

2016 Annual Conference Program Inside ▶

Aviation *for* Women

MARCH/APRIL 2016

The official publication of Women in Aviation International®



Built It!

LISA TURNER'S LOVE FOR
THE MECHANICAL SIDE

INTERNSHIPS
HELP YOUR CAREER
TAKE OFF

RESCUE SWIMMERS

BECOMING A
COAST GUARD
AVIATION
SURVIVAL
TECHNICIAN

LICENSING AGREEMENT NO. 40042433

Right: Lisa working on the engine assembly of a 220 Continental installed on a 1931 Waco F-2 in 2004.
Below: Lisa rebuilds a bicycle in 1975 as part of her startup business, Turner's Bicycle Service.

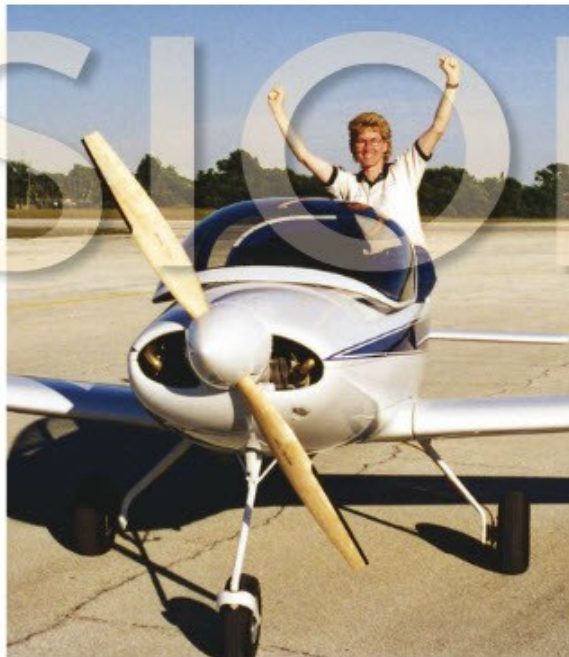


Finding Her

PASSION

Lisa Turner's road less traveled

Center left: No one said you can't have an airplane in your driveway! Lisa pulled her Pulsar XP fuselage into the driveway in 1996 to fit the wings.
Center right: Completing the first taxi testing runs in the Pulsar XP in December 1997. Right: Lisa after her first test flight in the Pulsar XP in December 1997.



The last words that Lisa Turner's mother said to her had a tremendous impact on her life. Her mother said, "I love you! Don't forget your sense of humor, and please concentrate in school—for me."

Describing herself as somewhat of a delinquent at the time—"I'd start walking to school but get distracted and go do something else"—Lisa, WAI 11178, who was 12 when her mother passed away, redirected her life to make education a priority, and she's never stopped learning since. With bachelor's, master's, and doctorate degrees earned over the course of many years, along with an associate's degree in engineering later in life, Lisa has achieved lots of goals in the academic world. But it's been in her hobby life where she's found her real passion, and love!

With her sister and brother much older than she and essentially out of the house when she was young, Lisa said she basically grew up as an only child. Her father had left the family when she was about 7, so it was just Lisa and her mom, who put few restraints on Lisa's creativity or activities. "I grew up in a neighborhood of boys, and I didn't know I was supposed to act like a girl, and my mother didn't put those influences on me," Lisa said. "I read Tom Hardy and Tom Swift books and dreamed of building a rocket ship in my backyard. My mom always encouraged me to be or do whatever I wanted."

It wasn't until she was in high school that people started trying to redirect her interests. "In high school, I wanted to take shop class, but the counselor told me, 'You're supposed to take home ec and make dresses.' So I told him, 'Well, I'll

take home ec and make dresses if you'll also let me take shop.' My counselor was kind of baffled and asked why I wanted to take shop," Lisa explained. "I told him 'Because I enjoy doing that kind of stuff.'" Eventually the school agreed and let her take both.

by Mary Jones

"I got to take a Briggs & Stratton engine apart, and I loved it," she said. "The boys were fascinated to have a girl in shop class, and that experience told me it was okay to do what I wanted."

In college, Lisa studied English and philosophy, planning to become a high school English teacher. When she graduated, the teacher pay was low and it just didn't feel like the right job for her. Instead, she moved from Maryland to Florida where her sister lived and opened a bicycle shop after apprenticing for a while. At the time her sister was dating a man who was a pilot. After observing Lisa's interests, he asked her if she'd like to try flying. She did and loved it, and he paid for her flying lessons through solo. She soloed in a Piper PA-28 on February 1, 1975—a day that changed her life. "I loved flying, but I also loved the mechanics and physics of the aircraft."

TEACHING AND EXPLORING

Lisa continued to run the bike shop, holding classes to show others how to fix their bikes. She remembers being very frightened about the first class she offered. "I put an ad in the paper and four women and one guy showed up," she said. "At that time I was shy and introverted and wasn't comfortable talking with people I didn't know, but after the first 15 minutes I got so excited talking about mechanics and showing them how they could tune up their bikes, things were going fine."

After a while, people started asking Lisa if she could fix their motorcycles and foreign cars. So she started doing that work as well, but wasn't comfortable not having any certification. "I really believe that you should have credentials to do any work for paying customers," she said. She attended a local technical school for automotive training and earned a certificate from the National Institute for Automotive Service Excellence (now known as the ASE). "On the day of the exam, I was the only woman in an auditorium with 55 men," Lisa said.

The bicycle shop, however, wasn't providing Lisa with enough income to support herself fully. Realizing that she really loved mechanical things, she decided to pursue an associate's degree in electrical engineering. "If I could have been exposed to engineering while I was in high school, I'm sure my career path would have been different," she said. With her new engineering degree, she landed a job as a power sup-

"I kept very thorough logs of my time. I'd look at a part and set a goal of how long I thought it'd take me and write that down to see how close I would come. I even wrote down the time I spent cleaning the shop!"

ply technician at a company that made telephone systems.

This was in the 1980s, and quality circles were becoming a big part of the manufacturing scene. "Our human resources people would gather groups of workers together to discuss how we could improve our production processes, and I found those discussions very interesting," Lisa said. In time, the company advertised for an HR person to manage the quality circles program, with that job paying four times what Lisa was making. She was intrigued and applied for the job. "When I walked into the HR department and told them I was interested in that job, they looked at me oddly and said, 'Well, we're not sure a technician can make that jump.' When I showed them my résumé with my bachelor's degree in education, they were surprised and hired me for the position," Lisa said. "I enjoyed the new training role, but missed the assembly and testing."

While in that position, Lisa went on to earn a master's in business administration in human resources and then a doctorate in science, always remembering her mother's appeal to get a good education. "It was about a desire to please my mom, so I've always gone after every degree and certification that I could," she said.

BUILDING HER DREAMS

It was also during this timeframe that Lisa's first marriage ended, and a move found her living under the traffic pattern for the Lantana, Florida, airport. "Every day airplanes would fly the downwind leg over my house," she said. "Suddenly my aviation love re-ignited and I knew I couldn't live there and not go to the airport." In February 1995, almost 20 years to the day she soloed, Lisa earned her private pilot certificate and began researching what airplane to build. "All those dreams I had as a kid of building a rocket ship were now becoming possible," she said.

After considerable research, Lisa chose to build a composite Pulsar XP, a low-wing, two-place airplane. "I joined EAA and learned everything I could before making my choice. Building the airplane was the most fun thing I'd ever done in my life. I loved every aspect of



CHARLIE BECKER/EAA

it—doing the research, getting my garage organized as a workshop, figuring out what tools I needed, the creativity, fabrication, and mechanical stuff. Every day was Christmas!" she said. "I'd do my HR job every day and then come home and do my household chores so that come Friday evening, I could go out into my shop and work all weekend on the airplane. I was as excited about building as I was looking forward to flying."

She completed the Pulsar in 1997 after 20 months and 1,834 hours of building time. "I kept very thorough logs of my time. I'd look at a part and set a goal of how long I thought it'd take me and write that down to see how close I would come. I even wrote down the time I spent cleaning the shop! You might call someone like that anal retentive, and I was, but I was completely happy," she said. "Building the airplane taught me how to accomplish things. I learned through that how to set realistic goals and set up timelines for meeting them. These became life lessons that fueled my dreams and goals."

Next she designed her flight-testing program and made a successful first flight. Lisa flew the Pulsar 400 hours, traveling throughout the United States, but then she realized she really wanted to build another plane but couldn't afford to have two. With very mixed emotions she sold the Pulsar to finance another building project. "When the new owner flew the Pulsar away, I sat in the golf cart and just sobbed," Lisa said. "I felt like something had died. But it was what I had to do."

COVERED WITH LOVE

Little did she know that next project would bring even bigger changes to her life.

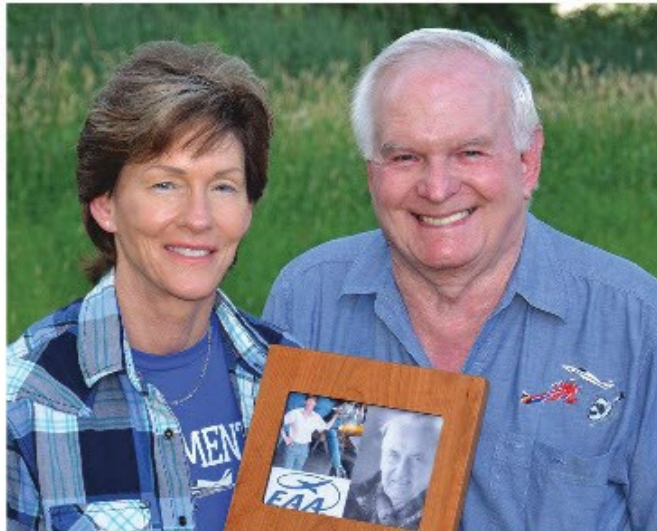
Lisa had her eyes set on a Kolb Twinstar Mark III, a high-wing, pusher aircraft that was fabric-covered. She went to the factory, flew one, and purchased the kit, but when it came time to do the fabric covering, she was a bit perplexed. "That process was different than anything I'd ever done before," she said. "I asked around the airport for fabric covering help and then learned there was going to be a fabric-covering weekend workshop in Lakeland, Florida, which was just three hours from my home."

Right: Accepting the Tony Bingelis Award for accomplishment as an EAA Technical Counselor and Flight Advisor from Rick Weiss, chairman of the Homebuilt Aircraft Council, on July 23, 2015. Lisa is the first woman to receive the award.

"Building the airplane was the most fun thing I'd ever done in my life. I loved every aspect of it—doing the research, getting my garage organized as a workshop, figuring out what tools I needed, the creativity, fabrication, and mechanical stuff."

“My career was very important to me, and getting laid off was a big emotional trauma for me,” Lisa said. “I wasn’t sure what I was going to do next, and at the time I couldn’t afford to finish the helicopter.”

CHARLIE BECKER/EAA



She signed up, arrived, and was introduced to the instructor, Jerry Stadtmiller, and they became fast friends over the course of the weekend workshop. After Lisa completed covering the Kolb, she was again perplexed about painting it. “I hired someone to paint my Pulsar because I was afraid I’d mess it up, so I was hesitant to take on painting my Kolb,” Lisa said. “I called Jerry and told him of my concerns, and he said, ‘Where do you live?’ When I told him Boynton Beach, he said, ‘I’m in Fort Lauderdale; that’s only 45 minutes away. I have a shop and the equipment, and I’ll help you.’”

That was in 1999, and as you might have guessed, the friendship between Lisa and Jerry blossomed; they fell in love and married four years later. While they finished painting the Kolb, the project stalled for a while. “We were getting to know one another and enjoying life,” Lisa said. “And it was okay that we took a break from the project; that happens to a lot of builders. Other things can and will interfere in a project the magnitude of building an aircraft.”

MORE TO EXPLORE

Spending time with Jerry—who covers, restores, and paints antique and classic aircraft for his living—introduced Lisa to an even wider variety of aircraft. “I’d been so totally focused on homebuilts that I didn’t pay much attention to other types of aircraft.”

Eventually, Lisa finished the Kolb, but sold it to finance her even bigger dream of building and flying a helicopter. “Anti-gravity!” she exclaimed. Jerry fully supported that idea, and soon they were the owners of a Rotorway helicopter kit. By now it was the mid 2000s, and the economy had taken a downturn, which led to Lisa being laid off from work.

“My career was very important to me, and getting laid off was a big emotional trauma for me,” Lisa said. “I wasn’t sure what I was going to do next, and at the time I couldn’t afford to finish the helicopter.” With a very heavy heart, she sold the half-completed kit. While she’s been “kitless” for a few years, she knows there are several more building projects in her future. “I’m thinking the next might be a single-place electric aircraft, but I’m waiting for the technology to get more advanced before I make the decision,” she said. “Once again, the dance between work and fun—building—is sometimes difficult to plan.”

A HELPING HAND

Not having a kit to work on didn’t lessen Lisa’s interest in things mechanical. In fact, she decided she wanted to earn her A&P certificate. So she worked with Jerry in his shop to learn all the skills she needed to acquire, and eventual-

ly took the A&P practical and written tests and passed. Lisa also joined the team of SportAir Workshops instructors and taught fabric covering and other courses around the country, and she volunteers as a technical counselor and flight advisor in EAA’s homebuilding community.

In 2007, Lisa’s peers encouraged her to consider becoming an FAA designated airworthiness representative for amateur-built aircraft (AB-DAR), telling her that more qualified women were needed in the field to encourage other women to become builders. Lisa was sponsored by EAA and spent months organizing her materials, completing forms, attending workshops, and eventually passing the grueling test. “It was a lot of hoops to jump through,” she recalled.

In 2008, Lisa was named the first female, civilian AB-DAR and assigned to the Fort Lauderdale Flight Standards District Office, and she spent two years providing airworthiness inspections to builders throughout Florida until she and Jerry decided to relocate to North Carolina in 2010. Currently she’s working as an avionics manufacturing engineer at a company in North Carolina, overseeing the production of brake parts for the Boeing 787 Dreamliner.

At EAA AirVenture Oshkosh 2015, she was honored with the Tony Bingelis Award, which recognizes EAA technical counselors for dedicated service and/or significant contributions in assisting members to build and restore aircraft. Lisa is the first female to be awarded this recognition.

Encouraging others to pursue their dreams has always

been part of Lisa’s spirit as well, leading her to write and speak frequently about setting and reaching lifelong goals. She developed an online coaching program, produced webinars, and has written several articles in a variety of aviation and human resources publications.

“I want everybody, not just women, to understand that they have the potential to do whatever they want,” she said. “It doesn’t have to be building an airplane; it could be running a company. Whatever it is they need to identify it and hold the dream; think about what it looks like, and put the plan together to get there. But, it has to be something they are passionate about because achieving any dream takes a lot of work.” She’s challenged herself to write a book about her flying adventures and how building an aircraft gave her the tools to figure out and do what she really loves.

Lisa’s career path was definitely one less traveled by other women, but that never deterred her, and she hopes it won’t deter others in the future. “I’ve been so lucky to have had a mother and now a husband who continues to support me in whatever I want to do,” she said. “Over the years I’ve been the only woman in a room full of men many times, and I’m thrilled now that young girls are getting introduced to what were nontraditional areas in my days as a student.”

.....
Mary Jones, WAI 3560, is a freelance editor and writer and owns EditEtc LLC.



Top: Lisa and husband Jerry. Center: Lisa shows Jerry, then just a friend, how the Rotax 912 installs in a Kolb Mark III in her garage workshop. Bottom: Installing avionics in the center panel of her Kolb Mark III in 2005 in her two-car garage.

ASU college of **technology & innovation**
 ARIZONA STATE UNIVERSITY

ATP

technology.asu.edu/aviation



Experience world class flight training by ATP Flight School in the professional pilot program at Arizona State University. With ASU academics and ATP’s airline-oriented flight training, students prepare for successful professional pilot careers. Arizona’s clear skies and ATP’s modern fleet keep your flight training on schedule.