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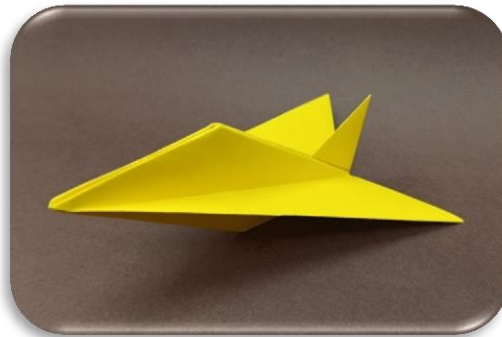
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Fun Facts

- Everyday 2.9 million people fly over American airspace and are carried by over 45,000 aircraft.
- America has over 14,000 Air Traffic Controllers for their 520 control towers and 21 air route traffic control centers.
- Post-its started as Spencer Silver's attempt to create a strong adhesive for aircraft construction. He failed, but created a weak adhesive that was able to stick paper together. Arthur Fry created the idea of a sticky bookmark (the post-it), using Silver's adhesive.



This Month in Aviation History

- On March 8, 1949 – A nonstop flight of 56 hours and 2 minutes places Captain William Odom in the record books. Leaving Honolulu, Hawaii, he flew 4,957.25 miles before landing in Teterboro, New Jersey to gain the world record in Class C-1-c for light aircraft.
- On March 10, 1910 – In Argentina, the first flight at night is made by Frenchman Emile Auburn on a Bleriot airplane. Auburn makes two flights in the dark, each about 20km from Buenos Aires and back again.
- On March 29, 1951 – Flight Safety Inc. begins operations at the Marine Air Terminal at LaGuardia Airport, NY with just one secretary and rented late night hours on a Link trainer simulator.

Part 1: Hangar Direct: Aviation's Airbnb

It all started when Trenton Ray flew a Cessna Citation to Minnesota. He was in the middle of a thunderstorm in the early spring, and knew hail and tornadoes were extremely common in these types of storms. Little did he know, it would be an incredibly hard task to find a hangar to park the plane overnight. Ray began frantically calling FBOs to find temporary hangar space, and after too many calls, Ray finally found an FBO willing to let him use their hangar – for \$1,000 a night. In fear of hail damage and potentially a tornado, Ray decided to bite the bullet and pay for the hangar.



It ended up hailing later in the night, and Ray prevented the hail from damaging the Citation. Ray sent the bill to the owner of the aircraft he flew, but the owner refused to pay it due to the steep price the FBO charged. Trenton Ray then decided that something needed to change in the search for temporary – and long term hangar space.

His wife was a realtor, so together they started searching for sources pilots could use to find temporary hangar space. The only source was Facebook Marketplace, an unlikely and relatively unknown option. Ray and his wife researched the market for an entire year and realized that there needed to be a better solution to this problem. They created the solution: Hangar Direct.

Hangar Direct is Ray's version of Airbnb, but for only Aircraft. Hangar owners could rent their space for short-term or long-term use, and pilots would be able to easily find cheap hangar space. Hangars can be reserved in advance, as soon as the night before. Each hangar has its own check in time, and hangar owners can list their hangar in just a few steps. Owners have the power to accept or deny anyone who reserves their hangar.

Trenton Ray has pledged 5% of his 15% profit from every rental to Airplanes and Coffee, a Texas non-profit that has monthly fly-ins, offers Discovery flights, and grants flight scholarships. For Ray, community is a very important part of his vision for Hangar Direct, and he already has taken advice from fans, such as adding the monthly rental option.



Hangar Direct launched on December 18, 2023. As of March 18th, there are about 10 hangars available for rental. You can find the website at: <https://www.hangardirect.com/>. Prices range from \$50 a night in Pahrump, NV (74P) to \$100 a night in Fort Worth, TX (FTW). The site also provides monthly rentals, ranging from \$700 in Bend, OR (BDN) to \$5,400 in Ocala, FL (OCF). Although some airports forbid tenants to sublease hangars due to local laws and regulations, there are many airports where Hangar Direct can be extremely beneficial, and for the hangars currently on the site, this is definitely the case.

<https://generalaviationnews.com/2024/02/28/airbnb-for-hangars/>

Part 2: FAA's New Surface Safety Tool: Approach Runway Verification (ARV)

The FAA has recently announced it is launching a new surface safety tool, called Approach Runway Verification (ARV), at air traffic control towers across the nation to improve safety at airports.

ARV furnishes controllers with both visual and audible alerts if an approaching aircraft appears to be aligned to land on an incorrect part of the airport surface or even at the wrong airport altogether.

As aircraft approach the airport, controllers issue landing clearances for specific runways. Despite pilots believing they are aligned with the correct runway, they might unintentionally line up with an adjacent runway or a taxiway. ARV promptly notifies the controller if the aircraft's alignment doesn't match the instructed runway surface.

On March 14, 2024, the Austin-Bergstrom International Airport (AUS) received ARV, making them the 13th airport to receive this new surface safety tool. The FAA has stated it will continue to install ARV at other facilities across the nation throughout the rest of year and into 2025.

The FAA has identified 19 serious runway incursions in 2023, the highest since 2016.

"A safe National Airspace System begins and ends on the airport surface," said FAA Administrator Mike Whitaker. "Providing controllers with tools such as Approach Runway Verification will improve their situational awareness of the airport surface, which is paramount to improving safety."



<https://www.yahoo.com/news/austin-airport-gets-tech-improve-170610402.html>
<https://airportindustry-news.com/faa-deploys-surface-safety-technology-at-us-airports/>

Part 3: The Largest Cargo Aircraft: Radia's Windrunner

The Windrunner, designed by Radia, an energy company, will soon be the largest cargo airplane. As the name suggests, it is designed to "run" large air turbine blades between private airstrips and wind farms. At 356 feet long, it has the potential to carry cargo up to 344 ft long and 24 ft in diameter (just about the length of an NFL football field). Pilots sit on top of the fuselage, as this aircraft has an elevated cabin with a flip top front. This aircraft has a maximum payload weight of 160,000 lbs, and a maximum range of around 1,200 miles. The wingspan spans 261 ft, and the volume of the cargo bay is about 272,000 cubic ft, which can hold three Olympic swimming pools worth of water.



The idea of this aircraft is that it's practical for use – this airplane is designed to not have to operate on a paved airstrip, but a semi-prepared one. It's meant for use on 6,000 ft airstrips, and typically smaller passenger airliners use strips 30-110% longer. As long as the airstrip is clear of rocks, bushes, trees, and other obstructions, the Windrunner can take off and land on it. Owners of wind farms can land this aircraft next to their blade manufacturing facility, load a blade in from the factory floor, takeoff, and crane up for installation right after the aircraft lands at the field. Blades are loaded into the front of the aircraft, and can be extracted the same way.

The impact of this aircraft has the potential to reduce the cost of clean energy by 35% by allowing larger turbine blades to be transported. These blades are too large for the road, and therefore not largely used. Long blades are extremely important for wind turbines, as the longer the blade is, the more energy the turbine produces. Radia raised 104 million dollars to create this aircraft and they believe that the Windrunner will be built, tested, and certified in about four years. The Windrunner will dwarf the former largest cargo airplane, the Antonov An-225 Mriya (276 ft), which was destroyed in 2022 in Ukraine.



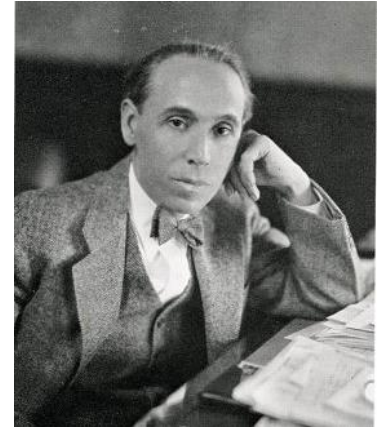
<https://newatlas.com/aircraft/worlds-largest-aircraft-tradia-windrunner/>
<https://www.cnn.com/travel/windrunner-biggest-plane-in-the-world/index.html>

Part 4: Important Aviation Person: Giuseppe Mario Bellanca

Giuseppe Mario Bellanca

Giuseppe Mario Bellanca was born on March 19, 1886 in Sciacca, Italy. At a young age, he showed interest in theory of flight; experimenting with homemade kites and watching the effect of air currents on discarded pottery fragments.

After graduating with a degree in mathematics from the Milan Technical Institute in 1908, he helped design a "pusher" aircraft, similar to the Wright Flyer. On December 8, 1909, this aircraft made one of the first flights by an Italian-designed and built machine.



Giuseppe continued to explore his newfound love of aircraft design with a "tractor-type" aircraft (never flown due to insufficient funds for an engine) and a third design, a "parasol monoplane." With the urging of his brother Carlo, he immigrated to America in 1911 and proceeded to teach himself to fly on the parasol monoplane. When he became confident enough with his own flying, he then operated the Bellanca Flying School from 1912 to 1916 to teach others to fly.

In 1916, the Maryland Pressed Steel Company recruited Giuseppe to design a training airplane. The result was the CD, a neat single-seat biplane powered by a 30-hp Anzani engine that used wing-warping instead of ailerons for lateral control. However, before the aircraft could be built, the company went bankrupt.

Under the financial backing of a local motorcycle dealer named Victor Ross, Giuseppe was able to construct a radical new airplane design featuring an enclosed cabin, the CF monoplane. This aircraft later named, Bellanca CF, first flew on June 10, 1922 and was called "the first up-to-date transport aeroplane that was designed, built, and flown with success in the United States" by the aviation publication, *Jane's All the World's Aircraft*. Despite its advanced design, the Bellanca CF was too expensive to compete with the economics of the time, and never went into mass production.

In 1925, Giuseppe worked for the Wright Aeronautical Corporation of Paterson, NJ to design the Wright-Bellanca WB-1, a cabin monoplane with a top speed of 132 mph. After the WB-1 was wrecked in a landing accident, Giuseppe developed what was to become the iconic WB-2, powered by a 220-hp J05 Whirlwind and incorporating a tubular-steel fuselage instead of wood. When The Wright Aeronautical Corporation decided against putting the WB-2 into production Giuseppe left and joined the Columbia Aircraft Corporation, taking this WB-2 designs with him.

Charles Lindbergh became a fan of the WB-2 stating: "In a Bellanca filled with fuel tanks, I could fly on all night, like the moon. With the engine throttled down it could stay aloft for days."

In 1927, Giuseppe started his own company called, Bellanca Aircraft Corporation which specialized in making executive private planes. In 1928, Giuseppe along with Henry B. DuPont, built an airfield, aircraft plant, and service hangar in New Castle, Delaware.



From its early years, Bellanca Aircraft Corporation made a name for itself for innovative solutions, cutting-edge technology, and creating planes with elegant art deco designs. For the next half-decade, Bellanca airplanes such as the Skyrocket established numerous world records for endurance and distance flying. A Bellanca Pathfinder made the second transatlantic flight, flying from the United States to Spain and then on to Italy. Over the course of its notable history, the Bellanca Aircraft Corporation had 19 original designs and produced over 10,000 airplanes. In 1954, Giuseppe sold his company to L. Albert and Sons.

On December 26, 1960, at the age of 74, Giuseppe Mario Bellanca succumbed to leukemia. His son, August Bellanca, donated his father's personal and professional papers to the National Air and Space Museum Archives. In 1973, Giuseppe Bellanca was inducted into the National Aviation Hall of Fame.



An epitaph was written in the May 1933 edition of *Aero Digest*, which declared, "Among the imports from Italy that have made life more agreeable in America are olives, olive oil, spaghetti, anchovies and Giuseppe Mario Bellanca; a pilot, airplane designer and builder, and outstanding American citizen."

According to aviation historians Alan and Drina Welch Able, "Giuseppe Mario Bellanca did more for general aviation than any other person during aviation's first 100 years."

<https://airandspace.si.edu/collection-archive/giuseppe-m-bellanca-collection/sova-nasm-1993-0055>

<https://www.historynet.com/outstanding-american-citizen/>

<https://aviationhistorymuseums.com/blog/2021/10/2/the-bellanca-airfield-museum-delaware-amp-the-warbird-airplane-museum-idaho>

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