

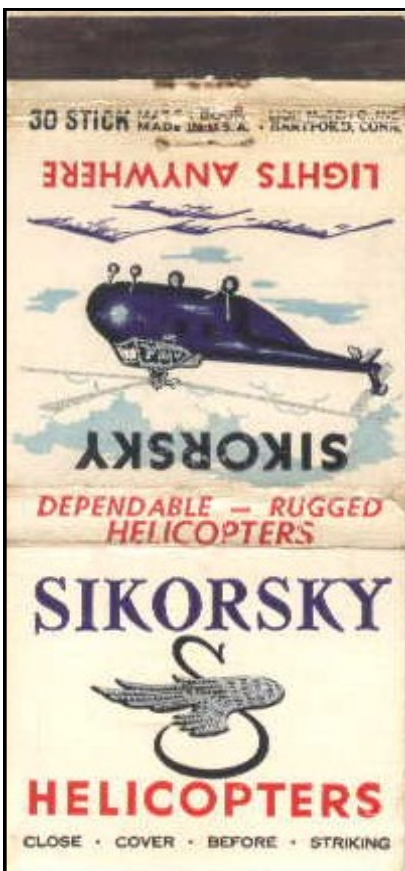
On The Cutting Blade:

Hey, it's September 14th! Of course, I realize most of you know the significance of that important date, but, for our newbies, allow me to recap....

It was on September 14th, 1939, that Igor Sikorsky, bundled into a topcoat and fedora, piloted the world's first practical helicopter, VS-300, on its initial tethered test flight at his company's Connecticut headquarters. The legacy of Igor Sikorsky still leads the helicopter industry, and the Winged-S emblem still signifies the world's most advanced rotorcraft. The Russian-born scientist, engineer, pilot and entrepreneur made fixed and rotary wing aviation history with a mix of genius and determination.

Igor Ivanovich Sikorsky was born in Kiev on May 25, 1889. His physician parents gave their son the scientific discipline to pursue his early dreams of flight. Captivated by the drawings of Leonardo da Vinci and the stories of Jules Verne, Igor Sikorsky built a rubber-band powered model helicopter when he was 12. A later, larger model with two propellers rose a few feet into the air. The young Sikorsky entered the Russian naval academy in Petrograd in 1903 but left in 1906 to study engineering in Paris. He returned to the Polytechnic Institute of Kiev in 1907.

When the dream of flight became real with the lighter-than-air creations of Count Von Zeppelin and the airplanes of the Wright brothers, Igor Sikorsky remained focused on a flying machine which could rise directly from the ground with a lifting propeller. In France, early aviation pioneers told the young engineer not to waste his time on the helicopter. Sikorsky returned to Kiev in 1909 with a three-cylinder 25 horsepower Anzani motorcycle engine and built a helicopter with coaxial twin-bladed rotors. The crude testbed had a seat for the "pilot" and wires to change the pitch of the blades. Sikorsky overcame initial vibration problems to demonstrate rotary-wing lift, but found the helicopter could generate some 357 pounds of lift, about 100 pounds less than its empty weight.



On his return to Russia, Sikorsky proved his S-5 bi-plane went faster than foreign aircraft then in Russian service. His S-6-B won a small order from the Russian Army, and the factory governing society approved construction of a large, four-engined airplane. When Sikorsky's S-21 first flew on May 13, 1913, Sikorsky became the world's first four-engine pilot. The bigger S-22 was dubbed the Il'ya Muromets and in December 1913 began flying passengers. A bomber version flew in 1914 and went to war with the Imperial Russian Air Force in 1915.

The Bolshevik Revolution drove Igor Sikorsky from his position and his homeland in 1918, and he eventually immigrated to the U.S. in 1919. After a temporary engineering job ended with the U.S. Army Air Service in Dayton, Ohio, the Russian aviation giant taught mathematics to fellow emigres on New York's Lower East Side. In March 1923, he raised backing for an all-metal, twin-engined passenger plane. The Sikorsky Aero The Sikorsky Aero Engineering Corporation started work on a farm near Roosevelt Field, Long Island and collected Army

Igor Sikorsky!

surplus materials and parts from junkyards. It produced the S-29A (for America) first flown in September 1924. In 1925, the company became The Sikorsky Manufacturing Corporation and flew several new designs, including the S-34 which provided experience for later amphibians and flying boats.

The Sikorsky Manufacturing Corporation became The Sikorsky Aviation Corporation and purchased land in Stratford, Connecticut. In 1929, the company became a subsidiary and later a division of United Aircraft Corporation. Designed for the airlines, Igor Sikorsky's S-40 American Clipper was flown in 1931. The bigger, more efficient S-42 Clipper flown in 1934 was used by Pan American to open routes across the Pacific and Northern Atlantic. The smaller S-43 found success on shorter routes. The Sikorsky line of flying boats culminated in the long-ranged VS-44A Excalibur with seats for 40 passengers.

After the success of his flying boats and amphibians, Igor Sikorsky returned to the helicopter. In 1931, he patented a design with the now-familiar helicopter layout - a single large main rotor and small anti-torque tail rotor. His VS-300 flew for the first time on September 14, 1939. By the summer of 1940, the experimental helicopter could stay airborne for 15 minutes at a time. The VS-300 would crash several times and undergo major changes during years of test flying, but Igor Sikorsky's determined work in helicopter controls ultimately gave the world a stable, practical, immensely versatile flying machine.

The Sikorsky S-47 or XR-4 was delivered to the U.S. Army Air Corps in May 1942, the prototype for the first helicopter produced in quantity for the U.S. armed forces. An R-4 flew the first helicopter mercy mission through a snowstorm in January 1944, hauling blood plasma from Battery Park in Lower Manhattan to Sandy Hook New Jersey to aid victims of a steamship explosion. In November 1945, an S-51 conducted the first helicopter hoist rescue when it pulled two seamen from a sinking barge off Connecticut. In World War II, the fabric-covered helicopters flew the first combat rescue and Medevac missions. Sikorsky helicopters grew in power and sophistication. The S-51 and S-55 demonstrated the medevac, search and rescue, and utility missions in the Korean War. The piston-engined S-58 and S-56 gave the U.S. military helicopters big enough to mount air assaults. The turbine engined S-61 spawned a family of submarine hunters, airliners, and rescue helicopters with offspring still serving around the world.

After a lifetime of challenges, achievements and honors, Igor Sikorsky died in October 1972 at the age of 83. Sikorsky Aircraft continues his dream of vertical flight and his tradition of technical innovation.

[<http://www.sikorsky.com>]

