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**COMM 437** 

September 24, 2018

## Documenting A December Day in Kitty Hawk, North Carolina

"The flight on that cold December 17 was momentous: It brought to a realization the dreams of centuries, and it gave birth to a new way of life. It was the first genuine powered flight of a heavier-than-air machine."

Orville Wright

Greco-Roman mythology is speckled with human aviation, demonstrating our innate desires to reach farther than we are able and higher than we alone are designed. In one of the earliest flight myths, Daedalus, prisoner of Crete, fashioned wings of wax and feathers to escape imprisonment, using the winds and the flight his wings created (Cartwright, 2016). Later in life, in Sicily, he built a temple to Apollo and offered his wings (Cartwright, 2016). Depictions of Daedalus' flight mimicked natural creations—flapping bird wings to power the invention. From Daedalus' tale we learn humans yearned for flight since the beginning of time, but nature's birds alone did not reveal all of the secrets to the successful human aviation.

In 1783, the first balloon carried a man into the air in France. The public's interest in aviation steadily rose along with it, distinctly marking the beginning of men above the terrestrial planet (Anderson, 2011). Over 100 years later, man began iterating toward airplanes: Germanborn Otto Lilienthal began experimenting with gliders in 1889, defining another aviation feat (Anderson, 2011). Lilienthal's design was distinct from previous failures, focusing on the actual aerodynamics of the craft rather than a powerful engine (Anderson, 2011). Airmen, or those like Lilienthal, would glide in monoplane hand gliders to emulate flight before attaching an engine

(Anderson, 2011). Near the same time that Lilienthal was gliding from high places, the first dry-plate negative photographs could capture pictures of moving objects without blur, pausing a moment in time (Smith, 2004). From this, we see photography and aviation have always been linked, both in the sense of recording feats or failures and documenting the human spirit. Lilienthal, as a result of the increasing presence of cameras, was the first human photographed in an airplane in 1894 (*Otto Lilienthal Gliding Experiment*, 1895). Sadly, due to an unfortunate crash during an experiment, Otto Lilienthal died before progressing past his impressive gliders (Anderson, 2011).



If not for this gust of wind that stalled his flight, we may have found ourselves crediting the origin of human flight to Lilienthal; however, with that wind of change, we find ourselves looking in the Wright direction. Trained in a bicycle shop, the Wright brothers actually followed Lilienthal's glider inventions, allowing their interest in aviation and human flight to mature (Anderson, 2011). Articles of Lilienthal, including photographs of his gliders, had been

distributed around the world—even in Kittyhawk, North Carolina (Anderson, 2011). Orville and Wilbur devoured information about his progress in magazines and journals about planes and flight (Anderson, 2011). Like Lilienthal, the Wright Brothers worked to document their inventions (Crum, 2004). They became amateur photographers, with their own dark room and professional Kodak camera in order to preserve a record of their science and gliders (Smith, 2004). In fact, the brothers' primary reasons for such photography and negatives was to document and patent their flying machine (Crum, 2004). From their first build, a full-sized biplane glider, to the final design, the *Wright Flyer III*, the Wright brothers recorded every moment of the discovery process.

The wind speed at Kill Devil Hills, North Carolina, was 27 miles per hour that December day, just pushing a heavy storm out of the area (Wright, 1986; Smith, 2004). For the previous days the weather conditions were not congruent for successful flight tests. Like the day before, and days before that, the brothers prepared for the flight in the new conditions. Orville Wright guessed where the airplane might be in the air and set-up a camera and tripod pointing to the spot



(National Park Service, 2017). When three local US Lifesaving Servicemen appeared and offered help, Wilbur handed the bulb to one of the men and told him to "squeeze it if anything interesting happened." (National Park Service, 2017; Wright, 1953) The plane starts, moving along a monorail track. Once it reached the end of the track, the *Wright Flyer* rose 2 feet--the first human flight, "a machine carrying a man raised itself by its own power in the air in full flight." (Wright, 1986) J. T. Daniels, a man who never before touched a camera let alone seen one, watched with awe before remembering to squeeze the bulb. In a flash, the life-saving man documented the moment of the first man flying. Daniels' first photo would go on to be awarded the title "The Photograph of the 20th Century." (National Park Service, 2017)

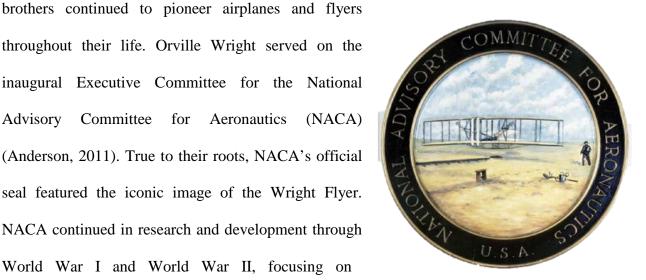
While the actual flight was 12 seconds, the photo preserves the apogee of the experience—using similar techniques that allowed Lilienthal's gliders to be paused for eternity (Anderson, 2011). The photo, *First Flight*, visually compares the photo of Otto Lilienthal with its dark silhouetted people, where gazers must know the origins of *First Flight* before initially interacting with it, or by told who is present. Lilienthal's glider and the *Wright Flyer* are placed squarely in the center of the frame across a barren landscape, allowing for the invention to be the focus of the gazer's attention. In *First* Flight, from one side we have Wilbur looking at the flyer with anticipation, hoping that this time their plane might work. On the ground you see tools and parts riddled across, what would've been how the Wrights made repairs to their plane. The simple photo—simple in composition—exhibits excitement and achievement for the new era the Wrights lead the world into. *First Flight* literally pauses time and allows us to step into the past and glimpse what the moment would have been like.

The legacies that surround the Wright brothers far surpass the humble, yet determined circumstances in which the brothers began. Aviation has developed from the simple wood-and-

cable flyers that broke history to towering rockets that allow human space flight. The Wright

(NACA) Advisory Committee for Aeronautics (Anderson, 2011). True to their roots, NACA's official seal featured the iconic image of the Wright Flyer. NACA continued in research and development through World War I and World War II, focusing on improving aerodynamics and speed of aircraft (Anderson, 2011). All along, NACA documented findings, tests, failures, and feats using photographs and even videography. Because of their efforts and those who followed, the Wrights were able to witness within their lifetime the transition from a horse and buggy to the beginnings of supersonic flight.

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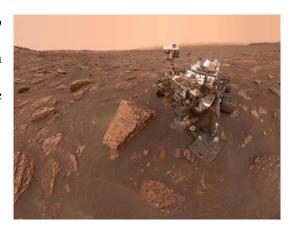




Of course, with human flight accomplished and integrated into society, new endeavors shift our focus onto new advancements, this time our winds leading us from the Wright Flyer to Apollo like Daedalus' wings from long ago. NACA integrated with the National Aeronautics and Space Administration (NASA), only fifty-five years after the Wrights' first flight in Kitty Hawk and ten years after Orville Wright's passing (Anderson, 2011). Effectively, the Wrights have laid their wings at the steps to make room for the human spirit to pursue new great endeavors amongst the stars.

The Wright Brothers' achievement was the accumulation of hundreds of years of research, built upon each other brick by brick. *First Flight* captures the perfect moment, the instant, where human destiny has changed. The plane clearly rises above the ground, defining the start of a new era. From there, we see this image continue to define the heyday of airplanes, becoming the logo of NACA. Along with it, the tradition of scientifically documenting events as a way to preserve a record and establish accomplishments. Even today, this photo and event resonates with as the foundations of NASA and aerospace photography.





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