EDITOR’S CORNER

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The cover of this issue of the Mentor Monitor, depicts rather dramatically the culmination of at least a year's preparation on the part of many people and a bunch of formation pilots, to celebrate the fiftieth anniversary of the first flight of the fabulous Mentor. Count them and you will come up with 58 airplanes (easily surpassing our goal of fifty) visible in the photograph, while three more flew top cover, shepherding the individual wedges when necessary, and standing by in the event that one or more aircraft might have to pull out of the formation for whatever reason. This is a real possibility with that many machines in one piece of sky at the same time. What a day to remember. Although the pilots sweated as the temperatures rose, 61 cool heads pulled off the celebration flight without a hitch. More on the "Big One" elsewhere in this issue.

While jubilation abounded following the big formation, it was dampened with the realization that we are living with the ongoing wing spar problem. As we go to press the A.D. has not been issued but it is imminent, and will quite probably call for the eddy current inspection of all wings within a given number of flight hours, with recurrent inspections likely. Opinion beyond that would be speculation on our part, and there has been plenty of that to date. We are attempting to form a committee of interested experts however, in the fields of engineering, structural analysis, metallurgy, eddy current testing and political lobbying to take the evidence amassed by Raytheon Aircraft Corporation and NTSB, and search for alternative solutions to the problem, assuming there is a problem. Again, as we face the deadline for this issue, there has been little interest expressed by our many members or others with the requisite talents, in serving on this committee. If you can help, please volunteer. In their regular columns both Lou and Charlie have more details.

This issue overflows with pictures and articles on Oshkosh and the preparations made for the big event. Steve Aune chronicles two early season airshow performances by the Texas Twisters as they got their act together, while James Hunt does likewise for the event put together at Blackwell Aviation in Pennsylvania a couple of months back. Merchandise master Dave Holt has fallen in love with the northern Wisconsin area and once again regales us with his account of the Sturgeon Bay warm-up. Dave omitted, although I am certain it was an oversight, any reference to the wonderfully nostalgic hangar dance featuring a first class big band and also to the good folks at the Corner Pub who fed us when the local EAA chapter didn't. The pub also provided us with plenty of a fighter pilots favorite beverage as well. The genuine warmth of all the fine Door County inhabitants that we dealt with for the long weekend was not lost on the T-34 pilot participants or the wives that made the trip.

Not only did Terry Carraway and his friend Erich Linder, borrow John Baldwin's airplane and make their first ever trip to Oshkosh, but Terry flew in the "biggest one ever" on that first visit as well. Was he excited? Read his account of "A First Timer at OSH," and read Erich's comments too, as he became a valued back-seater throughout the event. Additionally thanks go out to Erich for his fine job of photography while in the formations. You will find several of his photos in this Monitor, and more will be used periodically in future issues.

Speaking of photography, I don't know how we could ever assemble this periodical without benefit of Kathy Stonich's talents. She dogs us with her camera up and down the flight line at Oshkosh, routinely contributing the bulk of what gets printed in the member aircraft directory as well as the majority of the shots used in support of the feature articles. Thanks Kathy.

In his "Summer of Our Discontent" article, our president Lou Drendel laments the necessary modifications to the LIMA, LIMA aerobatic formation routine, due to the wing AD issued by the FAA. As Lou says, the act may not be as much fun to fly as it used to be, but take heart. After having watched the flat show at Sturgeon Bay, I am.

Back cover: Pilots of the “BIG ONE”. Marshall Mundheim photo.
here to tell you that these guys have done one hell of a job of maintaining the excitement of the old show in spite of the fact that they do not exceed (I am told) 60 degrees of bank or 152 knots.

Bill Cherwin checks in this time around with sound advice on preserving propeller blades and sheet metal through reasonable run-up procedures and your editor has tried once again to capture a slice of Oshkosh in words that has to be experienced first hand to really be appreciated.

Finally, this special edition of the Mentor Monitor features a second page in glorious color. Sixty one warm but excited T-34 pilots posed for a host of photographers following the Wednesday formation where Marshall Mundheim captured them all for association posterity. Can you participants find yourselves in that sea of faces?

Enclosed in this magazine is your ballot for the election of directors to the board. Please vote. And for all of you who have taken the time to send contributions, either text or photographs or both, thank you very much. Please continue to do so. We will be posting any updates on the spar issue either on the web site, WWW.T-34.COM or at t34memos@soltec.net. Until next time, let's keep them flying.

WING/SPAR ISSUE

Editor's note: The following is the latest update on the wing/spar issue. It pretty well wraps up development to date.

by Jud Nogle, Nogle & Black Aviation, Inc.

On Wednesday, August 11th, Raytheon sent a team of 4 to visit our maintenance facilities where Julie Clark’s T-34 is undergoing wing disassembly, repairs and assembly.

The purpose of Raytheon’s visit was to look at Julie’s carry-thru structure to determine if there is any evidence of fatigue in this part and if the inspection procedure should include this structure as well. I am very pleased to report good news. The inspection revealed no problems with the carry-thru structure and therefore they will likely not include this structure in the revised inspection procedure.

While RAC was here, they also completed the eddy current inspection to the rear lower bathtub fittings. Again, no fatigue cracking was present. We are now in the process of assembling Julie’s wings and hope to have her back in the air by the end of the month.

In the initial inspection of Julie’s spars, RAC found evidence of a crack in Julie’s right wing. This wing was later disassembled and the spar sent to Raytheon for destructive testing (leaving this spar useless). The crack was, in fact, fatigue and was in the exact piece, location, and direction as the eddy current inspection revealed.

However, this particular crack was most likely not a result of accumulated flying loads, but rather a manufacturing defect that could be in every T-34. As noted before, the issue here is a metal strap just below the lower spar cap, which in many spars is too narrow. Because of this, many of the rivet holes in this part are too close to the edge of the strap. Raytheon has spent many engineering hours on this particular part trying to determine if it presents a safety issue. They have now concluded that a crack in this strap (noted as a filler in the Beech diagrams) is acceptable as long as it shows to the edge of the strap and not towards another rivet or across the strap. Raytheon does recognize that this is a manufacturing defect which has been present for 40 plus years. They also recognize that if this were to be reason for rejection, it would most likely ground most of our fleet. This certainly does not seem to be there intentions as some have suggested.

We did find several fatigue cracks in Julie’s hinge extrusions which mate to the spar. These parts have been replaced with new and hopefully will not be a concern in Julie’s aircraft for a long time. I have not heard an explanation on the inspection process for this part yet, but I do know that there will be several points on this part that will be included in the revised inspection procedure.

From what I could gather from our discussions with RAC, the long awaited Service Bulletin should be completed in the very near future. Before we can get our hands on it, however, it must be approved by the FAA since it does have a pending Airworthiness Directive. I would guess that this could take an additional 2 weeks. It is my hope that we might see it by the end of the month.

With this stage nearly over now, it will be very interesting to see what kind of results we get back from the first airplanes in our fleet to be inspected. With the data that these inspections give us, our T-34 Association’s technical committee, now being formed, will have some real factual information to work with.

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The Best of Times and the Worst of Times

by Charlie Nogle

Oshkosh 1999 was an amazing chapter in the 50 year history of the Beech T-34 Mentor. Especially so, in the face of persistent rumors of an impending total grounding of the entire T-34 A and B fleet. This would encompass 350 aircraft when the military aero clubs, government operated ships, and Fuji models are counted.

The following topics are what made this year’s EAA Oshkosh event so spectacular for the Mentors in attendance and for all the Mentor community.

1) The Sturgeon Bay Mentor formation practice event kicked things off extremely well. 45 ships participated and every one was brought up to formation speed. Importantly, every one there had a great time. Weather was good and local hospitality was unsurpassed. This was by far the best practice we have ever had. Well deserved thanks go to Terry Brennan, Bill Cherwin and Dave Miller.

2) Oshkosh arrival on Tuesday, August 26th was spectacular. Tom Poberezny was in the WB parking area to pass out congratulations for the leadership and overall airmanship. Importantly, this group arrival corrected last year’s arrival problem which was primarily FAA tower induced.

3) Tuesday evening, August 27th, we had 67 T-34s tied down in three very impressive rows. Total T-34 registrations for the event came to 83.

4) On Wednesday we put up a 61 ship formation, our biggest and best ever. For a change we flew at 1,000’ to 1,500’ AGL (previous years we were over 3000’). The recovery of 61 aircraft in 3 ship V’s was spectacular to say the least, and no one had to go around.

5) On Friday, August 29th, we held the T-34 maintenance forum at the Fon du Lac Holiday Inn. We used the largest meeting room there and attendance was estimated at nearly 150. Ron Gros of Raytheon Aircraft Company started the session as he was returning to Wichita later in the afternoon. He brought several slides of the GA accident aircraft.

6) EAA-WB judging went exceptionally well for T-34s. Never before have T-34s received both Grand Champion and Reserve Grand Champion, post WWII at Oshkosh in one year! The Grand Champion award went to Ed Gomez and Reserve Grand Champion was awarded to Dan and Danny Blackwell. These were two very impressive airplanes. The Best T-34 award was skipped and I don’t know why. I will report back on this later.

AirVenture 99 was the best possible place to access the aviation community including regulators, association leaders, aviation enthusiasts, and most importantly our members and T-34 owners. I can accurately say that our plight is now known in all circles of aviation and their help and encouragement has been asked for. Everyone knows that aging aircraft is a hot subject now and the aviation community is watching the T-34 fleet’s problems and its ultimate outcome.

The fact that our aircraft is certified for acrobatic flight, greatly contributes to the popularity and demand for our beloved Mentors. This design feature, however, subjects us to the highest structural standards in aviation. If we are going to maintain the demand and popularity of the T-34, and thus our values, we must retain our standard category certification and defend our aircraft’s reputation in the aviation press.

Oshkosh presented your Association Board the opportunity to lobby with some of the major industry players for their support. Not only are all of the major aviation entities represented, but our membership was there in force. The fact that two T-34s walked away with the top two post WWII awards -- Grand Champion and Reserve Grand Champion - was certainly a big plus. Here are the groups your Association met and lobbied with:

GAMA: We met with Ed Bolen, President of General Aviation Manufacturers’ Association. He was already aware of our problem and has agreed to help us.

AOPA: We met with Craig Brown of the Aircraft Owner’s and Pilot’s Association. Craig pledged AOPA’s support and further discussions are scheduled with him.

NTSB: Charlie Nogle met with Bob Francis, Chairman of the NTSB and discussed the spar issue in detail. He escorted Bob up and down the T-34 tie down line -- which numbered over 67 aircraft at that time. This was the perfect opportunity to show him the quality of our fleet. He expressed sincere willingness to help.

EAA: We have help here from the highest level without question. Tom Poberezny, Jack Harrington, Gerry Walbrun and the entire EAA Staff are behind us.

RAC: We met with Gross, Manager of Piston Power Aircraft Support, in private before the T-34 Forum. We reviewed all of the issues we have heard over the past four months regarding the T-34 wing. He was also given a inspection tour of the T-34 flight line.

ABS: Two of their past presidents and two technical people met with us in private where we exchanged ideas. They are highly interested in our situation and have offered their help and support.

FAA: We met privately with Mike Dahl, who is in the Small Aircraft Certification Office in Kansas City, which is over the Wichita office.

Editor's note: You will find elsewhere in this issue a recap of a series of meetings held in Wichita involving Raytheon and the FAA, at least a few of which Charlie was able to attend. This is the latest news we have regarding the wing spar problem.

below: Charlie after the BIG ONE, OSH 99. Lynn Farrell photo.
by Lou Drendel

It has been a summer of ups and downs. The biggest down, of course, was the Sky Warriors crash and the aftermath of that unfortunate event. We all know what happened. Most of us think we know how and why it happened. Very few of us actually know the how and why, and that has led to wholesale venting of frustration and anger at many of the players in this on-going drama.

Someone could (I hope they don't) write a book by compiling all of the e-mail submissions to the Ramm T-34 list. This is a very useful and interesting chat room....most of the time. However, in the case of the on-going investigation of the T-34 structural integrity, it has also been a conduit for a lot of downright misinformation and, frankly, outrageous opinion. While there have been articulate and persuasive arguments made for dark conspiracies, there has been very little in the way of concrete evidence to back up these allegations.

We have recently published a mandate to form a committee to investigate solutions to the T-34 wing spar issue. A lot of people think this should have been done immediately. It could not have been done effectively until now.

When the accident occurred, I don't think many of us foresaw the implications for the T-34. Our founder did. Charlie Nogle cut short a Florida vacation to return to Champaign and began fielding calls from a variety of sources. Charlie has always been the number one proponent of the civilian T-34 fleet, and he knew that the Sky Warriors crash would have far-reaching implications for the future of the civilian fleet of T-34s.

In spite of the fact that T-34s have been flown regularly since their retirement from the military, there is a distinct paucity of Mentor information in the database of federal agencies. Raytheon, which includes the former Beech, has never supported the Mentor in civilian service. Their knowledge of the Mentor is limited to its use by the Navy, Air Force, and some foreign operators. Their Safety Communique early in this drama admitted as much. Nogle & Black Aviation is a repository of a wealth of information on operational and maintenance history of the Mentor. It was inevitable that they would be contacted by those investigating the crash.

Those of you who know Charlie well know that he is as honest and straightforward as any man you will ever meet. He believed that cooperation with NTSB, FAA, and Raytheon was our ticket to influencing the future of the Mentor. If you read the initial Raytheon Safety Communique, you know that we had a big hill to climb to achieve a satisfactory result of the investigation. As of this writing, it now appears that Charlie's efforts are paying big dividends for the T-34.

A lot of what we think we know about the history of our airplanes has changed this summer. For example, one of the stories in the Mentor lore is that the Navy did testing on the T-34B and determined that the Mentor was not airframe life-limited. I had always accepted this as fact, but in fact, it never happened. When I wrote T-34 In Action for Squadron/Signal Publications, I collected all the relevant related information I could. One of my sources was an article published in 1976 by Air International, a respected British periodical. They quoted some impressive cycle numbers recorded by VT-1, the T-34 training squadron at NAS Saufley Field. Naval Aviation News and Flying magazine both published a 10.5 G limit on the T-34 B. (They were wrong.)

In a belated effort to verify the airframe life story, I contacted RADM Don Boecker, USN (ret). Don is a life-long friend, Naval Test Pilot and former Commander of NATC Patuxent River. Don could not remember any such test, but he put me in touch with Tom Lawrence in the Aero Mechanics Division of Naval Air Systems Command.

Tom has been in Systems Command for over 30 years, so it was logical to think that he would know about this test. He could not have been more forthcoming or diligent in his efforts to verify this story. He has used his very extensive network of Systems Command veterans in an attempt to track this story down. Tom put me in touch with Steve Candella, the Chief Airframe Structural Engineer in Systems Command. Steve said the closest the Navy had ever come to testing the T-34B was in the mid-80s, when it became apparent that Recruiting Command was going to continue to use the Mentor long into the foreseeable future. Steve recommended a Service Life Extension Test, which would have established an airframe life. (The T-34C has been tested and certified as a 16,000 hour aircraft.) His recommendation was not acted upon. To the best of their knowledge, the T-34B was never limited to less than +6 or -3 Gs in service. The NATOPS manual asserts that the T-34B is a fully aerobatic aircraft. It also cautions that rolling Gs reduce the published limits to 2/3 (+4. -2G). Further efforts to track down those 30 year old VT-1 records have so far yielded no results. The USAF records would have been even older and, presumably, thinner, since the Air Force used the Mentor for a much shorter period. At this point, it appears that service maintenance records are non-existent, or inaccessible. Under these circumstances, the best maintenance records sources are the civilian restoration and maintenance facilities.

What NTSB, FAA, and Raytheon have come to realize is that the civilian fleet of Mentors is extremely well maintained. Their escalating value has made them into important assets for their owners. They are not, and cannot, be treated as aerial throwaways. This was never more apparent than at Oshkosh this year, when Dan Blackwell and Ed Gomez walked away with the two top Warbird restoration prizes.

By the time you read this, THE TEST will probably have been published. The AD may very well have been modified, and the immediate future of the civilian fleet will be known. Based on the latest information, we are assuming the best possible outcome. We are also committing the T-34 Association to an ongoing effort to assure the future of the T-34. It is our hope that the technical committee now being formed will be a valuable and accurate conduit for ideas and information that will serve all T-34 owners.

WWW.T34.com
t34memos@soltec.net
Flight Manual supplements:
- Model B-45, Beech FAA Flight Manual Supplement, P/N 131122 (IO-470-N), Kit 45-9002

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These manuals plus any other FAA approved aircraft modifications which require Flight Manual Supplements which apply to each specific aircraft are available thru Raytheon Aircraft for their specific modification kits and each of the Modification kit suppliers required to provide Flight Manual Supplements, such as engine change, prop change, fuel systems, etc.

I hope that the above information sheds some light on a very confusing subject.

I have contacted our old source for all of the manuals listed from the factory, I have been advised that they still have some of each left in their stock, the prices are based on page cost. These are not just paper copies. They laminate them between 10 mil plastic so that they can take a beating. The current costs are:

- P/N 45-590177, T-34A Single laminated sheet $10.00 includes s/h.
- P/N 115090-10, T-34B, Two laminated sheets, $17.50 includes s/h.
- P/N 131122 update, Model A-45, T-34A, B-45, (IO-470-N), 45-9002 kit, Three laminated sheets, $24.50 includes s/h.

Anyone interested can contact them by writing,
PS Johnson
58 Meadowview Dr.
Pomona, Ca. 91766

Hello all,
Just wanted to inform everybody how we are using our T-34 fleet for the relief operation after the earthquake of August 17th, magnitude 7.8. Currently 11,000 dead, 35,000 still under collapsed buildings, 19,000 wounded. 9 cities and 27 million people affected.

Our aero club has 10 T-34A's, all operational. We removed back seat, and using the saved space + baggage area to carry light & sensitive stuff. Each a/c is now carrying around 350 kgs of relief material, and is making about 6-7 flights daily, since the earthquake area and airports are within 100 miles to our base.

Turgut
www.ihk.org.tr
turgut.kulac@ihk.org.tr

Congratulations to Darrel Berry of Camden, TN who is our "91st" Lifetime Member and thank him for his strong commitment to the T-34 Association.

Currently there are over 65 members who have not yet paid their 1999 - 2000 dues, which were due and payable on July 1, 1999.

WE ARE SENDING OUT A "NEON-COLORED" DUES REMINDER NOTICE TO EACH MEMBER WHO IS NOT CURRENT WITH THIS SEPTEMBER 1999 ISSUE OF THE MENTOR MONITOR.
T-34 "MENTOR"

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by Lou Drendel

1999 promised to be the best season in the history of the Lima Lima Flight Team. In our 12th year, we had expanded the envelope of T-34 formation aerobatics even further with the addition of a diamond barrel roll. Our airplanes had undergone a more intensive winter maintenance schedule, with several upgrades to equipment, with the last of these finished just prior to our first trip of the year. The annual International Council of Airshows (ICAS) convention in December had provided us with several new shows for the 1999 season, and we were looking forward to our very full schedule.

Our first show was Sun 'n' Fun. This was not an uneventful trip. We planned to depart LL10 on Sunday, April 11. On the preceding Friday afternoon, my radios all stopped communicating. All audio from both com radios and the intercom just suddenly stopped. After three hours of troubleshooting, the radio tech had not found the problem. With time running out on us, I suggested re-wiring all PTT switches to the radios. That gave me audio on the radios, but still no ICS. Since no one was riding with me, that was good enough to go with.

The trip to Lakeland was one of our best. Clear skies and tailwinds got us there in 5 hours of flying time. We were scheduled to perform on Tuesday and Wednesday, so we used Monday as a practice day and a chance to visit our sponsors in their display spaces.

One of our sponsors is Shell Oil Company, and on Monday night they hosted a party which featured Mario Andretti. He had agreed to participate in a promotion, which included a Sky Warriors dogfight with the winner of a drawing. The dogfight was scheduled for the next day. Included on the guest list was Earl Arrowood, the owner of Sky Warriors. Earl was celebrating the 10th year of Sky Warriors and told us they had flown over 8,600 air combat sorties since starting the business. The Andretti dogfight came off as scheduled (he won), but a week later one of these airplanes had crashed, killing both pilots.

We performed as scheduled at Sun 'n' Fun and departed for Louisville on Thursday. Thunder Over Louisville is the largest fireworks display in the world. It takes place over the Ohio River in downtown Louisville, and is preceded by one of the largest air shows in the country, also over the river downtown. This extravaganza is the beginning of a two-week celebration preceding the Kentucky Derby.

The trip to Louisville was IFR on top of a 10,000 undercast. We split the flight into 2 ship elements for the penetration and approach to a dark, rainy, wind-blown (22 knots) Bowman Field. There is nothing like a dark, bumpy approach to focus your formation flying skills! Unfortunately, the bad weather hung around for a couple of days, and the show was pretty much restricted to the low variety. We did some of our vertical maneuvers, but could not do our wedge loop. The fireworks....all 48 tons of them.....were not affected by the weather, and for 25 minutes downtown Louisville was like a war zone as the continuous bombardment of star shells blossomed overhead. Thunder was our last aerobatic show of 1999.

Charlie Nogle was in the investigation loop of the Sky Warriors crash early enough to give us a heads-up that this could have far reaching consequences for the T-34. Our reaction was mixed. Our pessimists thought it meant the end of the T-34. Our optimists thought that it couldn't possibly be that bad. After all, the crash had been caused by pilot error, right? (Like most pilots, we can't believe our airplanes would betray us. It had to be the fault of the other guy. Nice guy though he was, he just screwed the pooch, right?) This bit of pop psychology courtesy of "The Right Stuff", Tom Wolfe's insightful book on fighter pilots, test pilots, and astronauts.)

We all know what happened next. Its effect on the Lima Lima Flight Team has been tough but we have managed to blunt the worst case scenario. With six airplanes, we can provide a unique presence at an air show. We do have a non-aerobatic "flat" show, which we use for non-waivered airspace. Of course, it is not as impressive as our full aerobatic show, and it is certainly not as much fun for us to fly. It is also not going to get us invited to many big air shows.

Two of the shows on our schedule canceled us when the AD was issued. All of the rest of them have kept us on their schedule. As of this writing, we have done five full air shows in the non-aerobatic mode. We have been pleasantly surprised by the reaction of the air show crowds. We always make an effort to interact with the air show spectators after our performances, and their comments have been 98% positive. (Those who had seen the routine before could not help but notice the difference between flat and aerobatic.)

The toughest part of this whole ordeal has been the uncertainty of it all. During the darkest days of the investigation and development of the spar test, we had heard that total grounding was imminent. We had to tell our clients that there was the possibility that we would be unable to appear. We couldn't tell them any more than that, because all the information we had was back channel threats and/or opinion. Many of these air shows had done a lot of promotional work featuring the Lima Lima Flight Team. As one of the producers told me; "If you guys don't show, I'll probably have to leave town!" Under these circumstances, the best we could do was to promise to fulfill our commitments to the best of our ability. We could still give press and/or promotional rides, (a very large plus of a T-34 team) and we could make our flat show as entertaining as possible.

One of the most puzzling events was the U.S. Air & Trade Show in Dayton, Ohio. This is one of the largest and longest-running shows in the country. They always have one of the major jet teams, and a host of top civilian aerobatic performers. Our first appearance there was in 1998. We appeared at the request of our largest sponsor, McCauley Propeller Systems. McCauley is based at Dayton International, and is one of the major sponsors of this show. The team did its full aerobatic show and was well-received.

When the AD was published, we were contacted by the show producer, Dan Biggs. Dan wanted to know what we were going to do. I told him about the flat show and he expressed grave reservations, citing another formation act which has never done acro, and which he described as "very uninteresting". I told Dan that we would do whatever he and/or our sponsor wanted. McCauley thought it was important that we show the flag, do the
Our show appearance was abbreviated, and the highlight was our six-ship wedge in a descending, tight 360 degree turn in front of the crowd. The Thunderbirds also performed. One of their maneuvers is a 4 ship diamond 360 degree turn in front of the crowd. Something happened in the middle of this maneuver and their formation came apart. It was an unintended, but serendipitous comparison of the teams, and we got a lot of compliments for our routine. We scratched our heads...what routine? But we were happy to receive the compliments.

After Dayton, it was on to Sturgeon Bay, with the threat of imminent grounding hanging over our heads. This was probably the low point in this whole summer of uncertainty. We had heard that those who wanted the T-34 grounded permanently were about to get their way....at least temporarily. Though we could not believe that a grounding order would be issued with as many as 100 Mentors on the line in Oshkosh, we were prepared for the worst. As you all know, it didn't happen. Our many friends within in EAA and Warbirds of America used all of their political connections to reason with the government, and it paid off.

Sturgeon Bay was a wonderful experience, harking back to the earliest days of the T-34 formation program. There was a lot of enthusiasm for the mission of putting up "The Biggest One", and the missions were flown with concentration and commitment. We had 48 T-34s present for duty when Bill Cherwin led us to Oshkosh on Tuesday afternoon. One pass over the field, and then a break pass which impressed EAA President Tom Poberezny so much that he greeted Bill and I when we landed. He was effusive in his praise for our performance. Though it was left unsaid, this was also an expression of support for the T-34 community in our hour of danger.

"The Biggest One" was flown on Wednesday, with 61 T-34s participating. This was a record number for us, and possibly for any civilian formation. It was so well choreographed and led, that we managed to launch all 61 airplanes within a 5 minute window. The pass was flawless and the recovery crisp and uneventful. More kudos from the EAA and a real eye-opener for T-34 critics. Another real eye-opener for our critics and those who were just not familiar with the Mentor was provided by several guided tours of the line given by Charlie Noge. As you all know, Ed Gomez and Dan Blackwell walked off with the two top post-WWII restoration prizes. It was obvious to all that the combination of the Mentor and the T-34 is always fun to fly.

Our next event was Venetian Night on the Chicago Lakefront. This is a twilight affair and always flown non-acrobatically. It is high visibility (there are hundreds of thousands of spectators) and is always fun to fly.

Our next show was Ellsworth AFB, at the foot of the Black Hills of South Dakota. We enjoyed the aerial tour of Mt. Rushmore (pix in the next Monitor) and the one-day show drew thousands. The hangar party on Friday night was interrupted by a record-setting thunderstorm which produced sustained 83 knot winds and a gust of 143 knots! We just barely got the airplanes pushed inside before it hit, dumping several inches of rain in a little over an hour. We also got to try our hand at flying the B-1B (Bone) simulator, courtesy of the 28th Bomb Wing and the 77th Bomb Squadron. Mach One at 300 feet is even impressive on a simulated landscape! Some of us managed to take off and land without crashing. After two hours, we had bested the simulator, and it had to be shut down. (Old airline pilots do not necessarily make good bomber pilots!)

The longest trip of the year was to Saskatoon, Saskatchewan. Getting there was an ordeal. We took off early on Thursday in moderate rain which made for poor visibility. We remained VFR (barely) all the way to St. Cloud, Minnesota. Early in the trip, my alternator out light came on and the voltage dropped. I turned off lights and mashed circuit breakers and the alternator came back. Within a few minutes, the radios stopped communicating after a blast of continuous transmission noise. Even though they were still navigating, I was too flying tight formation to pay much attention! We got to St. Cloud a couple of hours later and the mechanics and radio techs were waiting. After replacing a bad wire and drying the radios out, we were on our way. We figured the problem had been caused by moisture from the heavy rain we encountered. A new bead of sealant around the base of the windscreen seemed to solve the problem. The next leg was solid IFR and out of building CU and some fairly heavy rain on the penetration to Bismarck, North Dakota. I had no further problems with the radios. When going IFR, we split the formation into flights of two, which is much more manageable and less likely to produce lost wingmen situations in the clam. After another stop at Minot for gas, we got to Saskatoon at sundown, completing a 14 hour day. No one had a problem getting to sleep.

Saskatoon is the largest city in Saskatchewan, with a population over 220,000. There are no suburbs. There are very few lakes, and any "towns" are really, really small. From the air, it looks like there is nothing between Saskatoon and Regina, the next largest city, 150 miles Southeast. The airport was large and efficient, and the Shell Aero Centre was ready for our arrival. For the second show in a row, our airplanes enjoyed a roof over their wings at night.

Showline productions is run by Steve Teatro and Donna Flynn. We had worked with them in the past, and it was pleasure to seem them again. Every detail of the show was organized and it all came off without a hitch. We shared billing with Gene Soucy, Air Combat Canada, and the Canadian military.

The trip back began on Sunday after the show. I was anxious to get to Minot and get through U.S. Customs so we could get an early start on Monday. The U.S. had thrown up a very impressive barrier at the border, in the form of a force five thunderstorm. We spent an hour on the ground at Estevan, Saskatchewan......wondering if we were going to have to crash on a couch for the night......before the front went through and we were able to dash the last 85 miles to Minot. The early start on the next morning yielded ground speeds of 220 knots! It was tough to unfold maps fast enough, and we covered the last 700 nautical miles in just over 4.5 hours.

It now appears that the T-34 will not be grounded, and that we will finish out our season in the flat mode. It has been a psychologically demanding season. Even though good, tight, crisp formation flying and close order drill taxiing are crowd pleasers, it
is hard to escape the feeling of being second class citizen when you are the only air show performer who has to keep the blue side up.

The view from the back seat in the #5 position of the Lima-Lima wedge. Photo courtesy of Lou Drendel

l: John Baugh expresses his appreciation for leader Bill Cherwin's adept interpersonal style. Photo courtesy of Lou Drendel

r: "The End" - Sue and Rob Parrish after a long day of formation practice at Sturgeon Bay. Steve Aune photo
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Gathering of Ridge Runners: Mentor Delivery Prompts Formation Clinic

by James Hunt

Rostraver, PA - Under unseasonably warm temperatures and crystal skies, T-34s owned by members of Northeast and Mid-Atlantic Regions converged on Warbird Squadron 15, "Ridge Runners" Headquarters at Rostraver Airport, near Pittsburgh. What started as a small get together to celebrate a T-34 delivery turned into the first full formation practice for the Oshkosh-bound members of the region.

Visitors began arriving at Blackwell Aviation on Friday, April 30. Glenn Goldman, out of Northern Virginia, and Mike Forte, of Philadelphia, arrived in the afternoon where they joined Dan Blackwell Sr., Dan Blackwell Jr., Bill Beitler, and Jamie Hunt. While Jr. Blackwell and I were taking in the evening Pirates game, Dan Sr. paid us a visit by leading a four ship diamond consisting of Goldman, Forte, and Beitler over the game at Three Rivers Stadium. The spectacular sunset fly by made national television.

Formation practice began in earnest with the Saturday arrival of the "Dawn Patrol." Marshall Mundheim and Fred VanderWilt, from Teterboro, arrived in a two-ship break. Allen Smith, of Philadelphia, landed later in the morning. The rest of the day was spent briefing, flying, debriefing, and eating a wonderful lunch provided by Dan Sr.'s better half. Ridge Runner Aviators spent down time hangar flying, troubleshooting electrical problems in Hunt's T-34, and admiring the spectacular restoration of Dan Sr.'s "new" Blackwell-Beech T-34.

During the afternoon, Bill Beitler demonstrated his generosity by loaning a generator and components to repair Hunt's Mentor. Blackwell Aviation's support was complete, offering full repair, maintenance, eating, showering, and hammock facilities. Pilots enjoyed great hospitality and a quiet airport.

Saturday evening culminated in a spectacular eight-ship flight. Skills practiced during the day paid off as two diamonds passed over the field in crisp formation. Afterwards, all eight aircraft entered a beautiful sunset pitch up break over Rostraver. With flying completed, the Ridge Runners retired to the nearby Holiday Inn where several pilots demonstrated their night club expertise while listening to a 1970s band.

Sunday consisted of an early morning formation flight followed by instrument training. Bill Beitler again demonstrated his famous Pennsylvania generosity by giving instrument time to pilots "under the bag" is his beautiful A-Model Mentor. Late morning marked the end of a highly successful weekend. Allen Smith, Mike Forte, and Glenn Goldman departed first. Marshall Mundheim gave Fred VanderWilt a ride home as Fred was leaving his Mentor behind for an engine overhaul and maintenance. As quiet settled over Rostraver, Blackwell Sr. was heard to say, "Well Lou Drendel can't say I didn't try in the North-East!"

Jackpot

by Dave Holt

What's got one and two eyed jacks, plenty of jack rabbits, not as many jackpots, and probably more than several guys named Jack? Jackpot, Nevada, that's what. And why did a collection of T-34 formation pilots fly in to this unlikely outpost in the desert of northern Nevada this past June? Certainly not to stake any gold or silver mining claims, and even less likely to strike it rich at the gaming tables at Cactus Pete's desert resort- although the many wives who accompanied their mates on this trip seemed to have had other ideas.

To be sure, the entertainment was great and the food was good and the gambling results were by and large predictable, but we all came to fly-and fly we did. Typical visibility of 100 or so miles, majestic mountains and rugged, desolate countryside provided the exciting backdrop for three days of formation exercise preparatory to the annual Wisconsin trip and the record breaking 61 aircraft formation. By Thursday evening a dozen or '34s graced the ramp promising a weekend replete with fly-bys, "smoke on now," and one after another crisp breaks for landing, right over the hotel.

Practice began in earnest on Friday morning, as the chill desert air produced nary a ripple to ruffle the feather of those early risers. By late morning we were assembling the six ship wedge formation for launch and a short hop up to Twin Falls, Idaho, for lunch-not to mention showing off for an appreciative bunch of tower controllers. And so it went-as the afternoon heated up and the bumps increased proportionately, we sharpened our skills at flying the specified formation and breaking it up for landing.

Among the many motor home and camper trailer travelers that RONed in the casino park, were more than a few veterans of conflicts passed, who expressed great appreciation for the military style performance they remembered from a time long ago. One grateful former GI, even worked his way into 34 Delta Hotel's back seat for a taste of formation work on an up-close basis.

Saturday was a repeat of Friday, although the wind had kicked up early denying us that undisturbed air of the day before. More local sorties then back to Twin Falls, for lunch- this time with two wedges in trail. In between the larger group launches we had time to check out and award Leader and Wingman patches to Gary Silence of Denver and Ken Wyatt of Las Vegas. Congratulations guys and thanks for your dedication.

Great camaraderie, good flying, and less than successful results at gambling earmarked this non-stop weekend. A tip of the T-34 cap to the following pilots who participated: Ken Wyatt, Jerry Rohles, Dick Tews, Cliff Jensen, Dave Holt, Terry Brennan, George Lamont, Kris Cox, Bill Greenwood, Ritt Will, Bruce Eskildsen, R.J. McWhorter, Dan Thomas, and Dave Lowe. Bob and Lynn Farrell made the trip over from Sacramento in their Commanche and produced most of the photographs over the weekend. Thanks guys, and thanks to the wives who accompanied their husbands. They are always prettier and after an afternoon of flying, they definitely smell better.

below: Lynn Farrell's photos of some of the fliers at Jackpot and on the "Taxiway/ road.
Texas Twisters Save the Day at the Coleman, TX Airshow

The Texas Twisters gathered themselves up and descended on the sleepy little town of Coleman, TX for a day of fun, fellowship and formation flying. The "Twisters" were the headliners at the show and did a fantastic job of formation flying and entertaining the folks of Coleman. This is the second year the "Texas Twisters" have headlined at Coleman and the gracious folks there look forward to having the "Twisters" back next year.

Nice echelon turn, fellas! But can anyone identify that wannabe T-34 in the pack?

Texas Twisters Crash the Party in Oklahoma City

The Oklahoma City Airshow had a new home this year. This time the show was held at Clarence Page Airport west of Oklahoma City due to reconstruction (2 years) at Will Rogers Airport. Most people had written this show off because of the move.

Fortunately, the show did quite well considering the naysayers. The "Twisters" had a great time at the airshow and were treated most graciously by the OK City folks. Pilot briefings were a bit on the wild side with belly dancers providing the entertainment (wake-up, fellas!). Highlights included a hangar party with live entertainment and the Turbo-Raven wowed the crowd. Julie Clark and Russ McDonald were also in attendance as you can see from some of the evidence. Airboss Ralph Royce did an outstanding job directing all the traffic.

Sadie Hawkins gets her man "Bubba"
50th Anniversary of the T-34 Mentor 1949-1999 "Texas Twisters over Oshkosh"

The Highlight of this summer has to be the Celebration of the 50th Anniversary of the T-34 Mentor! The goal for Oshkosh was to put up at least 50 airplanes to commemorate the occasion. Practice started early at Sturgeon Bay with many activities shared and enjoyed by all. (Where do you get those seven (7#) cherry pies?) Boy, if Walter Beech could have seen the flight line at Sturgeon Bay it would have brought tears to his eyes. Saturday, Sunday, Monday and Tuesday it was practice, practice, practice as flight leader Bill Cherwin worked the troops hard! Most noticeable comment in post-flight briefings was "If you ain't sweatin', you ain't working hard enough!"

It was rumored that the Texas Twisters brought the hot weather from Texas to Oshkosh so they would feel more at home!! All the practice must have paid off as you can see from the photos of the BIG ONE (61 T-34's in formation over Oshkosh on Wednesday). What a sight to behold!

Each pilot who practiced at Sturgeon Bay and flew in the "Big One" at Oshkosh received a special hat, belt buckle and patch to commemorate the occasion. As you can see from the group photos taken after the flight, everyone had a great time.

One of the highlights at Oshkosh was the T-34 Forum held Friday at Fond du lac. I won't say any more on that as someone else is probably covering that topic. (say guys, do you know where I can get some used Baron spares?!) See the picture of the Texas Twisters' answer to the spar problem. So, a good time was had by all and hopefully everyone made it home o.k. There's still lots of summer left and plenty of airshows to keep us all busy. The Twisters still have several shows on their calendar but we'll save them for the next issue.

How many T-34's can you get on one taxiway? Sturgeon Bay practice for the "BIG ONE".
by Dave Holt

The "Fly-in before the Fly-in" was, more than ever before, a great success for the T-34 Association members who afforded themselves the opportunity to be at Sturgeon Bay.

Paul and Michelle Spanbauer and the dozens of EAA locals helped make our practice and training time in beautiful Door County a real treat. In fact, rumor is out that the appearance of a fuel truck at the Sturgeon Bay airport resulted in so much hubbub, that it could result in the first ever display of a vintage gas truck on a pole as a "gate guard," breaking the long time tradition of hoisting retired military aircraft to that lofty honor. Seriously, the ability to fuel each aircraft in place was a real benefit for the whole four days and was much appreciated. And a hearty tip of the cap (official T-34 logo, of course....) to Dave & Buffy Miller for the evening at the Miller home and, of course, the Door County fish boil, a much heralded local culinary treat.

A few early birds arrived on 23 July, with the majority arriving on Saturday the 24th. Add to that those who commuted in and out each day, and it was evident from the start that 50-plus T-34's would be ready for the flight over Oshkosh on Wednesday the 28th. Lest any might have doubted it, Bill Cherwin had written in the last issue of the MENTOR MONITOR that this year's formation would be the biggest of the "Big Ones". It would prove to be so.

The initial series of training flights were orchestrated and led by MONITOR editor Terry Brennan. All went well weather wise, and the rough spots came off the pilots as the proficiency levels increased nicely as the training was done in two's, three's and sixes. The Sixes were then put together in a formation of 'flights' as the drill progressed. Well done Terry, and thank you.

On Sunday, Bill Cherwin, Lou Drendel and the Lima Lima Flight Demonstration team arrived after a rather sweaty trip from a weekend of work in Dayton, Ohio. Bill then briefed the largest practice session yet as preparation for "the Big One" rolled on. At this point during the afternoon flight briefing, this growing collection of T-34 pilots filled the better part of the largest hangar on the field. For many of us who have been involved in the planning for this fifty-plus formation since the Association gave birth to the flight in February of 1998, the scene was gratifying, to say the least. The 50th Anniversary flight of the T-34 Mentor was going to be a reality!

Monday saw two flights and further honing of the art of formation flying, which built to an enjoyable peak preceding our annual T-34 Association formation competition on Tuesday morning. Six teams vied for the coveted top spot, but the strict eyes of the able and unbiased judges awarded to first place honors to the team of Glen Goldman, both Dan Blackwells, and Mike Mahanor. Kudos to Bill Cherwin and Lou Drendel for diligent judging. The winning team pilots will be presented, as tradition now demands, with personally monogrammed golf shirts commemorating their accomplishment, compliments of the Association's merchandising department. We hope to see many more groups at next year's competition, and we suggest a little practice between now and then on the part of those formation champion 'wannabes.' It just may help, as we can't have these east coast aerial aces getting too comfortable with the top spot!

Over the last three years the Association practice and training sessions have proven a true benefit in the areas of both personal competency and satisfaction, as well as in flight and formation safety. With Oshkosh as the next stop for virtually all who participate, Sturgeon Bay is certainly the location of choice for this rare opportunity. In fact, more than a few who have participated in the flying prior to Oshkosh would if they could, attend and participate in only one or the other, with SUE as their first choice.

These same folks cite the personal touch, frequent flying and uncrowded atmosphere of the Sturgeon Bay event as their chief reasons. A compelling case in light of the camaraderie and abundant 'stick' time experienced during this 1999 fly in. We had a number of T-34 pilots with newly minted credentials in the formations this year, which is exciting for all of us to be sure! Stick a competent instructor type in your back seat this fall and winter and let's get you qualified, patched, and up and running for next year's Sturgeon Bay event. What a marvelous dimension of flying to enjoy with your Mentor, and what a great place to do it!

I look forward to seeing you soon, certainly at SUE in 2000. Plan to arrive on Saturday, July 22. If you have any questions about our 2000 event in Sturgeon Bay, please give me a call @ 541-382-4040. If I am out flying or otherwise away with business, leave a number and I'll phone you back. Let's go flying!
48 T-34s were on the line at Sturgeon Bay on Tuesday, July 27, 1999. Lou Drendel photo

Formation Contest Winners Mike Mahanor, Dan Blackwell(s) and Glen Goldman display the specially inscribed award they received from Gene Martin. Lou Drendel photo

Erich Linder’s view from the back seat at SUE.
The trip to Sturgeon Bay and Oshkosh was my first experience with a T-34 Association event. The short report - IT WAS GREAT.

It started with an offhand comment from John Baldwin about the 50th Anniversary events for the T-34. He told me about the plans for a 50+ airplane formation at Oshkosh, but he felt his formation skills weren't up to it. So I mentioned that the taxpayers had spent a good bit of money teaching me formation, so maybe I could handle it. And that set plans in motion. A couple of weeks before the event, John's wife ended up in the hospital. So he couldn't make it. But he graciously offered for me to take his plane with orders to get it into the "Big One." A mutual friend, Erich Lender, the photographer for all the accompanying pictures, was available to ride along and help out.

The weekend at Sturgeon Bay was a fun time, meeting lots of new people, and a lot of formation flying. We arrived late on Friday afternoon, and were met by Paul S***** of the local EAA chapter. After checking in and getting the schedule, they gave us a ride to hotel. The next morning we arrived at the field wondering what would be happening. In very short order we found three other pilots and briefed a formation practice session. Around us, other four ships were briefing and launching. This was a relaxed "work the kinks out" type of day. Some great fun flying, but without the pressure of the "Big One". Later that day a 12 ship went up to K.l. Sawyer to play with a wide runway, that ended up not as wide as we expected. But after some sorting out, all got on the ground and back to Sturgeon Bay. Another later flight and back to the hotel to clean up.

The EAA Chapter hosted a hangar dance that is a big event for the local population. The EAA B-17 parked outside the hangar added a nice WWII air to the event. For us, it was a chance to sit quietly, with good background music, and talk about flying. Of course, with time outs to admire some of the local inhabitants. This event, along with a Door County Fish Boil hosted by Dave Millar, added some fun outside activities to the weekend.

On Sunday the practice for the "Big One" began in earnest. After a very thorough briefing, the practice started. I have flown a lot of formation, but this was my first experience with very large formations. It was eye opening to say the least. The practice ran over two days with two flights per day. The briefings and debriefings took the rest of the time. I was happy to see that no questions went unanswered, although at times it seemed that the same question was being asked again and again. But it always better to get everyone straightened out before you take off.

Over the four practice flights, the large formation came together. The formation flying skills were limbered up, and the comments from high cover dressing the formation became fewer and fewer. This was actually going to work.

Tuesday was set aside for formation competition and travel to Oshkosh. We sat this day out waiting for the FAA to come and sign off the final hookup of the smoke system. We figured it was more important to have smoke for Oshkosh.

Wednesday was the BIG day. A total of 61 T-34 pilots were on hand for the briefing. Bill Cherwin planned a 58 airplane main formation with a top cover and two spares. Unfortunately the air boss only gave us a single pass, but we did get to do our pass over the crowd at 1000-1500 feet, south to north. I can only imagine what it looked like from the ground, but some of the accompanying photos will give you an idea of what it looked like from Foxtrot 6. It all came together for that one big pass. During the breakup and landing I noticed what looked like a fog over the lake. It was the smoke from our pass drifting east, but still enough smoke to be visible. After shut down came a short debriefing, along with lots of photo taking, and the distribution of the coveted hats and belt buckles. These went to any pilot who had attended both Sturgeon Bay and the "Big One" at Oshkosh. So if you see an Association member wearing either, they were there, the proof of having been there, done that.

On Thursday, a smaller group of pilots were there to fly, but there was no show pass due to the accident between the Corsair and Bearcat. After that there wasn't much interest in flying. Forums took up Friday, and Saturday no lead showed up to the warbird brief, so the T-34s were scratched.

As to having been there, I am VERY glad I was able to make the trip. It was a fun time, great flying, and meeting some wonderful people. I am looking forward to next year, and maybe a few other T-34 events in the meantime. If you are even thinking about attending, do so. If you aren't formation qualified, show up anyway. There are some formation qualified pilots without airplanes there, as well as the chance to work on your formation skills, and maybe even take your checkride. There was one Leader checkride given this year that I know of, and in previous years, Wingman checkrides have been given. But overall it is a chance to get together with a bunch of people with T-34s.

My thanks go to everyone who took the time to put this together and to attend. Especially to John Baldwin for allowing me to be there with his airplane. I am happy to say that his wife is getting better, and he is looking forward to being there next year.
Notes from the back seat

by Erich Linder

It was about one half hour after takeoff from our stop for fuel and lunch that I noticed that I was smiling. I was flying from the back seat of John Baldwin’s T-34, enjoying the view above scattered clouds on a day with weather significantly better than expected.

The past 10 days had seen quite a few firsts for me. The flight from Baltimore to Sturgeon Bay is the farthest I have made without being on a commercial flight. This was my first visit to Oshkosh. Just three weeks before I had earned my FAST wingman patch and joined the T-34 Association (What a time to join the association. Isn’t there an old curse about living in exciting times?) Not having been in the military, formation flying is still a relatively new experience, and since Terry Carraway was flying from the front seat in the formations, I had time to sit in back and enjoy the show.

For anyone still learning about formation flying (actually, does that ever stop?), I highly recommend taking any opportunity to observe while someone else is flying. I learned a great deal while watching others do what I am still trying to figure out myself. It was easy to see when someone was in position, and even more obvious when not. I could see the mistakes that were being made, which actions worked when getting back into position, and which ones didn’t. I developed a new respect for the need for smoothness, especially from a leader. It became obvious why leading is more difficult than flying wing, and becomes even more so when part of a formation as large as we had.

Looking around from our Fox 6 position, and seeing all the aircraft moving about within the formation, I was reminded of film footage taken during the massive B-17 raids of WWII. I was sure glad no one was shooting at us while we tried to hold position.

Erich Linder’s photos:

- facing page: the view from Terry Carraway’s back seat.
- below: The backward view. A new formation group: The Door County Aerial Applicators.
- bottom: John Baldwin N340JB and Dick Russell N134RR.
by Terry Brennen

Each year at this time I sit at the keyboard desperately searching for the words that will describe the Oshkosh event in the kind of vivid detail that one experiences there firsthand. Indeed it may be genuinely impossible to chronicle with any degree of accuracy the sensory overload that whisks you away from the ordinary for a few days each summer, in much the same fashion that the fictional Dorothy was swept from a plain in Kansas to a magical land called Oz. In reflection, the mind races with infinite details of the event beginning the moment we recovered the 48 airplane SUE/OSH formation, to the fading glimpses of the verdant Wisconsin countryside on the occasion of our reluctant departures.

Barely able to sleep, even after a sizable ration of the state’s favorite beverage, each morning at first light, the lure of what was to come would call this suddenly wide awake aviator to attention. The lobby of the Holiday Inn soon filled with more like him, wide eyed as children at Christmas, coffee steaming from traveling cups, pawing and scratching for the opportunity to experience again, or maybe for the first time, this special aviation Valhalla, just a few miles up the lake. The majesty of the Mustangs and the Corsairs, the smell of the brats and the burgers, the anticipation of what may come, and the knowledge of what is already there, tugs on our sleeves like the wind that fills the sails of a schooner.

For the first four days of the convention, the vans filled with warbird fans in nomex zoom bags had not reached the field before the morning sun had heated the earth well past the comfortable level. Flight suits gave way instantly to shorts and T-shirts and soon any speed greater than a brisk walk would render even the strongest among us, craven cowards, searching for shade and the refreshment of a cool drink of water. If Oshkosh was nothing this year it was hot. How hot was it? On Thursday the heat index on the field was reported to be 117 degrees. The only commodity in short supply almost everywhere all week was bottled water—even at two dollars a pop.

Although the temperature may have slowed most attendees down a step or two, the exhibition buildings were chock-a-block full of interested souls as usual, pushing baby carriages and gathering literature on one gizmo or another. Exhausted vendors, whimpered by the heat, demonstrated GPSs, HSIs, Electronic engine monitors and a plethora of ancillary products to eager builders and owners, as they wiped the sweat from their foreheads, necks and eye glasses. The free issues of Trade-A-Plane, handed out by those nice folks from Crossville, no doubt contained a wealth of information but they also served very nicely as umbrellas, hoisted against the steamy sunshine right outside the wide doors of A,B,C,and D.

Center stage at OSH is the west ramp. Here the huge, the awesome, the antique and the unique, are displayed for all to see and experience. While the military presence was diminished somewhat from previous shows, it did not disappear. The A-10 and F15, both of which flew demos, attracted throngs of showgoers, especially the young boys. Under the unique heading (perhaps it should read bizarre) falls the largest ostrich imaginable.

Putt, putting, with great irregularity to and fro across the ramp, is a concoction of wood, wheels and antique machinery that resembles ever so slightly, a wing flapping, exhaust belching attempt at aviation. Perched atop this farcical flivver, that was never really built to fly, is what some might refer to as a wing-walker. The rather hefty maiden recruited for the job waves to the crowd from her lofty perch and poses with one arm stretched to the sky, index finger pointing to perhaps where she wishes she were. Weird as a wooden watch, this is probably one of the more photographed attractions at the show.

My own favorite was the Johnson Wax, Spirit of Carnuba, which was featured recently in Sport Aviation. Sam Johnson and Buzz Kaplan’s faithful re-creation of the company's Sikorsky S-38 is no less than magnificent. Looking for all the world like half airplane, half mini bus, it is accurate right down the polished mahogany and the wicker cabin chairs. How grand life must have been for those Johnson executives back in the early ’30s, racing above the earth at more than 100 mph, in such opulence.

Charlie’s picnic on Tuesday evening was bigger and better than ever. My best estimate is that at least a thousand warbird members and friends and family shared in the fun and feast. This highly anticipated event was staged, as usual, in the nature center and fortunately the heat had only begun to build by the time the first chicken breast was roasted. Charlie was deservedly recognized by Jack Harrington, Warbirds President, and by the crowds who were enjoying his barbecue, for his continuing contributions to the warbirds movement and to the spirit of Oshkosh itself. I have lost count but I believe this is the fifth or sixth such picnic sponsored by the Chairman of the Board. Thanks Charlie.

It is only natural that as we grow older we become more nostalgic. Quite often we yearn for simpler times, recognizing all the while that you cannot turn back the clock, yet recalling with fondness, a day when computers and cell phones and flight directors were only dreams in the fertile minds of a few visionaries. The airshow at OSH is a trip for us. Where else can you thrill to racing above the earth at more than 100 mph, in such opulence. The airshow did not begin and end with the transports however. Regular airshow fans will recognize many of the names and the acts they have perfected, but seldom do you have the opportunity to see so many super stars in one place. Wayne Handley’s new Turbo-Raven is spectacular. This airplane climbs straight...
up, stops, then starts straight up again. We should mention that Wayne is quite a pilot too, as evidenced by his ability to maintain a fixed attitude against the torque of a 750 horse power engine while hanging on the prop.

Delmar Benjamin’s act in the GB racer never gets old. In an exact replica of an airplane that scared even the famous Jimmy Doolittle. Delmar has calmly thrilled audiences for the past eight years or so. Sean Tucker, Jimmy Franklin, and the exciting Northern Lights team are just a few of the remaining acts that make this event so special.

But how about us? If you have had your head in the sand for the past twelve months you may not have been aware of the extra attention we have given the fiftieth anniversary of the first flight of the fabulous Mentor. It has been, for at least that period of time, our fondest desire to assemble a 50 or more 34s in one formation for this commemorative event at Oshkosh ’99. As a result we have been counting-counting reservations, counting cancellations, counting again and again those that were certain would be there, and counting again the maybes. The hype in the newsletter and the hype you may have heard from the designated area leaders, was designed to insure that we might assemble the minimum number.

By the time T-34Lead.com, Bill Cherwin stepped in Sunday night at Sturgeon Bay to organize the Mentor gaggle, we felt pretty confident that we would reach the 50 ship figure. Following the Tuesday morning formation contest and another forty pounds of submarine sandwiches, Bill briefed the group and we launched for the short 45 minute flight over the Green Bay peninsula, east of the city of Green Bay and across the northern shore of Lake Winnebago, on down to Oshkosh. We knew full well when we departed SUE with 48 airplanes on that big formation the following day we would easily surpass our fifty ship goal. Six airplanes from Tennessee sitting on the grass at OSH, not including John and Debbie Baugh, and at least another two Limanoids due in on Tuesday afternoon, would put us over the top for certain.

When the Wednesday general briefing had ended, and the 34 group adjourned to the igloo, no less than 61 pilots signed in for the anniversary flight. Wow, did we get the number or what? .com patiently assigned the positions in the flight based upon the practice sessions, smoke making ability and leader qualifications, for nine six ship wedges strung out as prescribed in the March newsletter. A diamond would bring up the rear for a total of 58 airplanes in the actual formation. Three pilots were asked to standby in case any of those assigned to Alpha through Juliet flights had to step down for whatever reason. These three aircraft flew top cover, well above the entire show, shepherding the flight, ready to fill in if necessary.

We made only one pass, but what a pass it was. Everyone was in position, smoke and lights in operation, at 1500 feet AGL. The reactions from the crowd and airshow announcers were (we in the formation were told) beyond our wildest expectations. All the hard work, the practice, the sweat, the time and the devotion by a hell of a lot of great pilots to this commemorative flight had paid off handsomely. The Association owes each and every one of you who participated, a huge thank you. We may never do it again, but we did it this year when it counted.

Once on the ground, the celebration began. A short debrief that included mostly "great jobs," quickly turned into a picture taking session, capturing for posterity this unprecedented gathering of T-34 pilots on this historical occasion. When the cameras fell silent, special moments of the flight were given to each pilot who had flown in the biggest of the big ones. Bill Beiter graciously donated a T-34 belt and buckle to everyone, and Charlie Nogle awarded a 50th Anniversary Formation Pilot cap to us as well. For a few moments anyhow, the specter of the wing issue took a distinct back seat to the celebration at hand. Special thanks go out to both Bill and Charlie for their generosity.

The Association was to provide a commemorative patch and rocker for the Wednesday pilots however, the patch was improperly sewn and had to be re-done. Both the patch and the rocker will be mailed to everyone who flew in the 61 ship formation.

Because of space limitations I am going to list those who flew at Sturgeon Bay and at Oshkosh only once, as opposed to our normal practice of listing every pilot by flight.

Flying the big show were Bill Cherwin, Dan Blackwell, Glenn Goldman, Dan Blackwell Jr., Fred van der Wilt, Jim Skogen, Gene Martin, George Wilen, Dave Miller, J.O. Martin, Brett Davis, and Cliff Jensen. Also, Lou Drendel, Dave Holt, Dick Tews, Kris Cox, Charlie Nogle, Hal Fenner, Fred Zoltz, Don Goodin, Ron Allredge, Jerry Rohles, Dave Kensler, and Jim Ostrich.

Riding the bull as the air began to get a little bumpy were, Hank Krakowski, Ken Wyatt, Dan Thomas, Ken Bowdish, Don Curtes, George Lamont, Ted Adams, Danny Stam, Skip Aldous, Dick Russell, Alex Parra, and Terry Carraway. Texas followed with J.D. Daniels, Michele Parrish, Robert Irwin, Leroy Lakey, J.D. Phillips, and Rob Parrish, followed by the Tennessee contingent made up of Danny King, Fred Womack, Barry Howard, Vic Barrett, J.T. Arnold and Kirt Will.

Even further back we have Terry Brennan, Keith Evans flying Jim Jeffer's airplane, Julie Clark flying Russ MacDonald's airplane, Russ Borstelman, Steve Nedrow, Ralph Parker, Ed Hicks, Debbie Baugh, John Baugh, and John Rippenger, along with top cover and utility players, Jud Nogle, John Deakin, and Jim O'Donnell.

Others on hand who flew either at Oshkosh or Sturgeon Bay were, Orlin Wichman, John Workman, Chris Rounds, Chuck Stauffer, Bill Beiter, and Joe Howard. Newcomers to the Oshkosh formation experience this year were John Workman, Fred van der Wilt, George Wilen, Brett Davis, Fred Zoltz, Don Goodin, Ron Allredge, Jim Ostrich, Ken Wyatt, Dan Thomas, Skip Aldous, Terry Carraway, Keith Evans, and Robert Irwin. Congratulations to you all on this memorable occasion.

We do our best to preserve the individual flight records listing all the pilots involved however, occasionally someone gets overlooked. If I have missed your name in the above list please let me know and I will correct the oversight in the next issue of the Monitor.

Several of the Wednesday formations pilots discovered when they reached the hat box that the hats were all gone. We have reordered enough hats to take care of everyone and ask that you drop me a note or an E-mail if you did not get one. We will send it to you.

On the way back to Oregon, Dick Tews, Dave Holt and I
spent a long 23 hours in the town of Ogalalla, Nebraska, as the weather prevented us from reaching our destination of Saratoga, Wyoming. We put on long pants for the first time in nearly two weeks as the temperature dropped dramatically and the skies turned gray and damp, reminding us that there will be many more long pants days until we gather again in Wisconsin for the 51st Anniversary. But gather we will, for the T-34s in this country will never be turned into beer cans. A solution to the wing problem will be found and a proper fix will make the airplanes more desirable than ever.

We have struck a terrific agreement with the folks at Sturgeon Bay and suggest that even if you cannot make it for the entire Oshkosh event, that you consider participating at SUE. No pressure, just fun. Bring your wives, as we intend to do next year, and enjoy this beautiful community, the fine people of Door County, and the wonderful flying with your friends and acquaintances. See you all there.

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REMEMBER

To receive your 1999 Formation Card, you must
1) Be current with your T-34 Association dues.
2) Have sent in your Formation Activity Report Form (FARF) for '98 or '99 and
3) Send a $10.00 check payable to the T-34 Association with your FARF to:

T-34 Formation Records
25801 NE Hinness Rd
Brush Prairie, WA 98606.
360-256-0066

No extra charge for cards when you upgrade.

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top: A smiling Eddie Gomez with his BEST POST WWII OSH '99 Winner, photo courtesy Terry Brennan.
bottom: Some pretty good folks from Tennessee enjoy the blazing heat of OSH '99 and briefing techniques of Bill Cherwin.
1 to r: Vic Barrett, Danny King, Rit Will, Debra Baugh, John Baugh, Joe Howard. Lou Drendel photo
SUE - OSH from "Fox 6"

Part of the "BIG ONE" from Charlie Flight

Oshkosh '99 the "BIG ONE" Lynn Farrell photos
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We are all awaiting the final determinations as to the fate of our T-34s. How will the spars have to be inspected? Will they pass? Will they have to be replaced? Many questions still have to be answered. In the mean time, what can we do to facilitate any spar work on our airplanes?

Spar removal on the T-34, or Bonanza for that matter, can be a harrowing experience. The wing is held together with four hinge pins that connect the spar to the front, or leading edge section, and the rear two thirds of the wing, or box section. These hinge pins fit through "piano hinges" that run the length of the wing. These pins have been there a long time. Perhaps forty years or more, and are going to be extremely difficult to remove.

Anything that you can do now, might help the shop disassemble your wing later. I used LPS-2, and sprayed it the full length of the front and rear of the spar cap. This cap runs out to the wing tip from the forward bathtub fitting. Hopefully, the paint in the seam does not make a good seal, and has cracked or worked over the years. The penetrating oil will get to the upper hinge pins, and capillary its way into the places where it will lubricate and stop corrosion.

It will be messy, as the LPS-2 (there are other oils that will work also) flows, seeps and creeps its way into the hinge and down your wing.

I lubed the lower hinge by first cleaning the lower spar cap surface, and removing the tie down rings. I then removed the wing tip, and ran masking tape the full length of the forward and rear spar cap seams. This will provide a temporary seal for the next step.

I squirted LPS-2 into each hinge area at the wing tip, front and rear of both wings. Not much oil can be applied each time, as it will overflow into the spar or wing itself. The oil will flow toward the fuselage due to the wing dihedral. It will take ten or twelve applications, spaced two or three minutes apart to get enough oil in the pin area, to flow inward. Eventually you can observe discoloration in the masking tape, and the oil will start seeping out of the lower bathtub area. After a couple of days of squirting and dripping, remove the tape, reinstall the die-down rings, replace the wing tip, and keep lots of paper towels handy.

The wing will look messy for a while, as the oil seeps and blows back in the slip-stream. My logic is that it can't hurt. Even if the wing does not have to be disassembled, you have just stopped or slowed down some corrosion. If the wing does have to be split, you might have saved yourself some substantial labor and shop time.
**T-34 GROUND OPERATION AND RUN-UPS**

by Bill Cherwin

Props and engines receive unnecessary abuse and wear by improper ground operation. I have watched with amazement as pilots rev and cycle their props, check their mags, and then sit there at a moderate RPM as they finish their checklists, and get ready to fly.

To begin with, it is best to pre-heat an engine, especially in the winter, so that the oil will flow, and splash to where it has to go to lubricate the moving parts. Cold oil will build up pressure, but will not flow or splash freely. The run up should not commence until the oil temperature has reached 75 degrees F (23 degrees C). The oil should lubricate adequately at that temperature, and will continue to warm during run-up. The aircraft should be positioned so as to face into any wind if possible. This is important, as the engine compartment is designed to cool with the relative wind of flight.

The Continental IO-520 book recommends to run the RPM to 1700, and check the Mags. Each mag should drop some, but not to exceed 150 RPM and + or - 50 RPM from the other Mag. If no drop occurs, you probably are not grounding that Mag, and it will be "hot" all the time. The book then tells the pilot to cycle the prop 3 or four times, to "Circulate warm oil into the prop hub". I find this repeated cycling hazardous to the prop blades. I only cycle the prop once to minimize the fine grit and small stones that are sucked up by that tiny tornado in front of the spinning prop.

The Mentor was originally designed to use the Continental O-470 engine, with the governor attached to the accessory case. The total travel was relatively short, and the cable "pushed" forward for lower RPM. On the IO-520 and 550s, the governor is on the front, and the cable must "pull" for lower RPM. A reversing bellcrank is used to swap the motion from the cable attached to the Prop lever in the cockpit. To achieve the larger amount of travel required on the bigger engines, the reverse bellcrank is usually built at about a 3:5 ratio to generate more travel at the governor.

Some T-34s with big engines can only call for 1700 RPM from the governor, and must be run-up at around 2000 RPM to show much drop. This clobbers the prop even more. Four cycles at 2000 RPM insures that there is no grit or small rocks left on the ground in the vicinity of the prop, and that precise run-up spot will be clean for the next aircraft running up.

On the first flight of the day, I face into any wind, spool up to 1700 RPM, cycle the prop once, check suction and load meter (volt meter on B models), check the mags, and idle back down to 700 RPM or so. I then complete my pre-takeoff procedures, and launch. I try to minimize ground time and RPM. On subsequent flights, I omit the prop cycle completely, and may even check the mags while taxiing. Be careful not to divert too much attention inside the cockpit while moving. If necessary, park and do your run-up.

In summary: Warm your engine if possible before starting. Be sure it is warm enough for run up. Face into the wind anytime you can on the ground. Minimize ground operations.

Consider condensing your run-up to reduce the number of prop cycles and Mag checks, particularly on later flights the same day. Do not cut short your SOP concerning cockpit preparation and checklists.

**Differences of A-45, B-45 & D-45**

by Paul Prihble

Regarding the designation letters and numbers for the Mentor, this has always presented a problem to anyone trying to better understand the nature of the beast.

First we have an aircraft with 3 different entities calling the aircraft what they believe it to be. First was the manufacturer Beech Aircraft Corporation (now Raytheon) who designed and built the model 45 aircraft, next step is the military contract T-34A and T-34B aircraft which were both designated as model A-45 (check the manufacturers data plate installed just aft of the rear instrument panel, RH side panel) surprise they both say model A-45. Obviously the T-34A and T-34B are military contract specification built aircraft originating from the Beech model 45. Then Beech Aircraft Corporation decides to offer a civilian export version, the B-45. basically a T-34A with about 60 changes in the aircraft, mostly commercial electrical components and less sophisticated instrumentation. To add to the confusion along comes the FAA certification requirements which require that each design variant of the Beech model 45 have its own model designation, which leads us to the following:

FAA model designation for Beech model 45 aircraft in compliance with aircraft specification 5A3.

Model 45 (Military YT-34). 2PCLM (Acrobatic Category), approved July 17, 1950.

Model A-45 (Military T-34A,B-45), 2PCLM (Acrobatic Category), approved September 21, 1953.

Model D-45 (Military T-34B), 2PCLM (Utility Category, approved March 9, 1960.

Since we are talking only about FAA civilian Licensed aircraft the above designations comply with Aircraft specification No. 5A3. Note: All aircraft must have a fireproof identification plate bearing the manufacturer's name, model designation, serial number, and type certificate number securely attached to the exterior of the aft fuselage structure in an accessible location between fuselage stations 240 and 280.

Although the model designations indicated on the model B-45 and T-34B interior data plate will not reflect the correct model number of specification 5A3 for civilian licensing, this is not a problem as you are FAA legal with the aft exterior data plate as noted above.
The Mentor Monitor © 1999 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, $35 per year thereafter. To join, contact 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 photographer.

If sending text on a floppy disk, please save in ASCII format.

CLOSING DATES FOR PHOTOS AND ARTICLES:
February 7 for March
May 7 for June
August 7 for September
November 7 for December

Issue dates are approximately 21 days after closing.

Please send items to:
Mentor Monitor
25801 NE Hinness Rd
Brush Prairie, WA 98606
360-256-0066
360-896-5398 fax
e-mail - natrainer@aol.com

T-34 ASSOCIATION, INC.
MEMBERSHIP APPLICATION
MEMBERSHIP OPEN TO ALL T-34 OWNERS, PILOTS AND ENTHUSIASTS

NAME ________________________________
ADDRESS _____________________________
CITY __________________ STATE _______ ZIP ________
Phone ___________________ (w)
(h) ______________________ (f)
email ___________________

T-34 "N" NUMBER ____________ SERIAL #

AIRCRAFT DETAILS (engine, radios, special mods, history)

________________________________________
________________________________________
________________________________________

Is this your first T-34?___ If not, what other Mentors have you owned?

__________________________________________________________________
__________________________________________________________________

PERSONAL HISTORY (Civilian and/or Military flying time, aircraft ratings, etc.)

__________________________________________________________________
__________________________________________________________________

Send application and your check for $50 to:
Julie Clark c/o T-34 Assn.
2328 Glen Ellen Circle,
Sacramento, CA 95822
UPDATE #14 -- September 1, 1999

Test Development Completed by RAC: RAC has just now completed all aspects of the T-34 wing spar inspection project. They feel comfortable with it, and it was passed to the FAA this past week. On Tuesday, August 24th, the National Resources Specialist Group (a task force group within the FAA), came to Wichita to review the physical inspection as well as the proposed service bulletin. They went through this process for seven hours, working with the wing section and component parts used in the inspection development. They pronounced the package sound. This gives cover to the Wichita Aircraft Certification Office, which I am afraid has been lukewarm since the beginning to any solution.

There is no Conspiracy To Ground our Fleet: For those that believe in a RAC conspiracy to ground our fleet, let me calm your fears. RAC was asked by the FAA to assist with the investigation of the T-34 accident in Georgia, April 19th. The NTSB was also involved in this investigation. The NTSB metallurgist discovered numerous fatigue cracks in multiple locations in the lower forward and aft spars. RAC’s metallurgist confirmed these findings. Based upon the seriousness of these findings, the RAC engineering department elected to develop an inspection program using their own annual budget. The engineering department’s budget has allowances for such projects.

During the last four months, I have spent a lot of time in Wichita with both the RAC and the FAA. Also, we have hosted nearly a dozen different RAC specialists here in Champaign. They have worked diligently, in a group effort, on the T-34 wing problem, using as many as 25 of their staff at a time. These people were the best and most experienced in their fields of metallurgy, structures, NDT, and tech writing. I remain very impressed by their efforts and commitment.

I sincerely do not believe that the RAC Engineering staff is anti-T-34 in any way shape or form. From my understanding and direct inquiries into this question, the T-34 project was not undertaken on any directive of upper corporate management. The RAC Emergency Safety Bulletin, which initially recommended the grounding of our fleet, was a product of the RAC Legal department – an expected response in today’s litigious society. The Engineering staff was quick to point out that this document was only advisory and to be effective it would require FAA action. When working directly with the FAA, the Engineering staff did NOT recommend grounding. It is certainly true that RAC is maintaining their long held "no support" policy for the T-34 and will NOT engineer any repairs or modifications or build any parts for the T-34. However, I am convinced that they did not employ a "let's find a way to ground these airplanes" strategy, as some conspiracy theorists would lead you to believe.

At the conclusion of this T-34 project, this same staff will be moving on to a project to solve a problem on the D-18 Twin Beech fleet. Recently, they have also been involved in the early Bonanza tail problem, which was not incorporated in the famous later model Bonanza tail A.D. (Later model Bonanzas had a wider cord and extended leading edge on the tail feathers).

Julie Clark's T-34: Julie Clark's T-34 has played an important key role in this entire saga and has no doubt accelerated the process. Her aircraft was left with a Denton, TX FBO with hopes that they could help find an alternative method of A.D. compliance. RAC was contacted and they seized upon the opportunity to test the inspection program they had been developing. Initially, one of her wings failed this eddy current inspection. A crack was found in the spar and the crack was verified both in location and its direction in destructive laboratory tests.
The eddy current procedure was thus validated as an inspection method for the T-34 spar. However, it was later determined that the crack was the result of a manufacturing defect and has probably been there since the aircraft was built.

The defect is in a part, described as a filler strap, which lies just inside the lower spar cap. The problem is that this strap was machined too narrow. The rivet holes that were drilled through this part are, in many cases, much closer to the edge of the metal than they should be. This inadequate hole to edge distance has resulted in cracks. Several spars that I disassembled had narrow filler straps and inadequate edge distances, as did the crash airplane. Because we were able to prove that this condition probably exists in most T-34s, the RAC analyzed this situation in much greater detail. Eventually they determined that since the condition has existed since manufacture, and since these cracks are not growing, these fatigue cracks will be an allowable condition as long as they: 1) do not radiate towards another rivet hole; 2) do not radiate across the filler strap; and 3) are not lined up with another similar crack on the other side of the filler strap.

Another problem, uncovered in the examination of Julie's airplane, was cracks - very visible cracks - found in the hinge extrusions which mate the leading edge D section and rear box section to the spar. Eventually, it was determined that these extrusions, if found to be cracked, could be replaced and an inspection for these cracks was added to the wing inspection procedure. All four lower extruded hinge angles in Julie's airplane were replaced.

After the initial inspection of Julie's aircraft in Denton, TX, disassembly of both wings in Illinois, two RAC team field inspections in Illinois, and destruction of one of her spars in the laboratory, the RAC engineering staff is now satisfied the airplane is airworthy and it should be authorized to return to it's original airworthiness status very soon. This has been very painful for Julie, however, a lot has been learned from the process her aircraft has been through. It should also be said that her airplane, given its high time and aerobatic experience, provided an excellent airframe for this inspection procedure evaluation and the results are all the more valuable.

With Julie's inspection now validating the A.D. inspection process, I would expect most wings to pass their inspections. And, once inspection reports are in confirming that our wings are sound, we should logically expect an extension in inspection intervals. It may take a couple of rounds of inspections first, however.

Let me caution everyone that the aging aircraft process, and the FAA concerns about it, are not going to go away. The wing spar structure in the T-34 and early Bonanzas is not state of the art by today's standards. We would be wise to look for wing spar improvements now, to avert a repeat of this current crisis. As we have become painfully aware, one accident/event can have very serious affects on the entire Mentor fleet. You can be assured that the FAA will be keeping a watchful eye on our T-34s in the future.

Baron Spar Update: I'm sorry to report, to the owners of Baron spar T-34s, that the FAA Aircraft Certification Office managers are making this a tough issue. In spite of a ten year old STC, the obvious fact that this spar is considerably stronger and beefier than the stock T-34 spar, and that 12 Mentor aircraft have been flying successfully with these spars, they have been reluctant to give this spar an exemption to the upcoming A.D. This is a real issue to folks flying with this STC because the inspection procedure will not apply to them. The FAA wants additional engineering data before giving their approval. Therefore, I have employed a Wichita Structural DER to develop this required data ASAP. I am happy to report that everyone involved in this AD development, including all RAC engineering staff, NTSB people, and most of the FAA Aircraft Certification Office staff, see
this spar as a great solution. Many have said it is a "no brainer" and should be readily approved. However, corporate legal restraints have kept RAC from making an official endorsement of this application, which the FAA would like to have.

Assuming that we are eventually successful in receiving an exemption from the spar inspection for Baron spar T-34s, this exemption will likely only apply to those parts of the inspection that involve the main spar itself. We anticipate that the inspections required of the rear spar and perhaps the hinge extrusions will still apply. Also, please note, that while we have been using the term "Baron spar" to identify the STC, RAC now calls this a "common spar." They have used this spar for over ten years on all new Barons and Bonanzas.

Oshkosh Showing: A Tribute to T-34 Owners:
The past four months have been very tough emotionally and financially for many, if not all, T-34 owners. In the face of this adversity, the T-34 involvement at 1999 AirVenture Oshkosh was beyond spectacular, and nearly unbelievable. All Warbird attendance categories, except for the T-34, were down almost 20% this year, including T-6s, T-28s, P-51, and even L-Birds. In spite of this, the T-34 attendance set a new all time high of 83 Mentors. With rumors flying that we would be grounded at any moment, it makes this showing all the more remarkable. I salute all that made this possible, especially to our friends in the federal government that kept the grounding forces at bay.

Four Grueling Months: The past four months have been a virtual roller coaster ride of unbelievable magnitude. Things have changed on a daily, and often hourly, basis. At one point, for example, just when Mentors were inbound for the pre-Oshkosh Sturgeon Bay gathering, we heard from Wichita that our fleet was in real danger of an emergency grounding. We were concerned that people might have to truck their airplanes home! Our Association, however, is blessed with some members who have very high connections, and this action was stalled long enough for RAC to determine that the filler strap cracks were not as serious as originally thought. I have been in daily contact with folks within RAC and the FAA. Concerned T-34 owners are calling continually as well. I can say with total honesty, that I have been completely consumed by these events and have had to put other aspects of life and business on hold.

T-34 Association Technical Committee:
I believe the roller coaster ride is about over now, as final approval and implementation of the A.D. is about to begin. I wish every owner the very best from the inspection reports. A technical committee has just been formed, within the T-34 Association that will be charged with evaluating the wing spar issue, pursuing alternative solutions if it so determines, and monitoring the inspection data as it comes in. This committee, with the benefit of collected inspection data, will hopefully help us to increase the intervals between required inspections. The committee is comprised of five initial members, selected by the T-34 Association Board, who bring expertise, connections, and diversity to the group. They will then be empowered to add up to four additional members. We hope to soon convene the first meeting of this committee in Champaign, Illinois. Serving as the first five members are: Jay Sarver, Jud Nogle, Tim Roehl (GAMI), Jay Cullum, and Bill Enk.

In conclusion, I would like to say that I was not involved by choice in these events, but rather my involvement was on the request of the NTSB, FAA, and RAC. I have done my best to defend our beloved airplane and facilitate the wing testing procedure. While a few seem to believe that my motive has been for personal financial gain, I can assure you that this is not the case.

My time will now be devoted to the "common spar" or "Baron spar" engineering issue. The 12 airplanes flying with this STC will be left in limbo without either an exemption or new
inspection procedure just for them. Since I have two of the aircraft flying with this spar STC, I also have a personal interest here. Hopefully, this STC can be an alternate fix for the future, for those so inclined.

Charlie Nogle
T-34 Association, Inc.

UPDATE #15 -- September 5, 1999

True to form, major changes have developed in the last 24 to 48 hours. Julie Clark has been in Wichita most of the past week trying to secure a release from the current flight restrictions to a level which would allow the performance of her airshow routine. She was asking for a limit of at least 4 Gs and 180 knots.

Wichita's FAA Aircraft Certification Office (ACO) and RAC showed good faith in attempting to accommodate this in her behalf. This effort was based upon her aircraft having passed the proposed inspections. RAC supplied several letters to the ACO, but these did not satisfy the ACO manager and he demanded an engineering report from RAC to support 2.5Gs (current restrictions) and also 4.0Gs for the requested limitations. RAC determined at that time that this information had never been developed and was therefore not available, but said that they would be willing to begin working on the project. They were short, however, on engineering capacity and estimated two weeks to perform the study and compile the data. At this point the bottom fell out of Julie's hope for release in time to make her Labor Day air show commitment. Julie returned from Wichita very dejected.

Early Friday morning, September 3rd, the Wichita ACO called and indicated that they had received sufficient information from RAC to effect the requested release. At their direction, Julie flew to the Springfield, IL FISDO office to receive a hand delivered release. Upon arrival, she found that the release was not ready. After many phone calls between the FISDO, the Wichita ACO, and RAC, which went into the evening hours, the release was finally granted. Furthermore, the ACO office also notified the air show monitor at Windsor Locks, Connecticut that she was cleared to fly aerobatics.

Saturday, Julie traveled to Connecticut and was contacted en-route Sunday morning by the RAC vice-president of Engineering. He called to tell her that they were happy that they could help make this release happen and that as they continued to work on the engineering, they were getting better strength analysis (G load capabilities) than they anticipated.

This bodes well for the entire fleet as this engineering data is critical to our ultimate goal of regaining our full certification. Julie Clark and her friend Russ McDonald have been a catalyst in this painfully slow process and deserve a world of praise for their diligence in pursuing their goals, which ultimately will benefit our entire fleet.

We are delighted to finally bring you some good news and evidenced that RAC is working in our behalf. We hope that the final engineering report from RAC will go along way to solving our problems with the FAA. Stay tuned for further developments. We will keep you posted as they happen.

Best Regards
Charlie Nogle

Note: To receive the Email T-34 Safety Updates, please email your request to Jim Nogle at t34memos@soltec.net. Currently we have approximately 230 addresses in our email database.