesigned vertical tail and a single strut landing gear. This new variant of the N3N was designated the N3N-3. The Naval Aircraft Factory built 816 N3N-3s, making it the most produced N3N variant.

Both the N3N-1 and N3N-3 were used throughout World War II for primary training by the U.S. Navy. The U.S. Marine Corps and U.S. Coast Guard also operated small numbers of the N3N. One easy way to tell the variants apart was the N3N-1 had a distinctive anti-drag ring around the engine, the N3N-3 did not have this feature as the performance gains from it were minimal.

In service, the N3N was often known as "Yellow Bird" for its distinctive all-yellow, high-visibility paint scheme. It was also nicknamed "Yellow Peril" for its difficult handling characteristics. The N3N had a narrow landing gear width of just over 72 inches, which did not allow for a lot of lateral stability on touchdown. Many naval aviator cadets found the N3N prone to ground-looping on landing and learned this the hard way during their flight training. The N3N also had poor forward visibility on the ground. Cadets had to S-turn the aircraft while taxiing to see around the N3N's long nose.

Despite its handling difficulties, the N3N was a reliable and rugged training aircraft and was generally forgiving to student pilots. The N3N had a climb rate of 900 feet a minute and a cruising speed of 100 miles per hour. The structural integrity and ruggedness of the airframe allowed for high G turns and pullouts at speeds close to 200 miles per hour.

In 1946, several N3N-3 seaplanes were sent to Annapolis to become part of the Naval Academy's training squadron, where they were used for aviation familiarization training. These N3Ns had the distinction of being the last biplanes in U.S. Navy service and were finally withdrawn in 1959. After World War II, many N3Ns were sold as surplus to civilians for use as sport planes, agricultural spraying, and banner towing. Several of these N3Ns remain airworthy today.

The National Air and Space Museum's N3N-3, outfitted with floats, was one of the N3N-3s used by the Naval Academy's training squadron at Annapolis. The aircraft was used in this role until 1960 when it was withdrawn from U.S. Navy service. Later that year, the National Air and Space Museum acquired the aircraft from the U.S. Navy. Today, the N3N-3 is displayed in the National Air and Space Museum's Steven F. Udvar Hazy Center.

Airbus A400M Atlas (2013)

The Airbus A400M Atlas is a European four-engine turboprop military transport aircraft used for strategic and tactical airlift, aerial refueling, medical evacuation, and electronic surveillance. The A400M was designed by Airbus Defence and Space as a tactical airlifter that could replace older aircraft such as the Transall C-160 and older variants of the C-130 Hercules. The A400M is sized between the C-130 Hercules and the Boeing C-17 Globemaster III. The first flight of the A400M took place in 2009, and the first aircraft delivered entered service with the French Air and Space Force in 2013. To date, 112 A400Ms have been delivered and are in service with the armed forces of seven nations. Primary users of the aircraft are the Royal Air Force, the German Air Force, the Spanish Air and Space Force, and the French Air and Space Force.

Airbus A400M Atlas

Crew: 3-4 (Pilot, Co-Pilot, Optional 3rd Pilot, Loadmaster)

Passenger Capacity: 116 fully equipped troops/paratroops or 66 stretchers and 25 medical personnel

Cargo Capacity: 81,600 lb

Length: 148 ft

Height: 48 ft 3 in

Wingspan: 139 ft 1 in

Wing Area: 2,384 sq ft

Powerplant: Europrop International TP400-D6 turboprop (x4)

Range: 1,800 nmi with full payload

Cruise Speed: 485 mph

Maximum Speed: 552 mph

Empty/Maximum Takeoff Weights: 173,283 lb/310,852 lb

Service Ceiling: 40,000 ft

Versatile Military Transport Aircraft

Structure

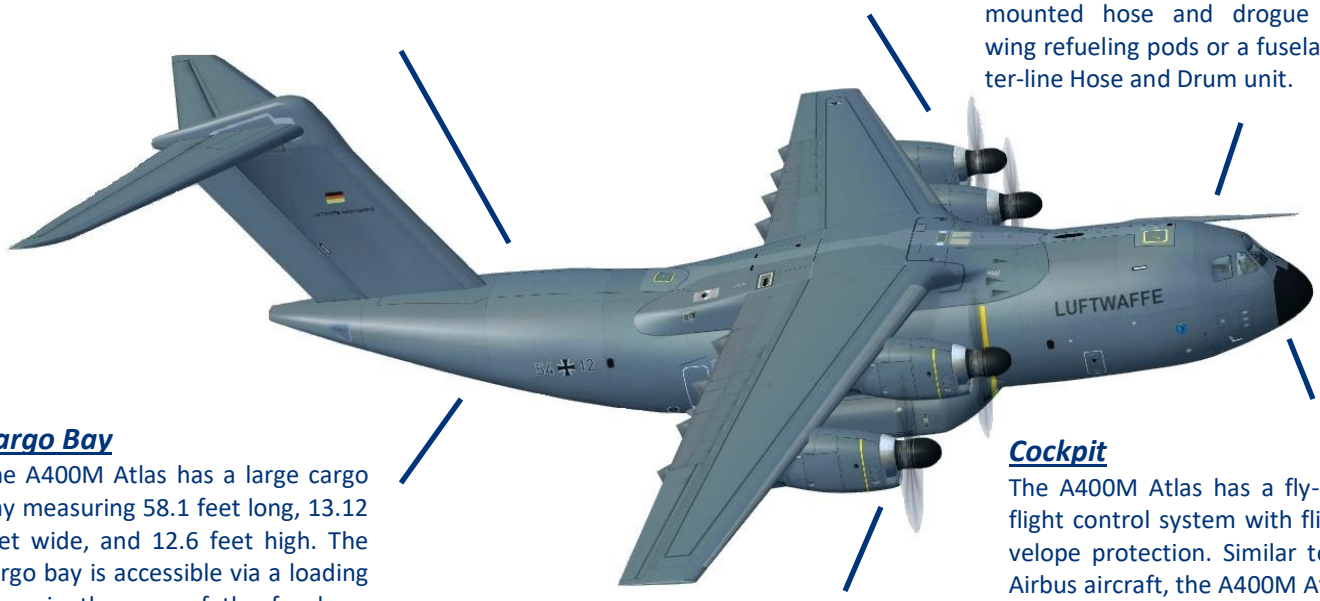
More than 30 percent of the A400M's structure is constructed of composite materials. The wing is primarily made of carbon fiber reinforced plastic components. Similar to the Boeing C-17A Globemaster III and Lockheed C-5M Super Galaxy military transport aircraft, the A400M Atlas uses a large T-tail empennage. A unique feature of the A400M's fuselage is that the rear side doors feature deployable baffles. These deployable baffles are intended to help paratroops get clear of the aircraft during a jump before hitting the slipstream.

Engines

The A400M Atlas is powered by four Europrop TP400-D6 engines. This turboprop engine was designed specifically for use on the A400M. These engines are capable of generating 11,000 horsepower each, making them the most powerful turboprop engine designed and built in the West to enter operational use.

Aerial Refueling

The A400M Atlas can be refueled in-flight from drogue-equipped tanker aircraft using a probe fitted above the cockpit. This refueling probe can be removed if it is not going to be used. Optionally, the refueling probe can be replaced by a fuselage-mounted UARRSI receptacle that is designed to accept fuel from boom-equipped tanker aircraft. The A400M can also be configured to act as a tanker itself, and can be fitted with two wing-mounted hose and drogue underwing refueling pods or a fuselage center-line Hose and Drum unit.



Cargo Bay

The A400M Atlas has a large cargo bay measuring 58.1 feet long, 13.12 feet wide, and 12.6 feet high. The cargo bay is accessible via a loading ramp in the rear of the fuselage. The loading ramp allows larger cargo loads, such as a helicopter or several vehicles, to be loaded efficiently into the cargo bay. The cargo door can be opened in flight for aerial cargo drops in areas where the A400M is unable to land. The cargo bay can be configured to transport cargo, vehicles and personnel, drop paratroops, conduct medical evacuations, or carry out aerial refueling. With a cargo capacity of 81,600 lb, the A400M's payload, range, operational capacity, and ability to use unprepared or rough airstrips is a substantial improvement over the C-160 Transall and C-130 Hercules it replaces.

Propellers

The A400M's propellers are one of the most unique design features of the aircraft. The eight-bladed scimitar propellers are manufactured by Raiter-Figeac and are made of woven composite material. The propellers have a diameter of 17 ft 5 in and have thrust reversing and feathering capability. Unlike most aircraft, in which the propellers turn in the same direction, the pairs of propellers on each wing of the A400M Atlas turn in opposite directions. The Raiter-Figeac FH385 propellers turn counterclockwise, and the FH386 propellers turn clockwise. The counter-rotation of the propellers is achieved by the use of gearboxes, the engines themselves all turn in the same direction. This eliminates the need to have two different "handed" engines on stock for the same aircraft, simplifying maintenance and supply costs.

Cockpit

The A400M Atlas has a fly-by-wire flight control system with flight envelope protection. Similar to other Airbus aircraft, the A400M Atlas has a full glass cockpit that features sidestick controllers. Most of these flight control systems are loosely based on those used on the A380 commercial aircraft but modified for military missions. The flight control system controls two hydraulic systems, and two electrical actuator systems that operate the flight controls, landing gear, wheel brakes, and cargo door. The cockpit is also equipped with a forward-looking infrared enhanced vision system (EVS) camera and provides an enhanced terrain view in low-visibility conditions. This system is useful for flying low-level tactical missions at night or in the clouds.

A Chat With Thunderbird #4

U.S. Air Force Thunderbirds #4 Slot pilot Maj. Lauren "Threat" Schlichting disembarks from her F-16 Fighting Falcon at the Atlantic City International Airport on Monday, August 14, after arriving for the 2023 Visit Atlantic City Airshow. Maj. Schlichting later met with the gathered media to discuss the upcoming airshow performance in Atlantic City and discuss some of her background in the U.S. Air Force before being selected to join the Thunderbirds.

During the recent Visit Atlantic City Airshow: A Salute To Those Who Serve on August 16, credentialed media were offered the opportunity to photograph the arrival of the U.S. Air Force Thunderbirds Air Demonstration Squadron at the Atlantic City International Airport and interview members of the team on Monday, August 14. This media opportunity was hosted by the 177th Fighter Wing of the New Jersey Air National Guard, which hosts the Thunderbirds F-16 aircraft and personnel at their facility at the Atlantic City International Airport when the team visits for the airshow. One of the Thunderbirds pilots available for an interview was Thunderbird #4, Maj. Lauren "Threat" Schlichting, who flies the Slot position and is in her second season with the Thunderbirds.

Maj. Schlichting talked a little bit about her long career in the U.S. Air Force, which includes flight time in the T-6 Texan II, T-38 Talon, F-16 Fighting Falcon, and F-15E Strike Eagle. Maj. Schlichting has over 2,000 hours of flight time during her career in the U.S. Air Force. She also talked briefly about her previous assignment, being an evaluating pilot and executive officer for the 333rd Fighter Squadron. Maj. Schlichting noted that although she is not the first woman to fly as part of the Thunderbirds, she hopes that her presence on the team encourages girls and young women to pursue careers in the U.S. Air Force, as there are many rewarding career paths available.

After discussing her background, Maj. Schlichting briefly discussed the "site survey" flight the Thunderbirds had completed just before they arrived at the Atlantic City International Airport. The "site survey" flight helps the team prepare for their airshow by noting anything about a show location that could be a safety issue. Maj. Schlichting noted that the team must adjust the altitude of some of their maneuvers when performing at Atlantic City because of the high-rise buildings that make up much of the city's landscape. Maj. Schlichting commented that the Thunderbirds always enjoy performing in Atlantic City over the beach and boardwalk because of the large crowd that gathers for the airshow.

Finally, Maj. Schlichting noted that this is her second and final season to be part of the Thunderbirds, and that the end of her tenure on the team is approaching this fall. She mentioned that the time has gone by too quickly and that she has enjoyed being part of the team and meeting thousands of airshow spectators traveling around the United States as a representative of the U.S. Air Force.


USAF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Distelfink Airlines

Est. 2013

ABOUT DISTELFINK AIRLINES

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.

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.