TIGER TALES

The Newsletter of the Thorp T-18 Mutual Aid Society

Issue 4 December 2011

Don Doubleday's S-18 N18DD
First Flight 12/10/2011
15+ Years in the making!

IN THIS ISSUE

From the Editor – Lee Walton

Happy Holidays folks! It's hard to believe we're closing out 2011 already. It seems like just yesterday I was preparing the first issue of "Tiger Tales".

A year ago I pledged to deliver four newsletters a year containing information that is unique to the publication and taking a more social direction rather than replays of technical information already covered in the original newsletters. At this point I'll say mission accomplished. In addition I have updated our online presence and relocated it to http://thorpaircommand.com . On that site I have started up loading the entire suite of original newsletters in a searchable format. Anyone reading this newsletter (paid members of the Thorp T-18 Mutual Aid Society) have access to the archive. In the coming months the main website will evolve into a "go to" spot for anything T-18. In addition, the "ThorpForum" has gone through a major upgrade as well and has been relocated to http://forum.thorpaircommand.com.

We hit 200 paying members of the Mutual Aid Society a month ago, that's up a significant amount from previous years. With that being said its dues time folks! Anyone who had not paid their 2012 dues please do now. I have another Newsletter coming out at the end of Jan 2012 with some pretty darn good stuff. See the "in the next issue" block for information on that. You can send a check for $25 to the address listed on the final page or via PayPal, to thorpforum@thorp18.com.

Overall we've had a pretty good year, not without its hurdles. We've lost a few dear friends and airplanes this year but in contrast the T-18 world saw a definite up-tick in enthusiasm. At least one T-18 won a major award at each of the "Big" Fly-Ins this year, a certain Florida based aircraft won at both. We flew our Thorps over the Kitty Hawk monument, managed to recover from the carnage at Sun n Fun with all those in our ranks that were hit now in the air in a Thorp in some shape or form, and we had a pair of outstanding fall gatherings, a first for Visalia and the 23rd for the Kentucky Dam gathering. Finally we had 2 long time builders complete and fly their aircraft this year!

So as we put our heads down in remembrance of our friends let's not forget to look forward with optimism on the coming year, and remember 2013 is the 50th anniversary of our design, we need to start planning for that!

Have a Happy and Healthy New Year!

Enjoy!

Lee

N18DD Flies – Don Doubleday

"What I did in my spare time"

Seventeen years passed since I bought my Thorp project which finally came to be another T-18 in the air on December 10, 2011.

N18DD 12/10/2012 one journey ends another has just begun!

Sometime in 1994 if memory serves me well, Lockheed bought out General Dynamics. It was

then I too bought a T-18 project from a friend. I couldn't even begin to describe the look in my wife Ginny's face when I started dragging things into the garage. One thing for certain, I could see her thinking I must be some crazy loony. This project had all drawings, newsletters and materials necessary to build the fuselage and wing beams. Landing gears were included, but that was about it. This wasn't what I had in mind for a project and made the purchase pretty much as an investment and not as one to put together. The project had been propped up against his garage for a few years neglected and collecting dust on account of him buying a Mooney which took up not only his money, but time as well to keep it flying. The project had all fuselage skins and frames cut and drilled; The main beams center section had also been cut and drilled, while the outboard wing panels main beam were already riveted together.

My job with Lockheed required traveling from time to time and I spent a couple of years traveling through Europe, California, Nevada, Florida and other parts of the country for flight tests while the project sat in my garage also neglected and collecting dust. As many people would come to know, while traveling for extended periods, after a couple of weeks in the strange area, I found myself with more idle time after work sitting around hotel/motel rooms with nothing to do or places to go. I later on, since I had so much time available to do nothing, I decided to take along with me the T-18 drawings and newsletters and began studying them to the point where I began getting interested in the project. It wasn't long before I really became enthused with it and actually looked forward to returning home to begin work on it.

I started working on the project by making such parts as ailerons' bell cranks, brackets for seat belts anchoring, seats supports and other small details parts. After building up a bit more courage and confidence, I began forming and drilling the fuselage frames and matching the holes to the skins. As time wore on, and between travels, I managed to get the fuselage together. After completing the work on the fuselage, I began looking for more sheet aluminum to begin work on the wing sections. Price for aluminum at the time was not what I wanted to pay and began a wider search for less expensive source. Upon returning from a six months trip to Tucson, AZ where I also did some searching for materials and failed to find at reasonable price, I found the needed material for the wings right here at home in an aluminum recycling yard. This place had a stack of aluminum about three and one half high with 2024, 5052, 6061 and whatever other heat treat material available. I bought what I needed, wished later I had bought the whole stack and started once again working on my T-18.

Again, my wife Ginny thought I was falling deeper into loony land when I got home with more of what she thought was aluminum junk. Because I liked the idea of having fuel in the

wings and not in a fuselage mounted tank, I decided to drill all rivets out of the outer wing panels' beams in order to apply faying surface sealant in riveting them back together. I later decided that having the fuselage fuel tank in the airplane as designed would be a good idea considering it would keep the airplane within its' design center of gravity and provide the extended range I sometimes wish I had when flying other airplanes into remote airports which typically shut down their gas pumps at 6:00 pm leaving you stranded waiting for someone to show up to pump fuel.

In June 2001, the Secretary of Defense by order of the President, my Army unit issued orders to mobilize my army unit (302nd Military Police) in support of Dessert Storm/Dessert Shield. We assigned to provide security to Fort Hood while all their military police forces were deployed to Panama, Kosovo, Iraq and Kuwait. My unit was just shy of 200 troops and only about eighty of us qualified MPs. Now, here we are, a bunch of civilians suddenly taking the task of securing the largest military installation in the world. Sixteen hours work days were routine. My troops kept asking when we would be allow a day off just to go home and visit loved ones. Moral was decaying thought out the fort with many National Guardsmen and Reservist to the point where we were assigned to pick up troops from other units who had gone AWOL. A very difficult task for a bunch of civilians turned cops overnight. After about a year, we managed to survive the assignments, our tour of active duty and once again returned home to our families, loved ones and jobs. My wife Ginny, our kids Paula and Donald II, our grandson Matthew were glad I was once again home.

Sometime during this same year, I happened to come home for a weekend and run across another friend who had an FBO operation at an airport just south of Dallas/Fort Worth having a basket full of Lycoming O-360 engine parts from a Cherokee 180. Manga, I mean literally a basket case. Had everything in it to rebuild, gave him $2000, brought it home and later found neither the crankshaft nor cam were serviceable. The cylinders had cracks at the exhaust ports, but nothing that couldn't be fixed. I took the cylinders to a shop here in Fort Worth and found that it would cost $850 to have each of them overhauled and I couldn't see myself paying that kind of money just to fix them. For another $150 each I decided to forgo overhaul cylinders and buy new millenniums. Sent the engine case, accessory case and sump to Divco in Tulsa, OK for complete check up. Engine parts came back from the crankcase Dr. and assembly began once I had all the parts together. Engine overhaul was completed and ready to hang within a week.

Don's beautiful wood veneer covered panel! Check out those cool turbine style gauges on the right!

Several years passed and I grew more and more engrossed in the project to the point where today, I believe the T-18 not only is the best looking experimental airplane out there, but also most challenging and rewarding project. In all the years of building the T-18, never did I make as much progress until I retired from the army and Lockheed. Having lots of time available, I went at it with a vengeance and determination that would challenge anyone enamored with any other endeavor. The airplane was completed and ready for inspection in January of 2011; however, testing the equipment I began discovering what I

believed to be electrical problems. With the help of my good friend and fellow Thorpie Ken Morgan, we began troubleshooting and ringing out wires over and over to the point of frustration and sometimes angry at myself for having build such a complicated electrical system. So frustrated, I got to the point of wanting to throw in the towel, but being the determined and stubborn person that I am, I kept at it. What I am here to say to anyone building anything…KISS, KISS, KISS. Keep it simple! It turned out; it wasn't altogether the wiring causing all the hate and discontent. Most of the problems were due to equipment and devices I had installed not functioning properly.

The airplane, which I registered as TS-18CW In recognition of John Thorp for the "T-18" and Lu Sunderland for the "SCW" was ready for the DAR. I managed to acquire N18DD registration number which was on an ultralight in San Antonio, TX that had not been flown in some fifteen years. I began making a multitude of phone calls and trying to contact the owner of the ultralight who had also lost his medical. He had moved several times, divorced and moved again ending up near Corpus Christy, TX. I managed to convince him to deregister the airplane and allow me the use of the registration number to which he agreed. With the help of my good friend Marc Bourget we managed to get the paperwork with the FAA done, registered the airplane with N18DD. I began was once again to ready the airplane for the DAR.

With the help of my neighbors and a fellow Thorpie from George Town, TX Jerry Sharp, we loaded the airplane onto a trailer and to Pecan Plantation Airpark near Granbury, TX we went. Just so happened that our EAA Chapter 983 in Dave Eby of Wichita Falls, Texas was supposed to come down and help me with that, but he later decided he'd done enough of them and was ready to retire. I recruited the help of Lucky Louque who operates Air Salvage of Dallas (ASOD). In September of this year, he came to my home, inspected the airplane and to my amazement, with zero squawks was awarded an Airworthiness Certificate.

N18DD Open for inspection at Pecan Plantations 2012 Fly-In

Pecan Plantation was having the Fall Fly-in and was only fitting to have N18DD on static display which got considerable attention from many attending the event. Ken Morgan and wife Juanita were there, Gary Green, Lee Walton, Marty Parrish; all Thorpies were there to see it finished with the wings folded.

With the airplane back in the hangar, I began making preparations for the first flight. I wanted to do the first and next forty hours off of flight myself, but since my comfort zone with flying tail wheel wasn't where I wanted it to be, I had asked a couple of Thorpies with thousands of hours and some 500 in Thorps alone, Damon Berry and Marty Parrish if they would do me

the honor of flying my airplane to which they agreed. Several attempts were made to make that happen, but brakes problems, elevator trim malfunction and Mother Nature just didn't want to cooperate. Then on the morning of December 10, 2011, N18DD was ready. Following the safety briefing and discussions on what was to take place; again the elevator trim began acting up. Working with it some managed to get it working.

Pre-flight briefing Marty Parish on the left, Damon and Don. Not sure who's doing the talking.

Christening the young lady with a few drops of bubbly!

The flight was on and at 2:10 pm with Damon in the cockpit, N18DD leaped to the sky. I flew chase with Marty Parrish, took aerial video and being the professional at doing videos that I am, it was a total flop. I'll try to see what I can salvage from the tapes. Luckily we had some still photos taken by my wife and friends. You're probably thinking "friends"? Does he really have them? Ha! There were some fifteen people in attendance and we had a little champagne after the event. Ginny and I joked several times about breaking a champagne bottle over the spinner, but opted to pour some over it instead. Here it is, one week after the first flight and I'm still just 500 ft below the clouds.

Before closing, I wish to thank the most important being in my life, my wife Ginny. I'm sure many of you will agree that without our wives and loved ones supports, most projects and other undertakings may never materialize. Another good friend and fellow Thorpie, Richard Bentley, promised to fly up and help me fly off Phase I so I can start my training. I am looking forward to getting that dual to where I am comfortable and confident to control N18DD on the ground and fly to the many Thorp gatherings in the years to come.

Ginny and Don Doubleday, Damon Berry and Ken and Juanita Morgan

I also wish to thank each and every one of you Thorpies and non Thorpie friends such as my daughter Paula, son Donald, granddaughters Lauren, Jacqueline and Sarah and grandsons Matthew and Jacob – whom is some small way help physically and mentally; My friends Mike and Sue Smith, who actually put a hand in the project, Steve Ward, for Will Morton for his pointers on flying tail wheels and many, many more and much too large a list to include, for all

the help and encouragements which led to the successful completion and eventual first flight of my project. I wish to thank Don Saint of EAA Chapter 983 who stepped in while Ken Morgan was on recovery, for his help with the wiring and other appliances; Thanks goes to Damon Berry for trusting my skills in building a T-18, having the courage and taking the risk of being the first pilot of N18DD.

Thanks to Marty Parrish for flying chase and standing ready to assist me in completing Phase I; Thanks to Bill Williams, Bob Highley, Lee Walton, Dave Eby, Robert Mardis, Marc Bourget for their technical expertise. Last but certainly not least, my wife Ginny of only 43 years and driving force to see me go from the first rivet to the last strand of wire. AND guess who? I specially wish to thank my best friend and fellow Thorpie, Ken Morgan, who stood by me during my project, helped me with the electrical design which I managed to complicate along the way and for standing by me during my most frustrating moments during the building process. And finally my Supreme Engineer, Technician, Assemblyman and most supporting guiding light – God, Jesus and Holly Spirit.

From CowTown USA,

Don D-Day

Building the Thorp Racer – Jim "Cubes" Grahn

<u>Episode One - The Thorp Racer is born</u>

Lee asked me for a write up about my project. Since I am a wordy SOB, I thought maybe I would write installments. That way, folks can get an idea of how this project came about, and why.

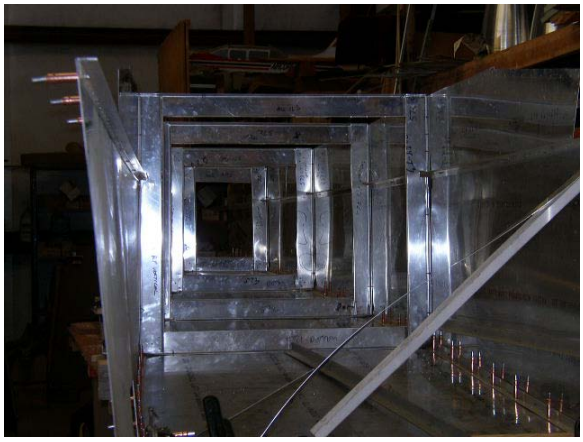
What are we talking about? The airplane currently under construction is based off the S-18 plans with a few modifications. The end result is, hopefully, going to compete in the Reno Air Races – if the races will ever be held again.

The "why" goes back a coupla years. I was at the Porterville Fly-in in my current steed, the "Patriotic Tigress". I knew Mike and Frankie Archer just from attending these gatherings. At this particular one (about '04, I think), Mike told me that I needed to build an S-18. I have been dreaming, studying, and saving to build an airplane for a long time. Like a lot of folks, I was considering a Vans kit. That was until I bought the Tigress. When Mike asked me to build an S-18, I really wasn't interested. I had a Thorp. I wanted something else. Besides, I was still in the Air Force. I really didn't want "those movers" to touch any part of an airplane. So I said no. He persisted. If you don't know Mike, he can be pretty persistent.

After several attempts at getting me to buy off on the build, I asked him why he was still talking

about it. He stated that he thought this airplane would compete well at Reno and I was the guy he knew with formation, speed, and low altitude experience. I remember saying something like, "Mike, the only way I would build an S-18 is if I could build it my way." When he asked what that meant, I told him it would be single seat, retractable, with a single piece canopy and a huge car engine. He didn't bat an eye and said ok. We would be designing as we go. By the way, we do have a current chief engineer at Boeing who has about a dozen engineers working for him that have double checked about everything we've done.

The build started in May of 2007. The first thing we did was argue about how wide it would be. I wanted it fighter narrow. Mike insisted we use the standard firewall. Once we took some measurements off a bunch of car engines, I relented. The next step was to design the fuselage. What we ended up doing was pretty simple. We laid down a standard S-18 belly skin. Since the forward edge had to mate to the agreed upon firewall, it was going to stay **that** width. However, the standard fuselage flairs out pretty wide around the cockpit area. We didn't need that. So we clamped down a lower longeron angle at the front, side edge of the belly skin, then carried that width back to the 572 (behind the seat), and put another clamp there. Then we just pushed the angle inboard until it would mate up with the 575 and 576 (tail feathers). We would be using basically the same tail feathers. Once the angle was clamped in position, we marked and cut off everything outside of that. After both sides were done, we ended up with a fuselage about 30 inches wide. Originally, we cut out the standard side skins. Shortly after mocking up the side skins on the new belly pan, we sat back (drinking a beer) and looked at what we had done. You may not notice it, but the Thorp belly has a little sag aft of the wing. The more we stared at it, the larger the sag looked. Mike had the brilliant idea to draw the new wing profile (more on that later) on the fuselage side skin. Once he did that, it became perfectly clear that we needed to cut some side skin off as well. You see, the new airfoil is attached at zero degrees angle of incidence, as opposed to the standard 1.5 degrees. Since the spar does not move, the zero angle of incidence results in the trailing edge of the wing rising almost 3 inches. So, we cut off everything under the wing profile and carried a straight line from the wing trailing edge to the rudder post.



The goal of the side and belly skin shape was to make it narrower (single seat) and use less wetted area. Will it be faster because of this? Unknown. You see, I have little success in telling air where to go and how to get there. There is some thought that a gently curving fuselage would be more efficient. That may be true. I will admit that the side skin issue was more aesthetics. What's done is done.

So we ended up with a tub that had varying dimensions as you proceed aft down the station numbers. The next problem was formers. None of the standard former size or shape would work. Mike to the rescue again. He developed a way to take a 4 inch strip of .032, bend it into a "U" shape, and just place it against the tub. This would become the sides and top of a box structure that was custom cut to each former location. These side pieces were then riveted together in each corner. As you can see from the pictures, we simply cut and assembled our way back to the aft part of the fuselage. The 575 and 576 are cut and formed in accordance with the S-18 plans. Once the fuselage was made up using this method, all that remained was to build "bridge" sections on top to account for the turtle deck and aft fuselage top skin. The aft fuselage top skin is one piece of .032 that is bent to mate up with the side skins.

Next time, I'll detail just what we went through due to the seat being exactly where the stab push/pull tube runs.

- Cubes

CORROSION!! – Tom Zucal

Thorp T-18 N50LE Corrosion Repair Summary Report

Following is a summary of corrosion damage and repair of subject aircraft including observations and recommendations.

Background:
-N50LE is a Thorp T-18 high performance aircraft built from plans of typical all sheet metal construction first registered in 1999. Aircraft ownership has changed hands several times.
-Aircraft total time is ~400 hours.
-The aircraft is hangared and has been flown and maintained regularly.
-In general the aircraft is well constructed. All sheet metal is primed in zinc chromate.
-During 2010 annual condition inspection, extensive corrosion damage was found in the fuselage baggage area.

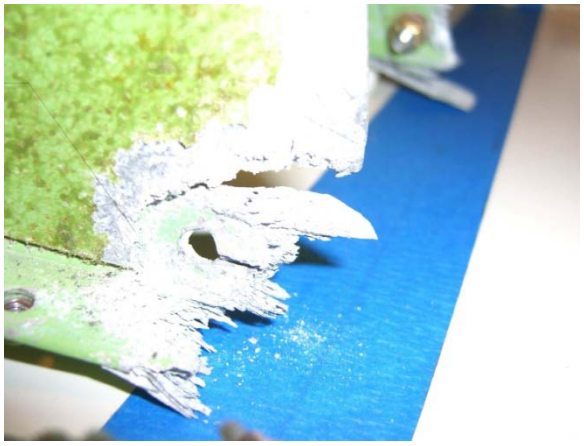
Aircraft partially disassembled for condition inspection

N50LE's baggage compartment is located between bulkhead (drawing no. 598) behind the seats as the forward station to the next bulkhead (571) as the aft station. Two baggage compartment bottom floor panels are supported on each outboard side of the

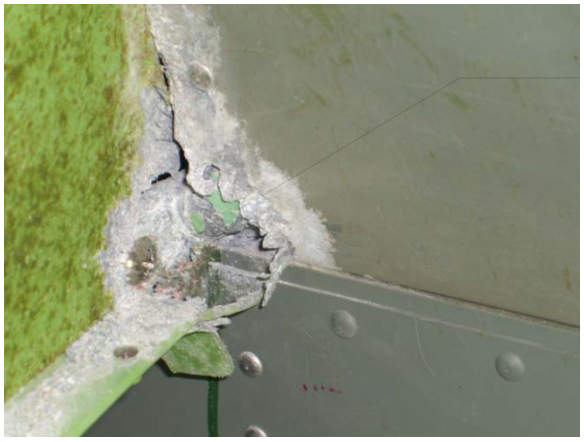
fuselage by intermediate 1x1x3/32 inch angle extrusion longerons (580-5) that extend from the firewall to bulkhead 571. Inboard sides are supported by a tunnel formed from .040 inch sheet stock and four 3/4x3/4x1/16 inch angle extrusions that covers the horizontal tail push-pull tube. The baggage compartment tunnel is an extension of the tunnel (505) between the seats. The floor and aft face panels of the compartment were made of a ½ inch foam and fiberglass sandwich composite material. These panels and the baggage compartment tunnel had carpet material glued to them with contact cement for presumably aesthetic purposes.

The corrosion found during the condition inspection included extensive damage to the tunnel, fuselage longeron and forward bulkhead including the rear carry-through spar (592) upper cap.

Severe exfoliation corrosion of left side fuselage intermediate longeron. This longeron supported left side baggage compartment floor panel.

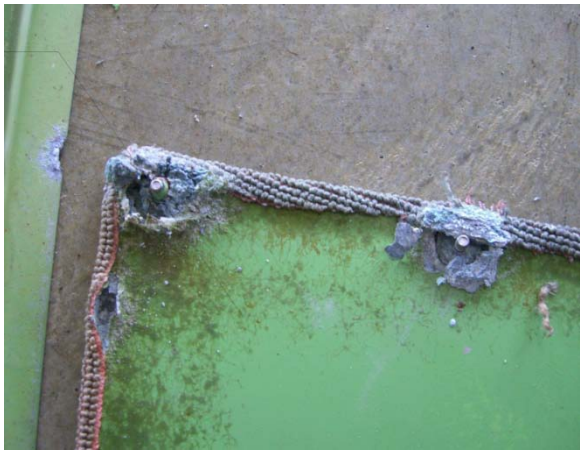


¾ x ¾ x 1/16 inch tunnel extrusion end completely missing due to corrosion. Mating extrusion equally damaged.



Aft looking forward at intersection of baggage compartment forward bulkhead, tunnel and rear carry through spar. Carpet glued to tunnel was removed for this picture.

Baggage compartment tunnel side panel damage at steel anchor nut screw locations where tunnel top piece attached. Carpet has been removed in this picture.



Bottom side of tunnel top piece that attached to side panel shown above. Note carpet glued to top surface.

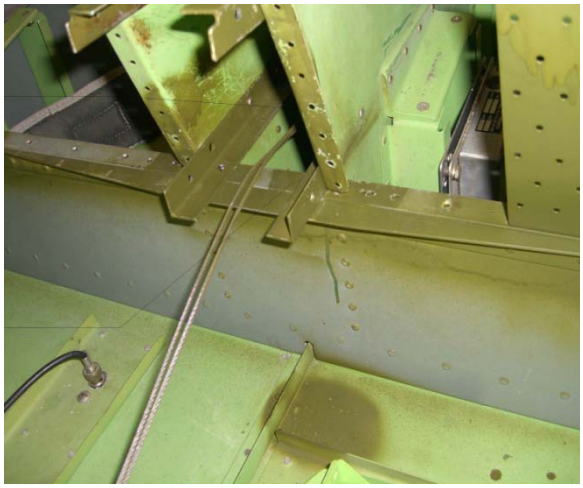
The root cause for the corrosion may not be fully understood however there are contributing factors:

1. The Thorp was flown in rain several months prior to the condition inspection and the baggage compartment and carpet did get wet. The carpet may have held moisture for an extended time.
2. The extent of the damage however, indicates the corrosion must have started earlier but was missed during previous inspections possibly because it was hidden by the carpet.
3. Corrosion was found at most screw locations where steel anchor nut plates were attached to aluminum angle extrusions. It was found during the repair process, that although the aircraft was heavily zinc chromate primed, the primer was applied after the nut plates were installed. This allowed dissimilar metal contact and corrosion to start.

Note steel anchor nut plates were attached before primer applied.

All repairs were done using AC 43.13-1B manual for guidance. The repairs included removing and splicing in new 14 inch lower section of bulkhead 598, removing and splicing in new 3 inch section of intermediate longeron 580-5, removing corrosion from rear carry through spare upper cap extrusion, installing doubler plates to maintain structural integrity, remanufacturing baggage compartment tunnel and replacing baggage compartment floor and aft face with new manufactured sheet metal panels.

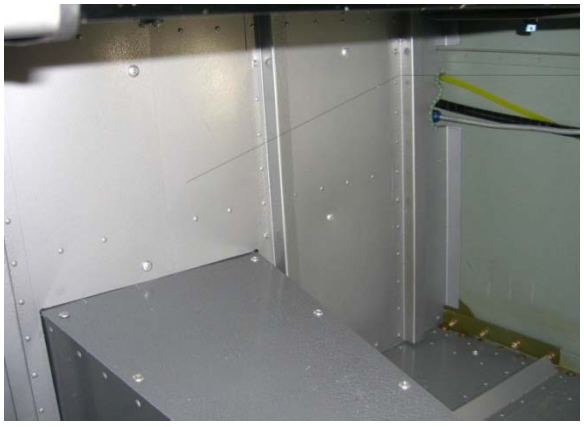
Bulkhead 598 splice- Material with the dark colored primer is new. Each end has .040 inch doubler plates requiring ~23 rivets on each side of the splice. Top of tunnel 505 between seats was replaced due to a crack found in aft flange.



Aft looking forward- four ¾ x ¾ x 1/16 inch angles in tunnel 505 replaced due to corrosion. Forward end of baggage compartment tunnel is attached to these angles. Corrosion removed to ~ 20% depth in upper carry through spar cap at location of tunnel interface. A double tapered angle doubler was riveted to the aft side to maintain structural integrity.

Removed ~ 3 inches of left hand side intermediate longeron 580-5. Spliced new angle material using 1x1x1/8 double tapered angle on the bottom and 1x1/8 bar stock on upper leg. Six AN3 bolts attach the lower section and AN525 bolts attach the upper section. This unfortunately leaves protruding round heads on the fuselage exterior skin which is otherwise all flush riveted.

New baggage compartment floor panels (and rear panel) were made from .025 sheet stock. Original panel on left is a composite material with glued carpet. Weight difference between the two parts is negligible.



New baggage compartment aft panel, floor panel and tunnel installed. Tunnel was made using original parts as templates. Everything was finished in paint and can be easily inspected.

In conclusion:

- Don't assume, just because an aircraft looks beautiful on the outside that there are no hidden problems.
- Corrosion can occur quickly under the right conditions and cause severe damage.
- Avoid contact of dissimilar metals.
- Insure all components of the aircraft can be readily inspected.

o Materials such as carpet can hold moisture, promote and hide corrosion damage.
o Don't assume someone else working on your aircraft during the annual condition inspection is performing satisfactorily. Keep a friendly eye over your mechanic's shoulder to insure everything that should be inspected is being inspected thoroughly.

Tom Zucal EAA Chapter 478 A&P/ IA

Editor's Note – I'm sure all of you agree that we need more A&P's around who know sheet metal like Tom. N50LE left his shop in better/stronger than new shape! That's a rarity to say the least!

Off at the Knees or Humbled Again - Don Taylor

Editors Note – Col. Taylor sent this to me back in the fall with the comment "Lee, thought you would like this one." Indeed I do, I can promise you that if my old friend Don Taylor walked up to my airplane at any ramp no matter what the rush I'd spend an afternoon talking shop! Many of you remember Col. Taylor's yarns from back in the Butches Anchor Inn days, those that have not have truly missed out!

One sort of gets the feeling that, in his profession, he's little known and, when someone says "Oh, you're so and so" it's a good feeling to be recognized (and somewhat ego-building too!)

Well, this type of thing happens, and did so last week.

A small home-built aircraft of the same type I have flown to several world records was at our local airport. A man and his wife were getting ready to depart when I saw them. I stepped up and said "What a nice bird" (it was). The pilot had his E.A.A. badge on and so was one of the 'homebuilders' circle. I asked a question about a new kind of wing tip on his aircraft and then introduced myself.

He very briefly answered the question then his wife interrupted and said, "Come on, dear. We haven't time for all this. We may be late now." He replied "Ready", pulled the canopy shut and fired up!

O well, my barber said "Hi Don" when I walked in for my last haircut!

Don Taylor – "Adventurers Club News" 11/ 1990

KVIS 2011 – Rich Brazell

Editors Note: Rich sent me pics taken by himself and Danny Eggleston with captions for each. In order to keep the page formatting looking acceptable I had to break some of the captions out into text, but you'll get the idea … looks like you guys had a great time!

First, the host aircraft …

Danny and Gloria Eggleston's N575DG

This is Ira and Missy Zermino's N25801. He has done a lot of work on it and it shows!

Fraser and Cubes finally made it after arm wrestling with Joshua Control and the true meaning of R-2508 is HOT!

The next three to arrive were Rich Brazell in NX115RX (first fly in for the A/C) along with John Kerr and then Terry Adams.

After all the Friday arriving aircraft were parked and everyone had a chance to "clean up" at the Motel, we all headed to the local steak house for some good ole fashion laughing and scratching. Of course there was good food and drink!

There was considerable interest in Rich Brazell's hinged cowl cheeks and the advantage of not having to place the cheeks on the ground, plus making the preflight much easier

Phil Key's A/C

Dave Flatter, Tom Hunter

Howard Ginn N22DU

Dave Flatter, Tom Hunter

Fraser fondling Tony Ginn's aircraft, others watch in hands on hips wonderment!

Danny Eggleston holding court at the hangar

Saturday morning we all mustered back at Dan's hangar and the remaining of the 11 T-18's made it to the ramp. Then it was time to tour the nest and see what each builder/owner brought with him in the way of new ideas or building techniques to share with the group. It was also a time for a few airplane rides and Dan's "El Gato" was one of the first to take flight.

After a few hours of technical chatter around the aircraft, we all headed over to the local park for a wonderful lunch put on by Dan, Gloria, Ira and Missy. 45 pounds of wonderful shredded beef, rolls, salad and of course desert!

Once we had our fill there was a brief given by some of the "new builders" outlining their progress and challenges they faced during the building process.

Then it was time to head back to the hangar and hang around the camp fire. If you've never been to the Central Valley in California, the first 2 days were 90+ degrees and 90+ percent humidity so the only thing we hung around was a tub of cold beer …no fire needed! The laughter got louder and the jokes a little funnier. There was still a little time left for some show and tell and Cubes brought out his Fergelli servo to test. About ½ the size of a stick of gum, it proved to have a lot of pull for such a small unit. RB also had his IFly700 touch screen GPS on the bench for the curious to test. It was finally time to call it a night and we all got in formation and marched back to the Motel.

For the first KVIS fly in it proved to be a wonderful time. Great people, great food and great *"Sky Machines!"*

Here's the list of attendees.

John Kerr, Rich Brazell, Howard, Elaine and Tony Ginn, Jim Grahn (Cubes),Fraser MacPhee, Tom Hunter, Jon Levi, Terry Adams, Mike & Frankie Archer, Dave Flatter (flying Gary Green's old A/C), Dean & Melanie Cuke, Bill Cordoza (with new Trusty wing), and Joe Pengelli.

"Fly the @#$%^&* Airplane!" –Rob "Smokey" Ray

As anyone who has read an NTSB accident report or seen any TV news footage of an aircraft crash knows*, pilot error* is the ensuing theme. In the military, we are privy to the exploits of our less than fortunate comrades who have "screwed the pooch, packed it in, bought the farm" or other similar fates. We spend hours during pilot meetings listening to post-accident investigative hoopla on how our poor buddy had committed an act of buffoonery of royal proportions. The MP or *mishap pilot,* as he or she is always referred to gets hammered mercilessly by the examining board every time. Exceptions are few to the pilot error label, but why? It seems in most cases they are right, the cause to most aircraft crashes is the nut behind the stick, el pilote'. Having been the brunt of a USAF post Class A mishap investigation (Class A denotes over 1 million dollars damage) myself, I can assure you no stone is left unturned. In my case the board concluded: *"That the failure of a magnesium alloy restraining band surrounding the afterburner section of the GE F110 engine in Capt Ray's F16C contributed to the failure and subsequent in flight fire and ensuing forced flameout landing*". That's a long way to denote "yikes, you're on fire, land NOW"!

So how do we apply the techniques, lessons and hand to stick applications of IFE (in flight emergencies) to our little world? First, the realization that it doesn't matter what type aircraft you are in, when an emergency raises its ugly head, your posterior is on the line, period. So how do the big boys handle emergencies in multimillion dollar fighter aircraft with such aplomb? Practice my brother, practice. The General who quoted that "The more you sweat in peacetime, the less you bleed in war" was correct, practice makes perfect. In the military and professional civilian world, simulators are used to "dial a disaster" for hapless pilots in a controlled environment. The simulator instructors can simulate emergencies with such accuracy that in cases of real emergencies the successful pilots claimed that what they did was exactly like what they trained in the simulator. The exception of course is combat where it's all fun and games till that first large caliber round or missile flies by your canopy. Then all that training goes right out the window, been there, done that. For us RV types we have emergencies just like everybody else, it's the nature of operating mechanical flying devices. Highly efficient, cool looking, fun machines, but flying devices nonetheless. When the proverbial feces hits the fan an old instructor of mine once told me "wind the clock" until you can't stand it anymore, then think about doing something. In simulated IFE's the first step is FFA or Fly the @#$%^ Airplane!

The actual steps are:

1. Maintain Aircraft Control
2. Analyze the situation
3. Take the appropriate action
4. Maintain situational awareness

Following these you can either pull out a checklist, have your wingman or somebody on the ground pull one out, follow steps herein and get home hopefully safe to slip the surly bonds

another time. Most of the time in a fighter, you do all the important stuff without looking and later your wingman backs you up to make sure appropriate items were taken care of.

You can apply the same wisdom to an IFE in your own cockpit. The one item above left out is "don't panic". There is nothing short of an engine failure on takeoff or in flight fire that requires you to go into "auto flail" to handle the problem. Even then more people tend to stall spin trying to turn around or land too fast than not. Bob Hoover once said "fly the airplane as far into the crash as possible". How you say, FFA? Well, like I said earlier, practice my brother, practice. In the safety of your own living room, hangar or cockpit (or in my case RV-6X, T-18 wannabe!) you can go through the steps in any given emergency situation to save you and your passenger's behinds and survive to fly another day. Know your aircraft systems well, do a blindfold cockpit check once in awhile and know where all the switches are without looking. You can even have friends be the IFE instructor and yell out simulated emergencies to see what you would do. Then they make sound effects or wry comments about your abilities while you flail away and they imbibe beverages from your fridge." It's all good" though and every second spent thinking about disaster helps when a real one emerges. The good news is it makes everyone present a better pilot, improves safety and makes one less opportunity for the NTSB to conclude pilot error after a mishap. Practice my brothers, practice!

See Ya!

Rob "Smokey" Ray

Rob "Smokey" Ray

Spring Gathering Announcement – Lee Walton

We discussed a few options at Kentucky Dam this year. In the end the majority of the potential attendees agreed upon Fredericksburg, TX (Airport Identifier T82). In the first part of the year I'll arrange discounted lodging for everyone and include that information in the next newsletter as well on the website.

A little information on the town, Fredericksburg, Texas, is located in the Texas Hill Country, 80 miles west of Austin, and 70 miles north of San Antonio. Home to a thriving German community, the museum of the pacific war, numerous wineries, live music, bier houses, and days worth of shopping I promise there is something here for everyone.

The airport (T82) in uncontrolled, has a restaurant/hotel on the field, an amply large ramp, 5000ft runway and is a very popular spot for other aircraft owner's groups (Bonanza Society, Cessna, Cirrus etc.). In other words

they're used to handling large gatherings of aircraft.

Bernie Fried lives in nearby San Antonio and has suggested a fly out destination on Saturday as well.

The dates are June 8-10th; lodging information will be posted online and in the first 2012 issue of "Tiger Tales."

Please join us, I guarantee a great time!

****Upcoming Events ****

03/27-04/01 Sun-n-Fun Lakeland, FL Note: Forum/Dinner Friday March 30 5:00PM Social Hour, Dinner at 6:00 Tent #3 in front of the Sun n Fun Museum (tentative).

06/08-06/10 Spring Gathering Fredericksburg, TX (T82) Reservations information in the next issue. Contact Lee Walton 713-303-0143 leewwalton@yahoo.com for details.

A BIG Thanks to Jim Grahn, Don Doubleday, Tom Zucal, Rich Brazell, Rob Ray, and Don Taylor for their contributions to this issue of "Tiger Tales".

In the next issue (so far):

Building the Thorp Racer Part 2 – Jim Grahn

Kentucky Dam 2012 – Lee Walton

Retrofitting Electric Trim and Flaps into an existing Thorp airframe (with making a mess) – Lee Walton

Dual use tow bar - Rich Brazell

If anyone would like to contribute to the next issue please contact me;

Thorp T-18 Mutual Aid Society
Lee Walton
5000 Schuler Unit E
Houston, TX 77007
thorpforum@thorp18.com
713-303-1043

CLASSIFIEDS

Thorp T-18 N31BD

LYC O-320-B2B 160HP, 450 SMOH (6/2006), TTAF 2470, Fresh Professional IMRON Paint Always Hangared, All Maintenance Records / Documents Available, Complete Drawing Set / History.

King KX-155 NAVCOM, King KT-76 Transponder and New Encoder, Garmin MAP 195, Davtron DVOR, Electric Flaps, PS Engineering Intercom

Contact: Barry Hall@ 678-290-6630 (home) / 678-429-4525 (cell) Barry.Hall@CH2M.com
$35,000

Thorp T-18 N295RS

Standard T-18, 2900 TT 160 HP 0-320 341 SMOH Built by Rich Snelson completed 1992. Full Garmin panel including GNS-430, GTX-327, GMA-340. Trio Auto-pilot. AD prop. $35,000

Contact: Tom Worth wocon@att.net

Carbon Fiber Spinners

I'm still making carbon fiber Thorp Spinners/Back-plates.

$250 plus shipping

Contact: Lee Walton leewwalton@yahoo.com 713-303-1043