

# Time Capsule **Tri-Pacer**

VAUGHN LOVLEY'S  
LOVELY AERIAL ARTIFACT

BY BUDD DAVISSON

MANY WHO WALKED PAST THE VAA RED BARN at EAA AirVenture Oshkosh 2017 and saw a Piper Tri-Pacer occupying a location usually reserved for airplanes of importance had a questioning look on their faces. Their furrowed brows said, "But this is a lowly Tri-Pacer! And not a particularly pretty one. It shouldn't be parked there. It falls short of the high restoration standards airplanes in that location usually meet. The paint is dulling and the scheme is uninspired. The upholsterer hasn't shown his skill or his ability to design, and the panel is just a little dowdy. It's just a nothing-special Tri-Pacer." That may have been what they were thinking, but without investigating, they couldn't realize just how special this 1953 135-hp Piper Tri-Pacer was.

*It was very special.*



*Given the right angle,  
lighting and photographer,  
the beauty of every aircraft  
design comes through.*

# Time Capsule Tri-Pacer



Vaughn Lovley

## Howard Carter Had Nothing on Vaughn Lovley

Okay, so saying Vaughn Lovley, EAA 708767, of New Prague, Minnesota, upstaged Howard Carter may be stretching things a little. In 1922 Howard discovered Tutankhamun's tomb in Egypt's Valley of the Kings. But Vaughn's Tri-Pacer definitely has artifact status and, in vintage airplane circles, is just as golden. When vintage airplane freaks circled N1301C at AirVenture 2017, they were looking at an airplane that could have come out of a time capsule and seeing exactly what its first owner saw when taking possession in 1953. It has never felt the restorer's touch! Nothing has been changed. It's all original. And this is saying a lot considering that Vaughn is a second-generation, old-airplane, nuts-and-bolts guy. His family tradition is restoration (his dad, Forrest, EAA Lifetime 19414, is one of the absolute cornerstones of antique airplane restoration). But, not this time.

"This airplane may be [nearly] 65 years old and has 850 hours on it, but nothing has been changed since it left the factory," Vaughn said. "My good friend, Toby Hanson — it is kept in his heated hangar — and I did have to do the brakes and the voltage regulator decided to pack up, but that's all. We washed it, waxed it twice, and flew it. That was it."

## Getting Into the Game

Vaughn grew up in a fly-in community where his father built an enviable national reputation for restoring all manner of big and little antique airplanes. Even so, Vaughn admits to being slow to warm to the concept.

"I was always around Dad when he was working, but as I got into high school, my head was into being a teenager, not a pilot or restorer, even though I'd been at the controls of airplanes as soon as I could hang on to a control stick," he said. "And we were always going to fly-ins. But, our home was in a fairly rural location, and I was constantly surrounded by Dad's friends and their airplanes. But, I wanted to be with my school friends having fun and meeting girls. Old airplanes and old guys can be very cool, but not when you're 16 years old. Plus, I was playing three sports and didn't have much time."



Many people walked past Lovley's airplane not realizing what an incredibly unusual airplane it was.

Because of his busy schedule, Vaughn said he didn't solo until he was 18 and got his certificate at 19.

"I learned to fly in the family's Piper PA-11," he said. "My dad bought it the day I was born. In those days fathers weren't in the delivery room filming the birth of their kids. In my case, he was buying an airplane. I like that. We still have it. In fact, Mom and Dad still fly it regularly. I don't think it will ever leave the family."

As Vaughn got out of school and into the real world he found himself traveling quite a bit, which included several years far away from his Minneapolis home grounds.

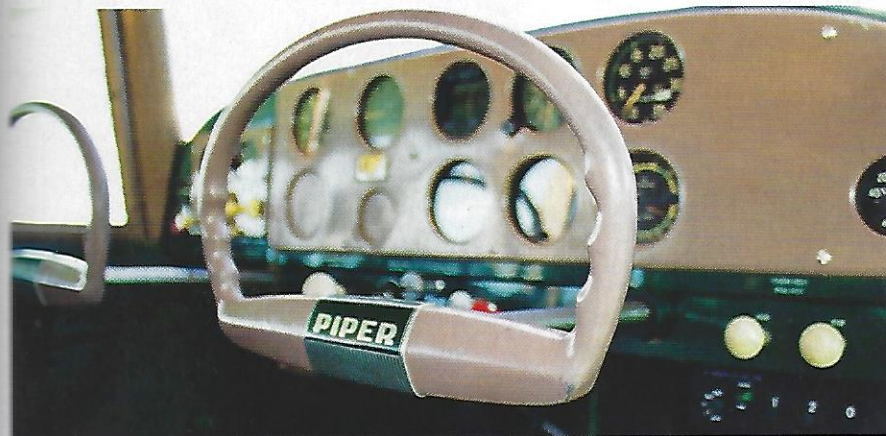
"I was still trying to make all the fly-ins with the family. Blakesburg, Brodhead, and the like, but for at least two years, I was essentially detached from that part of my life. Then my job moved me back to my home area, Minneapolis, and the vintage airplane bug bit me hard," he said. "My dad and I had restored a Mooney Mite, but my first personal foray into restoring airplanes was when I bought the PA-15 Vagabond that Lowell White had purchased from the factory in Lock Haven and had used for flying air shows ("Vaughn's Valiant Vagabond," *Vintage Airplane* September/October 2015). I got it flying, and now that my job has settled down, I'm hard into the vintage airplane thing. I just built a new hangar with a full shop and have a flying Waco YKC-S, one of only two still flying in the world."

Vaughn said his Waco came out of a major collection that had been based in Anoka, Minnesota. The owner was getting older and decided to sell his collection, which Vaughn described as huge. Luckily, the estate contracted with his dad, Forrest, to dispose of the collection, and Vaughn stood on the sidelines watching.

### Enter the Tri-Pacer

"The collection, which was in climate-controlled hangars, had outstanding examples of numerous rare antique airplane types, engines, and artifacts," Vaughn said. "I watched as they all sold. There were lots of buyers for each airplane, but virtually none for a 1953 Tri-Pacer that had been sitting in the corner since about 1987. It flew a little, when first purchased, but when put up for sale last year it hadn't flown for over 20 years. Even though we made an effort to let people know how important the airplane was, being absolutely original and all that, only a couple of people showed any interest. I think they were all looking at the 60-year-old cotton cover thinking they'd have to replace that, which would instantly kill the most attractive aspect of the airplane: its originality."

The Tri-Pacer was among the last aircraft waiting to be sold, and with the lack of interested buyers, Forrest turned to Vaughn to buy the airplane.



The PA-20/22 line introduced the control yoke to Piper's design philosophy.



### ABOUT THE PIPER PA-22 TRI-PACER

Before the "Tri" was added to "Pacer" there was a series of postwar Piper aircraft that have come to be known as the "short-wings." They all have their roots firmly planted in prewar long-wing designs such as the J-3 Cub and J-5 Cruiser. It has often been argued that until Piper went into all-metal single-engine designs with the Cherokee in 1960, it only built one airplane: the rag-and-tube J-3 Cub. From that point on the basic structure and aerodynamics were modified, mixed, and matched in various combinations that resulted in new models, but "new" actually meant "old, but different." The basics, like the USA-35B airfoil and the aluminum truss-type ribs, were used in every rag-and-tube Piper design.

Right after the war, with the economic wolves at the door and in need of a cheaper, new product, Piper designed the first short-wing, the PA-15 Vagabond. Everything about the side-by-side cutie was short. The wings, the fuselage, everything. Short meant less material, which meant less weight, which meant more performance from the ever-present 65-hp Continental A65 and less cost. The Vagabond (two versions, PA-15 and PA-17) sold well enough that Piper made a major redesign in 1949 with the Clipper. Lengthened and still using control sticks rather than yokes, a seat was put in back with its own door, and it was promoted as a four-place airplane. It really wasn't a satisfactory four-place, though, as it needed more power and other improvements. It was produced for only one year, 1949, but gave rise to the PA-20 Pacer, which planted the seeds needed to allow a whole new generation of four-place airplanes to develop.

Still a rag-and-tube airplane using Cub technology, the PA-20 Pacer could actually accommodate and fly with four people, but not very well, and the initial 125 hp rapidly increased to 135.

Barely a year after the taildragger Pacer was introduced, Piper made a radical change to it: The company put a nose wheel under it earning the Tri-Pacer the nickname "flying milk stool." Initially, the new configuration was an option in 1951 and was a full five years ahead of Cessna putting a similar training wheel on its C-170 making it into the C-172. The Tri-Pacer was an instant success and rapidly progressed from 125 hp to 135 hp, then 150 and 160 hp, all four-cylinder Lycomings.

Using control yokes rather than sticks, the Pacer series was much easier to board, and the addition of flaps, although not wildly effective, was of some use. By the day's standards, the cockpit was relatively roomy, and the ability to see over the Tri-Pacer's nose on takeoff and landing was a strong selling point. However, the incredibly increased ease of landing was its strongest selling point. If you could find the ground, you could land it. Roughly 9,400 Tri-Pacers were built ending in 1964, so they overlapped Cherokee production by several years.

The Short Wing Piper Club is one of the strongest type clubs extant offering technical, flying, and social support for its members. The airplane is wildly popular with many because it is relatively inexpensive and, with average speeds around 125-130 mph, is a solid and comfortable cross-country machine. Surprisingly, with the bigger engines, it can operate out of much shorter runways than many would think.

And it could be considered a warbird: It is interesting to note that reportedly the Cuban Army Air Force equipped several PA-22s with a .30-caliber machine gun firing out of the back door when fighting insurgents during the Cuban Revolution in the late '50s. It also used them for dropping hand grenades. So, the lowly Milk Stool saw service as a close air support platform. Who'd a thunk! Skyraiders and A-10s take note! This would be an interesting restoration theme for a Tri-Pacer, and replica .30-caliber machine guns are readily available. Want something different? This would be about as different as different gets.

# Time Capsule Tri-Pacer

“He called me and said, ‘Either you buy this airplane, or it’s being donated to a museum,’” Vaughn said. “I didn’t have to be pushed very hard. Yes, it was a Tri-Pacer, which is not at the top of the vintage airplane totem pole, but it was so unique that I thought it was really cool! No matter how hard you looked at it, you couldn’t find anything wrong with it or anything that had been changed. Of course, there was always the question of the condition of the fabric and the engine. Amazingly enough, however, the fabric passed punch tests. I was a little nervous doing the tests, but it all went well over the limit so it was good. We borescoped the engine every way you possibly could and couldn’t find any rust, so we went ahead and started it, and it has run like a watch since.”

Vaughn said when he brought the Tri-Pacer to Oshkosh for the first time this year it immediately got attention.

“It was really fun at Oshkosh,” he said. “Clyde Smith and Bill Pancake, between the two of them considered the country’s Piper experts, and the Piper Museum historian, Roger Peperell, showed up within five minutes of me tying the airplane down. The word that the airplane would be there had gone out well before the fly-in started. They pored over the airplane from one end to the other looking at every little detail. They weren’t looking for things that weren’t correct so much as they were using the airplane to verify what they already knew. There were few, if any, aha! moments or surprises. The only items they’d forgotten about were a couple of placards in the engine compartment. I think everyone agreed that this was an airplane that could be used as a guide for almost any short-wing Piper restoration. Even the old ‘coffee grinder’ Narco Superhomer VOR still works, but I use a handheld instead. That was absolutely state-of-the-art when installed.”

Vaughn said the original invoice for the Tri-Pacer indicates it sold for \$4,159.27, which works out to a little more than \$38,000 in 2017 dollars, which is something of a bargain considering what new airplanes cost today.

“If you figure that the airplane was delivered to a dealer in June of ’53 only two years after the nose wheel had been added to the PA-20 Pacer, the airplane was really early in production and didn’t see any of the changes seen on the later airplanes,” Vaughn said. “So, if anyone has any question about the way Piper did things back in the day, all they need to do is look at this airplane.”

## What Now?

When asked about his plans for the airplane, Vaughn is quick to point out that he’s concerned about keeping the airplane’s originality intact.

“While I love this airplane, I know I really shouldn’t have it,” he said. “It should be in a climate-controlled, permanent home where it is accessible to everyone seeking answers to restoration questions. A museum? I don’t know. I just know that it is a unique historical reference piece that we’re not likely to ever see again, and it needs to be protected. So, I just don’t know. I only know that while it is in my care, it’s going to be looked after as the treasure that it is.” *EAA*

**Budd Davisson** is an aeronautical engineer, has flown more than 300 different types, and has published four books and more than 4,000 articles. He is editor-in-chief of *Flight Journal* magazine and a flight instructor primarily in Pitts/tailwheel aircraft. Visit him on [www.AirBum.com](http://www.AirBum.com).



*This image could have been shot in 1953. Nothing has changed about the airplane.*