

**Wong Tsoo's Contributions to Washington's Early Aviation Industry**  
**Museum of Flight**  
**February 4, 2016**

How fortunate we are to live in a state that has such a rich aviation history. We see it, we feel it, and we are impacted by it every day. The aviation industry employs many thousands of people in the state of Washington – about 80,000 by the Boeing Company alone.

But Boeing is not the whole story. Four years ago there was an extensive report published on the aerospace industry in Washington that determined the industry employs 132,500 at 1,350 establishments in 35 of Washington's 39 counties.

We see it in the number of Made in Washington airplanes that fly overhead almost continuously. Of course we can review the history of Washington state aviation – and much more - in extraordinary detail right here at the Museum of Flight. We feel it, for better or worse, by the amount of traffic we have in the Puget Sound area as people commute to and from work in the aerospace industry. We are impacted by it because aerospace is the hub of our economy; there is more than \$70 billion a year in revenue generated by the aerospace industry alone. About half of all of Washington's exports are from our aerospace industry. A couple of months ago, I chaired a legislative meeting right here on the outer space industry, a sub-set of the aerospace industry that is really starting to take hold in Washington as well.

Washington is the home of a number of incredible milestones in aerospace. We can point to great historical moments such as Clyde Edward Pangborn and his navigator Hugh Herndon who made the first non-stop Trans-Pacific Flight from Japan to Wenatchee in 1931.

A team of U.S. Army Air Service fliers were the first to fly around the world back in 1923, taking off and landing from the air strip at Sand Point, which is now Magnuson Park in Seattle. In 1937

a crew of Russian aviators made the first transpolar flight from Moscow to, of all places, Pearson Field in Vancouver Washington. Their plane, the ANT-25, had a wing span as long as the first flight of the Wright brothers – about 112 feet. By the way, Pearson Field is the oldest continually operating airfield in the United States. A dirigible landed there in 1905.

Those are just a few of the historical achievements in aerospace in Washington. In fact as you can see by walking around this museum, the list is very, very long and remarkable. But one could argue – and I am sure that many people in this room might agree - that Washington may just not be the aerospace giant that it is today without the contributions of one man, a Chinese fellow by the name of Wong Tsoo.

Now it must be said that Wong Tsoo was not here very long, just 10 months. He had been a Naval cadet in China before being sent to England to advance his maritime studies, then was sent to the prestigious Massachusetts Institute of Technology to learn aeronautics. As luck would have it, Lt. George Conrad Westervelt, the U.S. Navy engineer who had helped to awaken Bill Boeing's interest in aviation had also studied at MIT and still had contacts there. After MIT recommended the newly graduated Wong Tsoo to him in 1916, Westervelt arranged for Wong Tsoo to be hired by his pal Boeing at his startup aviation company to be called Pacific Aero Products.

Now let's stop and think about what was going on in Washington state at that time. Just 20 years before – in 1886 – there was a huge riot in Seattle that resulted in the expulsion of 200 Chinese from the city. In 1885 about the same number of Chinese laborers and their families had been unceremoniously marched out of town in Tacoma.

As a result of the Chinese Exclusion Act of 1882 and other anti-Chinese measures, between 1910 and 1940 about 30 percent of all of the Chinese who showed up at the Angel Island Immigration Station at San Francisco Bay were told they could not enter the United States and

were forced to return to China. The United States was just about to enter World War I. Now tell me, if you were the highly talented Wong Tsoo and were invited to work on the West Coast, what would you tell Bill Boeing?

Fortunately for us, according to our friend Key Donn, Boeing was able to give assurances to Wong Tsoo that he would be in safe company here and he came. Boeing and Westervelt's original B&W airplane had been previously passed over by the Navy in favor of competitive models by other aircraft companies. Wong Tsoo immediately went to work on the Model C trainer aircraft, which would become the company's first commercial success. The Navy at the time was clamoring for aircraft and needed to train pilots fast for the war.

But before the Navy would commit to buying the aircraft they had to first test them. As it turned out, their testing facility was all the way across the country in Pensacola, Florida, which was way too far for the Model Cs to fly at the time. So the aircraft had to be disassembled, packed into crates, shipped across the country then reassembled in Pensacola.

Herb Munter, an engineer who had worked on the B&W model, would serve as the test pilot for that Model C seaplane demonstration in Pensacola. He flew it out into heavy winds and four-foot waves. The Navy, impressed with its performance, ordered 51 Model C trainers on the spot.

A total of 56 of Wong Tsoo's Model Cs would be built, the last one to be used by William Boeing as his personal aircraft. On March 3, 1919 Boeing and his friend Eddie Hubbard would fly that last plane, called the C-700, on the first international airmail flight, from Vancouver B.C. to Seattle, which would be another historic aviation moment in Washington state history.

All that may not have happened without the meticulous design of the Model C by Wong Tsoo. Had Boeing not made the sale of that aircraft to the Navy, the company may just never have taken flight the way that it did. It's amazing what one person can do to make a difference.

It is very sad that history more or less forgot about the contributions of Wong Tsoo. We thank Key Donn for all of his excellent research and work in bringing the work of this outstanding pioneer to our attention and for his work in establishing a display in his honor at the Red Barn.

We were more than happy to recognize Wong Tsoo last month by resolution in the Senate, and it is with great honor that we honor him in this season of the Chinese Lunar New Year. Even though Wong Tsoo was born near Beijing, he spent most of his later years in Taiwan and I know our friends from the Taipei Economic and Cultural Office in Seattle are proud to forward word of our recognition along to his descendants and to the university where he taught.

In the 100 years since Wong Tsoo did his great work on the Model C and other Boeing aircraft, we have established a great reputation as the world's number one builder of commercial airplanes. Washington has capitalized on this and established itself as a region for innovation and intellect.

We remember today the pioneers who helped us get there, and especially Wong Tsoo for all he did both here and in China for the world of aviation. Thank you.