

FLIGHTLINE

Newsletter of the American Aviation Historical Society



No. 25-09



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As noted in No. 25-07, your editor will be on the road when this number is posted. In order to maintain continuity in *FlightLine* delivery, what you're reading now was created a couple of weeks ago and stowed for future release. This issue ends with 3 aviation centennials this year: Pratt & Whitney, Fairchild and Travel Air, plus....

We were able to do this without much effort on our part, thanks to some unexpected but most welcome input from Richard Harris. Mr. Harris, who has written several articles for the *AAHS Journal*, has an extensive aviation-associated background, including chairing the [Wichita Aviation Centennial](#) Committee, 2016-2017, and the Kansas Aviation Centennial Committee, 2011-2012. (For a complete listing of Mr. Harris's credentials, [click here](#).)

Mr. Harris discusses several aircraft that he considers to be among the most *important* in history—and why.

As he notes, his choices may “reasonably diverge” from our list of most *influential* aircraft, which is still in a very incomplete form.

Divergent, convergent, or diametrically opposed, we're happy to have the input! Somewhere out there in Readerland there must be folks with their own ideas on the most important, or influential—or maybe overrated—aircraft in history.

So don't be shy. Tell us about your picks in whatever category. If you'd like to remain anonymous, we'll respect that. Give us a cyber shout at Flightline@aahs-online.org. Meanwhile, keep cool, keep hydrated, and keep enjoying aviation history! See you in September.

~ Joe Martin
AAHS *FlightLine* Editor

Mr. Harris's message is reproduced below in its entirety:

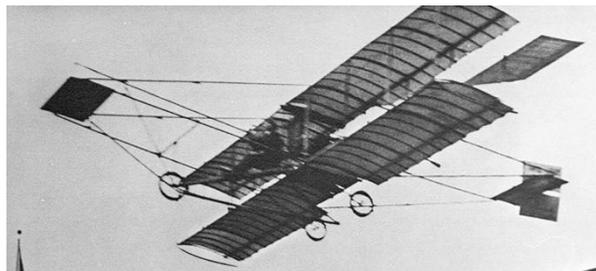
I strongly concur with your declaration of **J.A.C. Charles' first hydrogen balloon** as the first such "influential" aircraft. While the Montgolfiers' hot air balloon preceded it (slightly), *hot-air* ballooning (rightly or wrongly) was generally regarded as more hazardous (and less reliable) than *hydrogen* ballooning, resulting in hydrogen-lifted aircraft utterly dominating for the first century of modern manned flight (prior early manned kites and other obscure oddities not being counted).



As to the first **Wright Flyer and its kin**, I'll concede they showed the necessary combination of elements for fully-controlled flight (though there's ample evidence to argue that the original Flyer wasn't really all that controllable -- its first day of flight ending in total disaster; the

Wrights' later models flown in exhibition were decisively more credible). (Library of Congress photo)

In America, though, the early **Curtiss pusher** (and his later "**headless Pusher**") spectacularly outclassed all Wright products, and were bought or imitated by aviators nationwide, quite reasonably shoving the Wright Flyer off the American stage into oblivion. (National Park Service photo)



But the greater influence, ultimately, was in the **Bleriot XI** -- a plane infinitely superior to the Wrights', and influential in a host of ways that sorted out the basic design of modern airplanes: an air-cooled "tractor" (pulling) engine, with a direct-drive propeller bolted to the crankshaft, pulling a pilot in an enclosed cockpit within a tapered fuselage that ended in a rudder-and-elevator empennage, conventional landing gear, and -- ultimately, in later incarnations -- ailerons in place of troublesome wing-warping. It had a practical form of stick-and-rudder-pedals for its flight controls, a general concept soon common and essential to safe flying. (USAF Museum photo)



The Bleriot's monoplane (instead of biplane) wing configuration wouldn't dominate for decades, and its positive-lift elevator would be obsoleted by the modern negative-lift elevator, once the concept of aerodynamic stalls was understood. But, overall, no other aircraft was so completely right, sound and practical, and globally future-shaping, as the Bleriot XI. Small wonder it was the first aircraft mass-produced (a thousand Bleriotics, and countless knock-offs).

I itemized the Bleriot, and the **DC-3/C-47** (which you also cited as an historic, pivotal influence, as do most historians), in my online series "8 Great Aircraft: The 20th Century's Most Important Aircraft" at <https://harris1.net/hold/av/avhist/a8/a8.htm>. In it, I detail the other 6, as well: (USAF photo →)



• **Airco/deHavilland DH-4:** A top bomber of WWI, the foremost catalyst of America's aviation manufacturing industry (where it was license-built during WWI, and provided the platform for the important Liberty engine), one of the first substantial bombers, the basis of the interwar spread of air power beyond the major nations, and the primary workhorse of initial commercial aviation in the U.S. and abroad. (USAF Museum photo)



• **Piper Cub:** The plane that made aviation widely accessible, affordable and popular (a trend started, less effectively, by Santos-Dumont's widely copied **Demoiselle** at the start of the century, then by the **Aeronca C-2** just before the birth of the more commercially successful, conventional, and influential, Cub). By its affordable ubiquity, it was the principal (if unofficial) primary flight trainer (for both civilian and military pilots) for a generation, in the U.S., and -- to a lesser extent -- abroad -- greatly expanding global aviation. (R.Harris photo)

• **deHavilland Moth family:** A continuum of biplane aircraft little different from each other (except the monoplane Puss Moth), culminating in the military-trainer Tiger Moth. These planes spread practical aviation throughout the Old World as surely as the Curtiss Jenny and Piper Cub, in their heydeys, did throughout the New World. (USAF Museum photo)



• **Supermarine Spitfire & its immediate predecessors -- the Supermarine seaplane racers.**

The seaplane racers were the proving ground for the most important engine of World War II in Europe: the Rolls Royce Merlin, which gave a decisive performance edge in air superiority to the most important British and American fighters, and the best British bombers, as well. And the Spitfire, a modern metal semi-monocoque derivative, was the Merlin



engine's most decisive application: the plane that (aided mightily by Merlin-powered Hawker Hurricanes) halted Hitler's westward advance, while isolationist America twiddled its thumbs. (Steven Alexander photo)

NOTE: It can be reasonably argued that the water-cooled Merlin was only briefly relevant, during that war where impractical-but-powerful engines, decisive in combat, were embraced with desperate urgency. Water-cooled aircraft engines almost entirely vanished after the war, for practical reasons.



• **Sikorsky R-4 Helicopter:** The first "production" helicopter that provided proof-of-concept of the helicopter design concept that would shape most helicopters thereafter: Single main rotor (with flapping and swinging rotors, controlled in pitch and roll by rotor-disk-maneuvering joystick and collective-pitch control), anti-torque tail rotor, and enclosed fuselage. (USCG photo)

While it's a design concept seemingly obvious, today, and as ubiquitous as the conventional airplane configuration of the Bleriot XI, like the Bleriot it clarified and set the main design standard for aircraft of its role, in a time when countless wildly different configurations were appearing. (U.S. Coast Guard photo)

• **Space Shuttle:** A rocket-launched glider, the first "practical," truly re-usable and livable, space transport, facilitating truly extensive human activity in space.

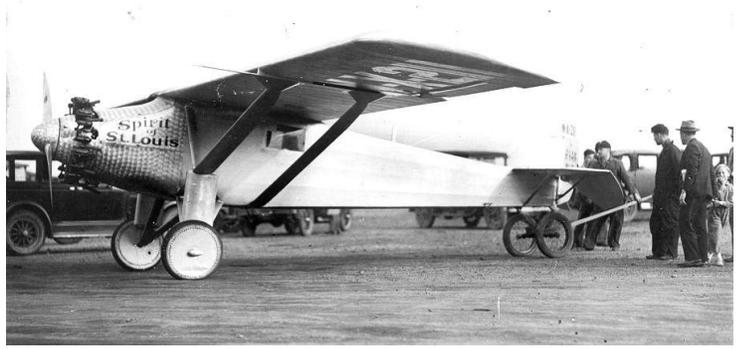
NOTE that these aircraft were each SINGULARLY influential or important, and thus listed. Many other important aircraft (e.g.: Ford Tri-Motor, Ju-87, B-17, 707, DC-9) were part of a trend or well-established concept, for which other viable aircraft existed or shortly emerged, and thus not *singularly* irreplaceable in their *direct impact* on world affairs. However, each MAY have been an eminently *influential* craft, driving those trends or initially validating those concepts. So my list of the most *IMPORTANT* aircraft may reasonably diverge from your list of the most *INFLUENTIAL* aircraft.



(NASA photo)

Though not on my "most *IMPORTANT*" list, two monoplanes had exceptional *INFLUENCE* on the switch from biplanes to monoplanes:

1927 Ryan NYP ("New York to Paris") -- "*The Spirit of St. Louis*" -- of Charles Lindbergh ...which finally fully validated the safety and superior efficiency of monoplanes, in the most famous airplane of the era, the plane in which Charles Lindbergh crossed the Atlantic -- New York to Paris -- alone. The audacious, extraordinary flight -- the "moon shot" of its era -- stimulated an explosion in the world's interest in, and enthusiasm for, aviation. And it finally made clear the superiority of monoplanes over biplanes.



(Library of Congress photo)

--- AND ---

1929 Travel Air Model R "*Mystery Ship*" ...which established the superior speed and efficiency of monoplanes, especially for military aircraft, in the 1929 National Air Races, during the Thompson Trophy (pylon) race, becoming the first civilian plane to defeat the U.S. military's more powerful biplanes. It awoke a sleeping U.S. military establishment from biplanes.



(Youngkin replica of the *Mystery Ship*; R.Harris photo)

~ Respectfully, Richard Harris

NEWS BITS:

This year, 2025, is the 100th anniversary of at least 3 major formative players in 1920s American aviation, all of whom have some present-day presence, or echo, in aviation:

- **Pratt & Whitney**
- **Fairchild Aircraft**
- **Travel Air**

PRATT & WHITNEY



Foremost among them is engine-maker **Pratt & Whitney**, who bested Curtiss-Wright's pioneering radials a leap farther, into the most powerful production piston aircraft engines of all time, then cutting-edge turbine powerplants, many powering global flight today. From Boeing airliners, to Douglas transports to Grumman fighters, SR-71 to 747, to today's jumbo jets and supersonic stealth combat aircraft, Pratt & Whitney has long been one of the most popular, important and trusted names in aviation engines.

FAIRCHILD

In the 1920s, Sherman Fairchild, an enterprising Harvard freshman, invented a camera that synchronized flash and shutter. His subsequent designs included cameras uniquely suited to the emerging field of aerial photography. Frustrated with the available aircraft, he developed his own, the FC-1 cabin monoplane



which had windows well arranged to facilitate aerial photography. An improved model, his stout FC-2 (previous page, left) proved



not only useful for aerial shutterbugs, but for a wide range of aircraft

applications. It was the beginning of an aviation powerhouse.



high-wing and low-wing -- sport biplanes, wartime trainers (think PT-19 Cornell, above right), and iconic postwar transports (think C-119 Flying Boxcar, above left, and C-123 Provider); helicopters (Fairchild-Hiller FH-1100), and industry-shaping turboprop airliners (Fairchild/Fokker F-27/F-227, and Fairchild-Swearingen Metro, left).



In a merger with legendary-but-struggling fighter factory, Republic Aircraft, Fairchild

finished with the deadly A-10 Thunderbolt II ("Warthog") attack jet (right). (See: "[Celebrating 100 Years...](#)" *General Aviation News*, June 27, 2025) (photos: Bureau of Aircraft Accidents Archives, Canada; USAF, NRO & U.S. Navy)



TRAVEL AIR

(R.Harris photos)

This is also the **Travel Air** Centennial year. While most Americans have never heard of Travel Air, and even most people in aviation are unfamiliar with it, the names of its founding trio of aviation icons -- Clyde Cessna, Walter Beech and Lloyd Stearman -- are legends today. But, as a team, they built the highest volume maker of civilian airplanes in the Roaring 20s. In the mid-to-late 1920s,



Travel Air's popular, industry-leading, record-breaking, trend-setting aircraft -- open-cockpit biplanes, cabin monoplanes, mini-airliners and race planes (see "*Mystery Ship*," blurb, page 4) -- did much to transform American aviation, before Cessna, Beech and Stearman went their separate ways in Wichita, each a legend in their specialties.

The Wichita trio's combined factories, by 1928, outpaced every other city in the nation in total planes produced -- earning Wichita the semi-official title "Air Capital City" from the industry's trade organization, the Aeronautical Chamber of Commerce (today's Aerospace Industries Assn.). Wichita's claimed the title ever since. (For more, see this [Centennial article](#) by AAHS contributor [Ed Phillips](#). He's **THE** expert on Travel Air.)

The Fairchild and [Travel Air](#) Centennials were [commemorated](#) at EAA AirVenture in Oshkosh, this year, and several of their vintage aircraft, restored and flying, appeared. Many won [key AirVenture awards](#). ~RH