

Eagle wings: Windecker's namesake plane was model for aviation's future

By ALAN NIESCHWIETZ | Posted: Friday, January 6, 2012 2:00 am

LAKE JACKSON

It might not be the first thing casual visitors notice when they walk through the door, but it doesn't take long for the airplane suspended from the ceiling to catch people's attention.

"This plane was designed by Dr. Leo Windecker when he was a dentist in Lake Jackson," Angela Villareal, curator of the Lake Jackson Historical Museum, said as she walked along the museum's second-floor balcony at eye level with the plane. "He was a pilot, and it was always an ambition of his to design an airplane."

Although it never was commercially successful, the Windecker Eagle made quite a splash in flying circles in 1970 when the first one rolled off the assembly line at the plant in Midland. That's because it was the first all-composite — except for the engine and few other parts — commercial plane approved for production by the Federal Aviation Administration.

And it continues to receive notice. It's featured in the January issue of Aviation History magazine, in an article called "Game Changers: 15 Aircraft that had the Greatest Impact on the History of Aviation."

"We get lots of calls about the plane and other objects in the museum, so we didn't think too much about it at the time," Villareal said of when the article's writer got in touch with her.

"It comes up quite a bit when they talk about aviation history."

A LONG SHADOW

According to someone in the businesses who was there when it happened, the Windecker Eagle's days as a game changer haven't ended.

"It still is," said Ted Windecker, an aircraft engineer who worked alongside his father on the Eagle's production.

"As a matter of fact, the No. 1-selling airplane for the last several years is the Cirrus SR-22," which also is a composite plane, he said.

Windecker bumped into the two brothers who started the company at an air show a few years back, and they made no bones about telling him their plane drew heavily on the elder Windecker's design, he said.

"Their airplane was approved in 1998, and ours was approved in 1969," Windecker said. "The technology is basically the same as what my dad and Dow Chemical invented."

HATCHING THE EAGLE

As a technology-oriented dentist who treated many top Dow executives in the 1950s and '60s, Leo Windecker was able to learn about many of the compounds Dow was working on just by chatting with them, he said.

It wasn't long before his father had his brainstorm: If these new compounds are so strong and light, why not do away with metal and make an airplane body from them?

A partnership with Dow was formed to develop the substance which would become the body of the plane, and by the late 1960s, a financial backer was in place so production could begin as soon as the FAA gave its approval, Ted Windecker said.

The plane created a stir from the get-go, and piqued the curiosity of many people, including Wernher von Braun, Windecker said.

Von Braun was a rocket designer, and was America's top man in the field, having emigrated after being Nazi Germany's top rocket man. On his way to Florida to watch the Apollo 17 launch in 1972, von Braun stopped for a tour of the factory producing the Windecker Eagle.

Ted Windecker shared an anecdote from the visit.

Showing him the plane, the elder Windecker told von Braun that years before, some people told him he was nuts when he talked to them about making a plane out of material other than metal. The other man replied people said the same thing to him when he told people he would make a rocket that sent men to the moon.

Before he left, von Braun gave him an autographed picture of an Apollo rocket. The inscription said, "To Dr. Leo Windecker, from one nut to another, Dr. Wernher von Braun.

ONLY NINE BUILT

With everything the Windecker Eagle had going for it, its success should have been a foregone conclusion, but a couple of things made the plane's production run a very short one.

"The year the airplane hit the market in 1970, there was a fairly significant recession," Windecker said. "It was pretty difficult to sell a plane at the top end of the market, and that's where the Windecker was designed to compete.

"Even if times had been better, the company had very little start-up capital," he continued. "The West Texas oilman who owned the company just grossly underestimated how much it would take to get it going."

The company would limp through the 1970s surviving on military contracts that played off another aspect of the plane's design — it could be made to be invisible to radar.

“My dad’s credited with being one of the early inventors of stealth,” said Windecker, who worked alongside his father as a project manager on the military contracts.

Although he knew early on the plane’s composite body would not show up on radar, that aspect of the design was an accident, he said. All the commercial planes built by the company — including the one in the Lake Jackson museum — had extra metal parts added so they could be seen by radar, Windecker said.

“My dad had no interest in building military airplanes,” he said. “He only did that until he could build civilian planes again.”

Unfortunately, that never happened. By the early 1980s, the government money dried up after the military moved on to other stealth projects.

GIFTED PLANE

When he made the decision in 1988 to donate his personal airplane to a museum, Leo Windecker felt there was only one place it should go, his son said.

“He felt the museum in Lake Jackson was the perfect place because of the synergy that occurred there,” Windecker said.

Leo Windecker died in 2010, and his notoriety remains hit and miss despite being in the Texas Aviation Hall of Fame and a nominee to join the National Aviation Hall of Fame. Those who immerse themselves in aviation history know the name, but few others do, Ted Windecker said.

“I’ve talked to acclaimed experts in the industry who know nothing about it, so it’s a selective kind of fame,” Windecker said.

Museum volunteer Don Caldwell, who also is an aviation enthusiast and the author of seven books on the subject, said he’d like the word to get out to more people that an important piece of aviation history is right here in Lake Jackson.

“This is the only one that is accessible to the public,” he said of the plane. “Given that this is the most valuable artifact in the museum, I’d like to see it get more recognition.”

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