ALBERT E. (BUD) LEONARD

R&D MECHANIC/QUALITY CONTROL
PIASECKI AIRCRAFT
With regards to a strong safety culture, a free flow of information about risks and hazards and how to handle them to minimize threat and risk is essential.
MENTORING

I enjoyed interviewing Bud Leonard for this month’s cover story. I’ve known Bud almost 20 years. One of the things I didn’t realize about him until our interview was his passion for mentoring young students. Throughout his career, Bud has helped more than 100 students get their A&P certificates. Many of his former students attended the FAA presentation of the Charles Taylor award to Leonard on January 10th. They wanted to be there to help him celebrate the momentous achievement.

I had the opportunity to talk to quite a few of Bud’s former students at the celebration. They have all had successful careers in aviation maintenance, many of them going on to mentor others themselves. Every one of them said they would not have had successful careers if it were not for “Mr. Leonard.” They were grateful for the time he took to mentor them.

To tie in with the mentoring theme, Gordon Dupont has an article on mentoring in this issue. I wish I could claim credit for planning it, but Dupont submitted his article couple of months ago. His timing couldn’t have been better — the mentoring theme fits in well with our profile story! In his article, Dupont shares tips helping and mentoring new mechanics.

Mentoring.org says, “Mentoring, at its core, guarantees young people that there is someone who cares about them, assures them they are not alone in dealing with day-to-day challenges, and makes them feel like they matter. Research confirms that quality mentoring relationships have powerful positive effects on young people in a variety of personal, academic, and professional situations. Ultimately, mentoring connects a young person to personal growth and development, and social and economic opportunity. Yet one in three young people will grow up without this critical asset.”

Mentoring takes time and patience. Taking time out of our busy schedules to help mentor students and younger mechanics is not easy. But anything worthwhile isn’t easy.

If you are a maintenance manager, chances are high that a mentor helped shape your successful career. Now it’s time to give back. Take some time to mentor that new mechanic. Show him or her what it means to have a successful career in aviation maintenance.

We have taken the elevator towards the top floor of our career. It’s time, as the late Jack Lemmon would say, to send that elevator back down so that others can have the same success! If you’ve been able to realize your dreams, then you are obligated to spend a good portion of your time sending the elevator back down.

We launched D.O.M. magazine over 11 years ago with just that purpose in mind. We wanted to produce an “elevator” to help aircraft maintenance professionals ascend in their careers. We want to help make that transition from being a mechanic to becoming a leader easier.

If you are in a leadership position, it is your obligation to send the elevator back down to help the next generation of aviation maintenance leaders. Don’t just sit at the top floor enjoying the view — help others so that they have the opportunity to enjoy that view in the future!

Thanks for reading, and we appreciate your feedback!

– Joe Escobar
ON JANUARY 10 OF THIS YEAR, FRIENDS, FAMILY AND AVIATION PEERS PACKED THE CORINTHIAN YACHT CLUB IN ESSINGTON, PA. THEY WERE THERE TO CELEBRATE FAA PRESENTATION OF ITS CHARLES TAYLOR MASTER MECHANIC AWARD TO ALBERT E. (BUD) LEONARD, R&D MECHANIC/QUALITY CONTROL FOR PIASECKI AIRCRAFT. THE PRESENTATION CELEBRATED 50 YEARS OF WORKING AS AN AIRCRAFT MAINTENANCE PROFESSIONAL. I HAD THE OPPORTUNITY TO ATTEND THE PRESENTATION AND INTERVIEW LEONARD. THIS IS HIS STORY.

Bud Leonard didn’t grow up around aviation. He jokes that he, “didn’t know a helicopter from a duck.” He grew up on a farm on the Chesapeake Bay in Saint Michaels, MD. Maintaining tractors around the family farm honed his mechanical skills. His wife Chris says, “If you see pictures of him in his younger days or in his school pictures, there’s always a tractor in the background because tractor maintenance was always going on. We have tractors here in our yard to this day!”

Leonard was introduced to aviation in 1964. That’s the year he was drafted in the Army. He was at Fort Holabird in Baltimore and was told he had 21 days to report to Fort Bragg. “Whoa, I can’t do that,” Leonard said. “I have a new car and all these girlfriends whose boyfriends are overseas. 21 days is not going to happen!”

Then the recruiter said there was another option. He informed Leonard that the Marine Corps had a delayed entry program — an aviation delayed entry, and he qualified high enough for it. He said that Leonard could go into aviation in the Marine Corps and wouldn’t need to leave for 120 days. Leonard replied, “That sounds like a deal!”

“I tell people that the Army wanted me for two years, but I outsmarted them and went in the Marine Corps for four,” Leonard likes to joke. “But I’m so glad that I did!”

The Marines taught Leonard how to work on aircraft. “I don’t want to blow my own horn, but I got pretty good at being a mechanic,” he says. “But it also taught me lessons that have helped me over the years — discipline, respect for others, teamwork and no man left behind.”

Leonard and his fellow Marines worked in some sticky situations in Vietnam. He recalls the time his team went out to salvage a helicopter. Their mission was to remove the engine and pull the blades and pylon off a helicopter so a CH46 could hoist it out. It would take them
between 45 minutes and an hour to do the task. “We were in a hot zone where the helicopter had gone down,” he shares. “A sergeant and I were on top. We were being shot at. I finally told the sergeant, ‘Look, you’re a married man with two kids — get the hell out of here!’ I have slides of me literally jumping off the top of the helicopter!”

Leonard spent most of his time in the Marines working on Sikorsky H-34s. The last six months, he crewed a CH-46, and gained turbine experience on top of the piston experience he already had.

Leonard spent four years in the Marines. He made Sergeant in 31 months and was on the Staff List. He would have been an E-6 had he re-enlisted, but that meant another tour in Vietnam. His brother had called him a few months before his re-enlistment date, and Leonard shared that he was probably going to re-enlist. His brother bluntly told him, “Mom will never take another tour of you in Vietnam.” “You couldn’t have hit me in the head any harder,” Leonard says. “So I got out after my four years were up.”

**CIVILIAN LIFE**

Leonard went back home to Saint Michaels when he got out of the Marines. He got a job working in a local grocery store. His brother started giving him a hard time about working in a grocery store instead of taking the knowledge and experience the Marines had given him and using that to work in aviation.

Leonard knew in his heart that he wanted to pursue a career in aircraft maintenance. He applied to eight Part 147 schools and ended up enrolling in Spartan College of Aeronautics in Tulsa, OK.

“I arrived there on a Sunday afternoon, and almost went back home on Monday,” Leonard shares. “There were a lot of kids running around there who were not serious about school. There were some wild looking kids — hippies if you will. Their fathers enrolled them in school so they wouldn’t have to go to Vietnam. They would be in class clowning around and carrying on. The 65% of us who were ex-military in our class set them straight pretty quick. ‘My dad didn’t pay for this, and you’re not going to mess my education up,’ I said. That only needed to happen three or four times,
Leonard did well in school. It was just before Christmas, and a friend of Leonard’s in school who was ex-Navy and he decided to take their powerplant tests before returning home for Christmas break. They decided to take their tests with Mr. Baker, the chief instructor at the school. They figured out that if they could pass his test, they knew their stuff.

THE WORLD IS MY OYSTER
They went over to the shop on a Sunday to take the tests. They both passed. “My buddy Dave asked him how much he owed him, and Mr. Baker said 25 dollars,” Leonard shares. “So I pulled out my checkbook and Mr. Baker told me, ‘No, no — I don’t want your money. Are you going home for Christmas?’ ‘Yes sir,’ I replied. ‘I’ll take a gallon of Chesapeake Bay oysters as payment.’

When I flew back to Tulsa after Christmas break, I had a gallon of fresh iced-down oysters with me. I went from the airport straight to Mr. Baker’s house. When he opened the door he saw what I had. He opened that lid and just stood there eating those raw oysters right out of the bucket. In March, when it was time to take their airframe tests, it was the same deal — Mr. Baker wanted oysters as payment. I paid for my A&P tests with fresh oysters from home!”

After earning his A&P, Leonard stayed in school to take three additional two-month courses — a second class radiotelephone operator course, a jet engine overhaul course and an accident investigation course.

After finishing school, Leonard was offered a job at PHI. However, his wife at the time didn’t like the idea of him being out two weeks and home a week, so he decided to move back home to look for a job there.

There were a few jobs available for around $1.50/hour. Leonard expected that with his military helicopter experience he could earn more, so he kept searching. He went to interview with a company that operated Bell 47’s. “I had exceptional recommendation letters from a couple of pilots in the Marine Corps and a maintenance chief,” Leonard recounts. “The guy jokingly asked how I had talked them into signing the letters. He then turned me down for the job because I didn’t have enough experience. There I was with experience crewing 46s and 34s, and he said I didn’t have enough experience? I was so mad that I was a bit distracted, and I ended up running out of gas on the Chesapeake Bay Bridge on the way home!

“Fast forward two years — we ferried a Skycrane to that same airport,” Leonard continues. “We were going to do a lift job the next day on the Chesapeake Bay Bridge. It was just after dark and I’m doing some quick maintenance on the aircraft. A guy walks up behind me and asks, ‘How the hell did you learn to work on one of these?’ It was the same guy who turned me down for that job. I said, ‘When you’re too dumb to work on Bell 47s, they give you one of these to work on.’ He didn’t even look up and said, ‘I guess you can’t win them all.’”

Back to the job hunt. Leonard was getting frustrated that he couldn’t find a job. Then one day, he was flipping through a copy of Trade-a-Plane and noticed an ad for a company out of Philadelphia that was selling rotor blades. “So, I call them up,” Leonard shares. “‘You must have an S-58,’ I said. ‘Yes, we do,’ he replied. So, long story short, he hired me. That was my start at Keystone Helicopters.”


Leonard then went to work for Erickson. He was working on the company’s Sikorsky S-64 Skycranes. As the company was taking delivery of its third Skycrane, Leonard was working with a Sikorsky mechanic that knew the aircraft. Then one day, the owner Jack Erickson asked Leonard if he was ready to take over the maintenance for that Skycrane. “I said, ‘Jack, I don’t even know how to preflight the damn thing,’” Leonard says. “Larry (the pilot) seems to think you’re ready,’ Jack told me. So, I leaned over to Larry and said, ‘I’ll make you a deal. First time we land somewhere, and I don’t know how to fix this damn thing, you won’t jump in a rental car and go to the motel.’ ‘You have a deal,’ Larry told me. There were times I couldn’t get enough manuals pulled out, but that’s how I learned that aircraft — I HAD to learn!

“To tell you the truth,” Leonard continues, “I was tickled to death to work on those helicopters. They could have probably cut my pay and I wouldn’t have said anything. I really enjoyed working on them!”

Eventually, Erickson wanted Leonard to take over the maintenance for all four of its Skycranes. He was barely home maintaining one helicopter. He eventually decided to leave Erickson. He left on good terms, and Jack Erickson told him the door would always be open if he wanted to return.

Leonard went home and collected unemployment for a few months. Then his next job opportunity came up — one that would change his life and the lives of more than 100 young people forever.

TEACHING
Leonard got a job at Delcastle Technical High School as an instructor. The school taught many trades including brick laying, carpentry and aviation. “I had to go to college to get my teaching
Leonard quickly realized he could help give his students a pathway for having successful careers in aviation maintenance. He talked to the FAA and got approval to sign their time off under Part 65 for the hours of OJT/work performed while they were under his instruction. This would give them the opportunity to take their A&P tests based on experience. He also networked with local aviation companies to help get his students jobs once they received their A&Ps. Some were able to work aviation jobs to help earn extra spending money while building up their experience before they got their certificates. The students respected Leonard and appreciated all he was doing to help them. Many would even go to the shop at the school on weekends to expand their knowledge and gain experience.

Leonard would take side jobs in the evenings or summers when school was out to help supplement his income. Eventually Leonard retired, but was doing some work for Peter Wright purchasing museum pieces. In January 2003, he went over to Piasecki Aircraft Corp. (Frank Piasecki invented the tandem rotor helicopter) and talked to Fred Piasecki, one of the owners. He knew Piasecki had six radial engines left over from the company’s Helistat program and wanted to know if he could have them to give away to some Marine Corps groups that had restored some H-34 helicopters. Piasecki let Leonard have the engines. He asked what Leonard was doing. Leonard said he was retired. Piasecki said, “You’ll never be retired,” and asked Leonard if he would like to work part time acquiring parts for the company’s SpeedHawk program. Leonard accepted the offer and started working for Piasecki Aircraft.

**PIASECKI AIRCRAFT**

The aircraft Leonard was hired for at Piasecki was the SpeedHawk (X-49) — a technology demonstrator. The aircraft was based on a Sikorsky Seahawk helicopter and was modified with a vectored thrust ducted propeller (VTDP) in the back and lifting wings (taken from an Aerostar FJ-100 business jet) on the fuselage.

Leonard’s first task was to get parts for two hydraulic systems. “I said, ‘Fred, why do you want this junk? This aircraft has very good systems in it.’” Leonard says. “Well, it didn’t take me long to learn what it meant by isolating systems in the aircraft. We had two redundant hydraulic systems on the SpeedHawk just for all the modifications we had done to the aircraft.”

Leonard went from working 30-hours a week at the beginning to more than 40 hours a week. His part time job had become a full-time endeavor.

Leonard did a lot of work on the SpeedHawk. The maintenance tasks Leonard performed on the aircraft were groundbreaking. The team was learning as the project went along. There were no maintenance manuals for what they were doing. He was working with the team to develop maintenance procedures as each challenge presented itself. THEY wrote the maintenance book. At that time Leonard was chief of Quality and was the person responsible for releasing the aircraft for every test flight.

The SpeedHawk made its first flight in June 2007. In total, the helicopter made 79 flights totaling 86.6 hours.

Leonard continues to work for Piasecki Aircraft to this day. He is still involved on the company’s experimental projects. Every day presents new challenges and new opportunities for learning. “It’s been fun,” Leonard says. “You can’t put this kind of stuff on a resume, but it’s been great experiencing all the different things I have and learning every step of the way.”

On January 10, as the FAA kicked off its Charles Taylor Master Mechanic presentation to Leonard it played a short informational video about Charles Taylor for the benefit of the non-aviation attendees at the celebration.

As I was watching the video, I realized how appropriate it was that Leonard was receiving the Charles Taylor award! Although the award celebrates 50 years of violation-free work in aviation maintenance, I believe the award meant much more to many of those in attendance. Charles Taylor built the engine that powered the Wright Flyer into the history books — even when engine manufacturers of the day told the Wright Brothers it couldn’t be done. There were no maintenance manuals for Taylor to reference. He was designing and learning as he went along. These past years at Piasecki have been along those same grounds for Leonard. He continues to work on new projects. The majority of the time, he has no maintenance manuals. He is learning as he goes. And he has passed on his knowledge to more than 100 of his students who will continue to celebrate his impact and legacy for generations to come!