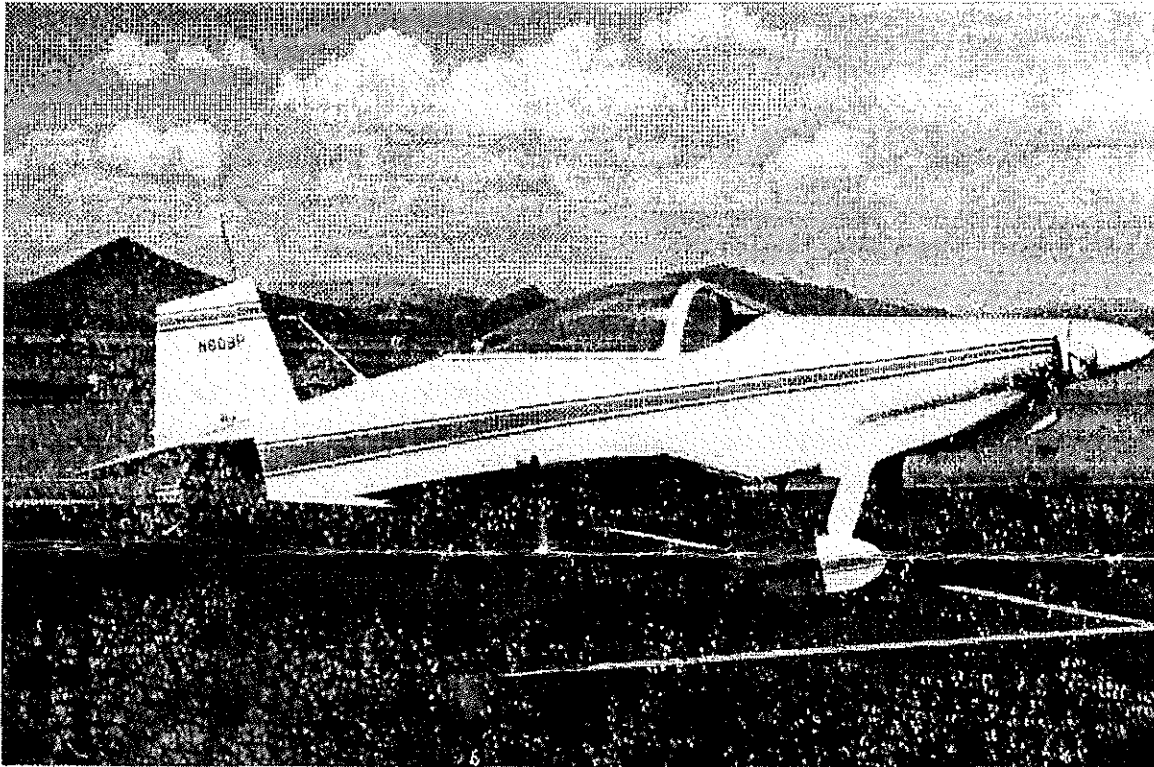


T-18 NEWSLETTER

ISSUE NUMBER 79



Edwin Poe's Beautiful N808P of Phoenix, Arizona

In This Issue:

Editors Trim Tabs

Letters to The Editor

T-18s of Phoenix by R. Snelson

Patter From Pat by Pat Eby

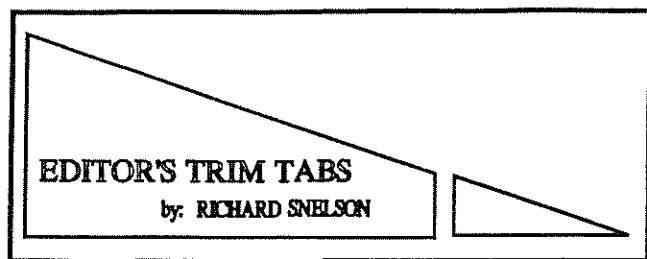
IFR in a T-18 by Harold Thompson

Builders Corner

Flight Safety by Lee Skillman

Lessons Learned The Hard Way

NOTICE: (STANDARD DISCLAIMER) As always, in the past, present, and future newsletters, we would like to make you aware that this newsletter is only presented as a clearing house for ideas and opinions, or personal experiences and that anyone using these ideas, opinions, or experiences, do so at their own discretion and risk. Therefore, no responsibility or liability is expressed or implied and is without recourse against anyone.



I've promised myself to get this newsletter into the mail so you could have it before the Oshkosh Fly-In. So I'm taking a portable computer with me on a business trip to Phoenix and plan to work on it in the evenings while I'm there. With my T-18 nearing completion it's gotten even harder to work on the newsletter at home and I thought we needed number 79 out early to pull together our Banquet on the first Friday night of the Fly-In, especially since I had the wrong date in the last newsletter. (I have to tell you it caused Lee Skillman "near heart failure" since he had non-refundable airline tickets to Oshkosh and he thought he had purchased them for the wrong week! Sorry Lee I goofed!) Our guest of honor, at the banquet, this year will be Steve Kirik. Steve fought in the Gulf War in The First Fighter Wing, flying many combat missions in his F-15. I'm sure Steve will have some very interesting stories to relate to us after dinner. He will also be an honored guest of The Fly-In, with plans to arrive with another member of his squadron in their F-15s. Steve is a T-18 builder, having worked many hours on N11PK with his dad Paul Kirik of Moline Illinois. Steve requested all the old T-18 newsletters, to read while in Saudi Arabia. I believe he maybe planning a T-18 of his own. "Glad your back Steve" and I'm looking forward to seeing and talking with you at Oshkosh. Lee Skillman is returning to the T-18 fold, he's building another one folks, and will help me with the MC duties at the banquet. Let me know if you plan to attend the dinner as soon as you know, call me at

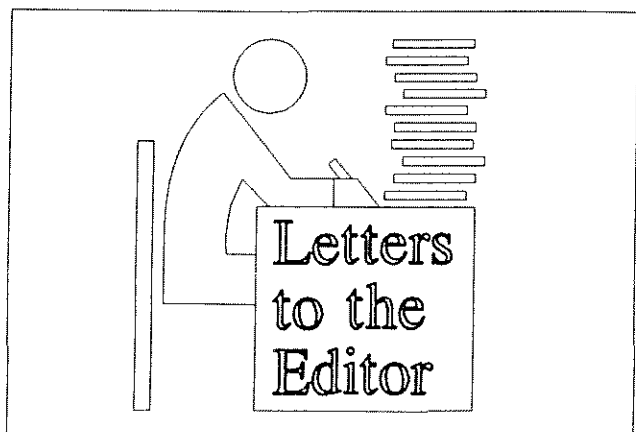
217-935-4215 or be sure and sign up on the flight line Friday during the day.

My current plan is to arrive in Oshkosh on Thursday, and stay on our restored "wooden cabin cruiser" at the Pioneer Inn Marina. If you have a car and can get over there please drop in as we will be there most evenings and would like to sit and talk airplanes with you. The boat is a "Carver" 24 foot cruiser, painted white with maroon trimmings. If I have time to do a good tune up on the engine before the fly-in we might try to give some rides. It's really fun to watch the war birds circle up over the lake. I swear some of them are trying to get their guns aimed at us on the water.

In my workshop the bird continues to take shape, last week I cut the windshield and canopy, that went well with the help of air tools and a great drilling tool called the unibit. This little tool drills 1/2 inch holes in Plexiglas as fast as you can go with out any signs of cracking. All you need is a 1/8 in pilot and the unibit takes it from there. The bit goes from 1/8 to 1/2 in steps, and will also drill the pilot hole.

I have some of the engine work done, alternator wiring, vacuum pump plumbing, and a start on the baffles. My crossover exhaust system has arrived from Custom Aircraft Parts, in San Diego and after one small fitting adjustment on the left rear cylinder it looks great. It's about as tight as you can make a T-18 exhaust system. I need to get the instrument panel painted next so I can mount the instruments and do the wiring and plumbing behind the panel. I'm planning on a bright yellow paint job and my wife is about to throw-up over this!

----- I've been in the Phoenix now for several days and have met some very nice T-18ers. See the story in this newsletter.



My name is Charles Kenny and Fred Hartman of Delray Beach, Fla. is a friend of mine. I have flown in his T-18 and I know it is the plane for me. I do have a Piper Arrow, however I am looking for a T-18 either completely built or at least mostly finished. I live in Mohtauk Point Long Island so I am looking for something up that way. If you should hear of any drop a line. Just came from Sun & Fun and saw Dave Eby's beautiful T-18. My address is Charles Kenny P.O. Box 0, Mohtauk, N.Y. 11954. Thanks C. Kenny

Richard, Thought I'd better tell our guys to save our slips that we get from buying parts, for the feds need to see if you've paid tax on that new plane you just built. ----- Enjoyed Ken Morgan's article on the 0290 GPU, as well as the rest of the N.L. Nicholas Shewalter, 4250 New Lathrop Rd. Corunna, Mi 48817

Editors Note: The tax thing is news to me. I'm not sure if payment of state sales tax is any of the FAA's business! However why would they let that stop them? Anyone else have this problem or question raised by the FAA?

Dear Richard, Up to the the present time, I have put in about 7,500 hours on my T-18 project. Cost thus far has been in excess of \$63,000.00 -- This is over a period of about 9 1/2 years.

I guess it is about 85% to 90% complete. Some people say that airplane building is fun! Do you know where the fun part comes in? Also, do you know of anybody that in the Phoenix area that works cheap? I sure would like to hire somebody to help finish this damn thing -- but, I can't afford to pay the \$15 to \$20 an hour that most people want (some even want as much as \$40 an hour). Bob Praker, 6519 W. Aire Libre Ln, Scottsdale, AZ.

Editors Note: See my article "T-18's of Phoenix" in this newsletter for photos and short story on Bob's project.

Dear Dick, Let me start by introducing myself. I'm Harold F. ("Tommy") Thompson. I recently purchased Dan Derby's Thorp serial number 1423, N444DD. It is my second one having purchased Herman Rassler's N4083B many years ago. I sold N4083B and after many airplanes since I finally got back into a Thorp. I'm sure you and many other of the T-18 owners know of Don's Thorp. He has been at Oshkosh 3 times I think. ----- I just called in my reservations for the Kentucky Dam fly in May 10-11. I plan on arriving Fri. around noon and leaving Sunday morning. Its quite a distance from Las Vegas NV to Kentucky but by strapping on oxygen and going high it should be a fun trip. See you and all the others there with a little cooperation from Mother Nature. Harold F. Thompson 3123 Valleywood Rd, Henderson, NV. 89014 Phone (702) 454-6244

Editor's Note: He got there, without the cooperation from Mother Nature. See his second letter in this newsletter "IFR in a T-18" Tommy is a swell fellow! I Really enjoyed talking, visiting and flying with him.

Richard, I really enjoyed working with you on your T-18, not to mention returning home with a few new parts for my project.

My name is Roy Farris, I grew up around the local airport and my father has been a pilot since I can remember. I began taking dual instruction when I was fourteen, using my dad's Piper Colt, and soloed in six hours. From then on it was a slow process, but I finally got my private at age twenty three. I bought a Colt and had a ball for three years, until financial problems forced me to sell it. Karen, my wife, on the other hand had never been in or around airplanes until we met. I gave her, her first ride and she loved it. She couldn't believe I was actually going to build an airplane. She had seen my pile of parts and just shook her head. It wasn't until she saw T-18's at Kentucky Lake last fall, and saw Richard's project, that she really began to believe. Now she is almost as excited as I am.

My T-18 project was started in 1968 by a close friend of my family. I can remember as a youngster seeing all those airplane parts in this guys basement and hearing him and my dad talk about it. I would have been twelve at the time. The project got moved a couple of times, went through a fire, and was finally stored in a basement. I had forgotten all about it.

I began looking for an airplane to build. I have been into serious R/C modeling for fifteen years, and decided to just try my hand at something a little larger that I could ride in. I looked at KR-2's, RV3 and 4's, Midget Mustangs and a few others. One evening while scanning an issue of Sport Aviation I came across a picture of a beautiful T-18 with its owner Cliff Redden of Georgetown, Ohio. I picked up the phone and gave Cliff a call. I told him of my desire to ride in a T-18 and his immediate yes answer found myself and a friend (Wayne Hahn) on our way to Ohio.

Wayne and I spent all day Sunday looking and asking questions. Cliff had told Jim Paine of Dayton, Ohio of our visit and he and his wife Judy flew down. Not only did I get a ride, I got rides in two T-18's. Wayne even got one. Jim showed me the do's and don'ts of the T-18 and I got to fly both airplanes from the right seat. As you that have flown a T-18 well know, I had decided to buy my friends project before we landed.

When I arrived home I gave my friend a call & discussed all the details, and two weeks later I unloaded the project into my house. (It was the only place I had) since then, I have gone over the plans, read all the newsletters, and took inventory. I'm getting ready to build a workshop and I'll be ready to begin construction soon.

I really want to thank all the really great people who have helped me over the last year. I especially want to thank, Cliff Redden, Jim Paine and Richard Snelson. I would also like to thank Rick Jones of S.Charleston, Ohio for the most thrilling ride of my life. For those of you who know Rick, well lets just say that our wings weren't level for very long at a time. I met Rick at the Fall get together at Kentucky Lake last Fall. Thanks again Rick, I'm ready to go again.

Guess that sums it up, except to say that any of you T-18'ers out there that have any parts for sale I sure would like to talk to you. I'm in the market for lots of parts. Give me a call. Thanks Karen and Roy Farris (618) 723-2594

Another letter from Roy

Richard -- Karen, Chris and I had a wonderful time at Kentucky Dam. Karen wants to say thanks to Jim French for her first T-18 ride. She loved it! She is really sold on the T-18 and is pushing hard for us to get busy on ours. I want to thank Cliff Redden for the

use of his plane, and Jim Paine for flying with me, I had a great time.

As we all know sport flying is on the decline nation wide. In my area it is practically non-existent. Our local airport has only five privately owned airplanes, and our area has only one homebuilt. It's a Skybolt but it is based at a neighbors airport. On a good Sunday afternoon you might catch one or two guys out flying but you'd have to be lucky.

The Olney area Pilots Association (OAPA), is trying to get some interest generated. Hopefully we can get some students started and some licensed pilots out flying again. The OAPA is organizing a fly-in, drive-in open house on Labor Day, Monday Sept 2nd.

This is an invitation for all T-18'ers to fly-in to Olney, Illinois and show what sport flying is all about. Come on guys, help show the Olney area what it is that we are all so crazy about.

There will be a trophy for the best home-built, best antique and fly-bys are welcome. I am looking forward to seeing some of you at my home field. Olney Noble Airport (OLY) is located 110 miles east of St. Louis, Mo. on Ill. Rt. 50, 17 miles from Samsville VOR @ 343 degrees.

The OAPA will appreciate all the help we can give them. I'll guarantee a free meal to any T-18'er that fly's in. Call (618) 723-2594 for more information. Thanks Roy & Karen Farris

Dear Mr. Snelson, also 2 requests, First, I would like to find the co-ordinates for airfoil GA(w) -1. I can not seem to find them here.
Second could you send a list of the material

used in the S-18, when scratch built. Such as how much sheet metal, extrusion angle, metal for landing gear and etc. Thanks Richard Taylor 185 Monteray Dr. Neapan, Ontario.

Editors Note, We'll see if someone can help on this. I can't remember a material list in the newsletter.

Dear Richard, Since I talked to you and ordered the newsletter and back issues, I purchased a beautiful T-18, N312LL, from J. Paul Warren. My real name is Paul J. Warren. As far as we both know, we are not related. It was built by Lawrence Larcom and first flown in 1969. Total time on the airframe is just over 600 hours. I have 50 hours in it would have more but for some schoolin, the winter weather and shoulder surgery in February. The airplane had been damaged and was being restored by Nick Seraphinoff, T-18 N11101, when I discovered it. I helped, in a very minor capacity when I could get over to Detroit from Minneapolis, to reassemble it and got a good chance to view the excellent workmanship by Mr. Larcom and Nick.

Everything that I have heard about the Thorp is true. If it were any more fun to fly, the government would make it illegal. The powerplant is an 0320-150. Cruise at 2450 RPM is about 160 MPH (airspeed indicator reads low - stall indicates 43 and altimeter drops about 150 feet from ground to flight, I suspect a slight pressurization of the static system). It includes a full panel, Narco Com-200 com/nav w/glideslope and AT-50 w/mode C. I have wheel pants - painted but not yet installed and strobes - power supplies purchased but not yet installed. I also have a second com set, an RST audio panel/intercom/marker beacon that I built and an accelerometer, all not installed. My intention is to rebuild the entire panel and include a loran, some decent engine monitoring instruments and a fuel quantity indicator which I am

currently sans (top off before flight). The canopy fit needs improvement, too. There is no hold-down mechanism for the back; it's too drafty in the winter but ventilation for hot weather improved. There are a number of other problems/improvements that should be attended to, and that sounds like a lot of complaint, but in fact I am delighted with the airplane and just look forward to making it even better.

I'm still working my way through the back newsletter issues. They have been of great help to me. I highly recommend them to anyone either building or purchasing a T-18. Thank you for your efforts to keep the T-18ers informed and in contact. Sincerely Jack Warren, 2887 Lakeshore Ave. Maple Plain, MN 55359

Editor's Notes: I have the RST Audio Panel completed also. I'll try and put together an article on building the unit for a later newsletter. The cost for the kit is around \$300 less than the other completed units on the market. Quality is excellent, and goes together in a couple of days. Pretty good pay for two days work!

Richard, You ask if I'm interested in serving as a focal point for the T-18 events and builders help in my area. I am not certain what I would be responsible for, but if it is just promoting the T-18 and helping builders where I can, I am willing to do that. I have served this area for years as a Chapter Technical Advisor. In fact, I have been helping builders solve all kinds of problems on a multitude of homebuilt designs for the past 15 years. In addition to the mechanical and technical assistance, I've test flown a local T-18 and checked out two other T-18 buyers in still another newly acquired T-18 aircraft. I do feel somewhat qualified to help builders with the final phase of construction as well as that emotional first flight. I am more than willing to help T-18 builders where I can. Go

ahead and list my name and phone number as a contact for technical and other questions.

I'm cleaning up the writing on my T-18 wing construction sequence. Please list its availability in the newsletter. I'm certain it will be of help to those who request it. I'll send you a copy when I finalize the writing. Looking forward to meeting you at Oshkosh. Best regards.. Joseph Gauthier 9 Kowal Dr. Cromwell, CT 06416 Phone (203) 635-4058

Editor's Note: Thanks Joseph, that's about what I had in mind with the T-18 support and help in your area. I think you also have enough T-18s out there to have a get-together. It would be great if a couple of you fellows could find a place, much like Jim Paine does for the Kentucky Dam gathering.

Dear Richard, I bought serial #927 N927AS one month ago. It was completed in 1981 by A Silvasian. The plane has 600 hrs, 180 Lyc. C/S prop. I've got 24000 hrs, 5 in T-18.

A set of newsletters, 1-77, arrived yesterday. A most valuable collection. I've been looking through them for limitations. (I have nothing) and so far found them very useful.

I don't want to miss any issues so please start me with #78. Thank you for your effort & dedication. Harold J. Ballatin 3535 Heroic Drive, Rancho Palos Verdes, California 90274. Phone (213) 377-1410

Dick: I ran into a problem I have not seen addressed in any previous newsletters, after engine installation, 0320 E2D, the oil sum was pressing against the lower left cross member of engine mount (Dynafoal - Brock). Rubber mounts were new, engine off-set OK, no engine sag. Several design people, A&E people, other builders, etc. looked at the difficulty and scratched

their heads. Answer came from local engine guru.

Engine was lifted sufficiently to take weight off mounts and one at a time mount bolts were removed and used washers (taken from old mounts) one for each cup were slipped between engine flange and inner rubber cup. I now have about 1/4 in. clearance which hopefully will be sufficient.

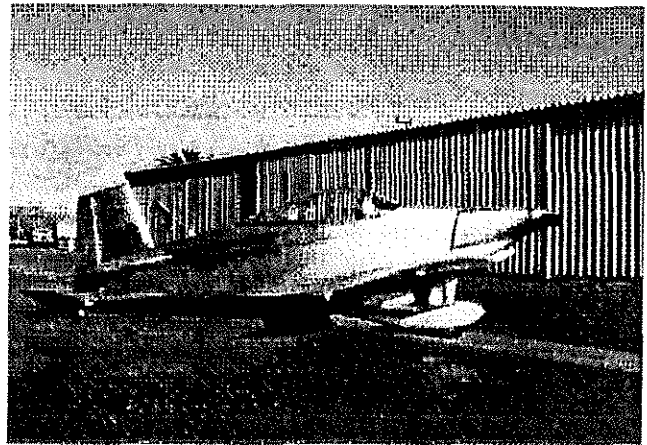
This may be common knowledge to everyone except this select group of dummies in outer San Diego.

Does anyone have a really good throttle, mixture, carb heat cable support system fire-wall & carb? I have run the carb heat cable to an attach clamp on the rear of the carb box which I am satisfied with. The throttle and mixture cables are clamped to the engine mount cross member which seems to be satisfactory but it is my unique solution to this problem. Has one consensus way of doing this involved when carbureted engines are used? Thanks for any & all help. Larry Whetzel. 15621 Calistoga Dr. Ramona, California. 92065

Editor's Note: Don't know if I can help on this problem, I'm working on a clamp for mine now. I've looked at a number of engine installations and I can't remember any two being alike on cable clamping.



*Bad Weather T-18
EAA T-18 PLATES*



George Truver new T-18, we will have a story by Wally Hunt and more photos of George's airplane next newsletter .



Lewis Avramovich's N67LA 10/6/90 at Kentucky Dam



John Mihaila's and Dave Eby's twins, soon to be triplets 2/25/90

FOR SALE

For Sale: (1.) T/s-18 Horizontal Stabilator, internal counter weights, skin SS pop rivets - rest solids. Workmanship - "8" \$500 OBO (2.) S-18 Ailerons, 2 ea. flush solid rivets. Workmanship - "9". \$250 set OBO. (3.) Escort 110 w/antenna and tray, "Servicable" tag, \$200 OBO. (4.) S-18 Plans w/ Sunderlands's book, \$150 (5.) 180 HP '63 Olds Aluminum V-8, professionally rebuilt, ready for reduction unit and accessories. \$2000 OBO. Alan Reich 2161 Gazebo, Idaho Falls, ID 83402 Phone (208) 522-3191.

For Sale:

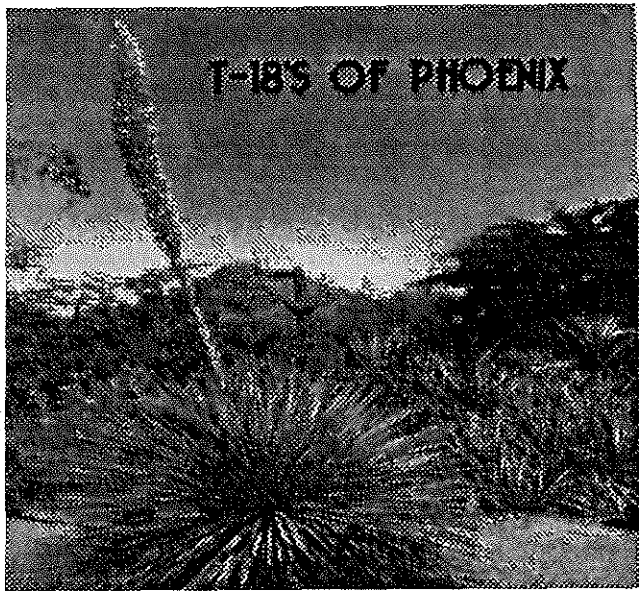
1. 539L -1 L&R outer wing skin, Net trimmed; center punched under Johns template
2. 544-1&3 outer wing L.E. ribs formed over Johns tooling
3. 540L R&L wing tips .025 & .040 (MFG. to DWG. except W.S. 113.875 is not trimmed to net
4. 580-1 fuselage skin material .032 x 5FT. x15FT. 2024 T3 not perfect
5. 865 Main gear leg fairings & retaining clamps (trimmed but not drilled).
6. 796 pitot/static tube assy. (polished)
7. 514 fuel tank assy. (modified for filler neck location on Fus. flat area) (BL 3.500)
8. 640 spinner assy. (constant speed)
9. A-596-1 bulkhead, Fus STa 94.286
10. 532-5 center wing closure
11. Maule tail wheel assy.
12. Master brake cylinders (Gerdes Model A-049)
13. Fuel shut-off valve (Imperial 104-HD 3/8 x 3/8 female)
14. Electric fuel pump 12V Facet 478360 Neg. Grd.
15. Fuel transfer valve 12V Neg. Grd. (used excellent condition)
16. Transponder/DME antenna
17. Oil pressure gage 0/80 psi. (back lighted 2.150 dia. hole)
18. Lyc. Ex. Flange Gaskets (copper) P/N 65321
19. Lyc. oil filler tube & dip stick 12 1/2 in.
20. Main gear axle nuts, (suitable for attaching wheel fairings)
21. Red Flex ducting 1 in. x 36 in. Hi-temp.

Make reasonable offer plus shipping To: George F. Truver, 727 Blackthorne Ave. El Cajon, CA. 92020 (619) 463-8744

"THORP METAL COWL"

Built in John Thorp's shop, SN 32 with Cam Locks installed, and never on an aircraft also a set of metal Horiz Tail Tips. Will exchange for 1st run out 0-320 engine (dynafocal mount) with all accessories, no damage history, log books required. Call Lee Skillman (205) 633-3535 evenings or write 7676 Windcrest Dr. Mobile Al 36695

For Sale: Wooden Prop W66LM 78 Call R. Snelson (217) 935-4215



The T-18's of Phoenix

With phone calls to the two T-18 Mutual Aid Society members in the Phoenix, Arizona area, an early morning meeting was arranged at the Deer Valley Airport north of Phoenix. Edwin Poe was there first and had his beautiful white with blue trim N808P (our cover photo) waiting on the ramp. For a few details about his bird, Ed built it during the 1975 to 1986 time frame, it has an empty weight of 943 lbs, it's powered by a 0320-D2A 160HP Lyc. that Ed purchased new from Wag Aero for \$7500 back a few years ago. I'll bet it would bring that to day or more! "How's that for a good investment". The smooth running Lyc is driving a 68 X 66 Pacesetter Prop that Ed says may be a little underpitched for the engine. Performance at 8,000 to 10,000 feet is around 165MPH. The airframe is a narrow body with standard wing using the Sunderland airfoil. It has the tunnel bent at 45 degrees and by using Temperfoam seat cushions (purchased from T-18er Harlo McKinty) provides a very comfortable fit even for a big guy like me. The planes cockpit area is covered with cloth backed aluminum tape and the 1/4 foam backed aluminum tape sold by Phil Tucker. The workmanship on his airplane is

excellent, Ed painted it using Imron and did a beautiful job. He did warn about using Imron, he said a clean air source is necessary, since he got sick using a charcoal filter type and decided upon some professional help to finish it. I know there are two schools of thought on using body pudgy to finish the hip skin areas and to smooth in rivet dimples, Ed doesn't believe in it and his workmanship produced a fine looking job without the stuff and all the extra weight it adds.

Ed is a retired Honeywell Electrical Engineer and has designed and built a digital fuel flow indicator that I like and plan to add to my T-18 later. A simple fuel flow transducer is added to the fuel line and as the fuel passed through, it produces electrical pulses, by calibrating a digital counter you have a very fine simple display that reads the fuel used. The gas gauge become a back up and we can stop fussing that the darn thing never worked right anyway. Ed is going to clean up his schematic for the unit and send it to me with a description for a later newsletter. Ed's electronic consists of a Nav/Com, a Com, transponder mode C, Loran and a new panel mount intercom with a squelch for pilot and passenger.

Ed has flown his T-18 over 300 hours and is a very competent experienced pilot. On a trip last year he flew it to 34 different states in a 10 day period, 3 of which were down time due to weather. This makes a total of "48" states for Ed and N808P during it's flight-time. Goes to prove what we've known a long time "The T-18 is one fine cross country Airplane".

Ed has produced a fine Users manual for his T-18 and upon my request gave me a copy to use in planning my own. He has prepared it for the next fellow that might own N808P, and from talking to several new owners of T-18s without any documentation of any kind it will be most valuable to the next guy. The

manual covers Aircraft Description, Construction Details, Maintenance, and Drawings.

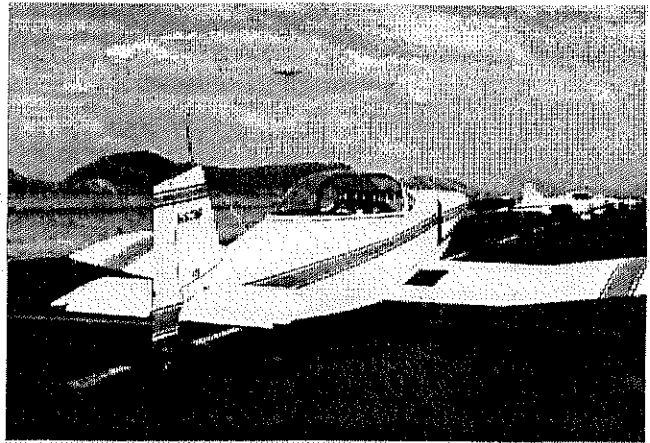
Thanks Ed for the vist and flight in N808P over the North Pheonix area. I have Ed's diary of his trip to 32 states and found it fun to read so I'll try and put it in a later newsletter. (Ed please send ASCII file on disk.)

Soon after we (wife RoxAnne and Courtney our daughter) arrived at the Deer Valley Airport another T-18 builder arrived and spent the morning with us. This was Bob Praker of Scottsdale, AZ. Bob really had my curiosity up with his letter telling about his \$63,000 investment in his T-18 project. After 9 years of building Bob got out all his cancelled checks and actually added up everthing he'd spent on the project. Including many, many tools and about the best of everything he could get. This came to \$63,000 and continues to grow. You've got to give this guy credit he's honest! I'm not about to add up what I've spent over the last 2 years on my project! My wife would go out and buy two more Arabian horses on her MasterCard, if I did that!

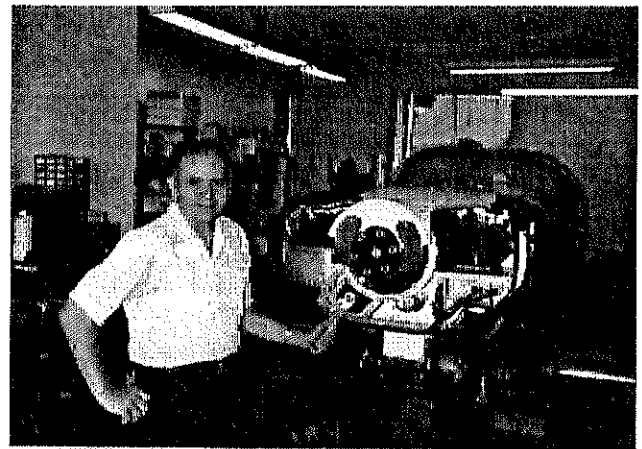
Bob has his 180HP engine installed and is close to completing the engine compartment details. He has a SS exhaust system with mufflers, purchased from Aircraft Spruce. His panel is done and looks great, painted a nice beige color. Each instrument has it's own postlight. The airframe is a widebody, with folding wings.

Again being an honest fellow, Bob admits he needs help to finish the bird and get it into the air. So if anyone knows of someone that could give Bob some support please give him a call. He said several people including Ed Poe have been doing that. Bob's phone number is (602) 951-0247

Our thanks to Ed, Bob, and Bob's wife



Ed Poe's N808P



Bob Praker "The only honest T-18 builder in the world" Just Kidding Bob!



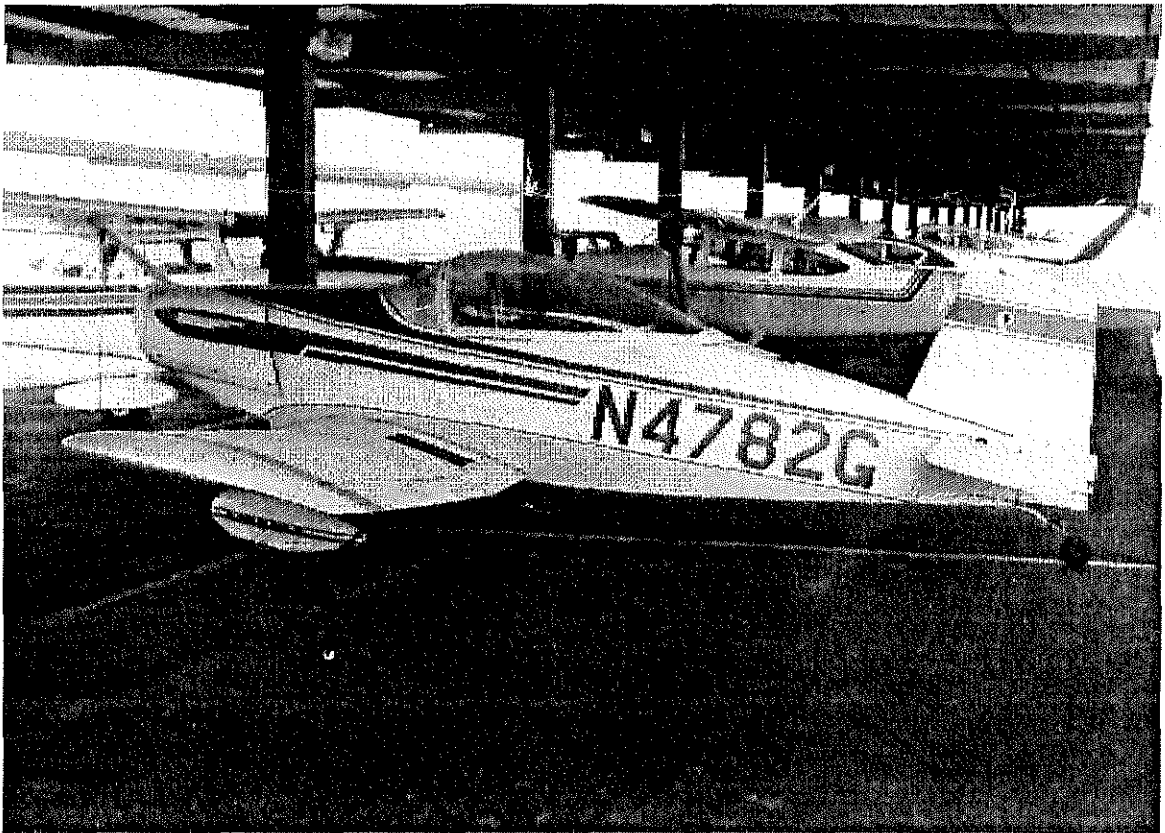
Bob's wife Audrey and Courtney

Audrey. My wife had heard me speak constantly of the fellowship and great folks of the T-18'ers and has always enjoyed your company & phone calls - but she was amazed at Audrey - she spent the whole next morning taking them on a great tour of the Phoenix area. Thanks so much!

One final note on the Phoenix area, Ed said there are several other T-18s in the region but I didn't get any names. Sitting off quietly in the corner of Deer Valley Airport is one of the best known T-18s. N4782G built by Lou Sunderland. Ed said it belongs to his son, and although its not for sale, its never flown.

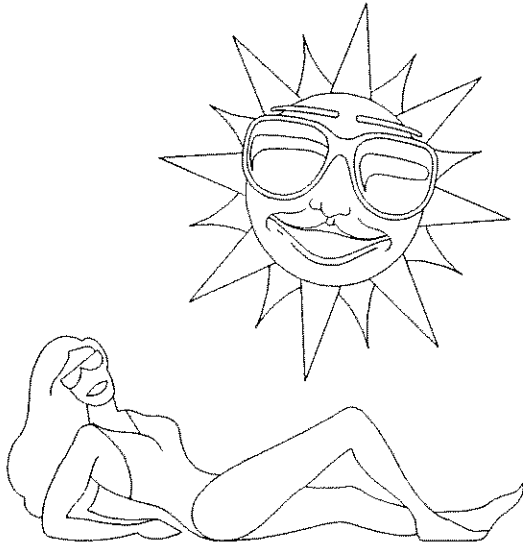


This young fellows lives in the Phoenix area in a park called Out of Africa. This was part of the tour that Audrey took us on. You actually get to pet this little fellow!



Lou's Sunderland's Folding Wing T-18 at The Deer Valley Airport.





Patter from Pat **by Pat Eby**

Sun'n Fun 1991

Dave and I had a great T-18 trip to Sun'n Fun in spite of going around weather both ways.

Sunday, April 7 I talked to the Tindells from Pansy AL near Dothan. They were at Kentucky Dam fall of '89. He is building a T-18, also Les Conwell of Lutz, FL. Les told me, Marge is going to Ground School for her Private Pilot license, and he is sitting in on the classes.

John Warner of FL and CT is building, and Dave Goff from St. Augustine, also Jim Perrine who lives near Little Rock. All were there with questions.

John said Jim French was at Sun'n Fun

briefly Saturday. Sure enough, he showed up again Sunday with Maizie and Karl Lipscombe's T-18. Jim moved near Lakeland the week before.

Bob Highley's plane was parked next to us. He appeared later and told us about just getting back from Saudi Arabia - ask him about that assignment!

A lady with a biplane hat walked by and I had to get a picture of her and her husband. They are the Lovelys from St. Petersburg, live on Paradise Street, Treasure Island. Likely story, but then we tell people Dave is from Paradise, PA and nobody believes us either.

I saw Wendell Green's T-18, and Ralph Powell's. At lunch a man had T-18 N1101 on his cap, said he drove from Michigan. Someone said the Culhanes had their T-18 in the camping area.

Dave wasn't in the Air Race this year, but coached our friend Claudio Tonnini with his RV-4, only fair after beating him last year. Claudio improved his airspeed 16 mph. Bill Shepherd raced his T-18 with single place, retractable gear. He clocked 222 mph, had a 150 hp engine.

The forum was busy with much interest shown by many. Lee Skillman, Bill Williams and



Les Conwell, Sven Pira, & Bob Highley

John Starr led the discussions. One of the items brought up was that Phil Tucker can photocopy drawings needed and he has T-18 parts available.

Sven Pira was there from Sweden.

One gentleman is a master welder, started flying in 1935. He said the T-18 is the most fun flying he's ever done. I didn't get his name, will have to go back.....

We counted 7 T-18s at Sun 'n Fun. Four of those pilots were at the forum.

My Kentucky Dam fall of '90 photos were good, but I couldn't identify the planes. This time I got the tail numbers for sure, but see that I don't have a name to go with N76KC.

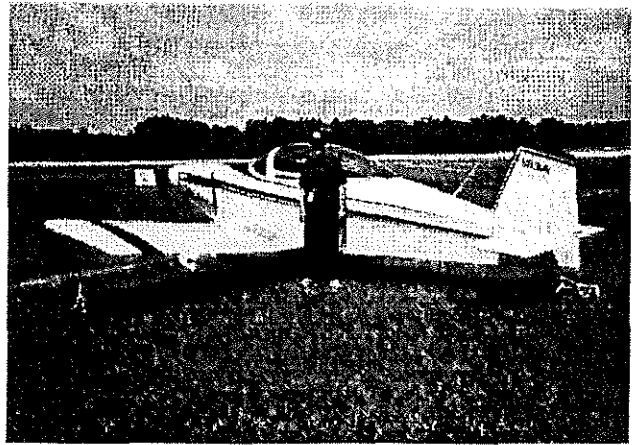
John Kowalski, Rt. 3 Vinton IA 52349, is building, wants newsletters and notices of T-18 gatherings.

Lee Skillman said there were 356 T-18s seven years ago, would estimate 450 to 500 now.

This was the Sun part. The Fun part for me was playing the piano at the Sheraton three evenings. Join us next year. We're looking for musicians. We know the Holts have a Casio, and Dick Cavin has an accordion.

Pat Eby

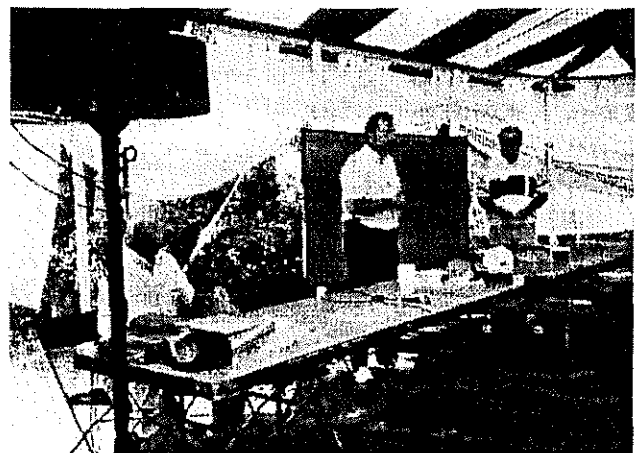
Editors Note: Thanks for the good work Pat. Please keep up the good work, and I'll make it a regular feature of the newsletter.



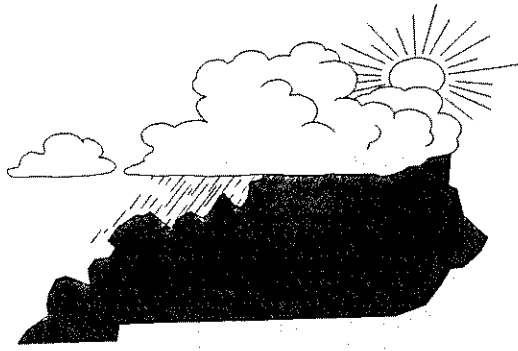
Jim French at Sun'n Fun '91



T-18 Admirers at Sun'n Fun



T-18 Forum, left to right, John Starr, Bill Williams and Lee Skillman



KENTUCKY DAM SPRING '91

I think the best way to describe how bad the weather was for our Kentucky Dam Get-Together is by telling about Jim and Judy Paine's "drive" from Dayton, Ohio. Judy described the first fifty miles out of Dayton as pure hell! Jim was in a terrible mood griping about why he wasn't flying, since the weather there wasn't too bad, just overcast and no rain. As they proceeded the weather got progressively worse and Jim's mood got progressively better. By the time they got to Kentucky Dam and Jim saw the low overcast and rain Jim was in one heck of a good mood and ready for a fine dinner at "Patty's".

It was too bad the weather went sour on us as my indications were that we could have had a record crowd. In stead only four T-18s arrived, with those brave souls facing some low flying and dodging of thunderstorms to get there. Having driven from Illinois to Ky Dam on Friday, I was in one of those Jim Paine mood's also because by this time I was certain that I would spend the weekend with out seeing a T-18. However my luck would get better. First to arrive was Tommy Thompson, all the way from Las Vegas, Nevada. A long trip for a weekend fly-in. However Tommy has a son in Missouri and made double use of the trip by spending the night in Joplin. (For a description of Tommy's IFR trip back home see the article "IFR in T-18") Next to arrive was another long distance

travler, Jim French in his newly purchased N83MK. Jim has moved from Texas to Florida and made the trip from Ft. Meyers. Cliff Redden called the lodge from about 90 miles away saying he wasn't sure that he would be able to get in but he would try later in the day. Well he finally made it and I was sure glad to see him slip in under the low ceiling. Cliff got out and kissed the ground. Must have been a tough flight Cliff? We had one other plane that made a short stop in. This was Steve Hawley and his wife from Tuson, Az. He didn't stay long just pointed the bird west and headed home after a couple of hours.

The rest of us spent Saturday going over the three remaining airplanes looking for building ideas and learning where to place this or that on the firewall etc. For the afternoon, the sun came out and Oh! Boy! the fun started with Gentlemen Start Your Engines. I don't know how many rides were given, but no one missed getting one this time. Tommy, Jim and Jim Paine who got to fly Jim French's bird spent the afternoon taking the whole bunch up. Thank's guys. This really means a lot to a builder. It shows that the whole thing can really come together and sometimes provides just the right inspiration to keep us going on the project for yet another Year!.

Following the tradition of previous T-18 meeting, Sat night was the banquet meeting. After dinner a short business meeting was held. Jim Paine anounced that there would be a T-18 Dayton Award winner for 1991. As decided at previous Ky Dam meeting this award would go to Ed Ludke of Sioux Falls, SD. We were all sorry that Ed and his wife weren't there. Hope they can make the Dayton Fly-In. After a discussion of other possible meeting locations with no good suggestions Ky Dam was chosen for another try in the Fall 91. It really is a nice place, and if the weather will give us a break we should have a good turn out.

Kentucky Dam Attendees

Dwight & Janice Scaggs
3182 Westboro Rd
Blanchester, Ohio 45107

Clif & Anita Redden
8774 Airport Rd
Georgetown, Ohio 45121

Jim & Shirley Shilling
317 N. Hillsdale
Homer, MI 49245

Paul & Helen Shifflett
Rt 2 Box 44
Earlham, IA 50072

Bill Williams
8304 River Oaks Ct.
Tampa, FL

Harold "Tommy" Thompson
3123 Valleywood Rd
Henderson, NV 89014

Max E. Booth
P.O. Box 580
Daleville, AL 36322

Jim & Jean Strickenberger
4344 Gem Ct.
Erie, PA

Jim & Judy Paine
4340 Wagner Rd
Dayton, OH 45440

Roy, Karen & Chris Farris
Box 182
Nobie, IL 62868

J.W. French
2022 Hendry St
Ft. Meyers, FA 33901

Ron & Jane Hayes
3050 N.W. RD Mize RD
Blue Springs, MO 64015

Steve Hawley
7300 N. San Anna Dr.
Tuson, AZ 85704

Kim Nack
2940 Devonshire Dr.
Florissant, MO 63033

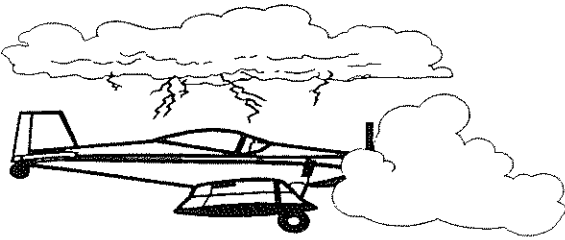
Richard & RoxAnne Snelson
Route 3, Box 295
Clinton, IL 61727



The Hawleys of Tuson, Arizona



Tommy Thompson from Henderson, NV



IFR in a T-18

I would like to submit an analysis of my sojourn to Kentucky Dam for the benefit of those who would like to have some idea what to expect in the way of performance, fuel burns etc. This is of course information for my particular Thorp, eng, prop combination but should be close to others. Also the accuracy is strictly based on my own computations and aided by the Flitestar flight planning computer program on the IBM Clone.

By adding up all the fuel receipts, I burned up a total of 172.7 gals, flew 2952.5 miles with a hobbs time of 24.1 hrs. I figure an average fuel burn of 7.2 GPH with power settings ranging from 45% to 70% for the various legs and altitudes that I flew.

To start, the leg from my home airport 3L2 Sandy Valley Nv. 29 air miles SW of Las Vegas to LVS Las Vegas NM was flown at 15500 using oxygen and a 45% power setting, 14.4 inches 2450 RPM burning 5.9 GPH. Next enroute to JPN Joplin Mo. again at 15500 same power settings, I had to divert to DDC Dodge City KS from over Ponca City OK. Due to the starter drive problem and weather. I would highly recommend Dodge City as a fuel stop or overnight. A courtesy car is available at no charge and the service and personnel are superb. Next morning on to JLN at 11500 64% 18.4/2400 with a fuel burn of 7.5GPH. After overnight on to Kentucky Dam at 11500 same power settings. I finally arrived in the middle of a rain shower,

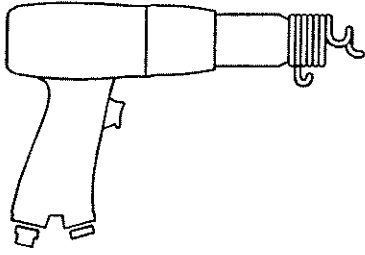
lots of rain, low ceiling and several 180 turns to stay VFR. I haven't seen weather like that in years as Las Vegas just doesn't have it. It is not uncommon to be able to see 200 miles in any direction most of the year.

On departure from Kentucky Dam on Sunday, Paducah was reporting a 7500 ft ceiling and 3 miles. I shot up through a hole on departure and found the tops of the lower deck to be 2300 MS. . On the way to the CNG VOR, I could see that weather was again going to be a problem so I wised up and landed at Paducah, bought some IFR charts and approach plates, filed IFR and departed for PWA, Wiley Post in Oklahoma City to spend the night with a friend. Enroute I had 25 Kts on the nose so I had to land and refuel at Hatbox in Muskogee OK. That leg was flown at 10000 IFR, 19.4/2400 70% AND 8.4 GPH. Final leg that day was flown to PWA at 6500 23.4/2100 72% 9.0 GPH.

The next morning was IFR so I filed to Double Eagle in Albuquerque at 10000, 19.4/2400 70% 8.4 GPH. From Double Eagle home I really got beat up from the Thermal turbulence and the unstable air on the back side of the frontal system I passed around Amarillo TX. This leg was at 10500 19.4/2400 70% and 8.2 GPH. Made it home OK but with bugs all over the airplane. It seems the Monarch Butterfly also likes to fly at 10500. Big Yellow globs of mess covering the whole front of the airplane. It sure doesn't match the paint job.

Thanks for putting on a good show, and affording me a chance to meet some very fine folks who I certainly hope to see again. Keep up the good work and continue to foster the Tiger movement. Every group of type owners should have the enthusiasm that I saw at Kentucky Dam. Harold F. Thompson (Tommy) 3123 Valleywood Rd. Henderson NV., 89014

Builders Corner



A little progress on # 1158 and a report on a snag which just might help someone else. Note that 1158 is the basic, solid wing version.

I built up the center section main beam, then remembered an article in NL 49 which recommended addition of web stiffeners. So I found the newsletter - fabricated the stiffeners per the drawings - and then the problem emerged.

The problem, and the fix, is outlined below.

*. The problems were three-fold:

1) With the stiffener dimensions given, a rivet could not be set 2* diameter from the edge:

2) The stiffener encroached upon adjacent rivet heads (AN 470 type):
and

3), my universal rivet set has a shank diameter of 0.50" which forced rivet centers to be at least 0.25" from the inside of the angle - preferably a bit more, such that the set would not dig into the angle inside radius.

* The fix was as follows:

1. Rebuild the stiffeners, per the attached sketch. Draw a line, centered between the edge and the

inside radius of the angle stock, for rivet centers.

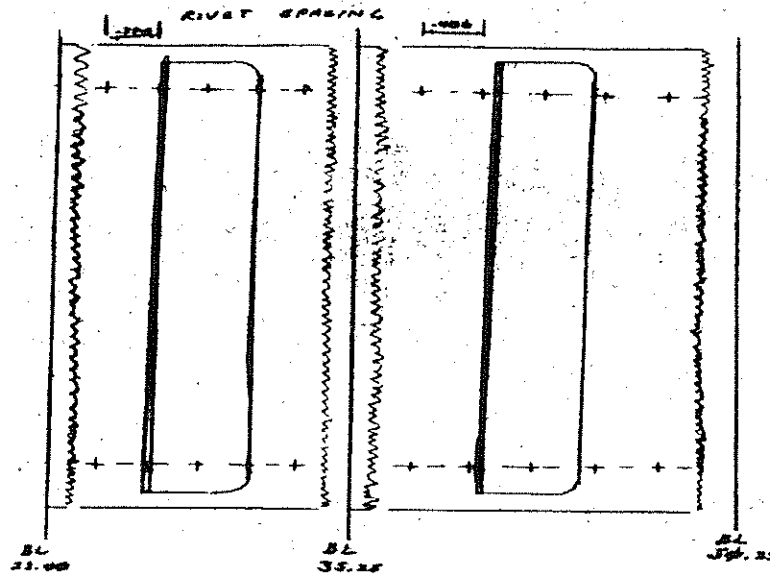
2. Drill out five rivets, centered about the stiffener location. Replace those rivets immediately adjacent to the center with AN-426 rivets. Then, replace those outer rivets drilled out with AN-470s. The reason for doing this is that, unless that additional space is allowed, the flush head rivet set will deform the adjacent rivet factory heads.

3. Now, the stiffener has a flush surface to set on. Rivet it in place using AN-470 rivets.

Of course, this could all be avoided were one to plan ahead, which I failed to do. The fix is applicable were one to perform a retrofit.

This fix was recommended by Ray Vogle, Technical Counselor, Chapter 58 EAA, Ogden UT and typifies the help a builder can get from those guys.

Sincerely, Floyd Myers 5170 Sunset Dr.
Ogden, UT 84403



Layout for stiffener spacing dimensions

The Ins and Outs of Insulation Installation

After an absence of nearly a year, I recently re-acquired Apprentice status, working under a Master T-18 builder. As one of my first jobs I was given the task of installing heat and sound insulation in the cockpit. What appeared to be a fairly simple job provided initial results that were less than satisfactory. After working out some of the problems, results have improved considerably.

In order to help other readers avoid some of these same problems and to avoid the waste of some rather high priced insulation, I am offering a few tips.

The product consists of one layer each of aluminum foil, foam and an adhesive backing. The adhesive is covered with a coated paper which is removed prior to installation.

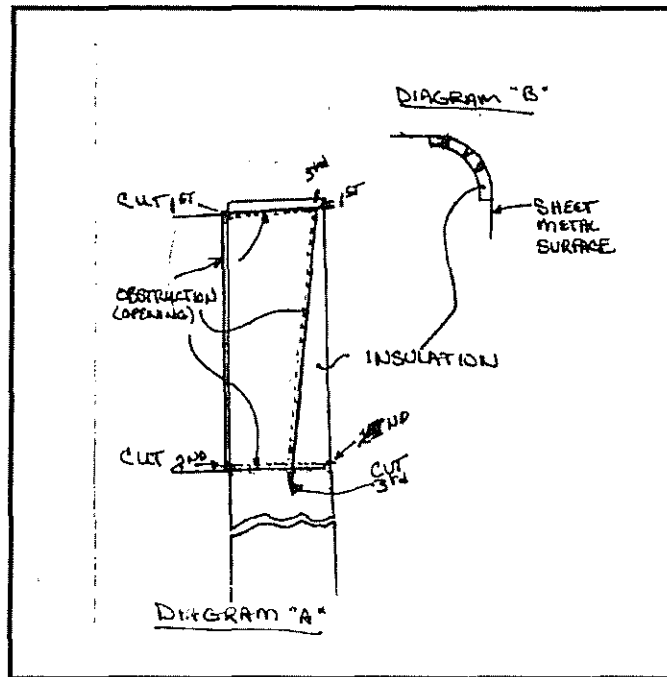
Covering some rather complex shapes, curves and angles has provided the greatest challenge. I have found that having the right tools has helped. I used a single edged razor blade to both cut and mark the bulk insulation. Cutting is done in three steps. First, cut through the metal layer, guiding the blade with a metal straight edge. Second, bend the foam back and cut this layer freehand. Third, maintaining the bend, cut the paper backing from behind.

I have found that the razor blade also works well for marking. I simply hold the insulation over the area to be covered and slit the foil surface at the ends of the cuts. The marking sequence is interrupted by cutting when the end points are hidden. See diagram "A".

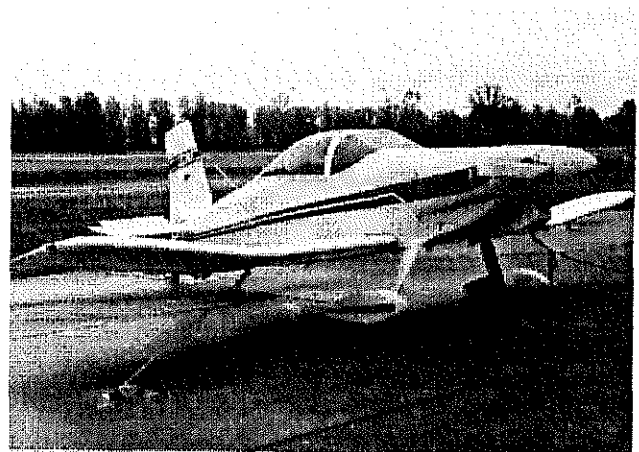
Perhaps the most difficult installation was on the inside of a 90 degree curve with a 3" radius. See diagram "B". This was above the gas tank area. There, I used a technique commonly used to bend plywood. It involved cutting parallel lines, approximately 1" apart, through the paper and the foam, stopping short of the foil. This allows the insulation to conform

to the inside of the curve without wrinkling the foil or placing undue pressure on the adhesive. I had previously cut the piece to the approximate dimensions of the opening, added the slits and then re-cut to size using the technique described above. The end product is as neat and gap-free as on any flat surface.

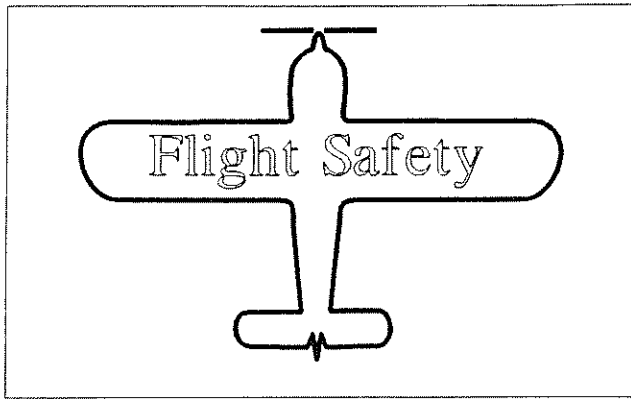
I am always amazed at how much pride one can derive from doing even simple tasks well.



Paul Rendel's T-18 from Pittsburg, Pa



Cliff Redden's T-18 at Kentucky Dam 91



In reference to Gary Green's letter (NL 78) regarding the free play (slop) at the main spar fittings on the convertible wing. Gary maybe not intentionally-made this sound as if it was a new discovery and a reinvention of the "horror story."

I strongly believe that all of us who build homebuilt aircraft or purchase an airplane (spam-can or homebuilt) owe it to ourselves to obtain every bit of literature that has been published in reference to that particular aircraft. (Plans-Building Instructions-Newsletters-Owners Manuals-Log Books, etc.) These should be read and understood before the engine is ever turned over for the first time let alone flown.

"Stop the Sermon--Get to the Point."

In the early days when John was still selling plans, you could buy the T-18C drawings from Lu Sunderland but to actually build the wing you had to have a set of T-18 drawings from John to build the T-18C wing. Along with the T-18C plans Lu provided to the purchaser a manual "Building the T-18C Wing" and a "Wing Inspection and Maintenance Manual for T-18C."

To save space I will only "quote" the pertinent parts of the maintenance and inspection manual.

PREFLIGHT INSPECTION

If the wing has not been folded since last flight...

(5) Lift on each wing tip to check for excessive free play at all joints.

If wing has been folded since last flight...

(7) Lift on each wing tip to check for excessive free play at all joints.

100 Hour Inspection (or annual-writer's addition)

(3) With outer wing panels installed, check for free play at main spar pins. If the free play in the main spar joint exceeds .100" as measured at the wing tip, new 231 pins should be made.

It is obvious that Lu and John would have had anticipated that wear at the main wing joint would be normal. They not only provided for the inspection procedure but also the fix. It is apparent that we can take Ken Knowles off the hook for having made fittings with "a poor fit." Had the previous owner(s) or had Marty at time of purchase, made this inspection nothing would have come as a surprise to anyone and the fix would have been accomplished before it became such a major concern. There is no need to add this to your annual inspection--it's always been there.

Lee Skillman
7676 Windcrest Dr.
Mobile, AL 36695

LESSONS LEARNED

"the hard way"

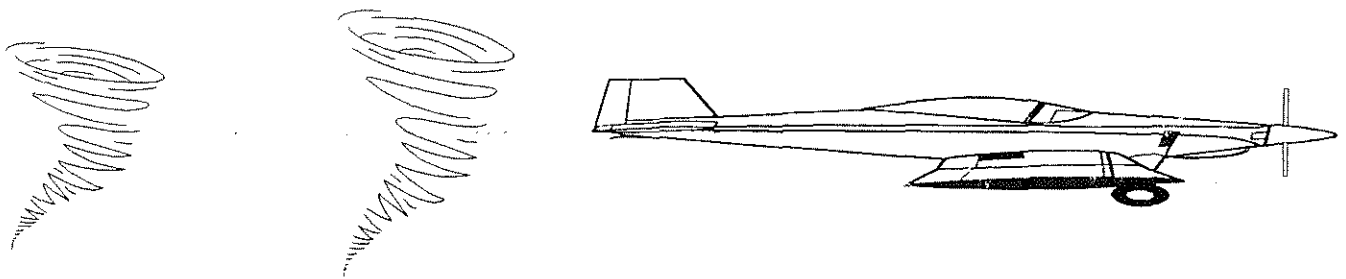
T-18 Experiences "Horizontal Tail Flutter"

Since I've (Newsletter Editor) been involved in the last few days with several phone calls about the above Tail Flutter incident, I thought it important enough to go ahead and write this up now, and get this situation known to the membership. I do so, without using names, even though two of the people involved didn't mind their names being used.

Here's what I know from the above calls: A new T-18 owner was at cruise 2400 rpm and indication around 165 mph, level flight around 1000 ft. agl. Without any power reduction, a dive was made to 100 ft agl. At that point the pilot said the airspeed indicator read 175 mph., along with that came a heavy vibration of the control stick. The pilot cut power and pulled the plane up, slowing down and stopping the flutter. The tail vibrations were confirmed from the ground, by another T-18 pilot. Later inspection of the tail found loose rivets in the inboard rear ribs of the horizontal tail, and both servo tabs were badly bent.

More facts: Pilot was a retired airline Captain, and had just purchased the T-18 from it's second owner. He had no drawing, newsletters or owners information manual on the airplane. The plane is very well built and a former award winner.

Here's the Question T-18 Pilots: *How fast do you think the T-18 was really going?*



The pilot stated that early indications are that the 2nd owner modified the airspeed system some time last year and there is some problem in it. No calibration of the system or check of the static system was done after the changes.

There are several "Lessons Learned the Hard Way" in this situation. All of us need to stop and think about them. I would like some response from you for the next Letters to the Editor Column. I'm not the world's expert on this airplane but I think it was going "real fast", what do you think? What would help to avoid this situation in the future? Better documentation, inspections? What do you think?

TX

Bulk Rate
U.S. Postage
Paid
Permit No. 137
Decatur, Ill.

T-18 NEWSLETTER
ROUTE 3, BOX 295
CLINTON, IL 61727
1-217-935-4215

OSHKOSH EVENTS

FRIDAY NIGHT July 26

Banquet at Butch's Anchor Inn

Call (217) 935-4215 now for

reservations

T-18 Forum is Monday July 29

Tent #6 at 11:30 AM

T-18's park in rows 10 & 11

Next Issue: T-18 Newsletter Index

T18 NEWSLETTER
NO. 79 June 91