

Chapter 170 San Luis Obispo, CA



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EAA Chapter 170 Sept. 16, 2018 Program

Chapter member Tim Williams has a North American Texan T-6 and he will fill us in about his airplane and also share his impressions about his 2018 Air Venture visit. Don't miss this treat.

Upcoming Events

September 16, 2018

Chapter 170 meeting at >>> **NOON**
Hanger 49 - West side of San Luis Obispo Airport
Directors/Business meeting at 11:30 am
2018 Reno Air Races Sept. 12-16
Central Coast AirFest @ SMX Oct. 6-7
California Capital Airshow -Sacramento 21-23

From the Left Seat

Neal Koellish – President
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Greetings

We've got another great program for you this month.
Tim Williams is going to present his beautifully restored T-6. This plane was built in Texas and was used by the Army Air Corps and later the Air Force as an advanced trainer from 1943 until 1956. The Army designated it as a T-6, the Navy as an SNJ and in the British Commonwealth as the Harvard.

Whatever you wish to call it, it's a very nice looking example. We will meet at Paul's hangar and begin with tube steaks and socializing after which Tim will taxi it over to the hangar providing its annual has been completed by then. If not, Tim will talk to us at Paul's and then we'll walk over and see the plane. Don't miss this one! Bring a friend, guests are welcome.

See you there.

Regards, Neal

Chapter Business Meeting Program August 19, 2018

Chapter Business meeting

In addition to a beautiful day at the August business meeting there was a quorum. We started on time and got some agenda items considered. Chapter members present were: Oscar Bayer, Dave Chivens, Jim Buenrostro, Liz Dinan, Will Harris, John Scarry, Tom Del Re, Vince Rubatzky and Neal Koellish. One major inconvenience was the malfunctioning gate into the hanger area.

The Chapter checking balance remains at \$2,538. A topic brought up by John Scarry considered how the Chapter might go about attracting more people to attend Chapter meeting and to join the Chapter.

John indicated that should the Chapter develop an advance line-up of several good speakers/programs it may be worthwhile sending postcards to publicize the meetings. He found that 1,253 pilots are registered with the FAA in the 934xx zip code area. There would be a cost involved for postage. Also it may be possible to identify and contact registered EAA members in the Central Coast area. He feels if there are more people/members attending meetings, that might appeal to and attract more speakers.

Another discussion was about Jim Radichek's suggestions for holding technical forums (workshops), perhaps generated from current hanger and air field activities. He believes he knows of some near-local resources in areas such as: magneto timing, glasswork/repairs, wiring/soldering, and types of connectors for different parts of the plane. Other topics could be an ADS-B show and tell. For example, who bought what, how it is integrated and how you like it. Another subject might be vibrational analysis for props and airframe flutter such as gear doors might be considered. Still another might be custom-part drawings and machining. (For example, he is considering having some custom flap hinges drawn and cut for his airplane.) Jim also proposed the idea to getting people involved in opportunities to see a homebuilt undergoing construction; to actually look at the plans, the tools and methods

Jim also introduced the idea of being an extra hand. He added; "I occasionally have friends / their kids asking me if they can help me with my plane and get a ride. What does this entail, what can we do legally? How can we work with kids and others to get their hands on and save ourselves some work? "My efforts have been fairly successful here." These Radichek comments were lifted from Jim's e-mail, and hopefully his intentions were not altered in this reporting. . I left out his idea to raffle off a couple flights in RVs, Glasairs, etc. We are looking forward to further communication with Jim and thank him his suggestions.

Liz back from Oshkosh mentioned a couple of program suggestions. She knows Liz Ruth, a 99er who has given a talk to the Commemorative Air Force, flown either a F-16 or F-18 during her military service, and now flies big iron for United. Liz D thinks Liz R has some interesting experience to share. Another potential Liz knows is Kelly McCoy who flies for ACI and has an interesting aviation background. Liz will be asked to catch these two birds.

Another item Liz mentioned was that the SLO 99ers were hosting the South West 99ers Section meeting for October 3-6, 2019. That meeting may attract many airplanes, perhaps 60 or more. The meeting will have clinics open to all, and the local 99ers who LOVE to have Chapter participate in some way. Although this is some time away, identification of Chapter participation will be on the next Chapter business meeting agenda.

Often mentioned is that our central coast area has a fair number of retired airline pilots. Their experiences would interest many. We need not ask for volunteer speakers to make a formal presentation since their response to questions would make a great program. This effort could resemble the monthly Les Abend articles enjoyed by many that appear in *Flying* magazine. A few likely retired airline line pilot candidates were mentioned and this idea merits a follow-up

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Aircraft building information at KSBP continues to be scarce and is without leads about whom or what is going on. Will Harris suggested that initiating some small scale actual airplane building within the Chapter would boost Chapter member participation and attraction. Both look-on and hands-on participants would benefit. A start might involve a partial kit purchase. Please express your view.

Consideration about Chapter dues for 2019 was limited since there wasn't a need or reason to change and therefore dues will remain at \$20. However, in the next year let's hope for better participation.

Joe Dezso asked if the Chapter has ruled out further YE flights. With the recent (April) event and absence of airport day (a major stimulus) it seems unlikely that the Chapter will sponsor a YE event this year.

Refreshment preparations and hot dogs via Tom Del Re were appreciated. His suggestion to first eat and then enjoy the program appears to be A OK. Chapter members are also grateful to Paul Kendrick for continued use of his hanger, and also to John Scarry for getting the meeting announcement into the Sunday Tribune 'Things to do' section.

There was no mistaking the throaty rumble signaling the taxiing approach of the Texan T-6, which effectively concluded the business meeting and stimulated an appetite for hot dogs and group conversation.

Chapter Meeting Program August 19, 2018

Following the arrival of the featured airplane, meeting attendees sat down to hear from Tim Williams, who in addition to bringing his big Texan to the meeting also brought two other beauties, namely his wife Merrie and daughter Shelbie.

In addition to owning the T-6, Tim also is recognized for founding Digital West in 1999 which has developed into a significant provider of internet services, and which he still leads. Furthermore



Tim has a BS in Journalism from Cal Poly University, lives in San Luis Obispo, flies airplanes, recently became a husband and father, and has been a life-long technology enthusiast here on the Central Coast. He continues a huge involvement in Central Coast communities, which explains why he is so busy. Nevertheless, he found time for us. **THANK YOU!**

Using his power point equipment Tim provided many excellent photos of his airplane and aspects of his recent trip to Oshkosh. However, right off the bat, he made a confession about a flying decision. We will get to that later.

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Next, Tim gave some specifications about his 1942 Texan T-6:

Span: 42 ft. - Length: 29 ft. 6 in. - Height 10 ft. 10 in.

Wing area 254 sq.ft. - Wing load 22.2 lb/sq.ft

Gross weight: 5,617 lbs. - Empty weight 4,158 lbs.

Engine: Pratt & Whitney nine cylinder R-1340 of 600 hp.

Performance

Maximum speed: 210 mph

Cruising speed: 145 mph

Climb rate 1,200 ft/min

Fuel burn 30 gal/hr - Fuel 110 gal., 92 usable - Range: 770 miles

Service Ceiling: 23,200 ft.

Armament: None (some AT-6's were used for gunnery/bombing training, and if armed would have three 7.62 mm machine guns) 1942 cost - \$27,000

So, how did this TIM N Texan (TNT) story happen?

In 2014, Tim flew his Lancair to Oshkosh, a 6 hour, one fuel stop trip. Upon arrival he happened to get into a warbird area and warbird crowd and he got infected. He was especially impressed by watching some of the warbird flying at the event. That infection festered into his 2017 purchase of the T-6. Another stimulus or partial justification was that the Lancair needed a new panel.

What does one do with a beautiful Texan in your hanger that wants to go to Oshkosh 2018?

Easy answer, but that decision takes preparation, such as getting tail landing experience. Quick fix, Tim got 5 hours in a Citabria with Kurt Fisher, then 5 hrs. of T-6 training, another 5 hrs. of T-6 solo, and then he signed up for the Dubuque Formation Clinic in order to join a formation flight of 46 Texans into Oshkosh to commemorate the 80th anniversary of the model.

With this overload of experience and confidence (re-check reason for confession of his flying decision), Tim departed for Oshkosh. This trip required more consideration than his 2014 venture. Getting there took two days with many stops and with schedule alterations. He enjoyed the clinic; formation flying isn't easy, and he was pleased with the result. A video of his excellent wheels landing at Oshkosh was shown on the screen.

Tim shared some additional flying experiences with his airplane. He said, "It is not easy to fly and requires total consideration, so that you are a fulltime pilot." His is continuing to learn more about the airplane's characteristics. Asked about landing, he prefers wheel landings because of the better visibility it presents. This airplane was a designed trainer and clearly was built to take student punishment. Tim indicated that it would require about 200 hours of T-6 training to qualify a pilot to fly a P51 or F4U.

Following his visual presentation and answering some questions we were invited to a walk-around where Tim pointed out some of the airplane's features. We were fortunate that the airplane completed its annual last week and was available to view and admire.



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Tim gave us considerable time answering questions. We were shown where wing machine guns would have been placed and where a third gun would have been forward of the front cockpit and over the top of the engine cowling. A view of the cockpit was available if you could climb up to see it. The forward and rear canopy can be open during flight and the rear seat is tunable, which is useful for a rear facing gunner. Main gear and tail wheel are retractable. The tail wheel can be locked, but also unlocked for tight turns. The main gear can be gravity dropped if necessary.

We were told that he usually operates the variable pitch long bladed propeller at 1850 rpm. Higher revolutions result in the prop tips going super-sonic, which does draw some attention during takeoff. He also described the different fuselage panels and routes to get to some of the airplanes innards, and the potential of a jamming problem if something were to drop into and in-between some of the cables



Forward cockpit (courtesy Dave Chivens)



Exposed internal structure (courtesy Wikipedia)

and linkages under the cockpit. Although Tim was generous with his information not all of it was captured in this report.

Topping off as the dessert for this story is next page photo taken at Oshkosh and provided by Tim Williams.



"The plane is new to me as I bought it in November '17. It was built in Texas and used as a trainer from 1943-1956. It was sold into civilian use and received it's N number in '56. I have all of the logs on it, from when it was put into service until now."

T-6 sidebar from Internet sources

The North American Aviation T-6 Texan is an American single-engine advanced trainer aircraft used to train pilots of the United States Army Air Forces (USAAF), United States Navy, Royal Air Force, and other air forces of the British Commonwealth during World War II and into the 1970s.

*The T-6 is known by a variety of designations depending on the model and operating air force. The USAAC and USAAF designated it as the **AT-6**, the United States Navy the **SNJ**, and British Commonwealth air forces, the **Harvard**, the name it is best known by outside of the US. After 1962, US forces designated it the T-6. It remains a popular warbird aircraft used for airshow demonstrations and static displays. A total of 15,495 T-6s of all variants were built.*

During World War II, AT-6's were used by military branches around the world as a primary fighter trainer to train thousands of pilots in the nuances of fighter tactics and general flight. Armament was optional, as flight training was the primary focus, but could consist of two forward-fixed 7.62mm machine guns. Throughout its productive life, the T-6 differed in roles, powerplants and from basic internal improvements as needed.

T-6

Many T-6's served during World War II, also surviving in the Korean War, and for a time served during the Vietnam War. The airplane is still in some operational service to this day. Its longevity has the Texan a popular aircraft at air displays and with airplane aficionados worldwide. The T-6 remains as a fixture of collectors, warbird enthusiasts and air shows. Its strong construction, favorable flight characteristics and remarkable history has ensured continued admiration.

“The Spirit of EAA Friendship World Tour”

A likely start for this story began when pilot Mike Melvill decided to fly from Mohave, CA to his South Africa home with his wife in the Long EZ he built. Like his, the Model 61 Long-EZ is a homebuilt airplane with a canard layout designed by the Rutan Aircraft Factory. It was derived from the VariEze, which was available as a kit to homebuilder in 1976. The Long EZ prototype first flew on June 12, 1979. Changes made from the VariEze were: a larger main wing with a modified airfoil and less wing sweep. The canard remained the same. The Long EZ had more fuel and baggage space and the cabin was slightly wider. Plans for the Long EZ were offered in 1980.

Long EZ Characteristics:

Crew: 1 Pilot

Capacity: 1 Passenger

Length: 16 ft 10 in

Wingspan: 26 ft 1 in

Height: 7 ft 10 in

Wing area: 81.99 sq ft

Empty weight: 710 lb

Max takeoff weight: 1,325 lb

Fuel capacity: 52 US Gal

Power plant: 1 × [Lycoming O-235](#) air-cooled [flat-four](#) engine, 115 hp

Performance

Max speed 185 mph

Cruise speed 144 mph

Range 2,010 mi.

Ceiling 27,000 ft

Climb rate 1,750 ft/min

To prepare for his journey Melvill checked out the best routes and most suitable time of year for the flight. However, when his wife chose not to make the trip, Melvill rather than abandoning his plan he enlisted his close friend Dick Rutan to accompany him. Rutan also with a homebuilt Long EZ agreed, but suggested they fly to South Africa and then continue around the earth.

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The above three views are of the Rutan Long EZ that currently resides in San Luis Obispo. Regrettably a phot of the Melvill Long EZ airplane was not obtained.

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While both airplanes were similar, there was a slight difference in cruise speed. For his plane Melvill designed and fabricated two external under wing mounted fuel tanks needed for crossing the Atlantic Ocean. He also fabricated a new carbon fiber cowling, and removed his existing instrument panel, and designed and fabricated a new one incorporating the equipment he would be needed for the flight.

Rutan installed a cowling like Melvill's and a pair of wheel pants. With these modifications they found that the two planes were very close performance wise. Rutan built his external fuel tanks as slipper tanks. Each pilot built a large back seat fuel tank. These changes plus what they already had, gave each a fuel capacity of about 150 gallons. Were they to choose to fly slow they could fly for 25 hours, or 4000 statute miles, meaning they wouldn't have fuel problems, crossing the largest ocean. The other major concern, navigation was handled with three GPS units in each plane. Their lap top computers and Mentor Flitemap proved to be very helpful.

On April 4, 1997 Melvill, age 40 and Rutan, age 38 departed from Mojave to Midland, TX their first stop of many flights. The next morning they headed for Indianola, MS, and on the following day they arrived at Sun 'N Fun in Lakeland, FL.



Mike Melvill and Dick Rutan several years after their flight

The pilots left Sun 'N Fun, and flew to Boca Raton to change oil and filters before going to Fort Lauderdale in order to use its long runway for their heavy fuel load and US departure. Their flight from Boca Raton to Fort Lauderdale will be their shortest flight.

Leaving Fort Lauderdale they landed on Grenada. The next morning they took-off, flew around the Island, and crossed over Trinidad on their way to the South American coast. They flew at a low altitude observing the coastline. They flew off shore to avoid country overflight charges and will do so in Africa. This was one of a few times that they did not fly at their preferred altitude of 11,000 feet. After a thunderstorm delay they landed at Belem. Two days later they flew south across Brazil to San Jose dos Campos, just east of Sao Paulo.

Although they had the range, unavailable weather and winds aloft information discouraged them from flying direct from Rio to Cape Town. Their alternative was to depart from Recife and fly directly to Abidjan, Ivory Coast. Engine oil and spin on filters were replaced before leaving Sao Paulo for the short flight to Recife. The plan to leave Recife and fly through the night to Abidjan was frustrated by departure delays and bad weather, but they touched down 14.8 hours later.

While attending to some maintenance on the planes Dick discovered that he had blown a main oil seal, and had lost 2/3 of his oil. Unbelievably, their Abidjan host had the correct seal in stock, and installed it. Oil and oil filters were changed again for the pending flight to Windhoek, Namibia. After a three day stay they departed for Cape Town, South Africa. Safety-wise this was with no weather or radar the

For Your Information

Sometime in August, Dr. Steele is moving to
148 Casa St
New Phone number 805-543-8310
Current phone number is 805-540-6010

He can do Basic Med along with your FAA medical, currently \$150 for Third Class with Basic Med.

Something Extra

Flying in the Caribbean just got smoother. The FAA restored NEXRAD weather radar making travel more efficient and safe to Puerto Rico, US Virgin Islands and other Caribbean airports.

When Hurricanes Maria and Irma hit the islands of Puerto Rico and the U.S. Virgin Islands, the air traffic infrastructure across the Caribbean was severely degraded. FAA employees, in partnership with the National Weather Service and Department of Defense, worked tirelessly to restore systems and facilities. In June 2018, the Next Generation Weather Radar in Puerto Rico was fully restored. Learn more about weather and radar products in the National Airspace System: See video <http://bit.ly/2yqnk4o>

With regard to the above information, Bob De Vries submitted an article written by Carter Forbes, the father of his friend Bert Forbes. It tells about an earlier FAA achievement that is worth knowing about. In Bert's words, "I am proud of my father, an FAA maintenance technician. He never had anything destroyed like that in Puerto Rico, but did get called out in awful winter storms in the middle of the night to fix downed equipment." Attached is the story he wrote in the early '60s about his crew of four that worked for him in Las Vegas NM.



MY CREW OF FOUR BY Carter B. Forbes

I did not choose or select my crew of four, and I strongly suspect they did not choose me. What they did choose, was to be Electronic Technicians for the Federal Aviation Agency.

These and many other FAA technicians with the same training and skills operate repair adjust, calibrate, and guarantee the correct operation of some of the world's finest, most intricate, aviation ground navigation equipment. They and others like them across the country stake their jobs, honor, and liberty on their ability. If you fly, then sooner or later you may stake your life on their ability.

Praise, reward, and honor are not for them, for like the guards of a football team, they seldom make touchdowns or headlines. The men who cleared your flight, the men who delivered instructions along the way, and your pilot, all used their machines. Without these men and their machines your well-trained pilot would bring you safely into some port, but his problem would be similar to that of a bus driver whose highways suddenly did not exist.

These four men you will not recognize, for they wear no uniform. Freshly pressed suits and white shirts do not go with or impress the machines they operate. These four rang in height from short to tall. Their pre-job education varies from high school to a degree in an unrelated subject. The childhood language of two of them is Spanish. Occasionally I have trouble with

their technical explanations in English, but the machines understand them perfectly. They are single and married, blond and brunette. The one common denominator is that they are by birth, choice, effort and intestinal fortitude, Electronic Technicians. The motto of the Postal Dept. would fit them perfectly. They work their regular hours, and then work on their own time. There are many meals they miss and many nights with broken sleep. Some nights in some plane you may have passed over that part of the world that is our Sector. That you were on course, on schedule, and being served coffee may have been because one of these four men was at work.

Already weary from a full day of work, he is now many miles from home on a trouble call, out there in the best or worst of weather, alone somewhere down there below you making billions of electrons do what they are supposed to do. Maybe that night above the beat of the snow and gusts of the wind, he heard your plane go over and looked up and wished you *bon voyage*. Your hostess served you another cup of coffee and you thanked her.

Very few people have even seen their machines, for they are in vague places on earth, but in special places under the sky. They may be in a windowless room, on a mountain top or they may share the ranch with the range cows. Rarely are over a few hundred of any of these custom built machine made, and the next model may be different enough to constitute a new vocation. Though these machines contain the finest of engineering skill, and the most elaborate tests have been made to insure that they will do the job, no one can predict or prepare for the many ways they may refuse to operate correctly. Tonight one of these four men may encounter, find and correct a difficulty that he may never encounter again in a lifetime.

These men are detectives, for often they must find the electronic needle in an electronic haystack. Work that people visualize as being done in a warm room and at a well-equipped work bench and only after a good night's sleep is done by these men at any time, any place and under whatever conditions they find – usually it is done alone. I have seen them fight breakdowns through days and nights without sleep, or rest, until I had to send them home to sleep for fear they would fall into the equipment and electrocute themselves.

This is my crew of four. They could hardly be better or worse than other crews across the nation. I would hesitate to send them out to turn the world over, for fear that in less than two hours I would find myself sitting on the ceiling holding up the light fixture. Do you wonder that I respect and honor them?

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Benefits of Chapter Membership

EAA Chapter 170 membership is a guarantee that you will meet, interact and experience an exchange of interesting aviation knowledge with people you will enjoy. Membership will broaden your experience and knowledge base with new and many contacts. The sooner you join the sooner you will benefit. Contact Chapter Treasurer, Vince Rubatzky for information.

Contact the Newsletter Editor

Members having suggestions for the newsletter or wishing to submit an article for inclusion in the newsletter should contact the Newsletter Editor. Topics about or distantly related to aviation qualify. Thoughts about how to jazz-up the newsletter are welcome. Avoid shyness – it limits you.

Fly often, well and safely.