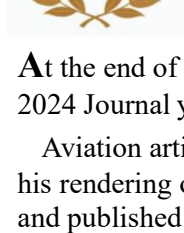




No. 25-06

1 July 2025



## 2024 AAHS Best Art & Article

At the end of each year, we ask our members to vote for the best article and best artwork published during the year. For the 2024 Journal year (Volume 69) the votes have finally been tallied.

Aviation artist John Amendola is well known for his artwork. It is no surprise that our members selected overwhelmingly his rendering of American Airways Curtiss T-32 Condor, NC12465, c/n 25. This artwork was found in the AAHS archives and published in memory of this wonderful artist, who passed away in January 2021. We'll miss his beautiful artwork.



Arnold Swanberg's "The Air Corps the Army Housing Program of 1926" received the largest number of votes of all eligible articles. The next closest popular article received only two-thirds the number of votes that Swanberg's article had. This article had its origins in a thesis work that Swanberg had written while working on his graduate degree years ago. He contributed a number of articles to the AAHS Journal over the years and it is fitting that the members selected this article as the best for 2024. Unfortunately, Arnold Swanberg passed away after a short illness in early November, about the same time as his article was published. ➔

Hayden Hamilton, *AAHS Journal* editor



## Just Another Cruise

By Thomas Palshaw  
Photos courtesy of Bob Clark

This is a story about one New England Air Museum volunteer, Bob Clark. He trained in nuclear power and was assigned to the USS *Long Beach*, the Navy's first nuclear powered cruiser, CGN-9. The ship was built in Quincy Massachusetts in 1959. It had just come out of overhaul and refueling (late 1971) from Mare Island Naval Shipyard and was headed to its fourth deployment to the Tonkin Gulf, Westpac-Viet Nam.

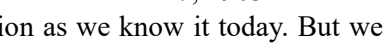
Departing Subic Bay, Philippines on October 25, 1972, it was headed for Yankee Station to serve as a PIRAZ ship (Positive Identification Radar Advisory Zone). Stationed 30 miles off the coast of North Viet Nam, just south of Haiphong Harbor, they could see land and observe ordnance fire. CGN-9 was 721 feet long, was armed with TALOS air defense missiles, and a helicopter landing deck on the stern to support rescue helicopters. The SAR helicopters were supplied by Helicopter Combat Support Squadron 7 (HC-7). HC-7 utilized Sikorsky SH-3A Sea King and Kaman HH-2 Sea Sprite helicopters. The CSAR helicopters were called "Big Mother."

Our story begins on November 3, 1972. A CSAR Big Mother SH-3, returning from a secret mission, declared an emergency. It was shot up, smoking, and carried four wounded members. Not knowing how long it could stay in the air, there was no choice but to land on the USS *Long Beach*. *Long Beach* declared emergency flight quarters then activated accident and casualty teams. Big Mother landed hard but successfully about 13:40 hours on the flight deck. The wounded were off loaded, the most critical immediately flown to a medical facility, but Big Mother could not be flown again.

The TALOS missile system could not be used with a helicopter on the flight deck. The USS *Jouett* (DLG-29) relieved the *Long Beach* on November 6. The *Jouett* began transit to Da Nang to off load the now derelict Big Mother. The damaged SH-3 was lifted off the deck at 15:12 hours by an Army CH-54A Flying Crane. The *Long Beach* departed Da Nang at 17:45 hours to return to its PIRAZ duties. ➔



(Top) CH-54 Sky Crane hovers astern *Long Beach*. (Above) We have liftoff! Some dexterous handling was required not to bash the chopper against the ship's superstructure, damaging both. (Left) Up, up, and away. Can any of our readers amplify this story, or identify the Army outfit operating the Sky Crane? (Editor's best guess is the 478th Avn Co, but by this stage of the war, many units had departed Vietnam.)



## History's Most Influential Aircraft

Our Second Nominee

In No. 25-02, we wondered which might be the five or ten most influential aircraft in history. In climbing the chronological ladder from the first manned balloon flights in 1783, the next aircraft of real impact we considered was the airplane the Wright brothers flew near Kitty Hawk, N.C., on December 17, 1903. That date, for obvious reasons, is almost universally recognized as marking the beginning of aviation as we know it today. But we don't consider the 1903 Flyer to be one of history's most influential aircraft.

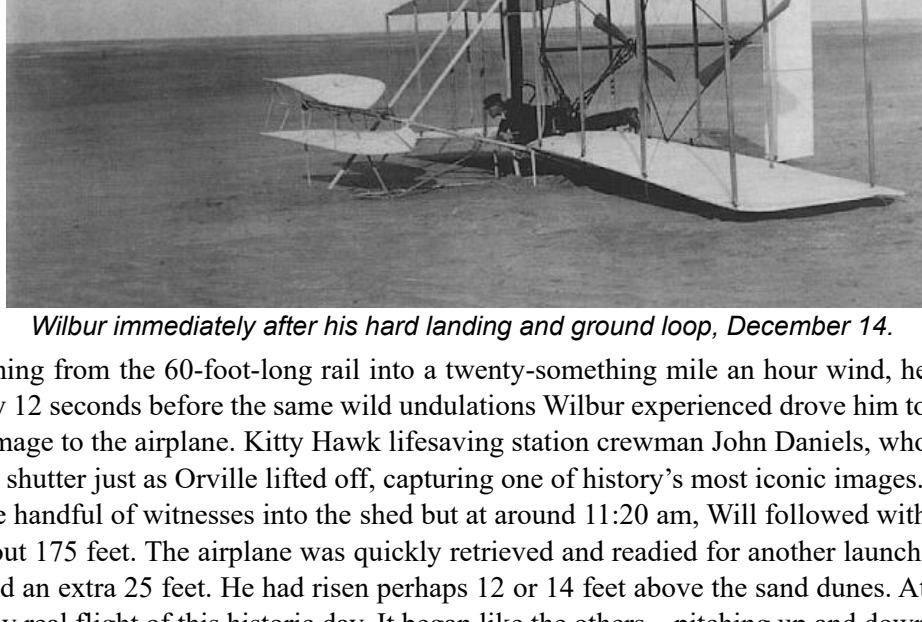
"What! Are you nuts?" Maybe, but don't call for the strait jacket just yet. The 1903 Flyer certainly deserves to be venerated as the first machine to "have raised itself by its own power into the air in full flight, had sailed forward without reduction of speed, and had finally landed at a point as high as that from which it started." But we maintain that its influence was actually rather limited. A brief review of the Wright brothers' efforts prior to the 1903 flights and subsequent refinements of their design will help explain.

They began experimenting with biplane kites in 1899, then constructed a full-size version which they took to the coastal dunes near Kitty Hawk, North Carolina, in the fall of 1900. They had hoped to spend several hours in the air, but the constant winds they counted on proved to be terribly variable, and the lifting power of the wings well below what they had calculated. In the end, only 10 minutes or so were spent airborne in the machine as a tethered kite, with maybe another two in free flight. But they were sure that with their "wing warping" system the operator could keep the apparatus level in flight—a difficulty which made the "hang glider" types of Lilienthal and others so deadly. In two more seasons at Kitty Hawk, other aerodynamic gremlins were discovered and overcome. By the end of the 1902 session, the brothers had made over a thousand successful glides, the best lasting 26 seconds and covering more than 600 feet. They were clearly on to something.

### Making History

Back in Dayton, the two commenced construction of a powered version of their glider, and began work on propeller design. Finding no suitable motor, they collaborated with mechanic Charlie Taylor to build their own. Sure of success and desiring to protect their intellectual property, they applied for a patent (initially rejected) on March 23, 1903. Late September found them back at Kitty Hawk. The 1902 glider, modified closer to the powered machine configuration, was flown for another 60-100 practice runs. By early November, the motorized "Flyer" was ready. Ground testing broke a prop shaft, delaying the first flight attempt for over a month.

The December 17 flights are so well known as to require only the barest recitation, but it is not always recognized that the initial attempt actually occurred three days earlier. Wilbur won the coin toss to determine who would have the first go. After being airborne for a few seconds, bobbing up and down for a little over a hundred feet, he overcorrected and stalled. The left wingtip struck the sand, skidding the plane into a ground loop that cracked several of the wooden components. Will was unhurt but the repairs would take a couple of days.



Wilbur immediately after his hard landing and ground loop, December 14.

On the 17th it was Orville's turn. Launching from the 60-foot-long rail into a twenty-something mile an hour wind, he managed to stay in the air for approximately 12 seconds before the same wild undulations Wilbur experienced drove him to ground 120 feet away, this time without damage to the airplane. Kitty Hawk lifesaving station crewman John Daniels, who had never before seen a camera, tripped the shutter just as Orville lifted off, capturing one of history's most iconic images.

The chill wind drove the brothers and the handful of witnesses into the shed but at around 11:20 am, Will followed with another 12 second run, this one making about 175 feet. The airplane was quickly retrieved and readied for another launch. Orville added another couple of seconds and an extra 25 feet. He had risen perhaps 12 or 14 feet above the sand dunes. At high noon, Wilbur took to the air for the only real flight of this historic day. It began like the others—pitching up and down uncontrollably. But after 300 feet or so, Will seemed to have gained a feel for the canard "front rudder." He nursed the Flyer along for 59 seconds before one of the dips nosed the skids into the sand. The distance travelled was measured as 852 feet. If the numbers are correct, that works out to a tad less than 10 mph ground speed. Given the obvious instability of the Flyer exhibited in the previous attempts, Wilbur's feat can be attributed as much to some incredible good fortune as to his nascent piloting skills.

There was the usual splintered woodwork, but the Flyer was deemed repairable. Then nature, which to that point had aided the brothers' efforts, suddenly turned. A gust of wind flipped the machine topsy turvy. "The ribs in the surfaces [wings] of the machine were broken," Orville noted, and "the motor injured and the chain guides badly bent, so that all possibility of further flights with it for that year were, at an end." In fact the 1903 Flyer never flew again. Over the years, the wreckage was reassembled and, after several restorations, now resides in the newly remodeled National Air and Space Museum's downtown Washington, D.C. location.

### Back to Dayton

The casual history buff could be forgiven for assuming that after the historic 1903 flights, the Wright brothers returned to Ohio and simply took up where they'd left off at Kitty Hawk. Far from it. They had invented the airplane, but they did not yet know how to fly—and now they had no machine upon which to learn. The spring of 1904 was devoted to construction of a second Flyer, essentially a copy of the 1903 model with stronger skids and slightly modified airfoil. For their experimental flying field the Wrights arranged to use a cow pasture a few miles outside town, where they erected a combination hangar/workshop.

Flights, when they could be made, were disappointing. Smash-ups were the rule, not the exception, with the damage often taking days or weeks to repair. Nevertheless, there were a few good days. On August 13, Wilbur bettered the distance of the final December 17 flight at Kitty Hawk. But unlike coastal North Carolinian, the winds at Dayton were unsteady in both direction and velocity. The 60-foot track proved totally inadequate. Longer ones fared little better, and uprooting and relaying of the track in hopes of aligning with a suitable headwind was frustrating and exhausting.

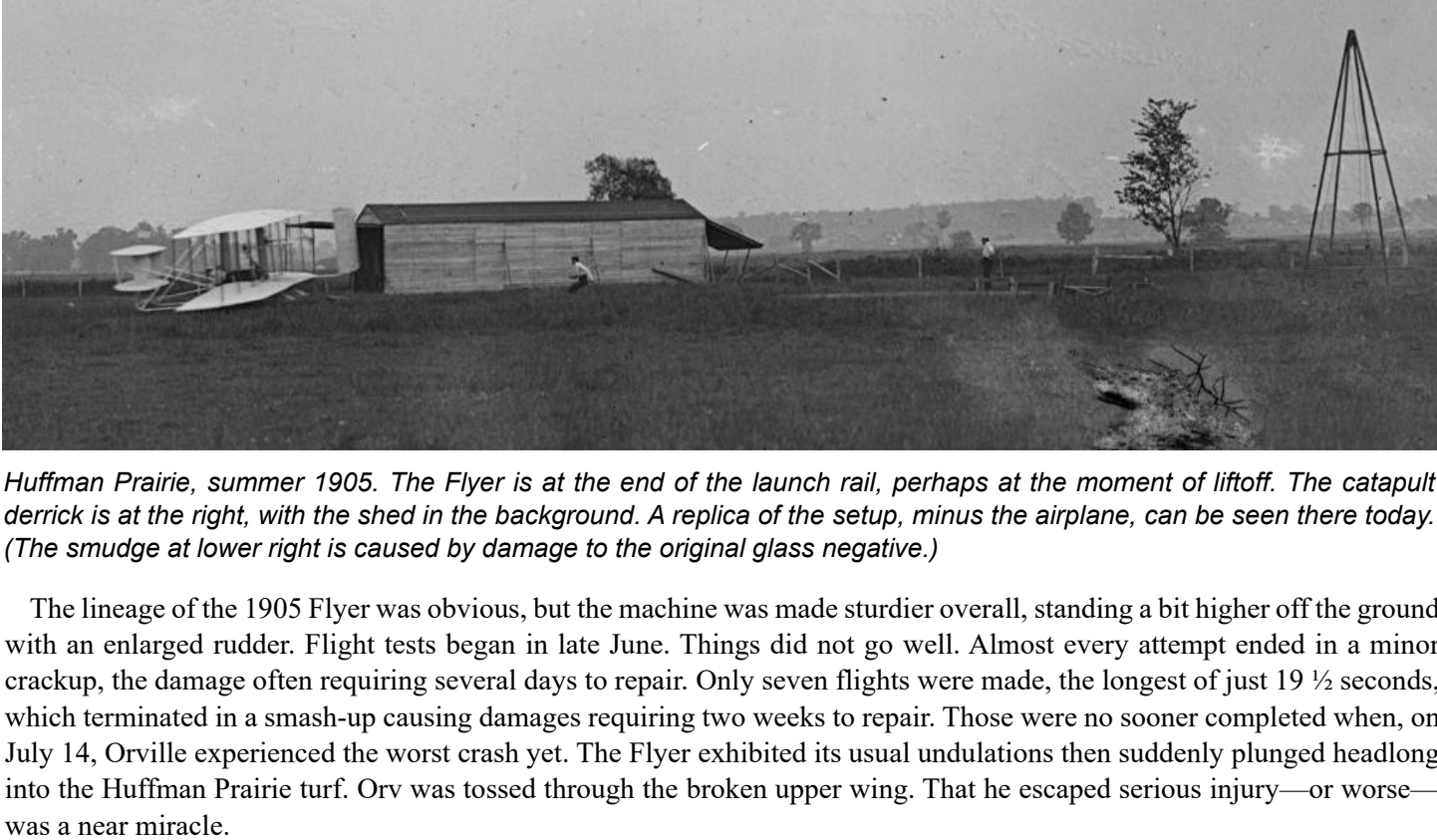
That particular difficulty was overcome by employing a crude but effective catapult; a 20 ft. tall derrick within which a one thousand-plus pound weight could be hoisted. A system of pulleys connected a cable from the weight to the front of the Flyer. When the weight dropped, the Flyer would be snatched down the launch track and into the air. Freed from dependance on capricious winds, takeoffs could be made as desired. The first was on September 7. On the fifteenth, Wilbur flew for a fraction of a second less than an minute and made a half-circle, another first. On September 20, nine months and fifty tries later, he finally broke the 59-second record of the fourth and final flight at Kitty Hawk—and flew a complete circle in the process.

Flight times of a minute or more became almost routine, and by December both brothers had stayed aloft for more than five minutes. For the year, they had attempted 105 flights, not all of which managed to get airborne. Those that did were all made within the confines of Torrance Huffman's pasture, which meant distances traveled were only rough estimates. But the Wright brothers knew they were on the threshold of truly realizing the age-old dream of flight.

### A Practical Aircraft

As they closed out the 1904 flying season, the Wright brothers knew they were on the verge of developing a fully controllable aircraft that could be reliably flown in any decent weather, transforming their invention from a scientific first into a paying proposition. Some sort of airborne military scout was a logical proposition, and in early January 1905 they contacted their district Congressman, who offered to steer a proposal to the War Department. The British government thought enough of the idea to send a representative to Dayton to investigate. When the U.S. War Department's response proved to be less than enthusiastic, the Wrights offered to sell a Flyer to Britain. For the moment, no further action resulted from either quarter.

The next step would be to construct an airplane capable of demonstrating whatever claims might be made for it, although the brothers had no intention of revealing the details of their invention. The engine, propellers, and certain other components of the 1904 machine were salvaged for use in the new model. The remains were scrapped and burned.



Huffman Prairie, summer 1905. The Flyer is at the end of the launch rail, perhaps at the moment of liftoff. The catapult derrick is at the right, with the shed in the background. A replica of the airplane, can be seen there today. (The smudge at lower right is caused by damage to the original glass negative.)

The lineage of the 1905 Flyer was obvious, but the machine was made sturdier overall, standing a bit higher off the ground with an enlarged rudder. Flight tests began in late June. Things did not go well. Almost every attempt ended in a minor crackup, the damage often requiring several days to repair. Only seven flights were made, the longest of just 19 ½ seconds, which terminated in a smash-up causing damages requiring two weeks to repair. Those were no sooner completed when, on July 14, Orville experienced the worst crash yet. The Flyer exhibited its usual undulations then suddenly plunged headlong into the Huffman Prairie turf. Orv was tossed through the broken upper wing. That he escaped serious injury—or worse—was a near miracle.

The lengthy rebuild was significant. The elevator surface area was increased by 60% and moved forward more than four feet from the leading edge of the wing. Summer rains brought further delays, but in August testing resumed. There were bugs to be worked out, but on August 28 Wilbur circled the field then landed at the takeoff spot. A week later, Orville gave an encore performance, making four circuits. Longer duration flights followed, and on September 26 Will stayed aloft for a little over 18 minutes. A few days later Orv topped that by a minute, coming down only when the fuel tank ran dry. Times increased almost daily. On October 5, Wilbur circled Huffman Prairie for a half-minute less than an hour—longer than their 1903-1904 flights combined. It had taken almost two years from the historic flights at Kitty Hawk, but the Wright brothers now possessed a practical airplane and knew how to operate it.

✎ To be continued ✎

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