

American Institute of
Aeronautics and Astronautics
HISTORIC AEROSPACE SITE



**Igor I. Sikorsky
Memorial Airport**
Connecticut



Sikorsky Plant, ca. 1930.

Igor I. Sikorsky Memorial Airport

Connecticut





Igor Ivanovich Sikorsky (1889–1972)
Family Life

Sikorsky was married to Olga Fyodorovna Simkovitch in Russia. They were divorced and Olga remained in Russia with their daughter, Tania, when Sikorsky left in 1919. In 1923, Sikorsky's sisters emigrated to the United States, bringing Tania with them. In 1924, Sikorsky married Elisabeth Semion (1903–1995). Sikorsky and Elisabeth had four sons: Sergei, Nikolai, Igor Jr. and George.



Igor Sikorsky demonstrating the VS-300 at Bridgeport Municipal Airport near the current midpoint of runway 11-29. This may be during the first public demonstration of the VS-300 on May 20, 1940. (The hangars still exist.)

Igor Ivanovich Sikorsky was born in Kiev, Russia, now Ukraine, on May 25, 1889. He developed an early interest in aviation and built and flew model aircraft. His career choice was influenced heavily by the success of the Wright brothers at Kitty Hawk, and he attended the Naval College in St. Petersburg.

He traveled to Paris, then the aeronautical center of Europe, where he met some aviation pioneers such as Louis Bleriot, the first person to fly across the English Channel. In 1909, Sikorsky built his first helicopter and a second one in 1910, but although he was able to achieve lift, the craft could not carry any weight.

Sikorsky instead worked on airplanes and built his own four-engine airplane in 1913, called The Grand. He then built a larger plane that was eventually used as a bomber by the Russians in World War I.

He emigrated to the United States in 1919 after the Russian Revolution, giving lectures to earn money and start his own business. In 1923, he established the Sikorsky Aero Engineering Corporation on Long Island, and built several successful aircraft, starting with the S-29-A (for America), a twin-engine, all-metal transport that proved a forerunner of the modern airliner. Sikorsky soon became known for a highly successful series of flying boats ranging from the single engine S-39 to the four-engine S-42 "Clipper." Pan American Airways and other carriers used them to establish regular air services between the United States, Latin America, the Caribbean, and South America. Sikorsky's final flying boat, the VS-44, pioneered commercial transatlantic service.

In 1938, though, Sikorsky turned in earnest to helicopter development. Avoiding the slow line of progression in the autogiro industry toward partially powered rotors and the cumbersome multi-rotor configurations under development in Europe, he began work on a single-rotor design incorporating a single anti-torque auxiliary tail rotor. Though this configuration had been attempted before, it had never been implemented with any measure of success and no successful helicopter flights had yet occurred outside of Europe.

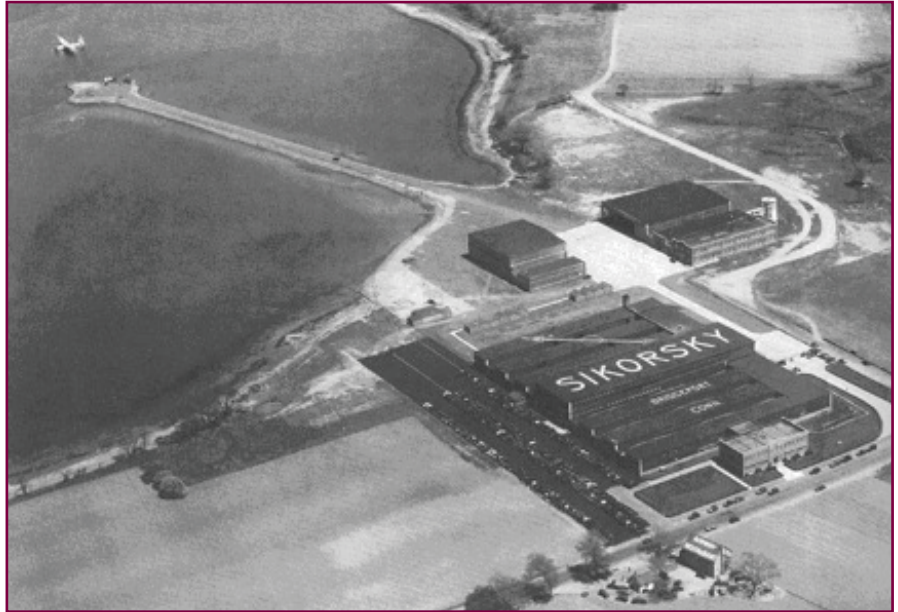


First major configuration of the VS-300 with Serge Gluhareff at the controls undergoing tethered tests at the Vought-Sikorsky hangars, ca. October 1939.

While parent company United Aircraft consolidated Sikorsky with its Chance Vought Aircraft division at Sikorsky's Stratford, Connecticut plant, Sikorsky and a small team of predominantly Russian émigré engineers began work on a design with the designation VS-300. This aircraft made its first flight on the grounds of the plant in September 1939. Initial progress was slow as the Sikorsky team had little experience in rotor design. However, Sikorsky systematically solved the issues of control, vibration, and stability in the VS-300 with the design undergoing four major changes of configuration and other modifications before its final retirement in 1943.

Beginning in spring 1940, Sikorsky began flying the VS-300 across the street from the plant at Bridgeport Municipal Airport. By May 1940, Sikorsky was publicly demonstrating the VS-300 on the field. While the machine demonstrated that sustained flight was possible, it suffered from control and stability problems and the whole of 1940 and 1941 were given over to solving these issues. The open, uncongested space of the Bridgeport Municipal Airport and the adjoining environs of the Vought Sikorsky plant were ideally suited to these early tests. The adjacent Housatonic River allowed for tests of flotation gear in a variety of configurations.

The initial configuration of the VS-300 flown in fall 1939 featured a single main rotor and auxiliary tail rotor, but proved unstable and difficult to control. Between spring 1940 and summer 1941, Sikorsky and his engineers concentrated on a second configuration, employing two additional auxiliary lifting rotors mounted on outriggers. This system proved more controllable than the earlier design, but continued to suffer from stability issues under certain flight conditions. Nonetheless, this second configuration provided Sikorsky a platform with which to generate considerable interest from government sources that could sustain helicopter development as well as among the general public, whose enthusiasm was essential to continued helicopter development post-war.



The Sikorsky plant, ca. 1938, looking to the northeast. Bridgeport Municipal Airport is across the street to the bottom right of the photo. Most of these structures are still extant.



VS-300 testing on Bridgeport Municipal Airport, summer 1940 with Igor Sikorsky at the controls.



XR-4 testing in April 1942 on the outskirts of the Vought-Sikorsky plant.



XR-4 testing at Bridgeport Municipal Airport, May 1942, shortly before its record-setting delivery flight to Wright Field, Ohio.

In fall 1941, Sikorsky abandoned the outrigger configuration in favor of a single auxiliary lifting rotor in addition to the main rotor and anti-torque rotor. This design allowed sideways movement not possible with the outriggers and greatly improved performance, control, and stability. This arrangement was mechanically cumbersome, but with more experimentation, in December 1941, Sikorsky and his engineers were able to achieve full cyclic control. The achievement made production helicopters with viable payloads a realistic proposition and came at just the right moment to allow the XR-4 prototype for the Army Air Forces, then under construction, to make its first flight on January 14, 1942, with full cyclic control in place.

1942 witnessed the highly successful demonstration flights of the XR-4 and its delivery and acceptance to the Army Air Forces Air Materiel Command at Wright Field. The VS-300, in its fourth and final major configuration, began a series of ever more dramatic demonstrations of what the helicopter could mean for the United States. Stunts, such as backyard delivery of groceries and helicopter commuting, caught the public's imagination as periodicals picked up on Sikorsky's achievements as a bright spot against the background of otherwise grim war news. By the time of Sikorsky's move from the plant site at the beginning of 1943, the nation was beginning to catch helicopter fever in a way that the autogiro had never caught on.

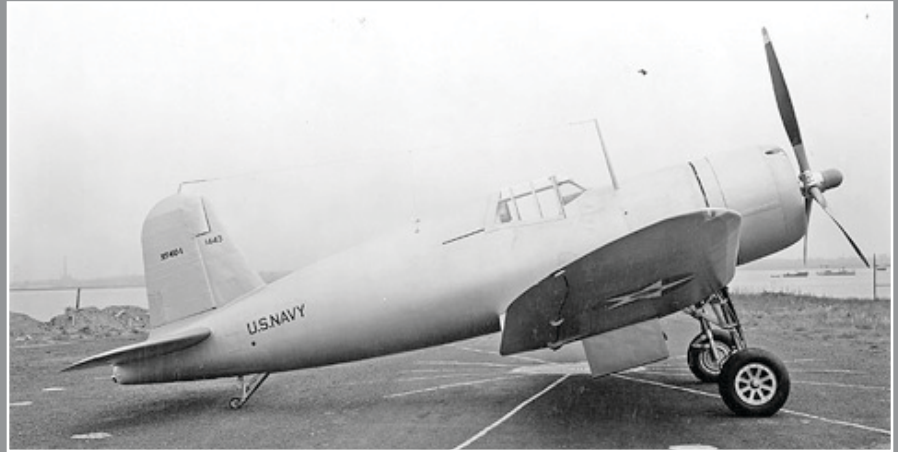
Sikorsky's Stratford plant, constructed in 1929, was the birthplace of its founder's remarkable series of flying boats S-38 through S-44, of which 209 were constructed there. On April 1, 1939, the facility became the Vought-

Sikorsky plant with the development and production of the F4U Corsair as its priority. Sikorsky secured small sections of the factory for his helicopter experiments, but by late 1942, the Army Air Forces' interest in Sikorsky helicopter production created tensions with the Navy whose sole interest was in maximizing Corsair production at the facility.

On January 1, 1943, Sikorsky separated from Vought and moved to its new South Avenue Bridgeport facility, where it remains to the present day as an auxiliary facility to the main plant located on N. Main Street, approximately five miles upriver from the original facility. The Stratford plant then operated full bore producing Corsairs. In 1949, Vought departed for Dallas and the plant stood vacant until 1951, when Avco Corporation acquired it and initiated manufacturing of aircraft engines. In 1976, the Army took over management and it became known as the Stratford Army Engine Plant (SAEP), which ceased operation in 1997.

For his work, Sikorsky received numerous awards, including the National Medal of Science, the Wright Brothers Memorial Trophy, the U.S. Air Force Academy's Thomas D. White National Defense Award, and the Royal Aeronautical Society of England's Silver Medal. He is a member of the Aviation Hall of Fame.

In 1928, the City of Bridgeport acquired 800 acres at Lordship Point for an airport on the site of a racetrack and occasional landing field known as Avon Field. Until 1933, it was known as Bridgeport Airport, then briefly became Mollison Field, after which it became Bridgeport Municipal. In 1972, upon Sikorsky's death, it was quickly renamed Igor I. Sikorsky Memorial Airport.



The XF4U on the ground at Stratford.

THE AIAA HISTORIC AEROSPACE SITES PROGRAM

For over 75 years, the American Institute of Aeronautics and Astronautics (AIAA) has served as the principal society of the aerospace engineer and scientist. Formed in 1963 through a merger of the American Rocket Society (ARS) and the Institute of the Aerospace Sciences (IAS), AIAA now serves a diverse range of more than 35,000 individual and corporate members from 80 countries.

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