

## History of Vought Aircraft Industries Retiree Club and Vought Aircraft Heritage Foundation

Chance Vought Aircraft, the second oldest aviation company in the industry, was founded in 1917. As leaders in aerospace for almost 90 years, companies using the Vought name have held a respected position through various leadership and ownership changes. Northrop Grumman acquired the Vought Aircraft Company in 1995, operating it as a division of the larger company, without retaining the Vought name.

A group of "Vought Survivors," already dedicated to preserving the Vought heritage, started taking aggressive action in 1996 when they became aware that stored Vought archives, which contained thousands of boxes of historical, scientific and related material, were in danger of being lost.

Meetings with Northrop Grumman management resulted in rescue and preservation of heritage material. Both parties recognized the need to maintain a Vought identity and established the NG "Vought Retiree Club." Funding was provided not only for many social activities but also for the following programs:

- A world-class web site was created. It reflects the Vought heritage with over 1,000 pages of written material and more than 1,500 photographs.
- A Restoration Group of retirees searched for and found Vought-produced artifacts. These items were restored to museum quality by retirees at the Dallas Vought facility. Thus far an A7B, RF8G, F8U-2, F7U-3 and the Regulus II, on loan from the US. Navy, are in various completion statuses of the restoration cycle. Based on demonstrated capability and the quality of our restoration workmanship, the Navy has now given us contractual authority to display our artifacts in museums of our choice.
- Two years of negotiations with the Smithsonian's National Air and Space Museum resulted in return of our "V-173 Pancake," which we are restoring and will have on display when completed.
- The 1917 "VE-7 Bluebird" has been built completely from scratch. This is a wooden, fabric-covered biplane that represents Chance Milton Vought's first production aircraft. This task involved engineering new blueprints, fabricating wooden parts, gluing assemblies and covering with fabric.

In July 2000, the Vought name regained international recognition when the aerostructures business of Northrop Grumman was purchased by The Carlyle Group and became an independent company, Vought Aircraft Industries, Inc. (VAII).

Despite our many accomplishments as a heritage organization, we had not yet been able to acquire our Vought centerpiece, the F4U Corsair. Funds, which were allocated by the company, were insufficient to purchase a non-flyable structure for restoration.

This led to creating a task force to locate F4U hardware and finding funds to make it happen. In 2003, with the help of VAII, we established the Vought Aircraft Heritage Foundation (VAHF), an independent 501(c)(3) corporation. This allows us to seek tax-deductible donations to fund VAHF, which is operated by an independent Board of Directors.

Through our world-class restorations we have demonstrated that we can preserve much of the Vought heritage. The A7B, RF8G and the Regulus II are now part of the Vought display in the new Frontiers of Flight Museum at Dallas Love Field. Our families and future generations are now able to view these artifacts, with more to come at this and other museums.

The history of aviation is the story of man's continual struggle to fly faster, higher, farther and safer. Human flight, which began with the Wright brothers in 1903, followed by the Apollo manned flight to the moon in 1969 and the space shuttle's first flight in 1981, are the paramount achievements of the twentieth century. The Wright Brother's first successful heavier-than-air powered flight at Kitty Hawk, North Carolina on December 17, 1903 went mainly unnoticed by the world. Newspapers would not publish the story until A.I. Root, a close friend of the Wright brothers' and owner of the A.I. Root Company, maker of candles, published the first account of the historic flight in the monthly farm magazine, "Gleanings in Bee Culture." Even though Chance Vought was only 13 years old in 1903, we chose to begin the story of this aviation pioneer with the Wright Brothers' first flight. Chance Vought worked for Harold McCormick as an engineer from 1909 to 1912. He was associated with William S. Romme in the design of the McCormick-Romme Umbrella airplane which first flew on March 11, 1910. By 1912, Vought had learned to fly, and in 1913 he played a major role in the design of the Lillie biplane. The first complete Vought airplane design was the PLV, which first flew in August 1914, followed by the Mayo-Vought Simplex in May 1915. In 1916, Chance Vought became chief engineer of the Wright Company of Dayton, Ohio and designed the Wright-Martin V which first flew in September 1916. When the U.S. entered World War I in 1917, Chance Vought decided to form his own company to take advantage of the aviation opportunities presented.



### **McCormick - Romme Cycloplane - "Umbrella Plane"**

In aviation's earliest days there was no preconceived ideas on how an airplane should look, and often strayed from the biplane configuration proven by the Wright Brothers. Because of shortcomings of the Wright machine, and the patents controlled by the Wright Brothers forced other designers to use radically different designs. One of these pioneer machines was the McCormick – Romme Cycloplane of 1911 with its spoked-wheel platform, stalky undercarriage, unprotected pilot at the center, and the propeller driven by long shaft from the centrally mounted engine. Like most early airplanes of these times, constant changes were made to correct problems. At least seven different configurations of the Cycloplane are known

Harold F. McCormick, of the harvesting machine manufacturing business, and millionaire, John D. Rockefeller, Jr. decided, about September 1910, to support the aircraft design ideas of, a New York inventor, William S. Romme. In 1910 Romme had won a design contests first prize, for length of flight, stability and originality, with an unusual circular-shaped model monoplane. It was this model that Romme hoped to develop into a full-scale airplane and override the



Wright patents on the airplane. McCormick and Rockefeller formed a corporation to exploit the Romme designs.

With McCormick's financial backing work continued at Mineola, Long Island. The first monoplane was wrecked by wind in November 1910. Plans were immediately made to rebuild the plane in the south. In April 1911 a monoplane built in Belmont, New York and given some preliminary testing was now in San Antonio, Texas. While running the plane over the ground, it struck a rut, was turned over by the wind and badly damaged. Romme escaped without injury. Besides the McCormick – Romme contingent other civilians using the San Antonio flying area near Fort Sam Houston were the Max Lillie flying school from Chicago. Lillie's mechanic and the McCormick – Romme group with the help of some soldiers, set the plane



on a two-wheeled cart and returned it to its hangar. After this fiasco, little further progress seems to have been made, probably because of the wait for the Gnome engine. Meanwhile the Aero Club of Illinois completed a new 180-acre flying field at Cicero, just west of Chicago. The completion of this field and its facilities were all that was necessary for McCormick to move his experimental work to Chicago. It was here that the McCormick – Romme machine was referred to as the "Umbrella Airplane" in the Aero Magazine. While the monoplane had been reported as McCormick's design, he recognized the need for skilled

engineers and mechanics to convert his and Romme's ideas into a practical airplane. He hired a young graduate of the Armour Institute, Sidney V. James. While he participated to some degree in all of the McCormick projects, he concentrated on the Mustard Plaster airplane concept, and specialized in propeller design and wrote extensively on the subject.

At the same time McCormick hired another engineer, fresh from the University of Pennsylvania, Chance Milton Vought. He guided the development of the Umbrella Plane through most of its entire career.

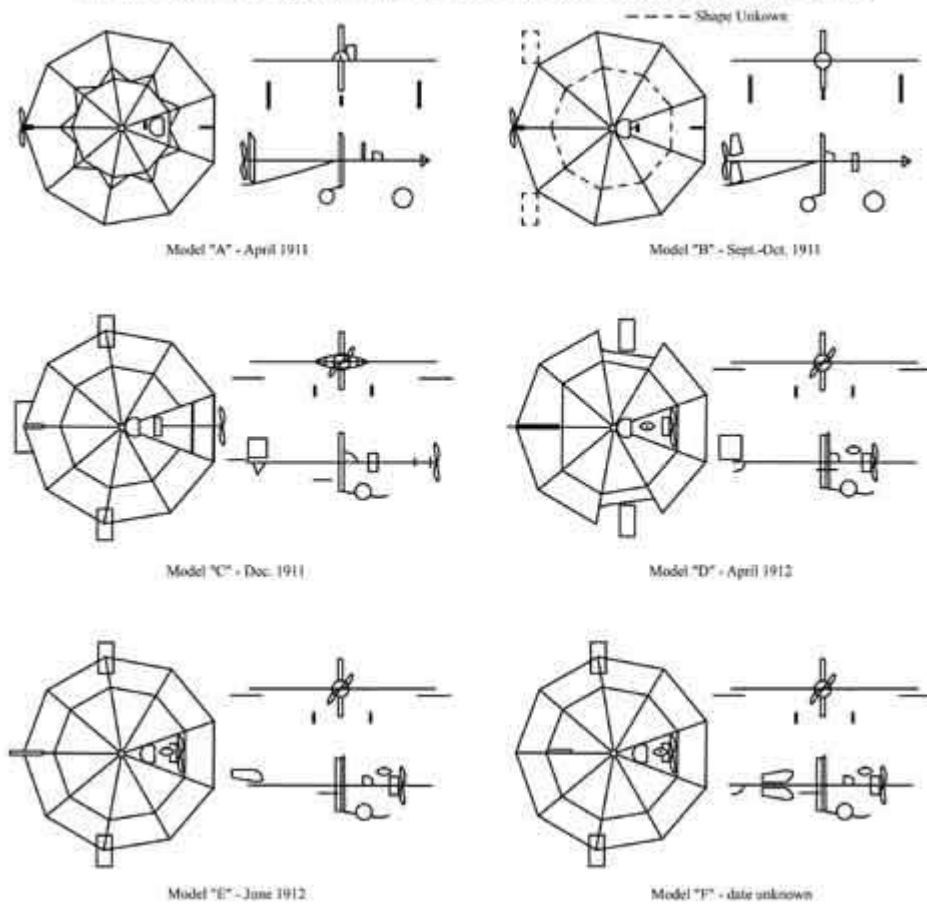
When the Cicero Flying field was officially opened on July 4, 1911, besides the McCormick monoplane (The Mustard Plaster) and the McCormick – Romme Umbrella Plane, eleven other airplanes were located here. By July 15, 1911, the two McCormick airplanes had their 50H.P. Gnome engines installed. On August 23, 1911, Romme made the first successful flight in the Umbrella Plane, reaching a height of 15 feet. Between the Texas accident and the July flight the Umbrella Plane was rebuilt. While the appearance was not significantly changed the modifications were very important, control wise. Movable control surfaces were installed on each side at the rear of the circular wing, rudders with greater cord replaced the two tall narrow rudders, and the triangular center projections on the wing were removed. The pilot now sat with his back against the center post and his feet straddling the cylindrical cowling surrounding the Gnome engine.

Experimentation continued until the fall of 1911, sometimes successfully. Problems continued with the Umbrella Plane. Exactly what Chance Vought's contribution was, is hard to define but he was the principal engineering talent behind the work, with help from several skilled mechanics in McCormick's organization.

In early 1912, the propeller was attached directly to the Gnome engine eliminating the long drive shaft, ribs were installed in some of the wing surfaces, ailerons were moved forward, the rudder was moved further aft, and the separate elevator was eliminated and replaced by warping the wing trailing edge. In April 1912, Andre Ruez, McCormick's test pilot allowed the Gnome engine to reach full power and as the speed increased, lifted the plane off the ground in a short hop straight ahead. During the next few days Ruel climbed higher and made longer flights until he reached a height of 30 feet after scores of flights. Several minor changes were made and flights continued in 1912. The last change moved the rudder forward to a position behind the center post with an inverted duplicate on the same shaft below the plane. In March 1913, Max Lillie made several circuits of the Cicero field, in the Umbrella Plane, which attracted an immense interest of the spectators.

What eventually happened to the plane is unknown, but it was discarded in 1913. Vought, in an early 1913-newspaper interview, stated the umbrella plane was a "freak", left the McCormick company and joined the Lillie organization. He had learned more with that "oddball" than could be measured. In late 1913 he became Technical Editor of Aero and Hydro Magazine.

**6 of the 7 known configurations of the McCormick - Romme "Umbrella Plane"**



**Model Name: Lillie-Vought BiPlane**



Max Lillie founded the Lillie Flying School at Cicero Field, Chicago. He passed a very superior brevet test to receive the first Expert Aviator certificate from the Aero Club of America.

Max Lillie, who also taught Vought to fly, needed an airplane better than a Wright pusher for exhibition flights at county fairs. Vought designed a tractor biplane to Lillie's requirement, which featured a 50-hp Gnome engine. The airplane's main feature was its staggered biplane wing. Its first flight was in 1913. Only one of these airplanes was built.



Speed:	50 mph (80.5 kph)
Span:	32.00 feet (9.75 meters)
Length:	24.25 feet (7.39 meters)
Height:	8.33 feet (2.54 meters)

**Model Name:** PLV(Pontowski-Lichorsik-Vought) Airplane

The first "completely Vought" design appears to have been the PLV. It was a two-seater airplane, built by a couple of machine-shop operators. It used the staggered wings of the earlier Lillie biplane, and was powered by a 60- to 80-hp Sturtevant engine.

On August 8, 1914, the airplane made its first flight and the pilot reported great stability and ease of handling. The PLV was reported to have been operated as late as 1917 by the Moeller Barber School of Chicago.



**Model Name:** Mayo Vought Simplex BiPlane

The Mayo Radiator Works, a subsidiary of the Simplex Automobile Co., was pushing for Simplex to enter the aircraft production industry. Vought signed on as engineer and designed the Mayo Type A reconnaissance tractor biplane. By August 1915, it had completed 200 successful flights. Quickly detachable fittings allowed the airplane to be taken from a crate and assembled in 28 minutes and dismantled in 20 minutes.



The only Mayo A Simplex built was eventually purchased by England for use as a trainer. Unfortunately, no orders were forthcoming from either the British or American governments and the project was dropped.

Speed:	82 mph (132 kph)
Span:	38.58 feet (11.76 meters)
Length:	25.71 feet (7.84 meters)
Height:	8.50 feet (2.59 meters)

**Model Name:** Wright Martin V

The Wright-Martin Aircraft Company hired Vought as its Chief Aeronautics executive in an attempt to win contracts in World War I. Vought designed the Wright-Martin V of which one was built in 1916.

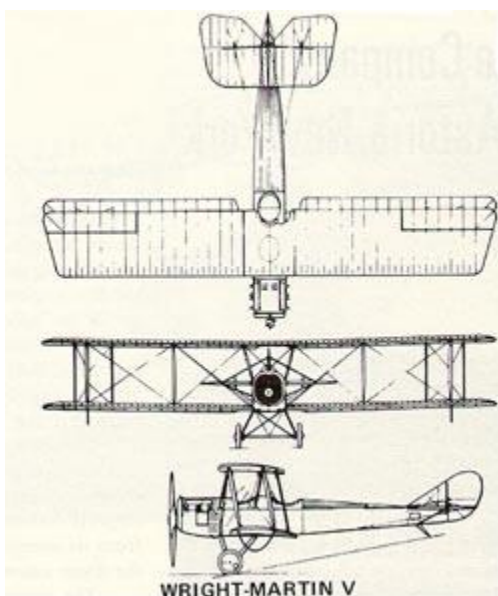
American-designed and built airplane Suiza engine. Upon landing after the Howard Rinehart reported, "beyond a powerful flying machine of its kind in



It was the first to fly with the Hispano maiden flight, test pilot doubt, it is the most the world."

Speed:	90 mph (145 kph)
Span:	39.71 feet (12.10 meters)
Length:	27.17 feet (8.28 meters)
Height:	10.08 feet (3.07 meters)

The story of Vought Aircraft Company begins with Chance Vought, the man. Chauncey (Chance) Milton Vought was born to George Washington and Annie E. Vought, on February 26, 1890 on Long Island, New York. His parents had a successful business designing and building quality sailing boats but little is known of Chauncey's early childhood except that he had displayed an early talent for mechanical things.



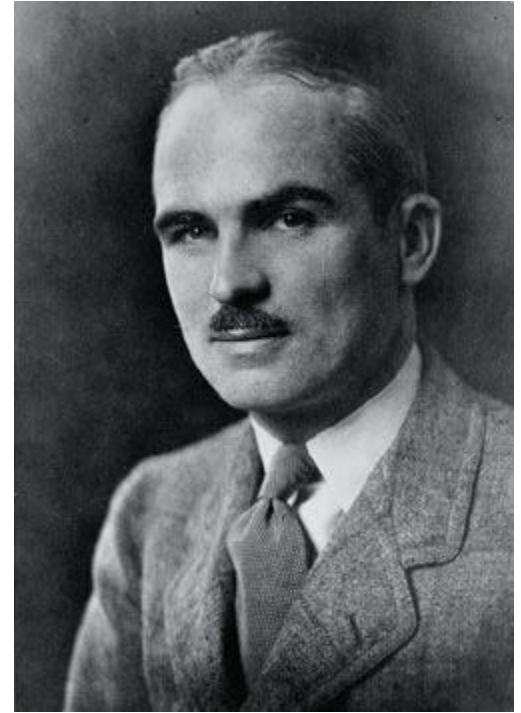
**Chance Milton Vought**

**Founder**

**1917 to 1930**

Chance Milton Vought was only 13 years old when Orville Wright, on the morning of December 17, 1903, became the first man to officially pilot and fly a heavier-than-air machine. Young Chance's reaction to this historical event has not been recorded but we know that it must have greatly influenced his engineering studies and thinking.

His elementary school education was in the New York Public School System and, upon graduation he entered the Pratt Institute of Brooklyn. He transferred later to New York University, where he specialized in the study of the internal combustion engine, and then transferred to the University of Pennsylvania in search of better engineering courses. Several sources suggest that he was making a worthy study of aeronautical engines, an interesting note because, for the most part, the American public in 1910 was not interested in aviation activities. A superb student, he was usually ahead of his class in the theory and principles of engineering. Chance left school in 1910 to work for Harold McCormick an early aviation backer who was president of McCormick Reapers. The first aircraft that Chance Vought was associated with was the McCormick-Romme "Umbrella" plane which flew on March 11, 1910.



He learned to fly from Max Lillie in 1912 using a Wright biplane, and received FAI pilots certificate number 156. It was on this certificate that he signed his name Chance M. Vought rather than the printed name Chauncey M. Vought. This was the first official indication that Chauncey preferred the name "Chance." He became an aeronautical engineer and instructor pilot for the Max Lillie School of Aviation in 1913 and was involved in the design of the Lillie-Vought tractor biplane. While at Lillie he also edited the pioneer American aviation weekly, "Aero and Hydro".

Having developed some sound and unique ideas on airplane design, Vought went to work at the Mayo Radiator Works. His first aircraft design, the Mayo-Vought Simplex was built in 1914, and first flew in May of 1915. It was used by the British as a World War I pilot trainer. Vought worked for Curtiss briefly in 1915 as a consulting engineer for flying boats. In the fall of 1916, he became chief engineer at the Wright Company of Dayton, Ohio. In 1916, the Wright Company and The Glenn L. Martin Company merged to form The Wright-Martin Aircraft Corporation. During his brief tenure there, the Wright-Martin Model V was produced; the first flight of the Model V was in September 1916.

According to a personal resume' of Chance Vought on official Lewis and Vought corporate stationery, he was also shown as the "Designer and Constructor" of the following:

- Curtiss 93-foot (HS) flying boats
- Mayo 110-hp, three-seat flying boats
- Wright 150-hp military tractor
- Wright 150-hp (HS), three-place flying boat
- Stadlmon 90-hp exhibition biplane
- Sharp single-seat scouting biplane

Vought was sent to Europe to survey the tactical employment of airplanes and the impact of the war on their design. When the United States entered World War I in April of 1917, the country was basically unprepared for war, especially so in military aviation. The American aircraft industry was

ignorant of combat aircraft technology, since any advancements in the state-of-the-art were jealously guarded by the various combatants. The decision was made for America to concentrate on building training airplanes and purchasing combat airplanes from the Allies. The need for trainers became pressing, and contracts were awarded to many inexperienced firms.



### Chance Vought's FAI Pilots Certificate #156

With his past experience on several designs and his sporting nature, Chance Vought joined with Birdseye Lewis to form a company and take advantage of the trainer aircraft opportunities. The company was formed as the Lewis and Vought Corporation on June 18, 1917. The company, under various names, has been in continuous operation since then and is the second oldest airframe manufacturer in the United States. (The Boeing Company was the first.)

As you will note, the date of birth on Vought's FAA pilot's certificate is at variance with many other notations of his birth in the ensuing years. Most notable is his New York City birth certificate which shows it to be 1890. This coupled with his obituary notice, which most certainly would have been written by close family members also states the same 1890 birth date. Why the FAI certificate shows the earlier date can only be speculated upon at this time.

Chance Milton Vought died unexpectedly on July 25, 1930 from septicemia (blood poisoning) at the age of 40.

Chance Vought was inducted into the Aviation Hall of Fame in 1989 and even though he did not live to see many of them, more than 15,000 aircraft and missiles bearing the Vought name have been built since 1917.

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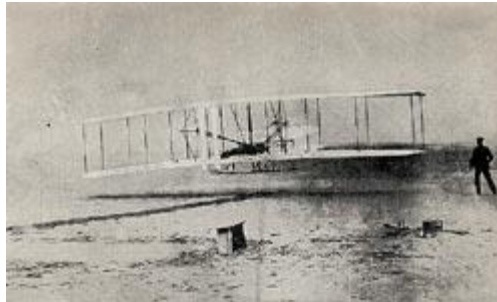
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- **Wright Brothers made first successful flight.**
- **On December 17, 1903 from Kitty Hawk, North Carolina, Orville Wright became the first man to achieve sustained controlled flight in a powered aircraft.**
- **The first flight was 12 seconds in duration and covered a distance of approximately 120 feet.**



**Wright Brothers at Kitty Hawk**

### **Other Facts from 1903**

**President: Theodore Roosevelt**

### **Songs From 1903**

“Sweet Adeline”  
 “You’re the Flower of My Heart”

Average annual income	\$1,037
New car	\$850
Loaf of bread	\$0.02
Gallon of milk	\$0.29
Gallon of gas	\$0.04

Dow Jones Average      49