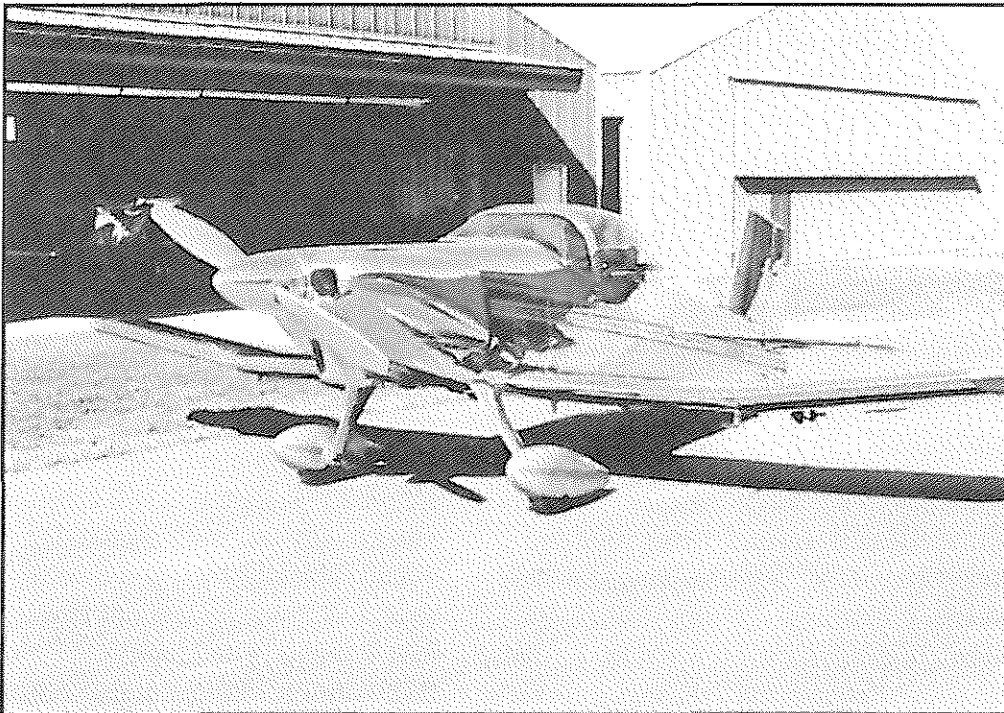


T-18 Newsletter

March 2002



Beautiful Polished T-18 ~ N18CH ~ Built by Carl Hoots

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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.



Editors Notes

By: Roy Farris

Well gang, here it is March of the year 2002. I am going to have to apologize for being a little late in getting this issue out. I have had a terrible time collecting enough information to assemble this particular newsletter. For some reason I cannot seem to get you good folks to send me any information. Heck I have only received a couple of good pictures lately that I can use on the cover. You guys and gals are really making this job difficult, but as always I will do what I can.

I have received a lot of phone calls and emails lately about our wonderful little airplane. It seems that more people are taking notice of the Thorp. I am not sure why, but there has been a couple of magazine articles in the recent past that may have stimulated the interest. I wrote a very nice and informational article for Kitplanes Magazine and sent it to them. Unfortunately, they did not consider it worth printing in their magazine. To bad, it was a nice write-up about the T/S-18. I guess it's really no big deal ... we know that we have the best airplane, don't we !!



Membership Dues

This is a repeated and never ending subject. I want to thank all of you who have sent your dues and those of you that constantly keep your membership up to date. I really appreciate your attention to the matter. Our membership fell by about fifty members at the beginning of this year. I have pleaded and begged and gave everyone the benefit of the doubt ... but it has to end somewhere. So I have had to cancel

cont.

Membership Dues.cont.

several memberships. This is sad and also a hardship to me. I have, in good faith continued to send out the newsletters, expecting that I would receive the required membership dues. So now the financial loss and burden falls on me. I wonder if these people ever think of it in those terms. If someone doesn't wish to receive the newsletter, a simple written note or an email to me is all that is required. I have even went as far as sending invoices in an attempt to collect, but most of them go unanswered.

I will get off my soapbox now and get on with the rest of this newsletter. But if you have not paid your membership dues for 2002, I would appreciate it if you would get it in the mail. For those of you who still don't know the system, look on the mailing label on the back of this newsletter. If your membership is paid up you will see a "PD" just above your name. However, if instead you see \$25 (\$30 for outside the US) then you still owe for this year. If you see any amount greater that \$25 (\$30 for outside the US) then you owe for more that one year. You owe the amount that is printed. So take a moment and look at the label. If you owe some dues please get that checkbook out and write that check.



T-18 Newsletter On-Line

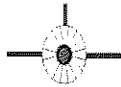
For those of you still unaware of the on-line version of this newsletter, I thought I would take a minute and give you a little information on it. I think that most of you are aware of the T-18 Website. If you have never visited it, go to www.t18.net and take a look. I began making the newsletter available through the website starting with issue #115. Because of space limitations on the website I am only able to post the latest issue, but I do have all

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T-18 Newsletter On-Line.cont.

of the on-line versions available. If you would like a back issue just let me know and I can email it to you.

If your membership is current then you are eligible for the on-line version. There is no additional cost. You do however need a password to access it on the website. There is a newsletter information page on the website. From that page you click on the "Subscribe" button, there is a form for you to fill out. Once you have completed the form, click the "Submit" button. That's all there is to it. I will have you set up within a day so you too can access the on-line newsletter. If you haven't seen what the on-line version looks like, there is a sample on the newsletter information page. Simply click it and you can view the sample. Give it a try, you might like it.

Members Letters

I wanted to give you an update on my aircraft. I have now been flying it for a full year...and have 108 hours on it now. It has a fuel injected 160 hp Lyc 10-320 with a Warnke "almost constant speed" prop. It is 72 in dia. by 74 in pitch. I bought it originally for an O-360 and then had to settle for the O-320. As a result I can only turn about 2100 on climb. However, I can cruise climb at 145 mph at 500 fpm. At 7,500 feet I can only get about 2350-2400 out of the engine, but I average about 190 mph at 7,500 feet. I am considering changing to an aluminum prop and would be happy to sell the Warnke to someone who has an O-360. It is important to point out that I have a custom wing with the Lyle Trusty airfoil. It is optimized for 190 mile cruise. Lyle has an O-360 and cruises a little over 200. And it is a wet wing, leading "D" cell of center section

cont.

Members Letters, cont.

and the plane carries a total of 47 gals. The total wing profile is different. The only part that is the same between the original "standard" wing, is the inner and outer spars. The rear spar is different as are the ailerons and flaps. The wing sits close to 0 degrees incidence. Well, as zero as I could get it. Handling wise, can only relate to my experiences with it. It is extremely stable. Gives a good stall indication and drops straight ahead. Tony Ginn was my test pilot and he said it just handled outstanding. I wanted to soften up the stall and carry extra fuel and I wanted to make all the templates, form blocks etc. to build the wing, so it was a fun exercise.

I have only made one trip so far where I needed to use the wing fuel, and that was from Tucson to Paso Robles in the afternoon and early evening. After landing I measured my remaining fuel and had almost enough for another 2 hours to tanks dry. It is 612 miles from Tucson to Paso Robles. So it would seem that my no wind range with full tanks would be about 800 miles with reserves. While I do not have a fuel flow meter, I did a flight test where I ran each wing dry with exactly 9 gals. per wing and my usage worked out to 7.2 gph. I then drained the wings to see what my unusable was and it was less than a pint per wing. I have the Lyle Trusty roll trim tab in my left aileron. That is really an excellent addition to the plane and makes it extremely easy to balance out lateral trim. With two equally weighted people in the plane, the little tab (which is within the left aileron) is in trail position..so I deduce that the wing is pretty well true. While John's original left flap down for trim is certainly workable, it does add more drag than the little anti-servo tap within the aileron, and drag..well is a drag. I have an Andair Fuel Selector valve..(see Chief Catalogue) and I recommend this as an excellent fuel valve. It is on the center tunnel..easily reached by your right hand...I debated the whole idea of moving rudder cables outboard and eliminating center tunnel, but in my case I decided that I needed the tunnel on which to mount my Fuel selector

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Members Letters, cont.

valve. I have an Earls stainless flex line from tank to valve..and then a feed line from valve to firewall and thru to boost pump and then to Andair Gasalator..which has the benefit of a very fine screen in it...which is easily serviceable. The feed is then from Center Tank, Right wing or Left wing..with down as OFF. I do not have any fuel senders in the wings. John use to say that if you can leave something out of a system, then it can never fail! So I decided that I would manage the fuel in the wings by time. I was going to fly left wing 15 min, then right 15 min, etc...but Lyle said to try it left only till dry and then right only and see if the trim would handle the lateral loading imbalance. And that proved to be the case on the test flight and the subsequent flight from Tucson.

Problems encountered in the testing period.

1. Landing. I had a devil of a time at first. Every landing seemed an excursion. Guess what? If the tail wheel is not straight up and down but canted off say 8 degrees..you will be amazed what correcting it to a more vertical position will have on the handling. Now, I have not idea how come my tail wheel was like that. The Spring itself appeared not to be to blame. I think the Maule casting was just machined wrong. I corrected it with a shim and it then worked fine.

2. Fuel Injection system...I added a factory certified but overhauled Bendix unit off a 90 degree elbow facing rearwards. I built a filter box and induction system using parts mainly form an auto junk yard. I mean, if the car had fuel injection on it, why wouldn't the induction unit work on a mechanical fuel injection unit for an airplane motor. Right? Wrong! The mechanical injection system relies on air flow over little tubes to activate the low RPM circuit. Not enough airflow and the engine idles like it has a real hot cam..you know it lopes along..going up and down in RPM. At first, I thought this up and down idle variation was being caused by

cont.

Members Letters,cont.

a bad magneto. So, got a new Slick Mag. No. Problem is still there. Ok..dirt in injectors...better clean them. No change. OK...something really wrong with Fuel Injection servo. Pull it off. Start checking part numbers...(don't take it on faith that a particular part is for a specific task with out verifying it yourself!). Found out my servo is NOT for an 0-320. Send it to overhaul shop Number 1. They want \$1,500 to fix it! Get it back. Talk to guy I bought it from . Talk to guy he sourced it from. Talk to overhaul shop in Texas. They agree to look at it..and bid. Seems fare. Send it to Texas. "Only" \$750 to have it rebuilt and flowed for 0-320. Guy I bought it from pays half..so it wasn't the end of the world and I learned an important lesson.

OK..put it back on the plane..and the change is dramatic...engine starts..and runs so much better. However, at idle it still will not hold a constant rpm. Now, at this point, I was wondering, is there a vacuum leak? no. Is there a sticking valve...is there a flat spot on the cam. Is the valve timing off...? What is going on. Oh, by the way, the engine is a fresh overhaul by a guy I know who was an FBO and has rebuilt Lyc's for years. So, I decided to start by removing the filter in the induction system. AND this is where CFM became an important thing to know about. Seems the filter I had only flowed about 180 CFM but the LYC at full power needed more and at idle due to the impact tubes not getting enough air to activate the low idle circuit, it just didn't run for beans. I may not exactly have explained it according to the book..BUT, removing that filter made it run like a totally different engine! I took off my fancy induction system which fed air off the right rear baffle and sub'd a high performance filter mounted direct to the 90 degree elbow on the back of the servo. It's CFM is a little over 400. I have not yet constructed a plenum chamber and induction system for it, so it is picking up its air behind the accessory case. My manifold pressure is 29.5 however, so it isn't suffering too much back there. However, I will build up a fiberglass induction

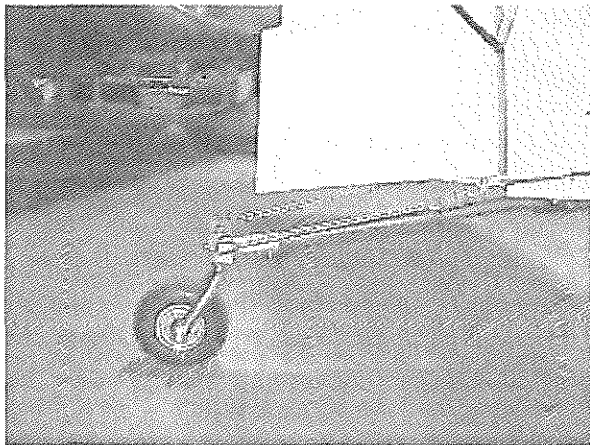
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Members Letters,cont.

system to feed it fresh air with some ram potential.

Mods that I have made recently:

1. Lyle Trusty tail spring with heavy duty tail wheel. I just added that in Jan '02 and the plane is much easier to handle on the ground and is a little easier to land. And according to my hangar mate, Chuck Borden, it looks better too! So, I have a standard leaf spring and Maul tail wheel for sale. It does have a shim in it where it mounts to the spring. 150 \$.
2. Electric Flaps. I am in the process of adding electric flaps. I have purchased a flap motor and jack screw assembly from Van's. It is used in the RV6 and 8. PN is ES 85615-157. I have designed a mounting bracket and bell crank that fit under the baggage compartment floor which will NOT require any micro switches to limit travel. I am adding this to the plane to get rid of the flap lever AND gain some additional space on which I could add a pedestal for my IPAC computer, running the anywhere map software. I also like the idea of being able to select 10 degrees of flap for take off. Originally I was against the idea of electric flaps for weight and complexity reasons, but if my installation works out as planned it will be very simple..and the motor and jack screw from Van's is very light.



Thomas Hunter ~ N18XT

Members Letters,cont.

Today the sun was out in Oregon, the wind was calm so the call of that little airplane was on my mind most of the day. Even though I still had presents to wrap and a few last Christmas things to do I soon found myself on the way to the airport. In the hanger the little plane sat, cold, dusty and in need of some TLC. I looked her over good and besides the tires being a little low she seemed fine and ready (I hoped) to start. There was no mistaking by the slow wrrrr - wrrrr of the propeller that the battery was indeed a little low after sitting for two months without any attention. Anyway the O-360 finally fired and off to the pump I taxied. After fueling we taxied down the long axis of the airport to set up for a runway 4 takeoff, breaks, oil pressure, temps, mags, carb heat, and propeller governor all checked out fine and off we go. Its been awhile since I have flown my little speedster and after flying the slow old helicopters for two months strait its always a good Idea to do at least one pattern and familiarize myself to this aircraft's speed again and especially the landings, I chirped one down flawlessly and felt good about myself again. This time we powered up and set in 25/25 climb power giving me 140 mph and 1800 fpm climb. I leveled off around 4500 heading somewhere towards Mt. Hood. I listened to the traffic coming and going from the Aurora airport and kept on heading towards the mountain. It was at this time that I realized how beautifully clear it was this day. I could see all the peaks of the mountain range for 3-400 miles north and south. From the Sisters to Rainier all shown clearly in their white cloaks of snow, reaching for the skies, striking and beautiful.

It was somewhere in this area that I realized I was not the only pilot enjoying the blue clear skies. I had several starts that made my heart jump as other aircraft suddenly appeared near me. None were really ever a danger to me but made me take notice just the same. One that really got my attention was a beautiful Lancair "something." Now Im pretty proud of my little T-18

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Members Letters,cont.

and with the big 360 its quite fast, but I have to admit while just enjoying the view at 170 mph that sneaky little sleek Lancair snuck up behind me and blasted past me like I was standing still. After the pass and a hard climbing turn he disappeared back into the blue from which he had come. I never heard a word from him and I suspect he just wanted to show off. (Guess I cant really blame him) I flew on toward the mountain some and the snow line, the Forest's looks so nice in their blanket of snow this time of year. I made a large swing down around the Salem area and then back on toward McMinnville. The smooth clear glassy air put had me in the mood to show off a little bit at the airport, hell maybe someone might even see? On extended final for runway 4, I pushed it over and bumped the power up a little, at 10 feet I leveled off and zipped the along the runway near the tarmac area at 205 MPH, it made me smile just a little.

On a day like this it was over all to soon as these days in the Oregon winter are few and far between. Nevertheless I did have these enjoyable moments in our little Thorp and I thought just maybe you might enjoy the story.

James W.
McMinnville Oregon

Some Thoughts

I have 6 years on my Thorp now, and have found a few things I changed for the better. I had an all-stainless-steel cross over exhaust system, which was not made correctly. It was like most you see, with two long primary and two short primary. The exhaust temp was never better than 200 degrees and I had two wet cylinders and two clean ones. I changed to two equal primaries per side (short); similar to the pipes

cont.

Members Letters,cont.

Aircraft Spruce has for Pitts. All cylinders cleaned up and at 2,575 RPM I can get all exhaust temp within 20 degrees. I have an O-290 G low compression MA4 carb. , 1 7/16" vent - .100 main jet, 68-68 Sensenich prop. At Rosamond Airport, at 2,415 ft. elevation, it will turn 2,200 RPM static. When I first got my prop from Santa Monica Propellers, the tips were cut square and the vibration mode came in at 2,625 RPM. I had them change the tip to the round type and retest. Now the vibration mode is 2,810 RPM, and the plane is faster. On a cool day it will turn 2,750 at 5,000 ft. and indicate 175. The best I have ever seen is 197 ground speed at 10,000 ft. Not bad for a low compression generator motor. I degreed the cam and at top dead center on overlap, both valves were open only .030. A Model-T Ford has a better cam than that. I will work on that later. I have been running auto gas (Union 91 Oct.) most of the time. When I first started my test flights, I found the motor would die at 10,000', drop to 9,800', and then it would start up okay. I found I had too much ram air. I cut the carb. air box opening to 2" x 3 3/4" and installed a second tank vent one 1/4" and one 3/16". Both turned into air stream. That fixed the problem and picked up speed. With my engine, the auto and AV gas run the same. AV gas may get a little better mileage, but on miles per dollar, auto gas wins. Also, my spark plugs stay clean and so does my oil.

Oil Cooler-I have 50 years + experience with racecars and motorcycles and 35 years with aircraft engines. Talking about race motors: If you pump much over 100 psi, it will heat the oil and in some cases cut a channel in the Babbit bearings. We have found that if you try to flow too much oil through a cooler, it will also heat the oil. The same is true with a water radiator. It won't heat it but it will not cool as good. All these figures are written in stone somewhere. (Earls and SAE). On my 0290, I put a manifold block in place of the filter screen with 2 ports. I run an A-6 line to a firewall mounted filter,

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Members Letters.cont.

which is a Fram HP1 filter,(I may get disagreement for this), out of the filter to a manifold block that has a bypass port of 11/32, one port to cooler and a return port that joins the bypass back to the in port at back of motor. (I checked oil pressure at 4 places: Filter inlet, Idles at 110psi, cold, and at 110 degrees 100 psi. When flying, it stays at 100 psi. After a flight here, which is desert, and hot in the summer, taxiing in, it will have approximately 60psi. I moved the gage to back oil port on right hand side and the oil pressure would idle at 40 psi hot and fly at 80 psi when oil temp gets to 200 degrees, which is common for here, or pressure will go to 90 psi. I talked to two Lycoming experts and they see 100 psi or more in the test cell. They have a special filter with an inlet port. They tell me that this is normal. The customer never sees that side of the filter. I tried a two quart truck filter and got the same numbers. I checked with some filter people and they all have 30 psi bypass valves. I am bypassing oil all the time except maybe when taxiing in after a hot day flight. Some of the troops that are running too hot in cold climate may need to put a bypass line around the cooler, or if they have a thermal valve, they could try a weaker spring in the bypass valve. It might be worth a try. I don't think that most coolers I see could handle the oil that a Lycoming can pump. John Thorps system for the 0290 would probably be the best. No high pressure lines.

Rudder Wheels—When I built my plane, I bought a used Lang unit. I cleaned it up and put it on the plane. The first year or two, every so often I would take a wild ride. I thought it was me, so I overhauled it. Mag inspection found cracks in the crossbar, the cam worn out, and the aluminum top worn out. I installed a new cam and crossbar and bored out the aluminum top to install a stainless steel cup to hold a longer lock pin and stronger spring. It's a cream puff now (almost). When I push on the wing tip, the rudder tire will skid before unlocking. Good test! I think they should all be that tight.

cont.

Members Letters.cont.

When taxiing the plane to park, I can still pivot on one wheel.

Larry Cresse ~ N4075K
E-mail: roselync@earthlink.net

Cross Country on Mogas

Last winter I took a job overseas (the Mid-east) and, being home alone, my wife made arrangements to visit with our kids in the Baltimore area. The job in the Mideast didn't work out and, five weeks (mid-May) after leaving Los Angeles, I was home again. Being home, I decided that I would accompany my wife to Baltimore, but then I saw my T18 sitting in the hangar. I just felt that I couldn't just let it sit in storage. So, I decided to fly it East and tie it in with Oshkosh's AirVenture on my way home. Along with my decision to fly came a slump in airline traffic and airline price cuts. Now I was feeling guilty. The gas for the T18 was going to cost me more than an airline ticket. I made a decision to mitigate this – mogas was to be my answer. Over the past 10 years, I've had good results with mogas. My Thorp has a 150 hp O-320-A2D (low-compression, 80 octane design), and there is no fuel pump in the system. Gravity does all the work. I used the Airnav web page (www.airnav.com) to check on airports where mogas could be found. My initial concept was to the Baltimore area with an overnight with friends in Durango. The friends were out of town, so I then started to look at Albuquerque as a route and a stop at Belen Airport. One thing led to another and I ended up with a stop for 100LL in AZ. (The only option being via Cal Black Memorial Airport at Halls Crossing on Lake Powell.) With a stop in Holbrook, AZ (100LL at \$2.05), I ended up with my first overnight in the OK panhandle town of Boise City, OK. It isn't much of a place, and the airport's hangars look like they are left

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Members Letters.cont.

over from the Dust Bowl days, but it is the center of an area with wheat, cattle, and natural gas. [Having said that, there is nothing there, and, as a boy from the city, it is a place in which I sure wouldn't want to live.] I was able to continue east with mogas purchases in El Dorado Springs, MO and Muncie, IN (I overnighted with my EC-121 navigator – we flew them in 1960-62 – in Indianapolis). On my way to Baltimore, I got mogas in Punxatawny, PA (remember the ground hog?). With an overnight at State College, PA, with high school friends, I was on to the Baltimore area. I had trouble finding it, but finally located and landed on the 2300' runway at Suburban Airport in Laurel, MD. I then moved it to the former Fort Meade AAF (now Tipton Field, Odenton, MD.) where I filled it by the 5-gal can from the local gas station. [I moved it from Suburban Airport so that I could take a friend flying; the friend is BIG, and was cramped in the T18. I did this kind of thing from Suburban once before and used up 2000' of runway while I sweated obstacles on climbout.] It took a little work, but I was able to find mogas on my way west. Visiting in Philadelphia (PNE), I ended up with hauling gas from the local gas station; on the way to OSH, however, I was, once again, able to get mogas at the pump in Punxatawny. I overnighted in Indiana to visit relatives and avoid incoming weather. I stopped at a grass strip in Butler, IN and found that I made a mistake of not calling the owner. Unless you call ahead, the pumps are locked and no one is there. Out of pure luck, another pilot pulled up and sold me 10 gal of mogas that he had in his trunk. It worked fine. A final stop before AirVenture was a landing that I made at Guntly Memorial Airport (62C). Southwest of Milwaukee, the airport has 2400' of rough grass for a runway. Mogas in the state was not inexpensive, but the purchase was still less than getting it on the field at OSH. Still, this was not a T18 friendly airport. Between the rough field here and the cross-country taxi to the "South 40" at OSH, I ended up with a broken bracket

Members Letters.cont.

on one of my wheel pants. And, when it came to departure, the undulating grass runway seemed to slow my takeoff. I used almost all the grass – bounding into the air off of an upslope something like a ski jump ramp. Homeward from OSH, I planned a stop for fuel at Audubon, IA. Unfortunately, upon arrival, I found the airport absent of anyone from which to get fuel. Several phone calls established that their mgr was in the hospital and no one could help me. Forty mile further west, I landed again – this time at Harlan, IA. I'd stopped in Harlan three years earlier. They are a good facility to use and I would recommend them for a fuel stop. Shortly after noon, I was off to Alliance, NE. At Alliance, I was able to fill up and replace a lost wheel pant bolt at the same time that our Richard Ecklund landed. Richard stayed overnight in Alliance while I wanted to try one more stop before doing an overnight. My target was Bountiful Airport, right next to Salt Lake City International Airport. Weather for the flight was no problem, but it was a long haul. I plan 4 hours endurance and my planning came up with 3.3 hours for this leg. The flight was at 10.5K, but didn't make my 140 kts TAS. Density altitude was one thing, turbulence was another, but another possibility was that I had leaned the mixture a bit too much. I was 3.6 hours takeoff to shutdown, and still had 6 gals remaining. Along the way, Flight Watch was reporting CB's in the Four Corners area, making me feel good about not going that direction. I got home the next afternoon. I had to buy 100LL at a stop in Boulder City and back in Los Angeles, the only mogas source is from the local gas station. By the way, should ever be passing by the Salt Lake City area, Bountiful, UT has the Skypark Airport. It deserves your support. This airport came close to being another housing development/shopping center, but was saved by investments from local pilots. It is just a few miles north of the SLC international airport – the Class B airspace has a notch to let you in.

cont. Jack Kenton

Ken Brock's Accident

By: Lyle Trusty

Tony Ginn told me that one of Ken's old friends went to see the wreckage with Ken's Son, after the funeral, and found that the tailwheel installation was a Maul, (I assume this was a model SFSA tailwheel assembly) and confirmed that it had broken off halfway up the fork (#26) between the axle (#27) and the spring bracket (#7). That's what's commonly used on the T-18, along with a flat 2 leaf spring. (Refer to the parts breakdown of the Maul tailwheel on page 218 of the Spruce Specialty 2000 - 2001 Catalog) I've never heard of a failure like this on a Maul, but haven't researched it either. They say the same type of fork construction is used with the larger 8" pneumatic wheel installation used on Maul, Cessna, etc., taildraggers, but I note they mention that "all working parts are heat treated", when describing the larger wheel installation parts. Also mentioned in the fine print in the parts list is a statement to the effect that "Old Style (pre 1976) has 3/4" Fork Shaft & New Style (Post 1976) has 7/8" Fork Shaft". (This would not seem to me to be a factor in the accident.)

Another thought occurred to me; Ken's neck was broken when the aircraft overturned, and Marie only had a bad bump on her head. I don't know how tight the seat belts and shoulder harnesses were but that could be a factor in this fatality. I have resolved to cinch up tighter because I'm six foot two, a large guy, and I've hit the canopy pretty hard a couple of times in turbulence.

I expect that the NTSB will have a metallurgical analysis done on the failed part to determine the failure mode. They can establish if there was a pre-existing crack, what the heat treatment value was, if it failed due to fatigue or if it was stressed to ultimate load, or due to other causes. If I can obtain this information I will forward it to you, however, it is not usually available until several months after the accident.

Some Thoughts On The Tailwheel

By: Lyle trusty

I meant to get back to you sooner with information on the tailwheel failure experienced by Ken Brock, but things have been a bit hectic for us during the past couple of months. All the discussion about landings, and then this, makes me think it's about time to speak out. With the greatest respect to all who have offered their opinions, I hope my own experience with the T-18 will help to clear up any misconceptions, and not add to them.

Connector springs should be "compression" types (as opposed to "tension") so as to be "fail safe". When a "tension" spring breaks, or as more usually happens, becomes disconnected, you lose tailwheel steering control and the usual result is you end up in a ground loop. It almost happened to me, but fortunately I was landing at Mojave on a super wide runway and managed to salvage the landing with large rudder inputs, and heavy braking. I installed compression springs, with positive attachments after that incident and keep a little tension on them for positive tailwheel steering action, yet have full swiveling for good maneuvering capability, or to get it back into the hanger. Maul claims that having a lighter spring on the left side than you have on the right side will upset the natural frequency of the tailwheel and prevent tailwheel shimmy. They sell an "Anti-Shimmy Connector Spring Set, part number 06-15600 shown on page 219 of their 2000 - 2001 catalog. I gave up on Maul tailwheels a long time ago because the tailwheel bearings are simply mounted in the solid rubber tire and you never know when you're going to roll it right off the axle. A bit too much grease in the zerk fitting is a bad thing. Any sign of the outer race of the wheel bearings rotating within the tire are grounds for removal and replacement of the tire asap. It's been my experience with Scott tailwheels that if I get a tailwheel shimmy it's time for a new steering arm assembly, item 4, part number 1709 on the Scott model 2000 tailwheel illustrated parts list on page 217.

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Some Thoughts On The Tailwheel,cont.

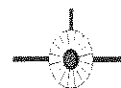
If that doesn't fix it you also need a new fork. It's amazing how much easier it is to land a T-18 if you have a good tight tailwheel steering installation, and wheels that point straight ahead on the main landing gear. Zero toe-in/toe-out is best. One quarter of a degree toe-out, although it increases directional stability somewhat, drags a tire approximately 264 feet sideways each mile of travel, That's about one landing and a taxi back. (Simply put, it's a skid mark 264 feet long) Figure it out - one quarter of a degree is one quarter of an inch in five feet. 5,280 feet divided by five = 1,056, and that times .25" = 264'. On the other hand, a quarter of a degree of toe-in results in a remarkable degradation in directional stability during landing. The reason is that the weight transfer to the outside wheel during a turn, or swerve, puts all of the toe- in effect into decreasing the turn radius. The inherent ground looping tendency of a taildragger is therefore increased by toe in.

The landing gear deflects 3/4" per G and is stiff enough to be considered fixed, aside from transients due to bounces, braking, etc. It will take a tremendous load and immediately return to it's original position, as many of us can attest to. If you have good rubber pads under the fuselage landing gear mounts, good straight up and down and straight forward main gear alignment, and brakes that can hold you during runup you have a winning combination for good landings. At very light weights you can do reasonable power off landings with full flaps, but as soon as you start loading it up with people, luggage and gas the wing loading goes up, the stall speed goes up, and the landing characteristics change significantly. Slow down on short final to get into your landing attitude, then carry enough power to kill your descent rate as you get into ground effect then fly it on in a three point attitude. My original Cleveland 500 x 5 brakes, after about 200 hours, would not hold the airplane during runup. I had a 150 HP engine with a constant speed prop, and it was more than the brakes could hold.

cont.

Some Thoughts On The Tailwheel,cont

I cured the problem by putting on new chrome brake discs. They worked great for awhile but were worn out again in about two hundred hours. I continued fighting braking problems for several hundred hours. After putting on a 180 HP engine, which aggravated the situation even more, I installed a set of Long Eze 500 X 5 heavy duty brakes (ordered from San Val). That was the end of my brake problems, however, they are powerful enough to bring the tail up during hard braking on roll out, or runup. You get used to that quickly and enjoy their safety factor. The pucks last forever, it seems, yet the only difference you can see is thicker brake discs.

Smart Coupler Fix

For those of you who are using the Smart Coupler with the Navaid autopilot, there is now a cure for the tendency of the autopilot to make a turn when transmitting caused by RF interference. I spoke to Jim Ham of Porcine Associates today and he has developed a fix for the problem with the Navaid autopilot. He will replace the insides of the Smart Coupler with an upgraded unit for \$85.00. He can be reached at 800 326 6272.

William Beswick

On The Lighter Side

Keep thy airspeed up, lest the earth come from below and smite thee. - William Kershner

When a prang seems inevitable, endeavour to strike the softest, cheapest object in the vicinity, as slowly and gently as possible.

- advice given to RAF pilots during W.W.II.

T- 18 Hats and Such

I have produced a new set of T-18 hats and have them for sale. The hats go for \$15 each plus a shipping fee. They are good quality hats in a stone color with the logo's in green, blue and burgundy. Please feel free to contact us anytime as we are looking into a full back logo on jackets and maybe T-shirts too.

James and Sherry Wolhaupter
McMinnville, Oregon
Rotortime@aol.com

A Story From Don Taylor

Some years ago, about the time of my record setting flights, I went to a big airshow and fly-in at the USMC base at El Toro, California. EAA Chapter 92 had a booth set up and I was to display my T-18 *Victoria* their. On my final approach to the parallel runways, the tower changed my runway from the right one to the left one. No Sweat !! a quick side step, and a nice landing (for a change). I was firmly planted on the runway and at about forty to forty five m.p.h. I looked up and realized that the net barrier was up. It was to late to execute a go-around and still to fast for hard braking. Luckily, my main gear went over the cable, but the tail wheel hooked it. I stopped in about forty feet. The first T-18 carrier type landing and probably one of the shortest Thorp landings on record. Unfortunately, the tail end of the airplane was torn out.

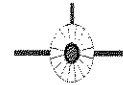
I remember calling the tower everything I could think of, and none of it complementary. I heard no response ! Ken Knowles and I rebuilt the tail on my T-18 in three days. A good man that Ken Knowles.

Don Taylor ~ N455DT

Check Those Sticks

I wanted to share an accident that is circulating amongst the Harmon Rocket guys, that applies to the Thorp community. Apparently, a Harmon Rocket was crashed after the control stick disconnected from it's socket. The fiberlock nut had backed off, and the bolt finally worked its way free. The pilot survived. Make sure you are checking this assembly on your Thorps during your annual/conditional inspections. I have heard of bolts working free, and even the stick cracking at the socket, and breaking. Fortunately, we can reach across the cockpit, if need be. Just to be extra safe, I'm going to install a castlsted nut with cotter pin on my control sticks.

Jimmy Cash

Heavy Ailerons

The ailerons on my ship were so heavy that I seriously worried about the aluminum stick breaking off, I made a longer stick to get more leverage and I inserted a steel sleeve in the base. Still worrying about excessive control linkage pressures I made a set of **aileron spades** for the ship. They really lighten the stick forces and seem to enhance the roll rate in a good way. I started with 7"x7" spades then increased the size to 8"X 8 1/2". I've tested up to redline 210MPH with great results. I like to do limited aerobatics (0 to +4g) and the spades really made a tiger out of the plane. One downside is a little less ground clearance under the wings. The ailerons are still heavier than an RV, but more effective at low speeds than an RV. I think it makes sense to have the spade doing part of the work directly from the outboard end of the aileron and the linkage doing the rest at the other end.

Any comments will be appreciated.

Roger ~ N33TB

cont. pg 12

Heavy Ailerons.cont.

I've heard others comment about the T-18 ailerons becoming heavier as speed increases, and modifications (such as a "folded" trailing edge) improving this for them. Personally, I think that mine are just right for me... maybe they are different than some of the others, I don't know. They certainly do stiffen at higher speeds, but I like that... I feel that the "feedback" helps me to avoid overstressing the structure. Mine are built exactly to the plans and feel light enough for me (have you ever flown a Skybolt? Talk about heavy - especially the elevator!). I think that the roll rate is more than adequate too... incidently, it is greater than an RV-6, although, granted, the forces are not as light. The "spade" thing worries me a little. They certainly should not be necessary! If the force is so great that you were worried about breaking the stick, something else may be going on... deformation causing binding, or excessive friction, or something else? I hope you're not expecting the T-18 to be something it is not. Have you ever flown anyone else's Thorp? It is a wonderful, responsive design and a true joy to fly, but it really shouldn't be compared to acro-ships, designed for that purpose.

Respectfully,
John Evens N71JE

I agree with you, John, the forces should not be that great. I'd check everything you mentioned, and make sure the hinges and pivot points are lubed properly. Also, does this Thorp have only one hinge that runs the length of the aileron? I have heard of some who have deviated from the plans by adding a full length hinge (as a gap seal), only to find out the controls were heavy. The problem is that the wing flexes, which is OK with the two hinges called for in the plans. But, when a full length hinge tries to flex with the wing it has a tendency to bind. At least, that is what I've been told.

Jimmy Cash

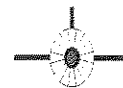
Heavy Ailerons.cont.

Something is wrong with your airplane if you need spades or a longer stick to control the ailerons at redline. My airplane and my friend's S-18 are fully controllable with two fingers up to redline (and beyond). Get out the incidence board and check the rigging. I get 25 degrees up and 10 down at the stops. The differential is important. I must tell you that I tore the skin on my original ailerons in a high deflection maneuver at high speeds. These had the .016 skins as called out in the plans. My present set (.020) have a folded trailing edge and are a bit pillow shaped just due to the curve in the aluminum stock. As for high speed aerobatics, are you familiar with the term "rolling G limits"? If you are not, I suggest you, or anyone else out there doing aerobatics in high performance aircraft, have a frank discussion on the subject with a jet fighter pilot. This is important!

Bob Highley
N711SH, Ser. # 835

I will second the warning about "rolling G limits" We had a T-18 wing with wrinkles in both directions in the skins and major distortions in the spar webs. The pilot was really lucky to come back alive. If you have any further questions about "rolling G limits" contact Paul Kirik at KirikPaulJ@JDCORP.deere.com Paul has moderated the T-18 forums at Oshkosh and is well versed in T-18s as he has built about three.

Cy Galley
Editor, EAA Safety Programs



Folding Wing Play

For the T-18C folks.

I was concerned about the amount of play I was seeing at the wing tip, both vertical and horizontal. During my annual condition inspection my mechanic and I have replaced quick release pins at the main and aft spars with bolts. This replacement has made the wings Very secure and solid to the airframe. The wings are still easily removable, just not as quick as before, a good and welcome trade in my book. If anyone is having problems / concerns similar to mine I would be happy to detail exactly how we made the changes.

James W. ~ N2NE

I, too replaced the pins with bolts for the same reason. I feel far more secure now with the bolts and zero play!

Carl ~ N647C

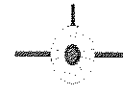
I just unfolded my T 18C's wing and I must admit that it was difficult. I think that my rear spar attachment area has gotten bent. I also ran into problems with the wing skin getting bent and caught as I tried to put things together. What I don't have, however, is any play/looseness in the fittings or at the wingtip. To get everything snug, you need to have your mounting pins snug. I would think that the ones that a builder makes initially (unless worn for some reason) would provide a better fit than using bolts. All that the bolt does is make it more difficult to remove the wing. I don't see where it makes any great impact on how much wing play you have — a nut/bolt isn't going to be able to hold a wing if the pins bolts are not tight in the mounting holes.

Jack Kenton ~ N921JK

Folding Wing Play,cont.

I've been calling my N921JK a T18C with its folding wing and standard everything else. For someone looking to fold the wings frequently, I do think that you should find someone that is successfully doing it and speak with them. I have had a difficult time getting the rear spar "lock pin" into place after an unfolding exercise. It seems to be hard work that I rather not have to do (just to get everything aligned in the unfold process).

Jack Kenton

Radio Interference

Can anyone help? I am picking up RF interference from both mag mags. Both mags are Bendex. It is not alternator interference because if I turn the mags off the interference stops before the engine stops turning. I pick up the interference on both my Narco Com 11A's. I have totally screened the back of the radio racks so it is most probably not due to bad antenna screening. The plug leads are standard and so are the plugs. The engine is a 150 HP Lyc. Any ideas?

Darrell Miller

P-lead wires?

P-leads should be shielded wire, from the ignition switch all the way to mags and grounded properly. If your using regular wire, that may be the source of your interference.

cont. pg 14

Radio Interference,cont.

If you have the capability to switch your alternator off the circuit, do it, while the engine is running. If the interference stops, you need a good filter on the output of the alternator. It would be better if you switch or pull the fuses for the field and the output for the check, but just breaking the field circuit should keep the alternator from generating. I used a large CB radio filter from radio shack about 1973 and it's still doing fine.

Pete Gonzalze ~ N380G

You can buy filters for your mags, Aircraft Spruce p/n 07-03200.

Tom Thompson

Shielded "P" leads didn't solve my problem but "P" lead filters did. Pretty expensive for a simple capacitor.

Hurant Karibian

Antenna's and Cable's

Is it possible to lengthen the antenna wire on my GPS without destroying or decaying the performance?

Ted Strange
tedstrange@home.com>

cont.

Antenna's and Cable's,cont.

On the II Morrow gx55 I have it was just a matter of lengthening the coax. On marine units we cut or lengthen gps cables all the time with no degradation. Just make sure you use high quality coax connectors.

Doug

Here's 2 questions. Except for building a small bracket to mount my GPS antenna so it's level during flight (the king manual says so) has anyone installed one flat on the deck above the baggage area or on the top skin behind the canopy with success? Also has anyone used a Comm antenna inside the wing tip?

Dave Goff (S-18 still building)

Regarding internal antennas, I recently removed the com antenna on top of my T-18 and installed a homemade one using a BNC fitting and located it inside the canopy just aft of the horizontal reinforcing bar when its in its aftmost position. It bends forward to follow the contour of the canopy. It seems to work better than the original antenna. I also mounted the ELT ant. in there too.

Roger

Tip comm antennas may or may not work as comm antennas are vertically polarized and by laying it down in the tip you will attenuate its signal. Also it needs a ground plane to balance out the monopole element. Putting a VOR antenna in one tip only even though its horizontally polarized will cause some reception problems when the station is on the opposite side of the a/c to where the antenna is. It may work on close in stations

cont. pg 15

Antenna's and Cable's.cont.

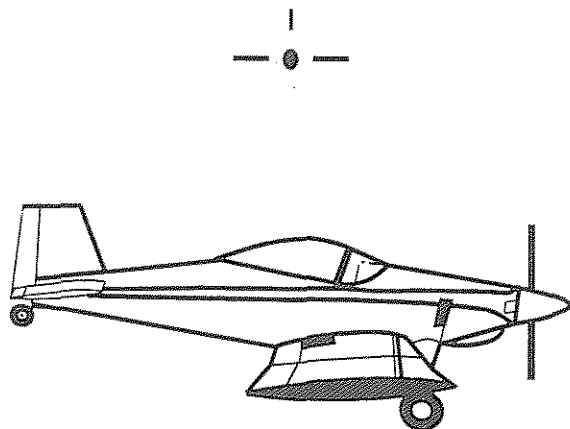
but if the station is a ways away you may not be able to get it. You can test the VOR reception by going say 25 miles away from the station and fly a wings level cicle and see where the warning flag replaces a strong signal in you CDI. Then try it at 50 miles again you will notice a loopsided pattern (called a Smith chart in antenna engineering lingo).

CliffBiggs

I've got the Archer VOR antenna in my right wingtip. My father put the plane together with it and it works fine. We originally had a problem when my father installed the wingtip lights and strobe and ran an electric wire across the antenna. We went for a year trying to figure out the problem. Once I re-routed the wiring so as not to go across the antenna, it has been fine (reception) for the last 10 years.

We have a guy in Chapter 96 (so. Los Angeles) that has sold antennas for VOR wingtip installation for 15 yrs. He started doing antennas for a "raised" fin installation some 8 yrs ago, and now has a wingtip comm antenna that folks say, while not as good as the fin, is as good as any other installation that they've ever had.

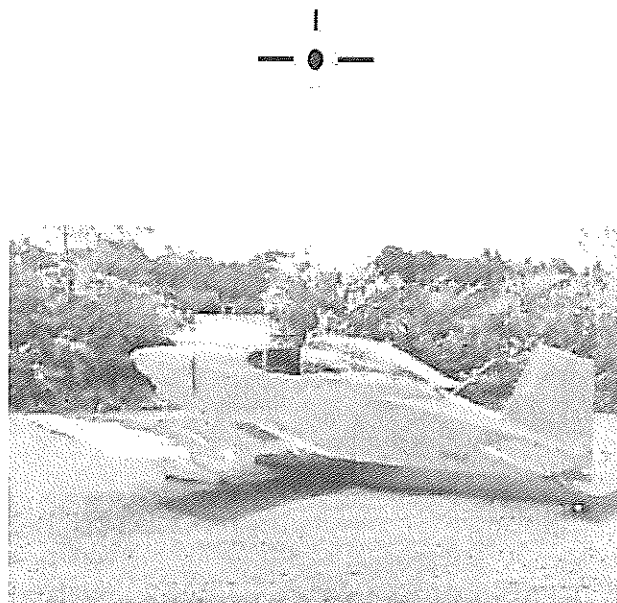
Jack Kenton



The Passing Of A Friend

To all in the Thorp community, bitter sweet news. We have unfortunately lost a fellow T-18er. Ed Cox passed away Sunday night after struggling with a debilitating disease. He was the owner of N64EC which made it's first flight in November of this year. Ed had sold his Aircoupe to buy the project with the intent of finishing the T-18 in time to retire and enjoy his toy. Not long into the project he started to become ill and was having difficulties working on the plane, but he was fortunate to have some friends around to help. They did the things he wasn't able to handle and completed the airplane with the hope he would at least be able to get a ride in it, unfortunately his condition didn't allow this. I got to do the first flight in the plane and I am in the process of flying the time off . It fly's great and looks good, they all did a great job on this plane. It will go to one of the friends who helped him finish the plane, he is a current T-18 owner and I expect he will be a great care taker.

Steve
T-18 N97SE



T-18 ~ N118JT ~ JERRY TINDELL ~ PANSEY, AL

New Stuff From Classic Sport Aircraft

Classic Sport Aircraft has been approved as OEM for the following items

1. Hartzell 2 Blade Constant Speed prop for 320 or 360 engine. It is a 72 inch dia. using a 7666-4 blade. Cost is \$5966.00 plus tax and shipping.

2. A 5 point harness available is a variety of colors. Cost is 298.00/ea plus tax and shipping. Compare to the one in All Aircraft Spruce for \$376.00.

Call Mike Archer at 559-539-2755.

For Sale

Parts For Sale

- Prop. Ext.per dwg. #1070 modifiable to dwg. #1072 by drilling - \$120.00
- Scott tail wheel model #3200 (used) - \$300.00
- Main landing gear - \$600.00
- Engine mount (straight) - \$300.00
- Straight mount eng. collar - \$70.00
- Standard 29 gal fuel tank - \$250.00
- Windshield frame assy. - \$125.00
- Lycoming starter ring gear (122 teeth) - \$150.00
- Walking beam assy - \$75.00
- 500x5 cleveland wheels (2) with new chrome disks and new bearings - \$450.00
- Control stck sockets—(2) - \$52.00 ea.
- If all items are purchased together an overall 10% discount will be made Inquiries may be made to Jud Carter @ ph.(770) 952-7139 Fax (770) 952-7103

For Sale

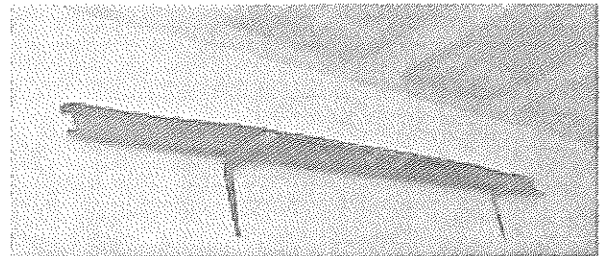
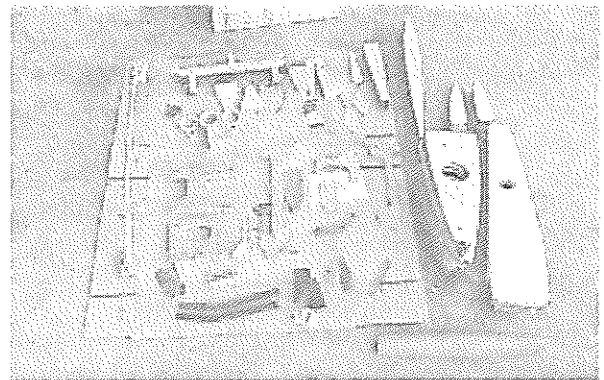
T-18 with a 0320 Lyc. engine. It has no radios. Took thirty years to build. It as been ground taxied.

Just about thirty miles east of Birmingham AL. If anyone might be interested in his bird,please give him a call at 205-967-3338. Mr.Frew is asking 19,000.00 for the plane.

Mr.John Frew ~ Pell City AL.

(Note: This T-18 has now been flown. It has around 2 hours on it)

Some Extra Parts



If you are interested in these parts contact Hurant Karibian at: karibian@worldnet.att.net

For Sale

Having lost my medical 147 DS is for sale.
 Partial list of panel: wet vac pump, 360 GPS,
 transponder and incoder, art-horizon, 0320-400
 hors since overhaul Ayma-Demuth prop.
 There are other T-18's & 0320 160HP out of
 License. Asking 13,500 dheap but I want to move
 it.

Regards
 Bob Slagle
 bob_helen_slagle@yahoo.com

THORP T-18 . AVAILABLE FOR SALE!!
 Thorp T-18 1997 500hrs,Lyc
 O-320 180 hp, Fixed pitch polished metal prop,
 Full Pannel, Vor/GS,
 Garman gnc 300 XL GPS/COM , Alcor fuel
 totalizer, intercom W/music
 input, electric trim, 4 cyl egt/cht, Rat-Rey cowling
 and wheel pants,
 new tires and breaks. Sold with fresh anual and
 data card for
 gps.Extra parts. Price \$37,500 Contact Steve
 Irving located Lancaster
 CA US. Telephone: 661-256-8613.

THORP T-18 . FOR SALE!! 752hours on air-
 craft, but only 49 hrs. on
 new O320-E2A. Metal prop,sliding canopy, King
 720 ch VHF, King ADF,
 Apollo 604 Loran, and transponder and encoder.
 All metal cowl. Fresh
 annual.\$25,000 Contact Henry Strauch located
 Junction City OREGON
 USA. Telephone: 541-998 8576.

Gentleman, I have a Val 760 channel Comm
 Radio just removed working well. I Have the tray,
 Harness and manual, in a box. I will sell it for
 \$300. or best offer. Call me at 904-692-1443

For Sale

Electroair Ignition System EIS-1 by Jeff Rose
 4 cylinder
 Includes:
 Direct Ignition Unit with coils. Timing housing
 with alignment pin (This ignition trigger installs
 in the removed magneto hole. Gear driven, no
 flywheel triggers required, and timing is much
 easier and more accurate).Spark Plug wires with
 screw caps and spring ends. Instruction Manual.
 This system is brand new, and has never been
 installed. Jeff Rose sells these units for over
 \$800. The first \$700 gets this one (price in-
 cludes shipping and insurance in the US). Email
 me with any questions.

Thanks,
 Jimmy Cash
jcash@granbury.com

New 508 instrument panel - \$65.00 Less than
 the cost of the material to make it.
 2 sets of Cessna 150 rudder pedals - \$15.00 ea.
 set.
 1 set of Lancair rudder pedals - \$15.00

Karibian karibian@worldnet.att.net
 1-850-874-1586

I have some fiberglass parts for a T-18. If your
 intrested call me at 931-473-5401 during the
 days. I don't have any pics of the cowling,but its
 the flat type with no cheeks and no air induction
 on the bottom of the engine cowl . Its a two
 piece cowling ! I have wing tips(with nav and
 strobe lense builted in),wheel pants,horizonal
 fin tip and engine cowl. I'd take 500.00 dollars
 for all of them. I Also have a prop extention
 for a 150or 160 Lyc.too if anyone needs it.

Danny Cummings
dctires@blomand.net

For Sale

I got this Aymar Demuth 68x74 prop from John Sullivan when I bought a cowling, wheel fairings, etc. It's been tried on my T-18 with a 150HP O-320 engine. However, the original AD 68x73 is a better match. The 74 inch pitch would be better suited to a 180HP or 160HP engine. I found that the 74 was just a bit too much "cruise" for my 150HP.

Price is \$400 with prepaid freight by me.

Tom Worth - Tacoma, WA - (253) 922-0137

Paul Krogh in WI has some sets available for std and wide body. Contact him at 262-534-6916 or pmkrogh@execpc.com.

In case anyone is interested I know of a nice T-18 FOR SALE! It has a 0-290 engine with 227 Hrs.SMOH and 227 TT on airframe, King KX-125 new AT-150 transp. With encoder, Dual cleaveland brakes New engine control cables, New tires and tubes and cabin cover. I flew the plane and it's fast and solid! A 9 inside and out. inspection due sept.2002 Anyone interested can call Tom Larravee at 386-749-0516 or 386-749-2734 North FL

My name is John Dors. My friend George Truver has passed away and had asked me to sell his T-18 with many extra parts and tools. Any interest please email. Also would you let Mike Archer know as I don't have his address. Thanks

ios@adnc.com

For Sale

T-18 N71SC FOR SALE

1550 TT; 300 SMOH (Mattituck); Lyc IO-320B1C, 160 HP, Hartzell C/S prop.

AVIONICS: IFR. KX-155 with G/S, KN-62A DME, KT-76A with Mode C, GEM-610 Graphic Engine Monitor, NAT Intercom, EI Volt/Ammeter, Shadin fuel computer.

COCKPIT and INTERIOR: Great upholstery. New carpets. Custom stick grips with "HOTAS" buttons and F-14 Comm switch, leather stick boots. Custom canopy latches. Four-point harness. Zinc-chromated throughout.

ENGINE: Super-clean install. Red Mattituck finish with matching powder-coated A-frame and dynafocal mount. Nye Nozzle cam lube STC. Custom stainless X-over exhaust. All teflon core braided steel lines with firesleeve. Oil filter. Electric boost pump and aux pump.

EXTERIOR: Trusty tailwheel mod with custom machined pieces. Trusty roll trim mod with Mac trim servo. Whelen "Comet Flash" wingtip stobes. Bruce's custom canopy cover. Separate hangar dust cover and wing covers. Special wingroot and gear-leg fairings unique to this aircraft.

One owner for the past 17 1/2 yrs. Always hangared and pampered. No Damage history. Original 1972 candy apple red paint. Needs paint and cosmetics. Have original letter from John Thorp calling it "a gem". Hate to sell but I need four seats! \$35K

Bill Mnich
Bellevue, WA
Evening (preferred): 425-401-1580
Day: 206-544-8058
wrmnich@earthlink.net

Thorp Events for 2002

Pacific Northwest Fly In ~ McMinnville, OR. (MMV) Pacific Northwest Fly In April 27, 2002. McMinnville, Oregon is 40 sm SW PDX, and 15 sm W UBG (117.4). 1st meet will be 1 day only to visit Spruce Goose and have a burger burn. For questions RSVP James Wolhaupter at: RotorTime@aol.com" or Tom Worth at:WOCON@att.net

SUN'n FUN 2002 ~ Lakeland, Florida ~ Spring Celebration of Flight. April 7th -13th, 2002
Contact: (863)644-2431 or www.sun-n-fun.org

Sun & Fun Dinner ~ The Sun 'n Fun T-18 Dinner will be on Tuesday, 9 April 2002. We will meet at 1800, have dinner and then watch the night airshow.
For more information contact Bob Highley - n711sh@aol.com

Florida Spring Get Together ~ Cannon Creek, FL. ~ The Florida bunch is in the planning stages for a spring gathering here in Florida for 2002. I have spoken to the principals at the Cannon Creek Airpark in Lake City, FL and they are in favor of it. The proposed dates are 17-18-19 May 2002. This is the weekend after Mother's Day and is Armed Forces Day. There are two runways and a great old farmhouse to hold the event. Details are still in the works, but some of the features are: Local restaurant on Friday night, big country breakfast on the field Saturday with other fly-in friends, Low Country boiled dinner on Saturday. Bill Williams is setting up the dinner. Don't laugh until you have tried it. Contact: Bob Highley ~ N711SH@aol.com

Airventure 2002 ~ Oshkosh, WI. ~ Annually at Oshkosh, at noon on Friday, we have a lunch/forum get together in the Nature center. I will post more information as soon as I get it.

Porterville ~ Porterville, CA. 11th Annual Fly-In , Likely we'll do another P'ville Thorp Gathering as we have done in the past ten years. We have used the Labor Day week end as late as it doesn't conflict with the Reno Air Races which took our former weekend. You can post it as a tentative as I have not conversed with "the committee" a dedicated group of Thorp people who work with me as the organizer of the event.
Hal Stephens ~ aerohal@earthlink.net

Kentucky Dam Fly-In ~ Held every year in October at the Kentucky Dam State Resort in Gilbertsville, KY. I will post more information as soon as I receive it.

T-18/S-18 Thorp Newsletter
Roy Farris
P.O. Box 182
Noble, IL. 62868
Phone: (618)723-2594
email: rfarris@wworld.com

March 2002



Please check your mailing label for the "PD" entry in the upper left corner above your name. If you don't see the "PD" entry, then you have not paid this years dues. Please send the dollar amount listed on the label. Any amount over 25(US) or 30 (outside US) indicates that you have failed to send previous years dues. Please be kind and send your dues now.

THORP T-18 MUTUAL AID SOCIETY ----- 2002 DUES

Please continue your support of this valuable exchange of ideas, building tips and safety information covering John Thorp's greatest design. Please make checks payable to: Roy Farris P.O. Box 182 Noble, Illinois 62868. Make check for \$25.00 US, \$30.00 for outside.

Name: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Phone: _____
Email address: _____
Notes: (building, flying, thinking about it, etc): _____