

Charles Olmsted - LeRoy Native Featured in Documentary

by Lynne Belluscio

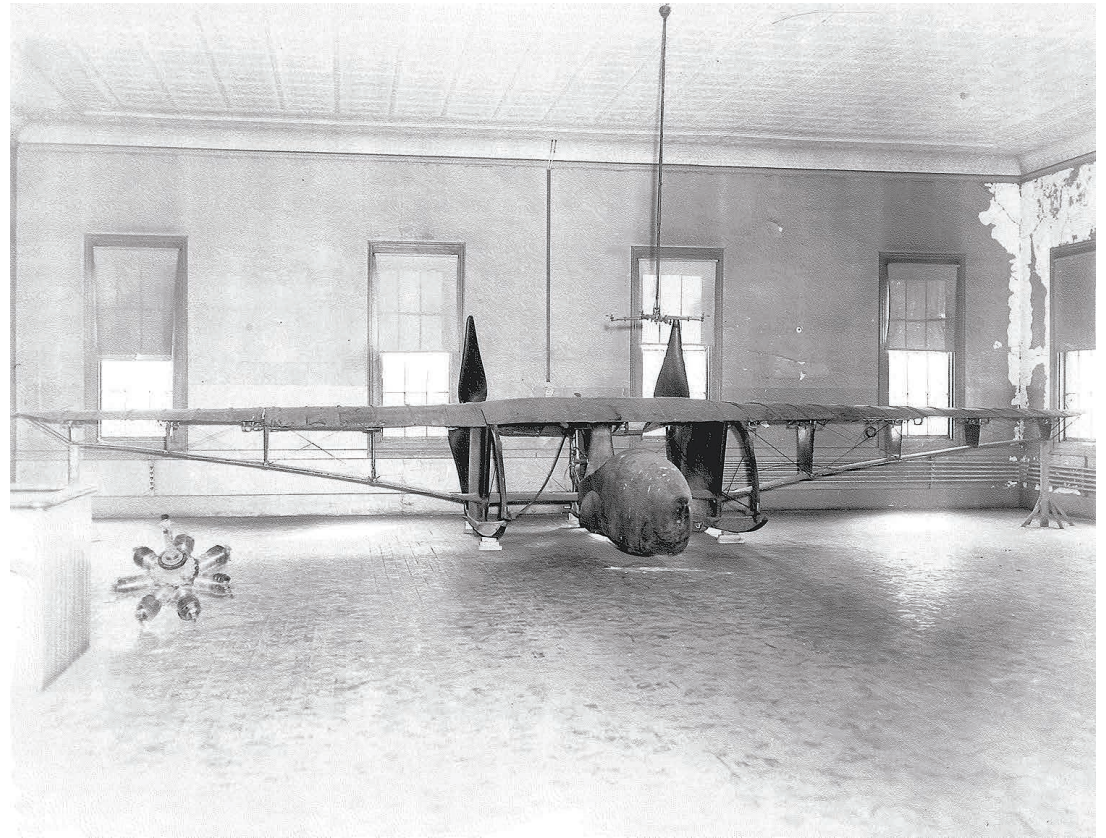
Pete Gallivan from WGRZ in Buffalo called and wanted to know if I could scan some photographs of the Olmsted airplane that at one time was in storage in the LeRoy Academic Institute building that stood where the parking lot is now next to the Jell-O Gallery.

He was producing a piece on "Hidden History in Western New York" and was going to focus on aviation. The show aired on May 27 and can be Googled if you want to see it. Pete knew the story of Charles Morgan Olmsted, who I have written about several times, and wanted to feature him in the story. Charles Olmsted was born in LeRoy in 1881. He was one of six boys born to John B. and Clara Olmsted. His brother was John Allen Olmsted, who owned Allen's Footcase. In fact, it was his brother who owned the LeRoy Academic Institute building, that became the home to the Olmsted plane.

Charles grew up in Buffalo and at an early age, became interested in aviation. In 1895, when he was fourteen, he designed and built a glider. He attended Harvard University in 1894 and 1895. He attended Gottingen University and Wilhelm Institute in Germany from 1902 to 1906 and obtained his Ph.D. in astrophysics from Kaiser University.

For several years he worked at the Lick Observatory in California, but returned to Buffalo to work on his radical propeller design. In 1908, he began experiments with minimum-induced loss propellers. In 1909, he tested full-size propellers in a wind tunnel. His propellers were used by Glenn Curtiss on his early flying boats, *Edith* and *American*. The Olmsted propeller increased efficiency by 20% over the standard designs and set records in climb rates, speed and weight carried aloft by the Curtiss planes. Glenn Curtiss announced that the Olmsted propellers were "the finest and most efficient I have ever seen."

In 1910, Charles Olmsted joined the Buffalo Pitts Company to develop a mass-produced airplane. The Buffalo-Pitts Company was founded in the 1800s and manufactured farm equipment and was also known for its steamrollers. Buffalo Pitts had a very advanced manufacturing facility in Buffalo



and had tapped into electricity for its facilities from nearby Niagara Falls very early.

When Charles Olmsted joined Buffalo Pitts, there were only two other companies in the United States licensed to manufacture airplanes. At this time, planes were built of cloth and "bailing wire". Olmsted designed a "monocoque" fuselage. The wings were made of thin-gauge chrome-vanadium steel sheet, and aluminum sheet. The fuselage was molded laminated birch and chrome-vanadium steel sheet. The motors and propellers were mounted behind the wings, making the airplane a "pusher." Never the less, the Olmsted pusher is considered one of the first "true airplanes."

Unfortunately, in 1912, before the plane could be completed, the Buffalo Pitts Company went bankrupt. All that remained was the attachment of the tail section, but Olmsted never saw the project to completion. Instead the plane was held in storage in Buffalo. When it had to be moved, Charles' brother Allen, offered the old school building in LeRoy. Charles sawed the wings off his plane and it was shipped to LeRoy, where it remained until the old

Academic Institute building was declared a fire hazard.

The Olmsted family had the parts shipped to the Smithsonian Institution, where it has remained in storage. Attempts to have the plane restored and put on exhibit have not been successful. It is the only pre-1920 airplane in the Smithsonian collection which has not been restored.

A scale model of the Olmsted pusher was constructed, complete with the tail section. It was flown

in a wind tunnel at Purdue University and it proved that the plane would have maneuvered easily, and would have been a successful mass-produced airplane.

Charles Olmsted formed the CMO Physical Laboratory and continued to manufacture and sell the ultra-efficient propellers. Charles Olmsted also was the first to design a super-transport WIGE (wing-in-ground effect) vehicle in the spring of 1942. He died in 1948.



Charles Olmsted 2nd from the left, one of 6 brothers.