EDITOR'S CORNER
Terry Brennan

It seems as though each succeeding issue of the MENTOR MONITOR finds us strapped with yet another problem relating to the structural integrity of the T-34. Following the tragic Texas Air Aces accident in November, it quickly became apparent that the FAA would initiate one action or another in knee-jerk response to the unfortunate and untimely Conroe, Texas mishap.

This time, because the rear spar broke at a point some distance from the rear bathtub fitting, a new set of circumstances prompted the feds to issue the FSAW that we have become familiar with. All members received a postcard recently outlining the procedure that your local FSDO would incorporate in an inspection process that would ultimately include every '34 in the country, even those non-flyers that are registered and own an “N” number. Nothing new has come out of the FAA since the FSAW was written, although numerous aircraft, from all corners of the country, have been inspected thus far.

Your association’s board of directors responded to the FAA’s anticipated change in posture, with regard to the various AMOCs, with a long list of reasons why those aircraft flown in accordance with the structural limitations established with certification, are safe, dependable, and almost certainly devoid of any structural fatigue problems in the main and rear spars. The text of the response can be found on the T-34 Association website http://www.T-34.com. We do not expect this problem to disappear but, it seems as though the FAA is aware that the only failures have occurred in aircraft engaged in simulated air combat, flying on unmodified wings. Let’s hope, as this latest event in the lengthy saga wears on, that a little common sense prevails among those who make the rules.

To help us all better understand the nature of aircraft structural fatigue, we are printing an explanation written by David Marshall on the subject, as first presented in the Yahoo discussion group. David simplifies the concept quite nicely for those non-engineers among us, in what ought to be an operational primer for sensible flight and sensible fun in the T-34.


As Spring appears to be just over the horizon, our thoughts turn to another season of excitement packed events all around the country. We start early out here, ...continued on page 2

Cover: Cathy Neddie captured Pete Scala and his son Mitch in their T-34A, N34AN, over the southern Nevada desert at just the perfect moment during the Jean, NV fly-in on last October.

Back Cover: The March AFB “Dragon Squadron” passes overhead in a diamond for the enjoyment of the Cable Airshow fans. Photo courtesy of Ken Hansen.
where the airshow season for all practical purposes really never ends. Cable Airport in Upland, CA generally kicks the season off for us southern California types. The show, staged in mid-January has long since gone. Numerous home-builts, military types, and even a few oddities like the lumbering Anatov-24 bi-plane, push to overflowing the minimal ramp space under the warm winter sun. The photo that follows features the March AFB “Dragon Flight” entertaining the troops at Cable.

There are many more shows scheduled here in the very near future and there will be more in all the contiguous states beginning shortly. Take advantage of the warming Spring weather to show your airplane and talk up the association.

Speaking of shows, Sun “N” Fun, and more specifically, the Baker Aviation Fly-in is just around the corner. As most of you know, I am an unabashed fan of the Bakers and New Smyrna Beach—so much so that I will be flying N45TB from San Diego to Florida to attend this event. After having spent two years at Baker’s as an IP and buffet candidate first class, I felt it was time to enjoy some of that southern airspace for myself. At least four of us from this part of the world are planning on making the trip. More details can be found in a separate invitation in this issue.

Although the association can count many airline pilots among its members, very few will retire with the fanfare that accompanied our own Julie Clark’s. She officially ended her career after 27 years with Northwest, and its predecessors, last fall with, among a host of celebratory events, a film documentary of the day that included friends and family on the final flight including one sister who had never even flown with her before. The video captures the essence of Julie the professional, as we seldom see her, as well as the little girl, the one on duty fan pleaser, and a very real human who has endured tragedy and enjoyed a list of great successes in life. My favorite scene in the video depicts the emergency fire and rescue equipment, at Sacramento International, spraying an arc of water from either side, over the departing 757 in the early dawn of her retirement day, as Julie listens to the well wishes of the controllers upon the aircraft’s departure. We should all go out so beautifully. Don’t miss Julie’s story in the December issue. Yes, plans have been made to utilize both the Ramada Plaza Inn in Fond du Lac, and the Best Western Maritime Inn in Sturgeon Bay, for association housing during the show and yes, we will practice formation flying as we have in past years, this time at a common airport. I think that the combination of the two hotels and the opportunities extant therein for wives and significant others is a great plus for participation at the “Big Show.” Come to fly. Come to play. Come to fly and to fly but by all means come for the fun of it. If you have questions on the arrangements call or e-mail me at any time. Contact the Ramada at 800 274 1712, or the Best Western at 920 743 723, and mention the T-34 Association when you book your room. There should be opportunity for new members or unrated pilots to get up to speed with formation training too.

Your editor continues his series, in this issue, on introductory aerobatics with a lesson in barrel rolling (aeronautical, not beer style), describing the techniques required to accomplish this coordinated and graceful maneuver. We have also revisited one of the most misunderstood of the standard formation procedures, the rejoin, hoping to shed more light on the subject and improve the results for many fledgling and experienced wingmen.

Photos, ads, and more articles are featured this month as well, in your MENTOR MONITOR. Enjoy this issue and remember that you too can, and should, contribute something from time to time. We are an association of over 400 members, each with aviation experiences of his or her own, just waiting to be related to the others. Please take the time to send yours along.
The T-34 Association would like to welcome the 27 new members who have joined between July of 2003 and February 18, 2004. Please say hello to these T-34 enthusiasts and share your knowledge of the T-34 with them. (Please feel free to contact members in your area and introduce yourselves. Thanks for joining the association and we all look forward to meeting you.)

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<td>New Association Members</td>
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<td>David Adams</td>
<td>128 6th St. Monterey, CA</td>
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<td>Terry Fussell</td>
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In the three previous issues of the Mentor Monitor we have examined the techniques required to perform the aileron roll, the slow roll, and the inside Cuban eight. In the spirit of keeping it rolling, let take up the last of the popular rolling maneuvers, the barrel roll. Probably no other aerobatic example has been performed in so many different ways, leading pros and students alike to believe that any roll with the ball kept in the cage qualifies. Well it does, sort of.

The barrel roll could best be described as a fully coordinated rolling turn about a point. It has been said that this maneuver describes a path akin to traveling along a course that approximates the inside of a barrel—thus its name. In fact, because the maneuver starts more or less straight ahead, and culminates more or less straight ahead, your barrel would have to be shaped like a stick of elbow macaroni if you wanted to touch the sides of each quadrant. Never mind, the barrel roll is relatively simple to do and when you keep the ball in the center no one will catch a case of motion sickness.

An entry speed of 150 knots works fine, and that should be the target exit speed as well. Aerobatic instructors will often call for a slight turn to the right before beginning the pull-up in order to more approximate turning inside the barrel, but it does not make any difference from a control input standpoint if you turn or not. A rather gentle pull of no more than 2Gs will launch you skyward whereupon, at a point about 60 degrees nose up, you will want to introduce left stick to the point that your nose has turned 90 degrees to the original heading when you are exactly inverted. It is important that you keep pulling while rolling.

Ideally a constant rate of roll, once initiated, is carried throughout the maneuver. This necessitates adding more and more left stick and less and less pull (ideally one reaches less than 1 G while exactly inverted) as the aircraft slows on the way over the top. Once inverted and starting back down hill, you must gradually decrease the stick deflection and increase the pull as your airspeed grows until you are once again level at 150 knots, and on heading.

Remember that this is a coordinated maneuver. Every effort should be made to keep the ball in the cage from start to finish. It has been said quite often that the famous Bob Hoover practiced barrel rolls with a cup of hot coffee sitting atop his glareshield, insuring that his lap stayed dry and cool, as long as the ball stayed in the center. On your initial forays into the world of the barrel roll, I would suggest that you pay slightly more attention to what is going on outside the aircraft, rather than focusing on your turn and bank indicator.

When done properly the barrel roll is non-stressful (my wife even did one with me once), straight forward, and poses little threat to life and limb. There are certain cautions though that anyone new to aerobatics ought to understand. As previously mentioned, an entry speed of 150 knots fits the need with an over the top speed of about 90 knots just prior to starting down hill. If you take too long getting to the top, a stall-spin scenario can easily develop. If you pull and roll too quickly you might finish the maneuver at a speed much greater than that at which you entered. As in all rolling maneuver, it is critical that you finish any roll that you start. While a split “S” from the top of a barrel roll at 90 knots is not nearly as serious as one from flat and level at a 160, it is still possible to overstress yourself, or your airplane. As always, consult and fly with an experienced instructor before trying aerobatics on your own.

Blue side down.

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Perhaps no other aspect of formation flight is as misunderstood and poorly performed as the simple join-up. "Wait," you say. How can something that is misunderstood and poorly performed be simple? Simple!!!

The break up and rendezvous, or join-up, is nothing more than a visual acuity test culminating in the ability to judge closing speeds, and adjusting your throttle at the proper time. Why then do those who labor at the effort continually display a lack of understanding and skill in execution? Again, simple. If you are one of those formation types who dread seeing the break up and rendezvous signal passed along by your leader, or who hope to goodness that the number is no bigger than two when his fingers go up, this column is for you.

As we have have had pounded into our heads over the years, the join-up is nothing more than a geometric maneuver wherein the wingman cuts off his lead on a 45 degree relative bearing until such time as it becomes necessary to adjust throttle to stay in the wing position. And that is the actual fact. The problem is that many of us have great difficulty in performing according to the script when the director points his finger at us. Why? I think that there is an expectation on the part of the wingman that the leader intends to help them out as best he can. False!!! The typical non-caring leader intends to do no more than present the wingman with a target, flying in a relatively shallow turn, facilitating the join-up.

How do these two disparate views on the join-up procedure mitigate their expectations? Read on. There is one, and only one, simple factor that will expedite the join-up, avoid over-shoot, and save the bacon, if not the pride, of the sweaty-palmed wingman intent upon proving he has the right stuff. What is it you ask? Go back to the book. STAY ON THE 45 DEGREE LINE.

"Easy for you to say, but it never seems to work for me." That is because you didn't read line one closely enough. If you stay on the 45 line, you will join up exactly as promised. The problems appear when what you thought was a strict adherence to the advice given in line one turns out to be a careless target fixation sort of technique that may initially leave you seriously acute to your leader then hopelessly sucked as you cross astern, unless you have an enormous motor which will get you out of most embarrassing tail-chase situations, given a little time.

But before you get in to the tail-chase, consider this. When the lead begins his turn, initiating the procedure, turn with him. And here is the key. The FAA designated medical examiner said that you could see well enough to fly, indicating at least the ability to gaze off into the distance four or five hundred yards and determine just which way other objects in the sky were pointed. That being the case, fixate not on the lead airplane itself but rather on the 45 degree line that you fly quite well (we hope) in the wing position. Look for the relative wing position, recognize when you have achieved it, and hang onto that position regardless of what path you must fly to do so.

It is not unusual to find yourself back in the flat and level on occasion while striving to maintain the 45 line. Likewise you may find yourself more steeply banked at times than you might have ever expected, when the lead never exceeds 20 degrees or so of bank. The point is that you can expect nothing from the lead that will help you join-up except the anticipation that it will happen. It really is simple. Establish the 45 degree line and maintain it, regardless of whatever maneuvering it takes on your part to do so. Keep in mind that good formation flying requires continual changes in aircraft attitude, speed, and position. When done properly these maneuvers only look smooth from the ground.

Unfortunately no other formation skill suffers as much overall as the ability to effect the proper join-up. If check pilots were generally as critical of break-up-and-rejoin talents as they were of general station keeping ability, fewer of us would be re-certified, or in the case of the "newbies," patched at all. Please take this message to heart and practice the re-join whenever possible, keeping the above advice close to the vest.

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BAKER FLY-IN

In just a few short weeks one of the T-34 Association signature events will be staged at, and unbelievably well supported by George Baker Aviation in New Smyrna Beach, Florida, April 9, through 13. What more can be said about George and Ginny Baker’s enormous commitment to the association and to the formation program, except to mention that over the past five years or so this gracious couple has embraced the ’34 group in the same way that a new mother bonds with her child. I know that they are not old enough, and I am not exactly an orphan, but if the Bakers decide they want to adopt, I am available.

In fact, there is only one other event in the calendar year that has as big a tug on your bend toward wanderlust as Baker’s, and that is Oshkosh itself. There is no other gathering, no greater time, no more excitement at being part of this group, than you will experience at New Smyrna Beach. Typically twenty to twenty five aircraft participate (this makes New Smyrna Beach a larger formation draw than OSH 2003 itself) and the flying is non-stop. Smokey passes over the Baker hangar, contests among formation groups, and ab initio training for those who have never formed before, only share the day with food and drink, and laughs and stories, and lies, and friendship and much more.

Regrettably, yet ceremoniously, the few short days at Baker’s culminate with a grand flight across central Florida to Lakeland and Sun ‘N Fun, and for most of us, the airshow takes a back seat to the fly-in. How good is it? It is very good. Four of us will be making the trip from San Diego to Florida, for no other reason than to be with the rest of the group at New Smyrna. Are we nuts? I don’t think so. I do know this. There is no other place you can fly, no finer people there to greet you when you arrive, and no event that will last in your memory like the weekend at George’s hangar. See you there.

Contact Curtisboulware@geobakeraviation.com for more information or just to acknowledge that you will be there.

FROM THE OUTSIDE LOOKING IN...

Domenic Labate

I have always had a passion for exotic automobiles, especially the competition Fords of the 1960s. If you are a car enthusiast, you are probably familiar with the automobiles I’m referring to—the Shelby Cobra, the Mustang GT350, and the GT40 (which won at Le Mans). Okay, you might be wondering why you are reading an article about exotic automobiles in a periodical dedicated to the T-34 aircraft.

My youth afforded me the opportunity to spend a little time around, and occasionally behind the wheel of, these rare and beautiful automobiles. A friend of mine collects and vintage races these autos and I used to tag along for auto shows and races. I loved the races. I can recall my anticipation as I waited for the 289 hi-performance engines to be fired. I can recall the butterflies in my stomach the first time I got drive the GT40. I can recall dangerous curves of the race tracks and the speeds at which those cars ripped through them. I can recall the earth-trembling noise of 20 plus big-block motor cars roaring down the front straight. I can also recall the pre-race briefings, the concern and need for safety, the long hours of preparation and maintenance, and the expense to operate these old and rare automobiles. Sound familiar?

Well, my experiences of November 29th, 2003 rekindled some of the memories and emotions of my days spent around those exotic automobiles. I got to fly in one of your T-34s! It was Terry Brennan’s T-34B actually and what an experience it was.

Terry invited me to join him for a day of flying. I accepted and looked forward to this day for weeks as it would be my first time in a non-commercial airplane. He mentioned that we would be flying in formation with other T-34s and that we would probably head up to Palm Springs, CA, have some lunch, then return home. Terry picked me up from my home at 0800 and we headed for the airfield.

We arrived at the airfield and my anticipation grew. There were two T-34As resting alongside the hangars. Terry raised his hanger door and pulled his T-34B out alongside the others. There go the butterflies in my stomach. I was anxious. I couldn’t wait to hear the sound of the engine, but it would have to wait until after the briefing. The briefing?

Terry talked to me about naval “ready-room” chairs on the way down to the airfield and how he had a couple that he used in his hanger. I simply assumed that Terry liked to collect naval memorabilia, or perhaps these chairs were so comfortable and so cool that Terry had to have them. But, after we gathered for the briefing in a neighboring hanger with other T-34 pilots outfitted in their Nomax flight suits, seated in “ready-room” chairs, it began to make sense. This is going to be like the real thing! I am going to be in a pre-flight, military type briefing. This is as close as I will ever get to experiencing military flight operations.
The briefing was conducted much like the briefings I remember at the race track. The flight (race) plan was discussed. Radio communication detail was discussed and recorded. The topic of safety would not be neglected. I also learned that we would land at the French Valley Airport prior to reaching our destination in Palm Springs and rendezvous with 6 other T-34s for a total of 10 T-34s. Flight time was set for 0915.

Another briefing would be conducted at French Valley. This briefing would be slightly longer and more detailed as there would be 10 T-34s flying in formation. "Who’s Bravo-2?" "Who’s Charlie-4?" "When we arrive at the Palm Springs Airports we will request a fly-by." "How will we conduct our break for landing?" This was some pretty intense stuff.

The time was 0915 and we were ready to go. Terry inspected his airplane and gave me a couple simple rules to remember, “only step where you see black and have fun.” He also briefed me on what to expect. He mentioned that it will be loud in the airplane and that I should expect to hear the engine rev high prior to take-off and that that would be normal. No problem...I love the sound of engines. I stepped into the T-34B, and strapped in. The harness looked familiar. It was nearly identical to the 4-point harness we used in the racing Fords. Here we go!

“Clear,” Terry shouts, and the engines fires. A short taxi to the runway, steady acceleration, and we’re off. Wow! This is cool, I thought. If only my friends and family could see me now. I felt fortunate. Many people would love to be in my seat right now. I have had the opportunity to drive very rare automobiles, automobiles that many enthusiasts may never lay eyes on other than in a magazine, and now I’m flying in this vintage military aircraft. I can’t believe how smooth this plane flies...I expected it to be very bumpy. What a gorgeous view from up here. How many people get to see the coastline from this perspective? I am lucky. It’s a good thing I brought my mini-digital camera...my brother might not believe me when I tell him I flew in a T-34. I took 75 photos while up there that day.

We arrived at French Valley Airport, fueled up, and waited for the other T-34s to arrive. When all 10 T-34s were present, we departed for Palm Springs. Terry was the formation leader, Alpha-1, I would gather. It’s too bad you don’t have rear view mirrors on your T-34s; I had really wanted to look back and see the 9 other planes on our tail.

Terry requested a fly by at The Palm Springs airport. The tower granted our request. I had no idea we would be greeted by a crowd of patrons at the airfield museum. The patrons stood out on the tarmac and watched as the 10 T-34s flew by. I imagine it was quite a sight. The patrons gathered around some of the T-34s, and their owners, after we had landed to view the planes and ask questions. I’m sure that you, T-34 owner, have heard all the questions. At auto shows, the people were inquisitive. “Are those the original colors?” “How fast does this thing go?” “This 289 GT40’s top speed is about 165 mph,” I used to say.

Prior to our departure for home, I walked around the museum among other vintage planes like the P-51 Mustangs, F4-U-Corsairs, B-17 Bombers, and other airplanes of the WWII era. Like the old racing Fords, I am fascinated by their history and I am enamored with their beauty. I am glad that I accepted Terry’s offer to fly in his T-34B. The experience reminded me of past and afforded me the opportunity to appreciate your passion. I can’t wait to do it again!

As for the flight home, Terry demonstrated some of his acrobatic skills. A month earlier, he asked me if I get motion sickness. I confidently replied, “No.” Need I say more?

Thank you Terry!

Domenic Labate snapped this photo of himself, and Kyle Smith nearby, on the way to Palm Springs, November, 2003.
Lima Lima History

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T-34 BATTERY SUBSTITUTION
Bill Cherwin

Twenty some years ago, Mentor Flyers needed a new battery for their T-34A (N34B). The battery currently installed was a Gill GE-51. It was a 24 volt / 22 amp hour lead-acid battery. It was fairly expensive, and it required careful installation to insure that no acid leaked into the airplane when negative loads were encountered. Our A & P referenced a field approval in our 337 that cited an installation in G-286 on 17 June 1982. That installation was done in Missouri, and was the topic of an article in a Mentor Monitor in the early 80s. Perhaps Jim Nogle can provide the exact article, and have it printed along with this article.

We began by removing the battery and box. The original box rides on ball-bearing guide / support rails that have a stop that prevents the box from coming all the way out and falling on your toe. If you try to defeat the stop, the ball bearings will fall out on the floor and roll into the sewer. Leave the ball bearings in the sewer, and replace them with four ½-inch dowels. The dowels will support the battery better than the ball bearings did, and they can be removed and reinserted easily. If you want to get fancy, you can buy oak dowel stock, and varnish them. In any event, you could replace the dowels every six months for about 75 cents. Some nit picking FSDO inspector may contest the airworthiness or legality of this substitution.

After cleaning and repainting the battery box, you now need to adapt it to hold two Concorde RG-25XC 12 volt batteries. Originally, we used a 7½ by 8½ piece of ¼-inch Lexan plastic to mount the connecting bayonets. The Lexan fits tightly on the inside of the inboard end of the box, and the bayonet locations can be determined by sliding the box in the compartment, with the dowels in place. You should be able to see through the Lexan to locate the bayonet mounting holes.

The top of the original Gill battery is retained, and is used to hold the new system in place. You must design spacer blocks to go between the top of the Concorde and the lid of the old battery. The old battery lid mounts on top of the Lexan plate as well. You must also allow for the wiring cables (4 gauge) that connect the two 12 volt batteries in series. See Photo of actual battery wiring. Thin shims may be required on the sides of the new batteries to secure them and the Lexan end plate. The whole thing is very secure and stable when it is finished. The box then is slid back in the mounting rails, with the four dowels providing the spacing and snugness.

The photos along with this article show my battery installation, which utilizes an adapter fixture manufactured by a friend of Mike George in Springfield, Illinois. It consists of aluminum stock that is bent into a rectangle that bolts snugly together at the outboard end of the batteries. Brackets are riveted to the inboard end of rectangular aluminum fixture that positions an insulating block that holds the bayonets. The geometry of the bayonets is critical to assure good alignment to “plug in” to the aircraft electrical system. The original box has a “T” bolt and wing nut on each side to secure the battery. In this case, 1/8-inch aluminum bar spans the box at the center, and is secured by the two wing nuts. Safety wire then keeps the wing nuts from turning. Care must be taken so as to eliminate any possibility of an electrical short due to chaffing.

The original vent tube is left in place, as well as the original inlet vent. This will provide for a circulating airflow through the box anytime the engine is running. Also it allows for an easy adaptation if you ever have to temporarily install or borrow an original type battery.

I would recommend converting the “B” model battery system to the “A” model design. Ultimately, it is more convenient and allows for easy battery swapping if you ever leave the master switch on and run your batteries down. By the way, the RG-25XC batteries are not designed for repeated, “deep cycling.”

Do not deliberately “deep cycle” them as you might do to a Ni-Cad battery.

You still have to design a hold down system for the “B” model, but you can wire directly to the correct terminals, with only one crossover cable, creating the 24-volt series situation. I do not know how to retain the standard “B” model “quick disconnect,” but I am sure it could be engineered.

The Concorde RG-25XC batteries boast a full 24 amp hours of cranking power. That is two more than the original Gill battery. They weigh 23.5 pounds each for a total of 47, which I believe is less than the Gill you will be removing. Concorde does list a 24-volt battery that is approved for a T-34. It is the RG-390E, but I have never seen it used. It weighs 62 pounds, and has 28 amp hours of capacity. So if you can spare the weight, you will get more capacity. No one on Lima Lima has ever lacked for battery performance in over ten years. We have had some alternator failures enroute, and the Concordes always got us to our destination.

I would consult with your mechanic or A/I, and your local FSDO regarding the best way to write up the 337. Here is the...continued on page 10
rhetoric our mechanic wrote on our 337: (Note the battery difference; Globe vs. Concorde)

Installation in Bill's airplane.
Photo Bill Cherwin

DESCRIPTION OF WORK ACCOMPLISHED

Removed Gill GE-51 Lead acid 24 volt 22 amp. hour battery, and installed two Globe-Union U128HD 12 volt 31 amp. hour batteries wired in series. The purpose of the change was to inhibit acid damage to the airframe as a result of aerobatics, and provide a significant reduction in battery replacement expense.

Approval data for this installation consists of a Field Approval dated 6-17-82 for this same installation in a Beech A-45, serial G-286. Installation of the gel-cells was accomplished by bolting the batteries into the original removable battery box using the original retaining clamps. The dimensions of the old and new batteries are so similar that no modifications were required to be made to the airframe or retaining mechanism.

The battery installation is free to ventilate thru the original battery box ventilation system. The ventilation system extracts air from the battery bay at a rate greater than 5 cubic feet a minute.

Weight and balance computations were calculated and entered in the aircraft records.

Work was accomplished in accordance with EA-AC 43.13-1A chapter 10 and EA-AC 43.13-2A chapter 10.

It's worth the effort to convert your battery system to the sealed, no spill type system. Replacement costs are less, weight is less, and cranking power is more. You merely need to get together with a competent mechanic, and engineer an adaptation that your local FSDO will approve.

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WING FATIGUE—A LAYMAN’S EXPLANATION
David Marshall

In reading the discussions on the T-34 Association Internet bulletin board about wing separations, mainly in response to the T-34 mishap occurring in Texas on November 19, 2003, it appears many people do not understand the concept of metal fatigue and how it relates to aircraft wings. I was ignorant once too, both about wing fatigue and what I could do to an aircraft before “destroying” it due to pulling G’s. It took a tragic mishap and loss of life to educate myself, and the aircraft community I was flying in at the time, about wing fatigue.

Wings, being made of metal, will flex when loaded up with G’s. They even flex in 1 G level flight. Next time you are on a commercial jet watch the wings as the aircraft approaches liftoff and you can see how much they flex up near the wingtips. How much a wing flexes depends on how much G is applied at the time. Sooner or later, depending on how much and how often the wing is flexed, the wing will fail. Want a demonstration? Bend a paper clip back and forth. If you bend it 90 degrees each time it will fail quickly. Bend it 10 degrees and it will still fail but you have to bend it many more times. What else did you notice? I am willing to bet the paper clip failed not at the extreme but at some intermediate point where it wasn’t flexed all the way. Was there any visual indication the paper clip was getting ready to fail? Probably not, all of a sudden the last couple of flexes seemed easier, then there it was in two pieces. Get the point? Metal, when flexed, will eventually fail if flexed repeatedly. Every time you apply G in your T-34 you are flexing the wing and spar and bringing it that much closer to failure. The T-34 wing and spar are not indestructible. They can and will fail. What determines when it will fail is how the aircraft is operated prior to the failure.

Many years ago in another life I was a military pilot. My aircraft community lost an aircraft when the wing separated and the aircraft crashed. The aircraft had used up all the calculated fatigue life available and fatigue life expenditure (FLE) had exceeded well over 100 percent. Since I had information of a privileged nature concerning this mishap I am not at liberty to discuss the aircraft type, location, date, or any other mishap details but I can summarize some of the lessons learned.

-- The aircraft was being operated within the published flight envelope. It was not exceeding airspeed or G limitations prior to or during the wing failure. We knew it was operating within the G limitations because it carried counting accelerometers that would register a “hit” whenever 4, 5, 6, or even 7 G’s were reached. We weren’t getting high G hits outside the published.

-- Fatigue life was monitored using the accelerometers. Readings were pulled monthly and fed to the engineers who calculated remaining fatigue life. When the fatigue life expended (FLE) reached certain levels G restrictions were imposed on the aircraft. When the 100% threshold was met the aircraft was grounded.

-- FLE on the mishap aircraft was improperly calculated for many reasons. All data was still available so FLE was re-calculated and it was discovered the aircraft had FLE well over 100%. The wing had been “bent” so many times that it failed just like a paper clip fails when bent.

-- The aircraft was actually in 1 G, wings level flight when the wing failed. You don’t have to be under high G loading to cause the wing to fail at some given point in time. The damage was already done. We knew the aircraft was in level flight because another squadron aircraft in the same flight witnessed the breakup.

-- Sadly, up to this mishap, we the operators had a collective mentality that the aircraft could never be broken. Following this mishap we began to operate much more intelligently regarding when and how we pulled G’s.

FLE vs. G’s pulled is not a straight-line curve, it is more exponential. At 6 G a much higher percentage of fatigue life will be expended than at 4 G. FLE is also gross weight dependent. Most, if not all, military aircraft have an absolute G limit which is most likely at a significantly lower gross weight than takeoff weight. As gross weight increases the amount of G one can pull is reduced. So if you are operating your aircraft in a high G environment vice straight and level you are consuming a far higher percentage of available wing life each flight and pushing that wing closer to failure.

Every time you hit a certain G level the same amount of fatigue life is expended regardless of how long you are pulling the G. A five second 4 G pull uses as much fatigue life as a split second pull. It is possible to instantaneously pull a very high G load within the normal airspeed flight envelope without the body noticing it. Even if pulling less G and you flew through wake turbulence or other turbulence you could instantaneously hit a higher G load. Your body wouldn’t feel it but that higher load would consume more FLE nonetheless. What’s important in wing fatigue and calculating FLE is the fact you hit the level, not how long you were at that level. Bend your paper clip and leave it bent—it won’t fail. Bend it repeatedly and it will fail.

Flight hours flown is irrelevant regarding FLE. What does matter is how many G’s were pulled and how many times the G’s were applied. This would account for why a single owner/operator aircraft probably being operated in a more benign environment would last longer than an aircraft being leased/flown in an air combat or out of control flight environment that repeatedly subjects it to high stresses. The squadron with the mishap described above took delivery of a brand new aircraft from the factory. Operating within the normal flight envelope the wing was used up in less than three years of normal operations and had less than 2,000 hours on it when restrictions were imposed. The aircraft was operated in a training environment and had a greater number of higher G hits than comparable aircraft in the fleet even though it had fewer flight hours.

What does this mean to the average T-34 operator? Hopefully a great deal. Do you know how your aircraft was operated in the past? Do you know how many G’s were pulled and how many applications of those G’s were made? Do you have any idea how much fatigue life has been expended over the years? Do you know the condition of your spars? Is there any corrosion in the spars? How do you intend to operate your aircraft?

You should be asking yourself the above questions in regarding what fix to apply to your aircraft. Personally I would opt for a fix relative to the type of flying I would be doing.
Each year in the March issue of the MENTOR MONITOR, we announce the annual election and solicit nominations for the T-34 Association Board of Directors. In that sense, nothing has changed. What is changing is the nomination ballot format. It is in the interest of the association to conduct the election providing as much information as possible about each candidate that chooses to run, and the new format will go a long way toward improving on our past performance in that regard.

Below you will find a printed nomination ballot with various spaces for top level information on those who would choose to become a candidate. This year we are asking that all of you who would like to run for office, or who would like to nominate someone else (with their permission of course), e-mail the editor with the information requested below. We will also provide space for you to submit up to 1000 words of campaign rhetoric in Word or text file, along with a photo if you wish, for inclusion in the June issue. This we must have in hand by 10 May, 2004.

An explanation of aviation experiences, T-34 history, stance on key issues facing the association, and/or anything else that you feel is relevant to the association and its membership at this time, is fair game. Here is your opportunity to make a difference and everyone welcomes new faces and fresh ideas. The T-34 Association is all of us. Its viability depends upon the willingness of its members to tackle the issues that confront us now, and their vision to carry us forward. The only requirement for holding office is that you must be a member and, or course, be passionate about our favorite airplane.

NOMINATION INFORMATION

Name of nominee ________________________________________________
Address ________________________________________________________
Phone number __________________________________________________
E-mail address __________________________________________________

Send the above information and campaign statement to: Mentortb@sbcglobal.net

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A limited number of these original prints are still available through the T-34 Merchandise website. Each one of this special edition of 250 print is numbered and signed by the artist and by Charlie Nogle.

These prints are 18" by 24" and are shipped in a rigid tube, ready for framing, for $75 plus shipping & handling.

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As originally quoted from the lyrics of the rock group of “yesteryear”, the Eagles, “...You can check out any time you like, but you can never leave...” I begin a new era of my great aviation career. On 25 November 2003 I officially retired after 27 years as an airline pilot for Northwest Airlines. What a great career it was, and what a great ride!

I had just recently flown down to Jean, Nevada (on my way to my last air show of the season, Daytona Beach, along with Allan Thomas “Bravo” in his Debonair) to participate in the T-34 fly-in the weekend of Halloween. While there, our great editor of The Mentor Monitor, Terry Brennan, requested that now that “I have more time on my hands” why not write a story for our magazine about my memorable final flight at Northwest Airlines, as well as a few thoughts about my career...

Preflight for the last trip

I guess it would be safe to say that it was last Spring when I decided I had reached a pinnacle in my life, that I felt I needed to slow down a bit. (Maybe it was my Dad—the late Captain Ernie Clark, tapping me on the shoulder and telling me—"hey, it’s time to stop burning the candle at both ends!") For the last 25 years, I have juggled two full-time careers (both great ones, I might add!); one as an airline captain for Northwest Airlines (commuting from California to Minnesota for my trips for the last 20 years!) and the other as a full-time air show performer, performing in my Mopar-sponsored T-34 all over North America, Bermuda and Mexico (ferrying my own airplane from show site to show site). I feel so fortunate to still continue that great sponsorship support of Mopar Parts of DaimlerChrysler. However, the demands of my time and to fulfill that sponsorship take a lot of priority. Hence...the decision to retire a few years early from my life-long “dream career” as an airline Captain came to reality.

It all started with the planning of my final Northwest flight. I decided that retiring in the fall would be the best time for me to arrange to have my closest friends and family fly with me on my final NWA flight, and the weather in Minnesota would still be somewhat predictable! I also was told by a close friend who retired from a career with the California Highway Patrol that some sort of “closure” to a long-time career required some sort of celebration! Hence...a party to be had! The invitations were mailed out in mid to late summer so that folks could plan their travel, etc. I decided a celebration at my California airpark residence would work the best, following my final flight a few days earlier.

For my final flight, I planned to fly my Airbus A320 from Minneapolis (MSP) to Sacramento (SMF). That flight arrived around noon on the day before my last flight, and then the following morning I was able to take nine of my dear friends and family on the last segment, SMF-MSP. Somehow Air Traffic Control (ATC) was given the inside “scoop” that this was to be my last flight, and on my trip to SMF from MSP the day prior, I was allowed to circle Cameron Airpark (my home) with a full load of passengers at 3000’ agl while my First Officer (F/O) narrated what we were “doing” up front. (For those T-34 folks who have met my “Minnesota Mom” Gladys over the years, she flew the trip out and back with me, with a few others who accompanied her, so she was in the back that morning loving the attention of explaining what was going on!)

The next morning was an early departure at 0635 so all of us stayed downtown Sacramento at my layover hotel to help with the early “get up” that some were not used to! My very dear friend, Gayle Shurtz (who had been my roommate 36 years ago in New York as a fellow TWA Hostess), was a working Flight Attendant (F/A) on the flight and a Northwest F/A the past 25 years. Because she is currently based in San Francisco and had never flown an NWA trip with me, she flew the trip as a “working dead head” Flight Attendant—basically for free—so that she could be on my last flight! (She remembers the day I first soloed in 1969, when we were roommates as F/As flying for TWA out of SFO!) She was a great deal of help taking care of all my “non revs”!

My taxi out of SMF was most memorable due to the efforts of the great station folks at SMF who have gotten to know me over the past 20 years of commuting out of SMF to MSP...continued on page 14
for my trips. I had arranged for a videographer friend of mine to tape my last taxi out and take off, and the folks at SMF arranged all the security clearances so that he was able to ride on the pushback tug as we pushed back. The big surprise to me then was the Air Rescue Fire Fighters (ARFF) of SMF who had pre-arranged for a “water salute” as I taxied out for the last time! What an emotional thrill that was as we taxied through the arch of water as ATC said “Northwest 396, taxi to the runway of your choice”. The take off ended up being just as exciting and thrilling as the moment we were switched over to “NorCal Departure” the controller gave us “direct Redwood Falls (RWF)” which meant to us no departure procedure or intermediate waypoints that I had programmed into the Airbus computer! The controller then continued with quite a “litany” of information wishing me all the best in my retirement, etc. and then he continued on by thanking me for all the years of entertainment I had contributed in my “warbirds at air shows across the country.” To say the least, I was overwhelmed, and at that point my F/O said, “You better answer that transmission!!”

The trip to MSP went very uneventfully and I had a completely full flight. My F/As had handed out pre-printed handouts to all the passengers as they boarded the flight, so all were aware of the significance of the trip. The weather was so beautiful that I also did another 360 degree turn over Mt. Rushmore that we could see clearly from 35,000 feet.

Upon landing in MSP, I lucked out and “squeaked it on” (trying to impress my two sisters who had never flown with me). We then taxied to the gate, and despite all the security hassles these days with passengers only allowed in the gate area, my flight was met by the Chief Pilot, Capt. Rick Toscano, many of our check-in ladies and office secretaries, and about 30+ of my fellow pilots! Once again I was overwhelmed! The day ended with my neighbors at my airpark residence in Minnesota (Sky Harbor Airpark) throwing a wonderful party “open house” for all NWA folks and neighbors. It culminated in a fireworks display that night right on the grass strip!! If I had to do it all over again, I wouldn’t change a thing!!

In closing, I would like to make some last “reflections” about my career:

Some of the things I will certainly miss will be the ungodly early wake up calls, the massive revisions that come with keeping our flight bags up-to-date, the annual “continuing qualification” check rides, and, of course, the on-going commute to work that I had to endure 24 out of nearly 28 years.

The joys of the job will, of course, be the actual flying (although now-a-days an airline pilot of a modern airliner has become more of an electronic systems manager), the everlasting sunsets as you chase the horizon time clock, the beautiful Northern Lights, and the real memories that will remain with me are the wonderful people who left such lasting impressions on me, I will miss them the most!

My thoughts on being a Captain for the last 20 years of my career: In actuality, the word “Captain” is really not so much a job description as it is a set of character attributes. Some of these attributes you are born with, but most are formed from the number of years of close observation of those that I once sat to the right of in the cockpit of an airliner. A good Captain is part marriage counselor, minister, tactical negotiator, and sometimes “financial” expert. Actually the truth is the “title” involves making financially and operationally different decisions, very vital at times, using a wealth of accumulated experience and operational judgment based on sometimes little hard information. I will miss the challenge of all that, but not necessarily the harsh weather decisions that went along with a lot of those “challenges”.

One final thing I’d like to “promote” is the release of my biography, “Nothing Stood in Her Way, Captain Julie Clark”, currently being printed and due to be officially released 11 March 2004 at the Women in Aviation Conference in Reno, Nevada. The author, Ann Lewis Cooper, and I will be initially promoting the book at the conference. The retail cost of the book will be $24.95 and will be available initially from Women in Aviation International, the publisher. It will also be listed on www.amazon.com and www.barnesandnoble.com, with orders to go to WAI. Links to my website www.americanaerobatics.com will be available as well as future aviation gift outlets, etc.

I look forward now to a little more “free time”, flying my beloved Mentor (or Trojan!) to more recreational type events, and more formation flying with “ya’ll”! See you all this summer!
The Mentor Monitor© 2003 is the quarterly newsletter of the T-34 Association, Inc., an independent nonprofit corporation dedicated to the preservation, restoration, and safe flying of the T-34 Mentor aircraft. Articles and contributions are welcome, please credit photographers. If photos are to be returned, please indicate so. Photos that are not to be returned will be added to the Association's collection. Membership is open to all. Dues are $50 for the first year for new members, $45 per year thereafter. To join, return application and dues to Julie Clark, Membership Chairman c/o T-34 Assn. 2328 Glen Ellen Circle, Sacramento, CA 95822.

The maintenance and operation comments, suggestions, recommendations and cautions contained in the Mentor Monitor and supplements thereto, as well as other T-34 Association, Inc. publications, have been provided by aircraft owners and operators. Maintenance, modification or other mechanical or safety actions presented in the Mentor Monitor should be reviewed and implemented by properly qualified personnel. The T-34 Association, Inc. and its Board of Directors shall not assume any liability for following or failure to follow any or all of the same.

PHOTO DIRECTORY
AND ARTICLES

Be included in future issues of the Mentor Monitor photo directory of members and their airplanes. We would like to include you in this directory. For inclusion in the newsletter:

Send photo(s) include your name and anyone else in the photo along with your city and state of residence, “N” number and serial or bureau number and a description of the paint scheme.

Describe any historical significance or any other points of interest such as when and where restored, former owner, modifications, total airframe time etc.

Let's get every flying, under restoration T-34 or Fuji and owner listed in this directory. Send a 3x5 or 4x6 full frame photograph, (color or black & white), of your airplane, either in flight or on the ground. Please credit photograph.

Please submit text in Word format via e-mail.

CLOSING DATES FOR PHOTOS AND ARTICLES:
February 10, for March
May 10, for June
August 10, for September
November 10, for December

Issue dates are approximately 21 days after closing.

Please send items to:
Mentor Monitor
Terry Brennan
(760) 720-6997
2938 Austin Terr,
Carlsbad, CA 92008
mentor441@sbcglobal.net

T-34 ASSOCIATION Membership Application

Julie Clark, Membership Chairman and Director of the T-34 Association, invites you to join the T-34 Association. T-34 owners, pilots and enthusiasts are all welcome.

Name:  
Mailing Address:  
Telephone: Home:  
Cell:  
Office:  
Fax:  
Email:  
Do you own a T-34? Y / N  
If yes:  Model: A or B  
Serial No.:  
Registration No.:  
Aircraft details (engine, radios, special mods, history):  

First year membership is $50.00, thereafter $45 per year. Please make checks payable to T-34 Association Inc. The completed form and check should be sent to:

Dan Thomas
751 Center Drive
Palo Alto, CA 94301
Day Phone: 650-494-6900 x115
Cell Phone: 650-868-6548
Evening Phone: 650-324-9075
Email: mentor441@aol.com

* * * * *

Other contact information:
Trust your T-34 Wing Spar Mod to a shop with 40 years of Beechcraft-dedicated experience.

Woodland Aviation, Inc., a Raytheon / Beechcraft-authorized Gold Bar service center, is proud to announce that our piston maintenance facility has been selected by GAMI to be one of only seven authorized T-34 Spar Corp. AMOC-1 Qualified Modification Facilities in the U.S. to perform the T-34 critical wing spar inspection / repair process.

This includes all T-34's affected by FAA Airworthiness Directives 99-12-02 and 2001-13-18, as well as the Recurring Inspection Service Bulletin SB-3329 and Raytheon SB 57-3329. Woodland has over 12 factory-authorized technicians who specialize in everything Beechcraft, including the T-34 model.

Currently one of only seven independent Raytheon/Beech Sales and Service Centers (and winner of several FAA Diamond Awards for maintenance-training excellence), Woodland Aviation has focused on Beechcraft maintenance needs since 1963.

Contact our Piston Maintenance department at 800-442-1333 for more info.

WOODLAND AVIATION INC
800.442.1333

A Raytheon Aircraft Corporate Aviation Center
FASTEN YOUR SEAT BELTS. This latest piece of news arrived on the eve of magazine production. If you haven’t heard already, the FAA has issued a revision to AD # 2001-13-18. For those of you who felt that issuance of the original AD was unfounded, you are not going to enjoy hearing that effective March 15, virtually the entire fleet will officially be grounded. In its revision to 2001-13-18, the feds have added the language included in the original Raytheon Service Bulletin requiring the inspection, including eddy current analysis, of two fastener holes on the rear spar at Wing Station #66, and one fastener hole on the forward spar at Wing Station #66.

Once completed and found free of cracks at these locations, the subject aircraft will be allowed to fly for 80 hours before another inspection of the same holes will be required. This will continue until the holes have been reamed so far oversize, as to become unusable. Failure to perform the inspections as required before March 15, will ground your airplane. The only ‘34s flying beyond that date will be those that have undergone the original Raytheon procedure and had the rear spar inspected in the course of compliance. Only the Saunders Strap is exempt because none of the other AMOCs called for the inspections as noted above. In fact in the parlance of the FAA, all other AMOCs have been rescinded. The only other aircraft remaining “airworthy,” would be those that have not yet flown 80 hours since August 16, 2001, and have complied with the requirements of AD # 99-12-02, and their time will be up concurrent with the 80 hours.

Where do we go from here? Immediately following the Texas Air Aces crash in November, the T-34 Association hired Designated Engineering Representative, Victor Juarez, to intercede on behalf of the association, as much as possible, in the FAA’s response to the wreck. Victor has been a valuable asset, working with GAMI and Nogle and Black Aviation, and anticipates that an AMOC replacing the Raytheon procedures with an inspection process that will be far more airframe friendly, will ultimately be approved. This new AMOC will be incorporated into the originals, for those who have not yet had the work done, and provide for a much longer interval between inspections—perhaps as much as 7,500 hours. As we all know the wheels of the FAA grind along slowly, but optimistically we are looking at a 60 day period for new AMOC approval. Let’s all hope it is no longer than that.

THE BAKER FLY-IN HAS BEEN CANCELED - SEE YOU ALL NEXT YEAR AT NEW SMYRNA BEACH.

George, Ginny, Curtis
PALM SPRINGS MENTOR FLY-IN

Many of you have received an invitation, directly from Gene Ramirez, to the Palm Springs fly-in scheduled for April 2-4 at the magnificent Palm Springs Air Museum. For those of you who did not consider this your. There is, perhaps, no finer place to gather with your own airplane family, take in the stunning Bob Pond collection of military aircraft and memorabilia, and fly formation for a more appreciative crowd of museum visitors and docents. Most of the volunteers at the museum actually lived through the WWII era or participated directly in that heroic involvement. It is a great treat to fly for these folks.

Let's bring new blood to the event. Space on the ramp permits a maximum of fifteen '34s to park comfortably and, as a result, attendance is limited. Reply to Gene early and count yourself among the lucky who will enjoy this splendid weekend. Clear skies, unlimited visibilities, balmy temperatures and a myriad of activities for wives or SOPs abound. Gene has assured us that the agenda includes a welcome party on Friday evening, breakfast and lunch at the museum each day, expense reimbursement of $100 per airplane, and discounted fuel, not to mention our own van to transport participants to restaurants, casinos, spas, and who knows what else.

Spend a weekend in the desert. You will enjoy it. Call me or e-mail Gene for more information. Gene's e-mail address is Welo@aol.com Our hotel for this year’s event will be the Travelodge in Palm Springs, a very nice facility with generous rooms and two pools. Call them at 760 327 1211 to reserve a room, and let Gene know you are coming at his e-mail address listed above.

WEST COAST FLY-IN

The West Coast T-34 fly in will be June 25, 26 & 27. This will be in conjunction with the Oregon Air & Space Museum's annual Air Fair on June 26 & 27th. We are planning on formation flying, flying out as a group to lunch on Saturday and will try and get everyone current. There will be a $25.00 Pre registration Fee, and for this each pilot will receive a shirt and $50.00 worth of gas. The reason for pre registration is so we can have the shirts when you arrive with your first name and please indicate if you want a pocket.

Will have motels in two locations, one is the valley river Inn, with Valley River Mall next door for the ladies to go shopping. We will also have some transportation available. There will be a Barbeque dinner on Sat. nite. for all pilots and passengers.

100TH ANNIVERSARY FLIGHT
Jim Ostrich

Five T-34's formed on December 17th, the 100th Anniversary of Powered Flight to fly over to the Palm Springs Air Museum and enjoy the day in the air!

Gene Ramirez at the Palm Springs Air Museum graciously hosted the group, and coordinated the overhead time of 10:35am the same time as the Wright Brothers originally flew. The Press was on hand to film the event which was widely advertised in the Cochella Valley and resulted in a large crowd watching the multiple passes and overhead break to land!

Tours of the Museum aircraft proceeded lunch which was generously provided by the Museum.

A great day was had by all!

Everyone in the SoCal locale is looking forward to the next get together at PSAM April 3rd.

I highly recommend this event and expect we will get a large turnout!
President Dave Holt called the meeting to order at 1:07 EST time. Present were: Jud Nogle, Dave Holt, Terry Brennan, Jim Nogle, Charlie Nogle, Lou Drendel, Dan Thomas, Dan Blackwell, and Bill Cherwin.

Dave Holt suggested that the agenda for the teleconference meeting should include:

a) Board response to the FAA’s letter of concern
b) Board communication to the membership
c) Status of Victor Juarez investigation

d) Jud Nogle reported that he had recently (today) spoken with Victor Juarez. Victor reports that:

a) he has not yet billed the Assoc for his expenses to date, but that they total approximately $1,600 and wanted to know if he should bill before or after January 1, 2004
b) said that he just received the NTSB report and data which requires to complete his initial investigation, and should soon also have photos of the wreckage
c) contrary to his initial read, he now believes that the rear spar failure was at the S.B. inspection point, and not further outboard
d) the rear spar did have fatigue present at the break location
e) that his opinion is that the front spar probably failed first, but this may be immaterial for our purposes

Jud noted that N44KK, the TAA crash aircraft, had incurred a complete failure of the rear spar in a previous flight, sometime subsequent to April 19, 1999. The airplane made it back for repairs and TAA returned the airplane to service. He also noted that Sky Warriors had a front spar fail, prior to their crash, and the aircraft made it back for repairs.

Jud also noted that he believes that the rear spar inspection is unavoidable and probably a good thing to do. He has seen cracks in other aircraft in this location, not from fatigue, but from over loading. He believes that the FAA will rescind the existing AMOCs and impose flight restrictions on those already completed. The AMOCs will need to be amended to incorporate a rear spar inspection.

Dan Thomas noted, in response to Victor Juarez’ question, that it makes no difference to the Association’s accounting as to when the bill is dated as we are on a June fiscal year.

Terry Brennan volunteered to draft the formal board response to the FAA (since Lou Drendel had not yet joined the teleconference) using the draft white paper Lou had been working on. It was noted that the AOPA is now involved and will also be making a response to the FAA and has contacted our group to gather information and determine our stance.

The Board discussed various bullet points for this document, noting that most were already covered in the white paper. The fact that commercial ACM and upset training aircraft are the only aircraft which have tested positive, remained the single most important issue to convey. It was noted that most aircraft have not had the rear spars checked because most aircraft are using AMOCs instead of the original service bulletin, and none of the AMOCs have required this inspection. Jud Nogle noted that this was a regrettable oversight as our database would be much better if we had those inspections in pocket. Nonetheless there are a number of key airplanes that have had this inspection performed and they should be noted in the response to the FAA:

Julie Clark’s airplane was checked twice – no fatigue found
Russ McDonald’s airplane – no fatigue found
Rick Nichols – no fatigue found
North Carolina Forestry Service, at least three aircraft – no fatigue found

According to Jud Nogle and Dan Blackwell, the FAA is about to issue a Flight Standards Airworthiness Information Bulletin. This will result in FSDOs across the country going out into the field and inspecting T-34s and their log books. Jud and Dan, who both have been in contact with the FAA about this, believe that the purpose of this is to a) determine if there are any other aircraft in the fleet that are being used in a commercial environment and are not in compliance with the AD, and b) survey the fleet and develop a database to determine how the fleet is being used.

It was agreed that the T-34 Association should notify the membership of these impending inspections as soon as the FAA officially determines to take this step. Jim Nogle suggested that the board mail a post card to the membership, rather than relying upon email, because a significant segment of the membership is not on-line and are not in compliance with the AD, and b) survey the fleet and develop a database to determine how the fleet is being used.

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According to Jud Nogle and Dan Blackwell, the FAA is about to issue a Flight Standards Airworthiness Information Bulletin. This will result in FSDOs across the country going out into the field and inspecting T-34s and their log books. Jud and Dan, who both have been in contact with the FAA about this, believe that the purpose of this is to a) determine if there are any other aircraft in the fleet that are being used in a commercial environment and are not in compliance with the AD, and b) survey the fleet and develop a database to determine how the fleet is being used.

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Terry Brennan agreed to coordinate with our printer to get the mailing out as fast as possible.

Victor Juarez informed Jud that he estimated that at least 100 hours of engineering work would be required to put together an amendment to the existing AMOCs. The amendment would cover the inspection or the rear spar, and implement a cold working strategy to strengthen the holes and achieve a reasonable inspection interval of 1000 hours or more. George Braley, of GAMI, who has also been in contact with Victor, is suggesting that the T-34 Association cover this cost so all members can benefit.

After deliberation it was agreed that the Association should front the cost of the engineering to save time and simplify, but that once complete, the Association should transfer ownership of the engineering to any AMOC holders who desire to participate on an equal cost sharing basis. For clarification, if three of the four companies which currently hold AMOCs elect to participate then they would each pay one third of the development cost of the AMOC amendment by reimbursing the T-34 Association. This decision is consistent with the position the board took previously regarding the T-34 Association. This decision is consistent with the position the board took previously with regard to the doubler plate, namely that the Association is a not-for-profit entity and it is not in the business of owning proprietary rights. The cost, based upon the 100 hour estimation by Victor Juarez, would total approximately $7,500 (Victor charges $75 per hour).

In the meantime, GAMI is accumulating more flight data with the use of strain gauges in the area of concern on the rear spar. They intend to make this data available to Victor Juarez for his work. The question was asked why this information was necessary since Beech had already done an engineering study to determine this area as a hot spot. Jud answered by stating that this information is proprietary to Beech and not available to our engineer. We are required to provide our own engineering data and our goal will be to justify a significantly longer inspection interval than provided by the Raytheon. The flight test data with strain gauges is probably a cheaper and easier method of attaining necessary data than loading a wing in a controlled environment.

Dan Thomas reported that we have sufficient funds in the bank to cash flow this expense and keep the newsletter going as long as the cost does not significantly exceed the estimate. Jud Nogle agreed to contact Victor and green light him for continued development of the AMOC amendment.

Before closing the meeting, Terry Brennan urged all board members to email any and all bullet point considerations to him for the FAA response which he will be working on during the next 24-48 hours.

Jim Nogle
Board Secretary

ATTENTION T-34 OWNERS!

Have your AMOC-1 kit completely installed. Including aft lower bathtub fitting Zy glu and Eddy Current inspections.

Call 724-217-2111 & ask for Dave.

Now scheduling for April through August deadline. Located at Rostraver Airport (P53) Southwest PA.
LETTERS TO THE EDITOR

Terry:

I absolutely agree with your comments (regarding the pleasure and duties of flying Lead, ed.) I also agree that it’s great to fly Lead and get the chance to look out at something other than another aeroplane, I do remember before I got me Lead patch, that I thought man that guy up front does nothing, Even writing this now still brings a smile to my face.

I was telling my wife how much easier the T-34 is to fly formation with than the T-28.

but I had a blast, everyone seemed like such nice people.

Terry can you please provide me with the #’s for Lead ie:

Takeoff power
Climb Power
Cruise/Descent

Also how does this change with other members of the flight with different engines

ie: 225 HP and 285 HP

Again thanks for having me, Before I forget thanks for putting me as tail-end Charlie (no pun intended) As tail you do have the opportunity to look out and going over March and Palm Springs was spectacular. I’m only sorry I didn’t have someone in my back seat with a video camera. The 10 ship was great.

Michael J. Maloco
Viper

Mike,

In response to your power question, we as T-34 leaders, without benefit of supercharger, must calculate maximum manifold pressure at the takeoff altitude (at 5000 feet for example, max manifold pressure would be about 24 inches) subtract three inches for maneuvering by wingmen, leaving a takeoff power setting of 21 inches. Cruise power of lead should rarely ever be more than 21 inches so that wingmen need never use more than 24 inches while in formation. For each 1000 feet above 5000, lead should reduce his power by another inch (20 inches at 6000 feet, 18 inches at 8000 feet, etc). If there are 225 horse engines in the flight, reduce all numbers above by an additional three inches.

While these settings may seem low, the airplanes will fly at these settings and they are necessary if the thinking lead wants to give all in the flight a small power reserve for maneuvering. I hope this helps.

Terry

Hi Terry,

I’m the guy who talked to you last summer at the Marysville fly-in. As a reminder, our Air Force pilot training class from 1957-58 is having a reunion in Monterey this summer. It is going to be held October 1st through 3rd.

Does it still look feasible to have one or more T-34’s fly in to Monterey then? We are having a beach BBQ on Friday night (the 1st) and would like to invite you and whoever else might be interested in flying down to join us for that event.

Friday PM would be best for us to see your airplane(s) and possibly fly with your guys, but Saturday AM would work also.

Previously, in response to my first email to your bulletin board, I heard from Jim Ostrich, “Pete” in Torrance, CA and Dave Forter in Palo Alto that they might be interested, but have not written them since.

What are your thought at this time?

Thank you.

Dick Feaster
(Colonel, USAF Retired)

How about it you westcoasters? Monterey is beautiful any time of the year, especially in the early fall. Let’s start planning a fly-in for the first weekend of October. Who’s in besides me? ed.

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(which is best?)

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Pictured left are some of the Travers staff at the Columbia, MO airshow. Staff includes Darla Sanford who joined Travers in 1980, and Mary Bixon who joined Travers in 1989.

Also pictured are customers Lee Maples, Mustang owner and Ed Schmidt, Baron Aviation/Fed-Ex Operator.

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