



KANSAS LEGEND BIOGRAPHY

William Purvis & Charles Wilson – The Helicopter

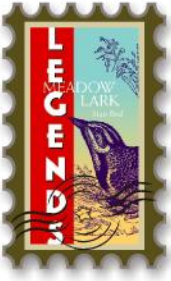
Kansas maintains a storied background in the field of aviation, which includes pioneering figures such as Clyde Vernon Cessna, Amelia Earhart and Walter Beech among numerous others. Although plane flight was becoming more and more common in the early 20th century, with engineers tweaking aircraft to perform longer and safer flights, two Kansans were busy developing a new kind of flight machine.



William Purvis and Charles Wilson lived in Goodland, Kan., where they worked as railroad mechanics. Both men were innovators and talented machinists who put their heads together to come up with the idea of aircraft that could take off and land vertically. The men used the railroad shop to begin working on their craft.

After several months of work and hand tooling parts, Purvis and Wilson decided to put their machine to the test. The mechanical parts were connected to the belt drive of a thrashing machine, and twin rotors turned at accelerating speeds until the machine rose several feet in the air. The craft then descended back to the ground as spectators gazed in amazement. Purvis and Wilson decided to form a corporation around the invention, and the Goodland Aviation Company was born.

The two men sold shares of stock in their company for \$10 each and received a great deal of publicity for their idea. They also applied for the first patent for rotary wing aircraft, commonly referred to now as the helicopter, in 1909 before launching the full-scale version of their product.



Purvis and Wilson set out to build a full-scale version of their model, with the center shaft made of cast iron standing 20-feet tall. The twin rotors and tail rudder were made of canvas stretched over a metal frame. The platform was metal and the wheels were also made of iron. Needless to say, the machine must have weighed a great deal, although no record of its actual weight has been found.

A hangar was built with the money earned from the stock shares sale, and a huge crowd gathered to watch as Purvis and Wilson prepared to show off their full-scale version of the helicopter. The men's claim for the machine was for it to "rise, remain stationary, descend, be propelled and guided." The engines were started, and the clunky machine attempted to take off but fell over before ever leaving the ground.



Onlookers were extremely disappointed, and the inventors were devastated. The men had given up their work on the project by the time the patent arrived. Purvis and Wilson returned to the railroad, and both men eventually left the state to pursue other opportunities. A replica of the machine built in 1976 is on display at Goodland's High Plains Museum today.

Although the project proved unsuccessful, the ideas of Purvis and Wilson were revolutionary. These principals were taken and modified in the 1930s with the invention of rotors that could tilt, a necessary feature for the helicopter to fly.

