A Lot of "Wright" During An Unprecedented 2020

Happy Holidays!
MESSAGE FROM THE DIRECTOR

In the spirit of Thanksgiving and this Holiday Season, let me take this opportunity to thank all of our museum family members for the tireless dedication and support through this challenging year. Our museum staff, volunteers, board members, visitors, and patrons are the reason we continue to serve as one of the finest educational resources in the community, as well as one of the premier aviation museums in the country. Like I’ve mentioned before, throughout the COVID-19 Pandemic and all of the response efforts, our museum family has not wavered in support and dedication for our education-oriented mission, and I could not be more proud to have the opportunity to serve alongside such great individuals.

Since our last Quarterly Edition of Flight Lines, we’ve hit several milestones at the Southern Museum of Flight, including our Grand Reopening following the COVID-19 shutdown earlier this year. For our visitors, things look a little different around the museum with polycarbonate shields, hand sanitizing stations, and social distancing measures in place, but it has been wonderful to welcome back our extended family! In addition, we welcomed back our Corps of Volunteers & Interns who serve as such a vital component of our museum operation. For our Restoration Volunteers, several new adjustments have been made with new mitigation measures implemented, including three additional work areas to assist in proper distancing. This includes areas of aircraft restoration that will take place in two of our museum galleries. Visitors will have the opportunity to see first-hand how we “make the magic happen” on the museum floor.

I would be remiss if I did not thank all of those who have helped make our Aviation Workforce Initiative, or AWI (the museum’s workforce development program), a reality in 2020. Though this year has certainly presented its share of challenges, we have made considerable progress in creating a general awareness campaign regarding the AWI, and we’re excited to “gear up” for a launch in 2021, so stay tuned!

I am very much encouraged by our potential moving forward, and I am so excited for what the New Year has in store. We’re about to move into our 55th year at the Southern Museum of Flight, and what an incredible journey it has been! We embrace our legacy, and our Core Values of Education, Preservation, & Dedication will continue to serve as our compass and guide us as we move through the next 55 years together!
After several unsuccessful attempts, on December 17, 1903, at Kill Devil Hills, North Carolina, Orville Wright completed the first powered flight of a heavier-than-air aircraft known as the Wright Flyer. The flight lasted just 12 seconds, traveled 120 feet, and reached a top speed of 6.8 miles per hour. The brothers completed three other flights that day, taking turns piloting.

By 1905, they built the Flyer III that completed a 24-mile flight and World War I (1914-1918) saw the first use of aircraft in warfare. Within a dozen years after the first powered flight, the U.S. government formed the National Advisory Committee on Aeronautics (NACA) to advance the field of aeronautics. Research at NACA facilities led to breakthroughs that greatly advanced the field of aeronautics including supersonic flight.

In 1958, in response to Soviet advances in space flight, the U.S. government established the National Aeronautics and Space Administration (NASA), a civilian agency to lead American space activities. The new agency incorporated elements of NACA including its facilities and employees. Just 65 years after the Wrights made their pioneering flight on the sands of Kitty Hawk, Apollo 11 astronauts made humanity's first footprints on the dusty surface of the Moon. To honor the Wrights' accomplishment, Apollo 14 astronauts named their Lunar Module, Kitty Hawk.

The Wright Flyer is on display in the Smithsonian Institute’s National Air and Space Museum in Washington, DC. Through the building skills and generosity of John Reynolds, Atlanta, GA, the Southern Museum of Flight has a Wright Flyer replica displayed in a Kill Devil Hills diorama. Be sure to visit and learn more of the Wright Brothers amazing historical feat.

This book is a deconstruction of the Wright brothers myth. They were not -- as we have all come to believe -- two halves of the same apple. Each had a distinctive role in creating the first "flying machine."

How could two brothers who never left home, and made a living as bicycle mechanics, have figured out the secret of manned flight? This history of the brothers' accomplishment focuses on their early years of trial and error at Kitty Hawk.

Orville Wright was just a 'glorified mechanic' and exaggerated his role in the groundbreaking invention, and who took credit for what was mostly his older brother Wilbur's creation, according to Hazelgrove’s new book.

After Wilbur's death from typhoid fever in 1912, Orville for years spun the myth that he was as smart and talented as his sibling. The younger Wright, who lived until 1948, approved a 1943 one-sided biography of himself which he claimed to have come up with wing warping, a technique for controlling wing roll, that was his brother's big breakthrough. Reality was that Orville's heart was not in aviation and would have just as happily gone back to their business building bicycles. He lacked the imagination of his brother Wilbur. Orville also got bogged down in petty rows, including one with the Smithsonian Institute. He spited them by sending the Wright Flyer, which carried out the first flight in 1903, to a British museum where it remained for decades. The rewriting of history came in 1943 when journalist Fred C. Kelly, a close friend of Orville's for 20 years, published, “The Wright Brothers: The Biography Authorized By Orville Wright”. In the book, Orville laid claim to everything his brother had done alone. According to Orville's version, they had equal interest in aviation and wondered how mankind might fly one day.

Both Wilbur and Orville Wright made the first controlled, and sustained flights in a power-driven, heavier-than-air machine. The first flight was piloted by Orville Wright at 10:35am, at which time the plane stayed in the air for 12 seconds. Wilbur Wright piloted the longest flight that day in the fourth test, 59 seconds in the air and traveled 852 feet.
The marque at the 117th Air Refueling Wing at Birmingham-Shuttlesworth International Airport reads, “Welcome to Sumpter Smith Air National Guard Base.” Who is Sumpter Smith and why is the 117th Air Refueling Wing adopting his name?

Walter Sumpter Smith was born on February 12, 1896 in Belle Ellen, AL and was an electrical engineer and pilot. In 1921, he was appointed to the 106th Observation Squadron of the Alabama National Guard and commissioned as a 1st Lt. at Roberts Field in Birmingham. He reached the rank of Lieutenant Colonel on August 12, 1932 and Colonel in 1942.

In 1934, the facilities at Roberts Field became less adequate as the local government decided to build a new facility at the Birmingham Municipal Airport. In 1938, after four years of construction, the 106th OS moved to the current location of the 117th ARW.

As a testimony to Smith’s role in the development and construction, the base was eventually named Sumpter Smith Air National Guard Base. It remained that way until sometime during the early 1990s when the name evolved to the Alabama Air National Guard Base, Birmingham, Alabama. It’s not really clear why the name changed and no official documents have been found.

Colonel Scott Grant, recently retired 117th Air Refueling Wing Commander, discovered this information while researching the unit’s history in 2011 in preparation for the 90th Anniversary of the 106th Air Refueling Squadron. A push was made to restore the name of the base to Sumpter Smith Air National Guard Base and this change was made official during the summer of 2017.

“Colonel Smith was one of the most prominent forefathers of this unit and in the nation during the earlier days of aviation. The effort to correct the name of the base was just the right thing to do to preserve and memorialize the contributions of this great man,” said Grant.

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The picture of Lt. Col. Sumpter Smith (circa 1932). Col. Smith would be instrumental in the construction of the Birmingham Municipal Airport. He later was involved in forming a nationwide network of over 600 airports.
Zachary Edison, the SMF’s Restoration Manager, works with a group of select and talented restoration volunteers. His efforts help create and represent the visual quality of the artifacts begin restored and placed on display.

Zach grew up in Talladega, AL where he attended Lincoln High School and Talladega College, where he graduated in 1984. A year later, Zach joined the U.S. Air Force and became both an aircraft mechanic and instructor during his 24 years of service. He also earned associate degrees in instructional technology and aerospace maintenance technology, and received his Airframe and Powerplant (A&P) license. “I worked on C-5s, C-141s, C-130s, C-9s, and C-17s and for five years I was an aircraft maintenance instructor,” he said. “The first aircraft I worked on was the Air Force’s largest aircraft, the C-5.”

Zach retired from the USAF in 2008, moved to Birmingham from South Carolina, and was employed by Alabama Aircraft Industries, Inc. until it closed in 2011. At that time, Zach agreed to share his expertise and talents with the museum, and aircraft restoration was “kicked up a notch”. “I could be working on a not-too-old military aircraft or have the privilege of working on the aircraft that one of the original Tuskegee Airmen flew,” he said. “We get airplanes from all over. Some are in great shape, some are in not-so-great shape, and some have done unique stuff. We’ve got the fastest manned aircraft in the world, (the Blackbird A-12), sitting outside; not too many places have that. We’ve got one of five Russian MI-24 helicopters on display in the U.S. that you can come and see. It’s just an awesome job.”

In June 2020, the museum’s Aero L-39C was transported to Code 1 Aviation (International Jets) in Gadsden for needed restoration work. Code 1 Aviation is a leader in the restoration and maintenance of L-39s and our museum is fortunate to have that expertise put to work on our L-39C.

The Aero L-39 Albatros is a high-performance jet trainer developed in Czechoslovakia by Aero Vodochody. It was designed during the 1960s as a principal training aircraft and was the first trainer aircraft to be equipped with a turbofan powerplant. In addition to performing basic and advanced pilot training, it has also flown combat missions in a light-attack role.

Serial production of the initial model of the L-39 commenced in 1971. In 1972, the Albatros was recognized as a preferred primary trainer, after which sizable orders from military customers were made, many of which were from the Soviet Air Forces. In 1974, the first L-39 trainer entered service with the Czechoslovak Air Force.

In 1996, production of the L-39 ended. To date, more than 2,800 L-39s have served with over 30 air forces around the world. While newer versions are now replacing older L-39s in service, thousands remain in active service as trainers, and many are finding new homes with private warbird owners all over the world. It has been claimed that the L-39’s desirability stems from the fact that it is the only available second-generation jet trainer and its low maintenance cost makes it highly sought out by aviation enthusiasts. This trend is particularly evident in the United States, where their $200,000–$300,000 price puts them in the range of moderately wealthy pilots looking for a fast, agile personal jet. Their popularity also led to a purely L-39 Jet class being introduced at the Reno Air Races in 2002. Recently, the class has been expanded to include other, similar aircraft.
In 1958, Robert Bushby purchased the rights for an all metal single-seat racer known as the "Midget Mustang". He built his prototype version of the Midget and first flew it in 1959. Its performance and capability created a demand for a two-place version and Bushby designed the Mustang II between 1963 and 1965. He flew that first Bushby Mustang II to EAA's 1966 Rockford Convention. The only parts it shared with the Midget were the wing ribs and the spar web.

The Mustang II evolved through a 125 hp Lycoming to a 160 hp 0-320, from taildragger to tricycle landing gear, with wood as well as constant speed props, and even a folding wing design. Over the years, builders have added retractable gear, tip tanks, wet leading edges and engines up to 210 hp. It is an all-metal kit requiring a minimum of special metalworking tools to complete and took the owner of our SMF aircraft approximately 1,800 hours to build.

The Mustang II is very roomy inside, making it the choice of many home-builders. The bubble canopy allows pilots up to 6’4” to cruise in comfort. The canopy is also ultraviolet absorbent to prevent sunburn on long trips. The Mustang has a split flap speed brake and a distinctive paint scheme, with the USAF Thunderbird’s “feathers” painted on the underside of the aircraft.

The average final cost to build a Mustang II from standard kits is between $45,000 and $55,000. The kits that are being produced today allow typical builders to complete the airplane in 2 to 4 years of part time work depending on the kit options and individual work habits. Quick build options, such as completed wings, help to get builders in the air faster and help ensure the best performance possible.

The Bushby Mustang II displayed at the Southern Museum of Flight was donated in flying condition by Bruce Lund of Mobile, Alabama. Be sure to visit this impressive aircraft on your next visit to the Museum.
The magic number of 25 combat missions was a benchmark established by the Army Air Force for bomber crews in order to be rotated back to the United States where plane and crew would tour the country promoting the sale of war bonds.

On March 31, 1943, *Hot Stuff* flew its 31st and final combat mission in a 102-plane attack on shipyards in Rotterdam, Holland. They had completed their tour, and their future looked bright. They’d rest in England for a few weeks and then fly back home to family and friends in America. The War Department planned to display the plane and its crew on a tour of the United States to boost morale and promote war bond sales. The men didn’t know about the planned publicity, only that they were finally going home.

*Hot Stuff* was also chosen to transport Lt. Gen. Frank Andrews back to the US, so many regular members of the crew were “bumped” to make room for the general and his staff. Andrews was flying back not only to receive a fourth star but also to be named as Supreme Allied Commander in Europe (although he did not know this).

Unfortunately they never made it. The B-24 crashed into a mountain in bad weather while attempting to refuel in Iceland, killing 13 out of the 14 on board (Joint Base Andrews where Air Force One is hangared was named in honor of Lt. Gen. Frank Andrews). This was a tragically ironic end to *Hot Stuff*, crashing due to inclement weather, having survived 31 missions with intense German flak and aircraft attacks. Following the crash of *Hot Stuff*, the War Department chose to send the *Memphis Belle* home and celebrate it as the first bomber to reach 25 missions.

The National Museum of the US Air Force had collected the debris from the crash site, and the Southern Museum of Flight, through the generosity of Jim Lux from Austin, Texas, has received some of those artifacts. Plans are being made to create a public tribute to the crew of *Hot Stuff* and to the memory of those who perished in the Iceland crash. It is hoped that our museum’s display, along with displays in other museums in the United States, will help enhance the knowledge of *Hot Stuff*’s rightful place in the history of World War II.
MEMBERSHIP

When It Comes to Southern Aviation History …
Just Ace It !

With a Southern Museum of Flight Membership !

Yes, I would like to become a member of the Southern Museum of Flight
Your membership will help the museum continue its work in preserving southern aviation history, restoring historic aircraft and inspiring students to excel in science and technology

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A Museum Membership Makes A Great Holiday Gift !

The Southern Museum of Flight acknowledges the support provided by the Jefferson County Commission through the Jefferson County Community Arts Fund administered by the Cultural Alliance of Greater Birmingham