

T-18 NEWSLETTER



Jim Stuart's gorgeous two-tone, brown trimmed Thorp T-18. Jim lives in Santa Ana, CA

IN THIS ISSUE:

Oshkosh 1993 to Me by Frank Snedeker

First Flight by Jim Stuart

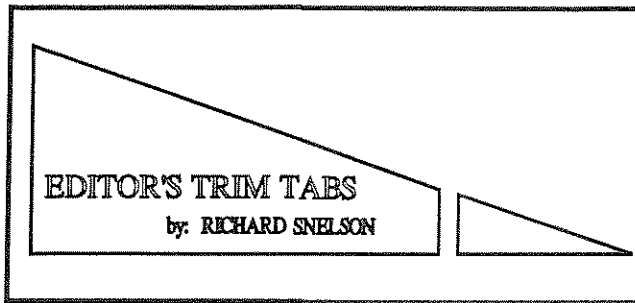
Placerville 2nd Annual by Hal Stephens

Mountain Flying by Hal Stephens

The John Thorp Legacy

"This Nut Flew Around The World, Contest"

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.



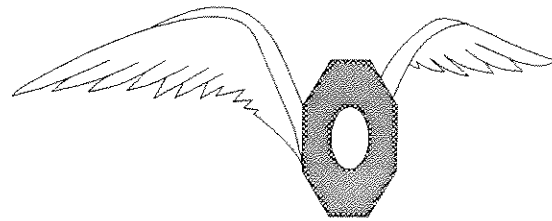
Reflections:

Some of you may be busy building and haven't taken time to look up to see what's going on. Others may be flying their Thorps and just don't spend enough time on the ground to notice. One who has noticed, is the lady that answers our phone, my wife RoxAnne. She takes the calls from members, new prospective members to the T-18 Mutual Aid Society and others that want to buy a T-18 in the worst sort of way, but just can't find one. What this means is that the demand and therefore the value of our aircraft has gone up. Sure, the timing is also right for this to happen for a number of other reasons. Fewer and fewer airplanes in the general aviation fleet, more demand and so forth. But because of the Thorp T-18 article in Sport Aviation, the 30th anniversary at Oshkosh and the T-18 Mutual Aid Society our aircraft is right up front again. Pilots everywhere want to get a ride in a T-18. I now have a waiting list and it's growing. Former T-18 owners call that have since had Glassairs and RV's and want their T-18 back. It's great to hear all the "I want stories" and have a fine T-18 sitting ready in the hanger for "my" beckon call. If you're a new builder or an old one that just needs to finish his project, get a move on! Time's a wasting and we need you in the fleet for the next trip to Oshkosh and wherever the local T-18 events may be next year. Happy Building!

During dinner at Oshkosh Don Taylor offered The T-18 Mutual Aid Society Members some actual nuts & bolts that he had kept from his T-18 "Victoria" that flew around the world. Many of you might like to have one to make it a part of your airplane for good luck, or to put it on a small plaque for a conversation piece. I'm

thinking of a small dash mount plaque that says "This nut flew around the world". No Don, that's not referring to you! To make the distribution of the souvenir parts fair lets have a simple contest that will benefit all the members. Just write an article on something about the Thorp T-18. If you don't think there is still more that should be said about building this machine just ask Roy Farris of Olney, Illinois. He just went through skinning his wings and had a rough time getting started. Roy reads everything in print about building the T-18. He said that parts don't always fit and new ideas on assembly are needed. For details of the contest see "The Nut That Flew Around The World" page in this newsletter. There are only 24 pieces so take out your pen and start writing. Again our great thanks to Don Taylor for all that he has done for the homebuilt movement and especially the Thorp T-18.

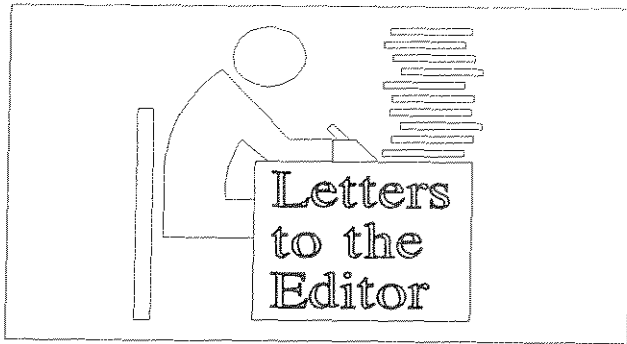
"The Nut That Flew Around The World Contest"



See page 19 for the contest details.

Dues Dues Dues

It's time for 1994 Mutual Aid Society Dues. As mentioned last year the dues are set up to all be due at the first of the year. However, a lot of folks paid late in the year. In fact there are still several still behind for 1993. This will be the last newsletter they will get. I've got to stop sometime. Our printing costs continue to go up. It never fails most will send late checks and letters saying "Boy I'm glad you didn't drop me" and then one lone fellow will write that he didn't want the newsletters anyway. Oh well! I'll bet he read every darn one of them. Don't you? If he got one safety idea or suggestion it was worth sending them to him. **Check the mailing label for your status, no pay for 93 and paid for 94s are marked. Thanks!**



Dear Richard,

It was nice to meet you at Oshkosh and I'm glad to be part of the Mutual Aid Society now. My first time out there was great, I never saw so many homebuilts, not to mention T-18's.

A lifelong ambition of mine has been to fly, and the ultimate-- to build an airplane. Now it's becoming a reality. When I first learned about T-18's I was thoroughly impressed, having gotten to know John Popejoy (another builder), where I worked. Until then I thought homebuilt airplanes were only in magazines, and was just short of envious. At once, I decided an all metal craft would be my choice also. Other things I looked for were two seats and most of all, folding wings. There are other planes that meet these requirements but few to build from plans one part at a time. Kit planes are available, but I wanted to really BUILD a plane rather than assemble somebody else's.

That was almost 10 years ago, and now I want to thank Bob Kemp who's been a great help getting me off to a good start. One day talking about my aspirations with Bob (whom I just met) I learned he was a generous man as he freely offered me a legitimate set of plans. Later, he even gave me parts to go with them. These were all new parts, enough to build a whole fuselage: frames, skins, extrusions, and miscellaneous others. Bob's a real supporter for the homebuilders; he even took me to Oshkosh and continues to be a good teacher. I'm sure you realize the great help it is to have someone provide moral support, sharing the same interest, and I'm blessed to have such encouragement.

My prospective goal is to be in the air in 5 years. It shouldn't be too long before Bob has his own plane flying.

Your efforts are well appreciated too. The newsletters are a good source of information. One of the most important aspects I considered about the T-18 was it's time-proven design. It seems to be well understood by now and with folks like you and other contributors, there's a lot written about it. I have my EAA membership and Tony Bingelis' books too, but nothing beats these newsletters for specifics on the T-18. At this point in my experience it's doubtful I can offer much, but will write again when I get my feet really wet. Thanks. Sincerely, Les Krumel
P.O. Box 1115 Cedar Crest, NM 87008



December 11, 1993

Dear Richard,

My T-18 N89ER (formerly N56VB) sn 1106, which I have spent four years rebuilding, flew once again today.

The airplane had flown 232 hours between 1978 (new) and 1980 but the previous owner became disenchanted with it and allowed it to sit outside in the weather for about eight years prior to my purchase in 1989. It had not been run or even tied down. The wheels had sunk about 6" into the soft ground and that was likely the only thing that kept it from blowing away. The engine, airframe, and systems rebuild was challenging. I believe I could have built an airplane from scratch easier.

N89ER is a standard T-18. It has a 0320B3B 160 HP engine, a wooden 66X80 inch Sensench propeller, 2" extended landing gear, and full IFR electronics and instruments. Empty weight (with oil) is 1022 lbs.

It was with great pride that I watched Gary Green of Pecan Plantation, Texas do the test flight. Ken Morgan from Arlington, Texas

flew chase in his beautiful T-18.

Gary graciously provided about one half hour of instruction in his T-18 but I did not feel that I was ready to fly the airplane considering the pressures of the day and the number of hours I had spent in the previous week getting it ready.

Gary said the airplane had normal flight characteristics and no problems were noted other than standard "aw-shucks I'll fix that" type items.

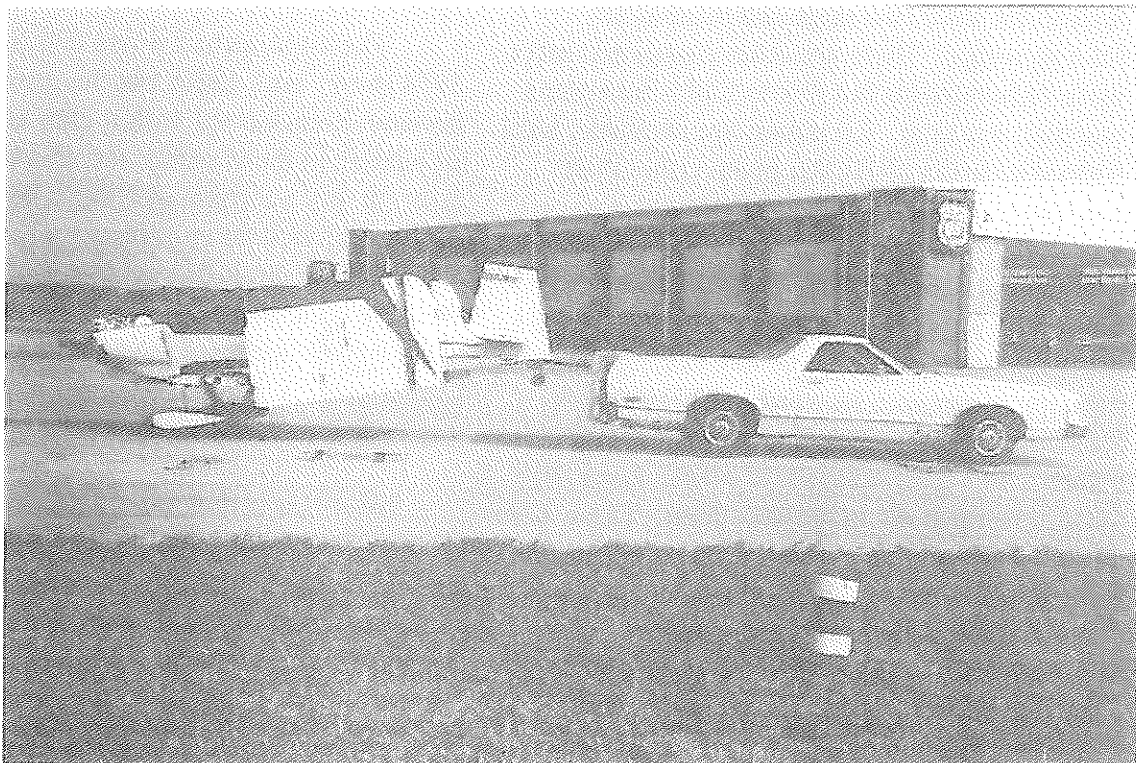
T-18 owners providing technical and moral support for this event were Gary Green, Ken Morgan, Tom Landham and Jim Putney. It was quite a thrill to see five T-18s on my apron in Temple, Texas.

Sincerely, Evan A. Roberts Rt. 5, Box 158-C
Temple, Tx. 76501 (817) 778-2252

DEAR RICH; PLEASE FIND A CHECK FOR \$25.00 TO COVER MY ENROLLMENT IN THE T-18 NEWSLETTER. I DO HAVE ALL OF LEW SUNDERLAND'S LETTERS AND WORKED CLOSELY WITH LEW ON THE FOLDING WING. IN FACT, I GAVE LEW THE IDEA AT OSHKOSH IN 1979 I BELIEVE. HE DID THE DRAWINGS AND JOHN THORP DID THE STRESS WORK UP ON IT.

I SUPPOSE THE DRAWINGS ARE COMPLETE FOR THE WIDE BODY AND FOLDING WING NOW, BUT WE WERE IN A HURRY TO GET IT FLYING AND ALL I HAD WAS A LIST SHEET, TO TRANSFER TO THE ORIGINAL DRAWINGS. I STARTED FLYING MY BIRD IN 1981, AFTER 7 1/2 YEARS AND 6000 HRS. OF WORK IT IS A BEAUTIFUL BIRD. I CRUISE AT 180 MPH @75%POWER. I DO TOW IT AS YOU CAN SEE LIVE 4 MILES FROM THE AIRPORT.

(cont on next page)



Bill Brackett's beautiful white with blue trim T-18CW under tow

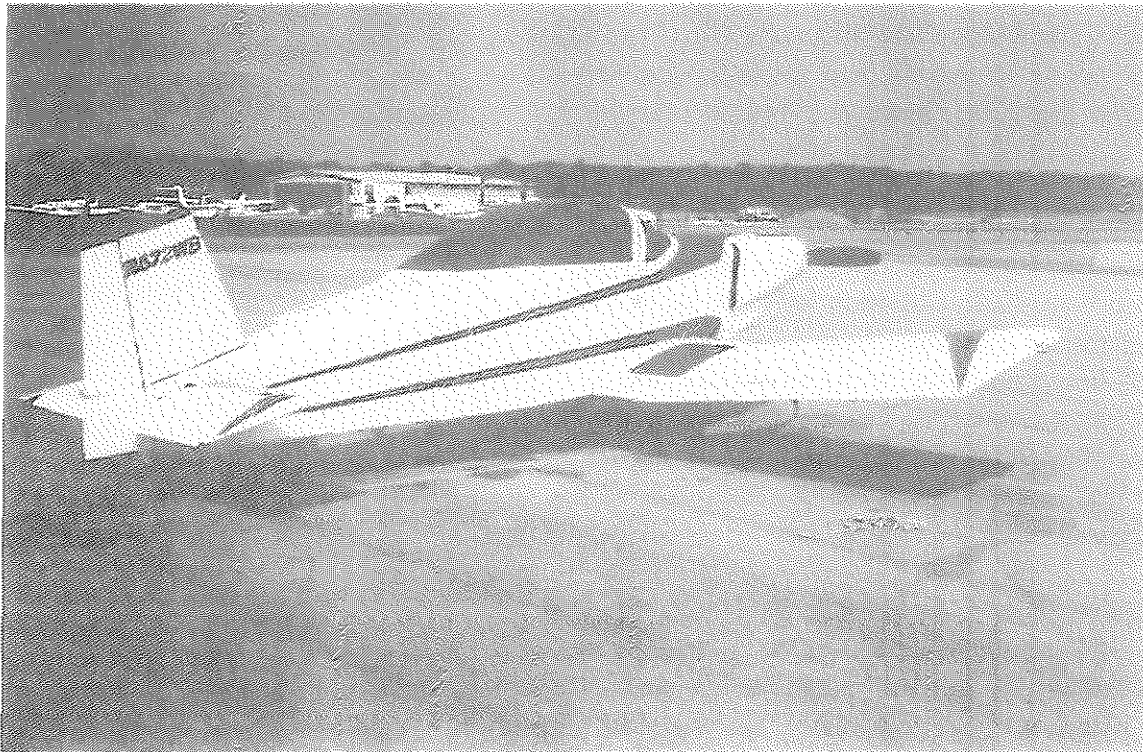
IF I CAN BE OF ANY HELP TO ANYONE, PLEASE LET ME KNOW. ALSO PLEASE ADVISE ANYONE USING THE STRETCHED FUSELAGE TO KNOW THAT IT WAS DONE FOR THE HEAVIER MOTORS & COULD BE A PROBLEM CG. WISE IF THEY USE A LIGHTER MOTOR. BILL BRACKETT 152 NORTH ROAD BUTLER PA.16001 *(Editor's Note: Bill regrets it but his T-18 is for sale.)*

For Sale

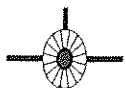
EXPERIMENTAL THORP T-18CW(CONVERTABLE WING) 2 PLACE SDE BY SDE (40')WIDE BODY 72#

BAG.CMPT. FOLDING WING VERSION HIGHWAY TOWABLE (8FT.WIDE) USING A 1978 FORD RANCHRO PICK UP BUILT BY MACHINIST WITH 40 YRS.EXP.& INST.PILOT. I0360 AIA 200 HP./ CONST SPEED PROP. INDIRECT LIGHTED PANEL. PLUSH INT.BLUE & RED FINE WEAVE EXT.BLUE ON WHITE 3 FUEL TANKS W 54.6 GLS.TOTAL. 2 DAVID CLARK HIO-40 HEAD SETS 1981 E.A.A.AWARD WINNER (FOLDING WING)FLIES LIKE A "P51" "NARCO" EQUIPMENT I MK12DVOR/ILS 1 MK12DVOR. A.D.F. 841 DME.890 TRANSPONDER AT150 AUDIO PANEL CP-136M CHT/EGT ALL4 CYL. I.F.R.CERTIFIED BILL BRACKETT PHONE DAYS (412) 287-5804 EVENINGS 287-8212

Editors Note: Since Bill sent this article he had a power failure on take off that resulted in some damage to the landing gear. Anyone interested in owning a T-18 needing some repairs should give him a call.



Another photo of Bill's fine flying machine. It's nice to hear from the east coast Bill!



Sept. 13, 1993

Dear Richard,
I'm way past due on my report about the Rocky Mountain Regional Fly-In @ Greeley Colorado in June. I believe there were 11 T-18s in attendance.

These are the ones I can remember - Jim Borg & son (from Minnesota), Dean Cochran (Broomfield, Co.), Jerry Feuerman (Denver, Co.) Walt & Bev Giffin (Pueblo, Co.), Pete Gonzalez (Colorado Springs, Co.), Jim & Judy Paine (Dayton, OH), Ed & Jennette Ludtke (Sioux Falls, SD), Bob & Juanita Ryan (Seely Lake, MT), and two others - one from Canyon City, CO & one from Sheridan, WY (I apologize for not remembering their names). Next time I'll write everyone's name & N- number down.

Myself, with John Burton from EAA Headquarters as passenger, and the Ludtke's made a flight on Sunday morning over the mountains and Estes Park, Colorado for some sightseeing. I received a nice letter from John in appreciation - his first time flying in the mountains, and he remarked how wonderful to be flying @ 10,000 msl & look up at mountains surrounding. It was so good to see you @ Oshkosh & such a great showing of T-18's !

We're going to try to make the Placerville, CA T-18 FlyIn in October, so won't see everyone in Kentucky the same weekend. Wish we could be 2 places at once! Take care! Best regards, John Evens N71JE.



9/20/93 Lincoln, NE

Dear Richard, I've been working like a dawg ever since Oshkosh getting the bird ready for paint, and things are beginning to take shape. I

was dissatisfied with the fit of my previous fairings so I made some new ones: and that coupled with many other little things that needed attention, and the summer has gone, but it looks like it's really going to be completed with an annual all brought up to date within the next month, so the light is there. I'll send you a picture for a future newsletter when you print a lot of pictures. Also if you think that there is any interest, I could explain the way that I did the fairings; although it was just the basic routines of fibreglassing; let me know.

Many thanks for all your efforts, we of the MAS really appreciate it! Best regards, Harlo McKinty.

(Editor's note: Good to hear from you Harlo. Please do write it up and send along with the picture of your plane.)



Wanted Wanted:

DYNAFOCAL MOUNT
COWLING
CANOPY
STABILATOR TIPS

Call or write John Winton Box 84, Port Mansfield TX 78598 Phone number 210-944-2641



Dear Richard, I am interested in a project 50% completed or flying. Prefer wide body & folding wing. But will consider any T-18. Jeff Klossner Call (719) 539-3737



Dear Editor, Kentucky Dam is a great location for our semi-annual T-18 gathering. The scenery is magnificent and a walk along the dam is a thrill. This year we had a good attendance with people flying or driving from all directions. We missed Rich and Roxanne Snelson. In spite of a cloudy, cold, windy day, Saturday

was spent flying and discussing building. We brought our Cessna 140A and Elaine Skillman and Terry Martin got a lesson in tail dragger flying in it from Dave.

A group went to Patty's "Pork House" Friday then to the Brass Lantern on Saturday, where we sat with Rush Limbaugh and the dwarfs.

We had a luncheon meeting Saturday with Jim Paine leading the recoup of the year's activities. We decided to meet again at McAlester, OK in May of 1994. We ended our meeting by singing "Happy Birthday" to Judy Paine.

A visit to the quilt museum in Paducah was a treat with Judy Paine, her daughter Heather and Mother-in-law Mary Paine from Montana. Mary learned to quilt when she was six years old and had made 30 quilts by the time she was married. Best of show for the American Quilter's Society Show and Contest was titled "Air Show" by Jonathan Shannon from Belvedere, CA. He featured old biplanes and on the reverse side had a parachute. That quilt was front and center for us Air Show participants.

T-18er Russ Ross's wife Terri is a quiltmaker, works with Girls Incorporated, ages 6-18, children from broken homes. They enjoy quilting, and presented one of their quilts to Barbara Bush in 1991.

We were sorry to hear of Russ' daughter's death in August. We extend our sympathy.

We saw the following T-18s at Kentucky Dam: N785EL Ed Ludtke, N711SH Bob Highley, N805GS Gene Sloan, N110JP Jim Perrine, N18CR Cliff Redden, N118GG Gary Green, and N747JP Jim Paine.

The annual EAA Southwest Regional Convention at Kerrville was October 15 and 16. T-18s and owners we saw there were Ken Morgan and Tom Landham of Dallas, Bud Payne of Austin, Stash Simpson of Wichita Falls, and Dave Gerlach from Friendswood. Larry Whetzel flew all the way from Ramons, CA in his brand new T-18.

November 1 we enjoyed a visit with Dick Cavin and his bride, Pat. They have our congratulations and best wishes. Regards to all, Pat and "Name Withheld" Eby.

FOLDING WING INSPECTION

Editor's Note: The following is part of the Wing and Maintenance Manual for the T-18C. Written by Lou Sunderland. Some years ago. I'll print the preflight inspection information in the next newsletter.

SUNDERLAND AIRCRAFT 5 Griffin Dr. ,
Apalachin, N. Y. 13732

WING INSPECTION AND MAINTENANCE MANUAL FOR T-18C

100 HOUR INSPECTION

(1) Inspect all wing panels for loose rivets, fatigue cracks and general structural integrity. When areas around flush skin attachment rivets are filled with a plastic filler, some circular cracks normally occur in the filler around the rivet heads. The rivets should not come loose, however.

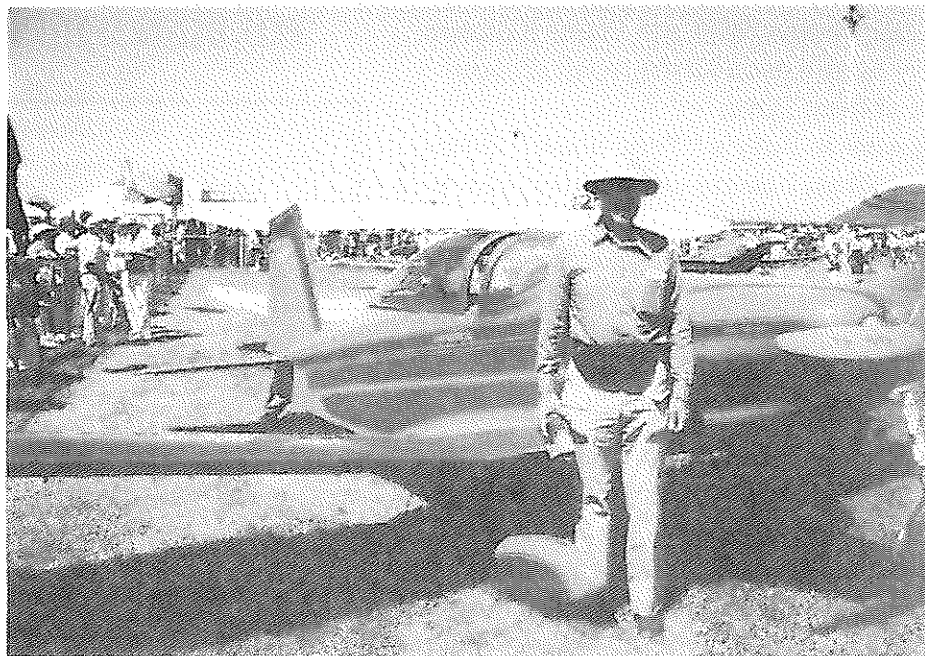
(2) Check aileron control linkage for excessive free play between stick and surface. Adjust the adjustment screw in the 211 aileron bell crank as necessary.

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

LUBRICATION

All bearing joints (bushings and hinge pins) should be lubricated with Moly-Kote or an equivalent dry lubricant every 500 hours or every 5 years, whichever occurs first. If operation is in severe conditions of dust or moisture, lubrication should be performed more frequently.

The free play inspection should be made on all T-18Cs.



OSHKOSH 1993 - TO ME

By Frank Snedeker and Thorp T-18 ... N54FS

What airplane builder would not want to fly his own to Oshkosh? What T-18 builder, particularly on the occasion of the 30th anniversary of John Thorps' design of the T-18 would not want to be there? Many that wanted to, could not, for various reasons, make the historic event. I had wanted to in each of the two previous years, make the trip, but could not. It was imperative that the anniversary year just had to be the year.

I piloted N54FS (Frank/Sabrina) with Tim Martin as copilot to Oshkosh '93. We flew formation on the wing of Cecil Hendricks in his T-18, N583C, and his copilot, Bob Heath who is building his T-18 in New Zealand. Our trip started at Auburn airport, near Seattle. The first leg was to Kellog, ID for refueling. Weather ahead

reported #5 thunderstorms. We turned back into Washington, headed south and then east again through southern Wyoming and Nebraska, north to Sioux City, then Worthington, Austin and on to Oshkosh. But Oshkosh, and the return trip, is the purpose of this story.

Here is my personal story, at Oshkosh, and my solo flight home via Minneapolis MN, Rapid City ID, Greely CO, Albuquerque NM, Phoenix AZ, Mojave CA, Lancaster CA, Lodi CA, Eugene. OR (with an unscheduled pit stop at Dunsmuir Mott, CA). and the last leg from Eugene to Auburn Municipal, WA. for a total of a tad less than 6,000 miles and 48 flight hours.

All of the stops were to visit family, refuel or to repair the electrical system. The stop at

Dunsmuir-Mott was a necessity of the first order. It is a fact ... the capability of N54FS, is far greater than my capacity. She is insensitive to my needs. She just does not understand. So at Dunsmuir Mott, after 3+ hours in the air I turned her GPS 55 to OFF ... and manually made a diving right turn around a hill, a close in base over I-5, across the threshold to a fast landing, a rapid deplanement, refueled and, was again airborne. N54FS has the capacity to go 5 hours plus reserve at long range cruise at about 150 MPH and burn about 7 1/2 Gal/Hr. The engine is a 180 HP. Lyc 0-360-AIA, The propeller is 1/16" laminated wood by Hendrickson with dimensions 68 X 80.

pulled the power back to 2150 and 18". It takes longer but who's in a hurry anyway. At Rapid City, SD I delayed departing in order to give my nephew a ride. It is a pleasure to see a passenger "pleased as punch".

It was 1930 by the time I landed at Greely, CO. A heavy black rain was over the Greely area as I approached 20 miles out. It was clear to the north and I had plenty of fuel to select an alternate. The rain cleared as I landed. The only life on the field was an abandoned dog. After calling 13 hotels in the area and no vacancy I pitched a tent. Fortunately, and many thanks to EAA Chapters #301, 515, #648, 43, 72, 660,720, and the Colorado 99's, the



Left to right, Frank Snedeker, Cecil Hendricks and Tim Martin

In the vicinity of Fresno, CA in smooth air I trimmed her out and held a steady 8,500 ft. ,OAT of 51 Degs, RPM 2450, M.P. 24" and a TAS of 173 MPH. I claim no more than that...., she weighs more than some ... Her 9 gals in each wing gives her range and that is a real comfort. After this and one other check I

Colorado Pilots' Association, and about 15 local businesses that poured a concrete slab about 25' X 40' with a high roof I was comfortable. There are picnic tables, a sink, and barbecue. A truly wonderful project and very much appreciated. I set up my tent under that shelter. The following morning I had a com-

fortable breakfast in the airport restaurant and taught the cook how to scramble an omelet using one TBLS of water per egg. Greely is a great place to visit.

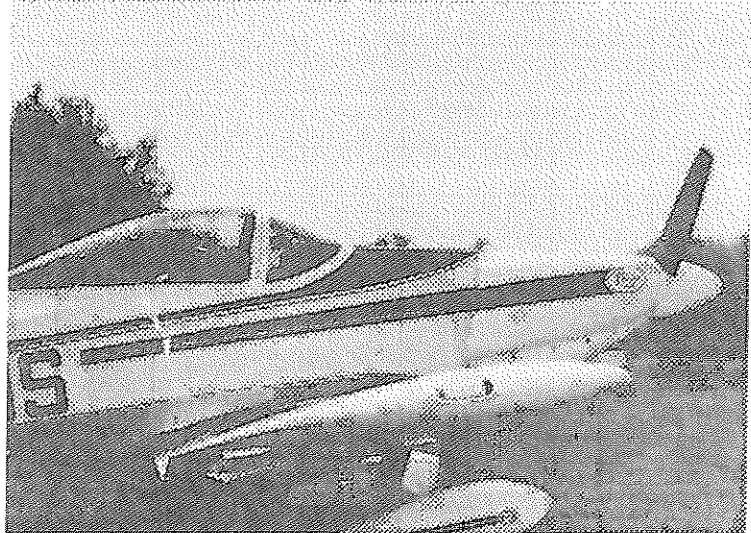
Next stop was Albuquerque, NM. Uneventful. Temperatures warming. Changing scenery. But, I was cool in her cabin what with air coming from the rear of the canopy as well as from automotive dash vents bringing air up from under each wing root through NACA scoops. I landed at the 'Double Eagle' airport just west of the city after a 3 1/2 hour leg of 442 miles. I was hungry and the restaurant was closed. The lady opened it up just for me and in the kitchen we put together a meal. I refueled and was on my way to Phoenix. Thank you very much to Double Eagle. Five minutes en-route voltage charged above 14, then 15 and at 16 I killed the field, turned everything off except the GPS which is powered separately from the bus. There were thunderstorms to the north and one dead ahead, approaching Phoenix which I went around and got back on course with the GPS and started the descent to land at Falcon Field. O.A.T increased with each 1,000' on the way down. I closed off the panel air, turned the radios on to ATIS and then tower and landed. It was 110 Degs. and not like Seattle

At Phoenix my brother and I removed the cowling, in the heat, and the FBO installed a new voltage reg and alternator. My next leg was to California City. Five mins. out of Phoenix the field fuse burned out and I shut everything down again. I circled Cal. City but did not land. Instead I landed at Mojave and talked to several people there and was advised to go to Fox Fld, Lancaster, CA ... and there a new 60 amp voltage reg was installed and, this is important, the battery was charged overnight. No more problems except that out of Eugene I had pressed a wrong button on the GPS and could not get the CDI to come on screen. Using a Sectional chart and two GPS screens alternatively I could get Desired track, Course to

steer, distance and time to destination. Who could ask for more except the ease of the CDI.

As for Oshkosh, it was a very enjoyable event. They did not close the field but in fact had beautiful weather. The T-18 dinner and the Memorial service for John Thorp were most important highlights. A tent lunch was served near the Chapel giving an opportunity to visit quietly with and meet other T-18 builders. I thank GOD for the entire trip and for my T-18, "NANA I KE KUMU".

FIRST FLIGHT
for Jim Stuart



Our cover photo of Jim Stuart's standard body T-18

Finally completed N428JS after 6 1/2 years of effort. First flight was on June 29th and as advertized it flies great. Since I had zero tail dragger time, first flight was made by Dix Mackey of Orville, Calif. Bill Dasse of El Toro, Calif. is checking me out.

8JS is a standard body, standard wing Thorp with a 150 HP LYC 0-320 E2D engine swinging a Sensenich 70/73 prop. Empty weight is 986 lbs. I don't have any performance data yet. Keep up the good work in publishing the newsletter. I certainly obtained a lot of good information from it. Enclosed you will find some sketches I made during construction of 8JS. These are not all my ideas so I can't take all of the credit. Publish them if you want. If any builders have questions about the sketches they can call me. When I obtain some performance data I will send it along. Jim Stuart 1521 E. Avalon Santa Ana, Calif. 92701 (714) 543-2331 *(Editor's note: more of Jim's drawings in the next newsletter)*

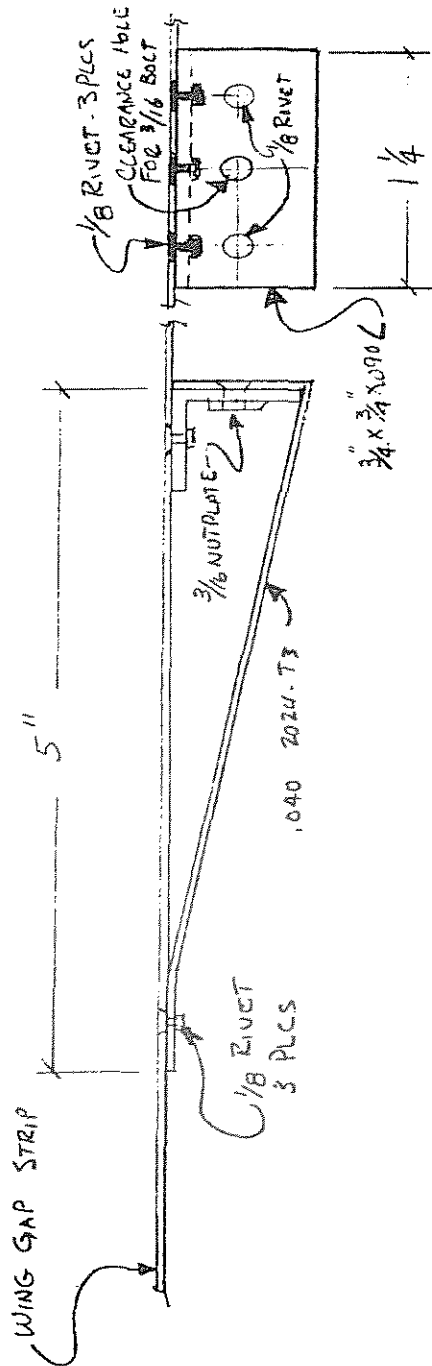
**C.G. CALCULATION
FOR
THORP T-18 N428JS**

	<u>WEIGHT</u>		<u>STATION</u>	=	<u>MOMENT</u>	<u>% MAC</u>
MAIN WHEELS	957	X	54.75	=	52,396	
TAIL WHEEL	45	X	214	=	9,630	
	<u>1,002</u>		61.9	=	62,026	
OIL	-16	X	28	=	-448	
<u>EMPTY C.G.</u>	986		62.5	=	61,578	15%
EMPTY C.G.	986	X	62.5	=	61,578	
1 PASSENGER	170	X	85.5	=	14,535	
OIL (8 Qts.)	16	X	28	=	448	
FUEL (29 Gal.)	174	X	50	=	8,700	
<u>MOST FWD C.G.</u>	1,346		63.3	=	85,261	16.6%
2ND PASSENGER	170	X	85.5	=	14,535	
BAGGAGE	44	X	109	=	4,796	
<u>GROSS WT. C.G.</u>	1,560		67	=	104,592	24%
FUEL (1 Gal. remain)	-168	X	50	=	-8,400	
<u>MOST AFT C.G.</u>	1,392		69.1	=	96,192	28.2%

EMPTY WT. = 986 LBS.
 ALLOWABLE GROSS WEIGHT = 1560 LBS.
 USEFUL LOAD = 574 LBS.
 WING MAC IS 50 IN.
 MOST FORWARD C.G. LIMIT IS 15% MAC = STATION 62.5
 MOST AFT C.G. LIMIT IS 32% MAC = STATION 71

$$\% \text{ MAC} = \frac{\text{STATION} - 55}{50}$$

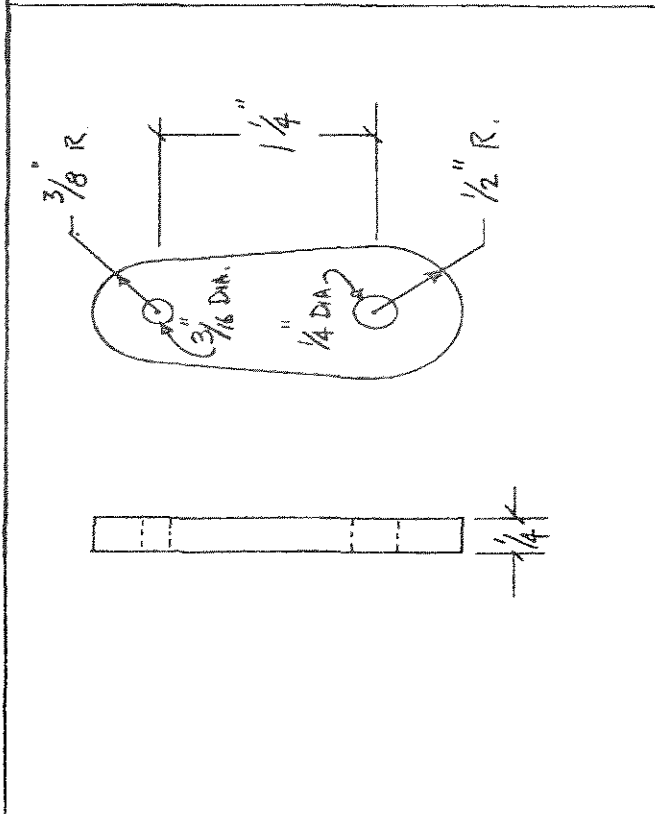
NOTE: AT GROSS WT., BAGGAGE IS LIMITED TO 44 LBS.



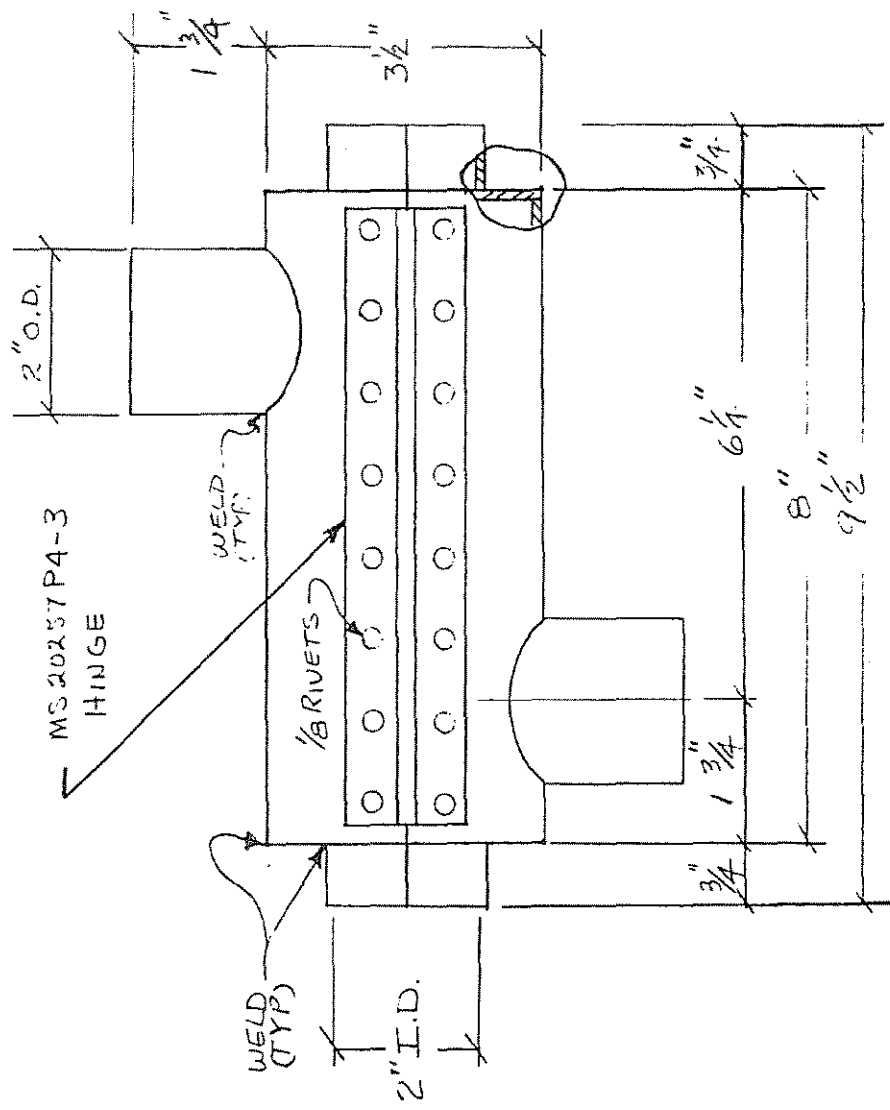
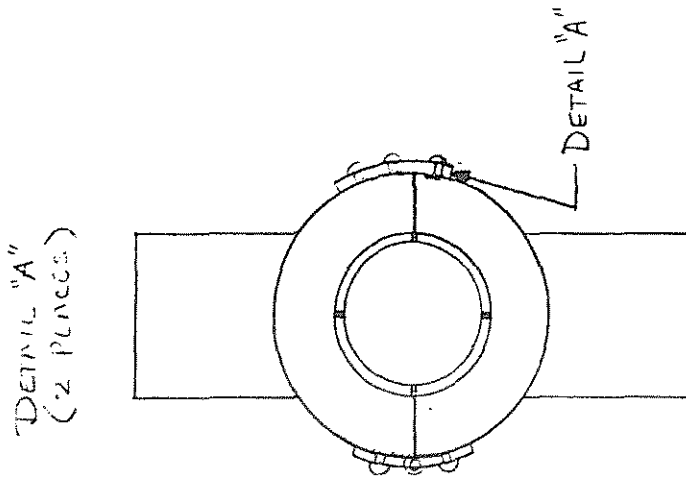
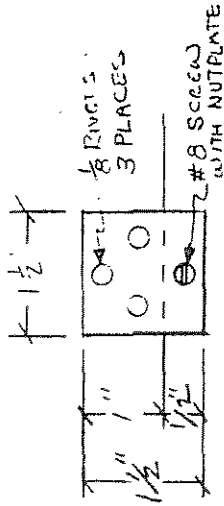
WING GAP BRACKETS

QUAN : 2 EA

MAT'L : ALUM



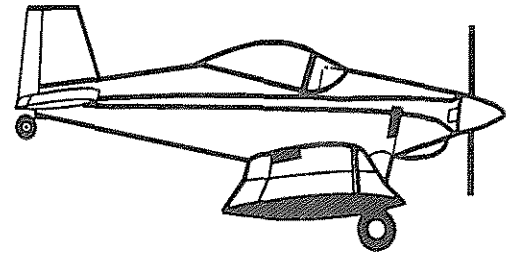
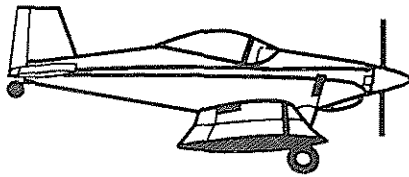
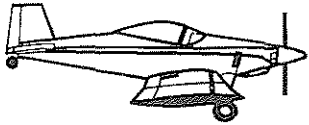
Submitted by Jim Stuart
 1521 E. Avalon
 Santa Ana, Calif.
 (714) 543-2331



T-18 HEAT MUFF
3-26-91

MAT'L = .049 S052 AL.
QUAN = 1 EA
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Submitted by Jim Stuart
1521 E. Avalon
Santa Ana, Calif.
(714) 543-2331



Placerville 2nd Annual

by Hal Stephens

What a great Flyin! Lots of old friends and now several new ones. One doesn't realize the quantity of Thorp designed airplanes that are flying today or that are in the "final" stages of completion until you put on a Thorp Flyin.

Familiar names like Vaughn Parker, Dick Eklund, Dave Tennant, Gus Gordon, Ann and Lyle Trusty, Tony Ginn, Jim Critchfield. Gar Root, and Harry Arnold ring like chapel bells. Newer folks such as Rive Trubok, Ben Harrison, Terry Adams, Alex Sim, Paul Reufauf, and Tom Garnett were among the participants.

Thorp 211, "Sky Scooter's", were flown in by Bob Riddle of Grass Valley and Dick Eklund of Lockford (John Thorp's homestead) to compliment the T-18's.

In all 14 Thorp airplanes were on the field plus guests in a Whitman Tailwind and an Aircoupe participated. Both were Thorp "wanta bes".

Tom and Georgia Garnett airlined it from the south land of California to pick up ideas for their nearly completed Tiger as did Ben Harrison from the Seattle area who just bought the major interest of a Thorp project T-18.

Harvey Mickelsen of Sunnyvale, who is about to test fly his super T-18 (as soon as the computer designed wings are completed), was given a ride by Tony Ginn which he thoroughly enjoyed he told me recently. *(Editors Note: see the photos of Harvey and his great T-18 project just after this story)*

Mr. Dave Tennant, a prince of a guy, lived up to his reputation of giving yet another builder his first Thorp T-18 ride! Erwin Darby, who drove for 5 hours from Grants Pass, Oregon has for all his life flown for hire and retired at age 65. Then he started building a Tiger. After 7 years of dreams and

rivets, Dave made his day!! A take off, a crisp climb, and a series of maneuvers showed Erwin just how impressive the Eighteen is. Not before, in all those seven years, had anyone offered a ride or the opportunity to fly the Thorp to Erwin until Dave did. I spoke with Erwin this week, a month after the Flyin, and he reiterated how impressed he was with Dave and how "wonderfully smooth" the Thorp flew when he compared it to those military and civilian machines he was paid to fly.

Dave now has at least two "first flights" to his record, having given Jim Critchfield his first flight in a T-18 at the first annual Thorp Flyin at Placerville. Jim had been "building" for 28 years at the time.

Georgia Garnett was also given not only her first T-18 flight but the first flight in other than an airliner. What a thrill that must have been. Her smile was from ear to ear. Tony Ginn, her pilot, gave five other "rides" to builders and to the visitors. The Flyin was just great for them and we've been encouraged to sponsor the "third annual" next fall as a result.

Jim Stuart from Santa Anna, who only had 4 hours on his new Tiger, flew up with Ralph Millisan of LaHabra to be at the flyin. David Newstel who resides (and builds) in Manteca flew in with the Eklund 211. Terry and Barbara Adams drove up from Stockton as their Thorp is still incubating.

What did the people do at the Flyin -- talked planes, Of course. Several of the gals went downtown to see Placerville and were gone for several hours. They all had credit cards waving in their hands when they left the airport.

As for meals -- huge Togo sandwiches were served for lunch and a full steak dinner was complemented by Lil Critchfield's Santa Maria beans and

fresh baked apple pie from the Apple Hill Ranch which is just up the hill from Placerville.

Who won the cork flying contest? None other than the Aircoupe driver, Laura from Landcaster!!

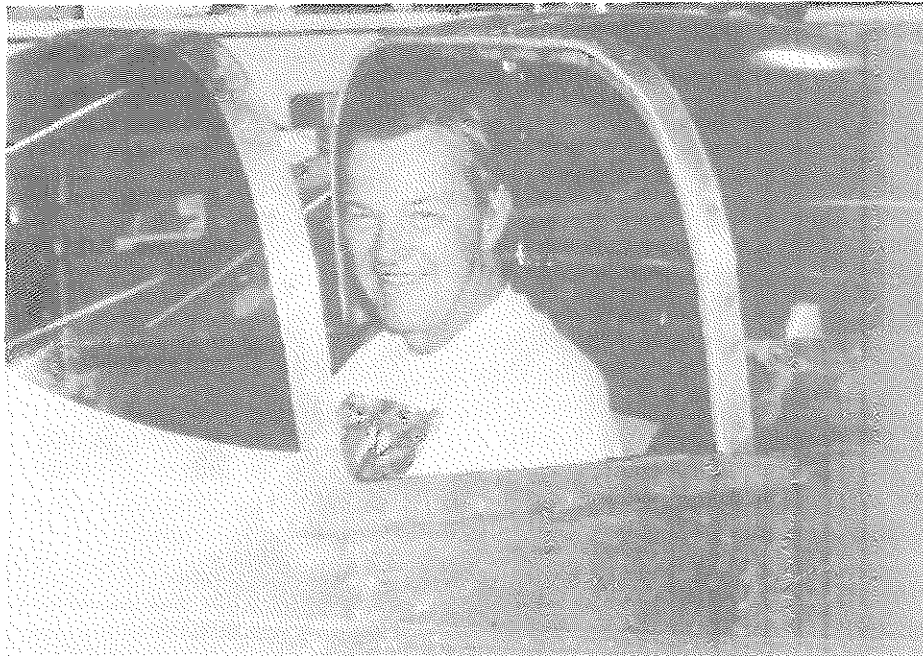
Again, for my wife Nancy and myself it was very nice seeing the friends we've made around the Thorp designed aircraft and wish all those who couldn't be there (like Harry Paine of Pismo country who caught the Asian flu) will be at the 3rd annual in 1994 - approximately late September.

"Long live the John Thorp legacy"

PS. I understand the T-18 project from Bryon, CA,

I described for the most recent newsletter, was quickly purchased by a gentleman from Alabama, who called me to ask more about it. Thanks to your newsletter another T-18 will soon fly!!

PSS. I've just returned from a trip to Oregon and visited with both Erwin Darby and Brad Chapman. Erwin is building folding wings and needs the engine majored then he's about ready. He cracked his canopy and can use some ideas on how to repair it. Brad was building last year and is now flying. He Just flew off the 40 hours. It does fly nicely on the 0-290 GPU. What a lucky guy, he has a private grass strip just outside his back door! Now comes the paint scheme next spring.



Harvey Mickelsen of Sunnyvale California. We paid him a visit last summer and found a great project that's not far from flying. It should be very fast. Harvey knows his business.

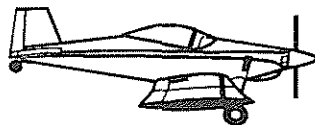
Simplicate

**What you don't put in
can't go wrong**

Add more lightness

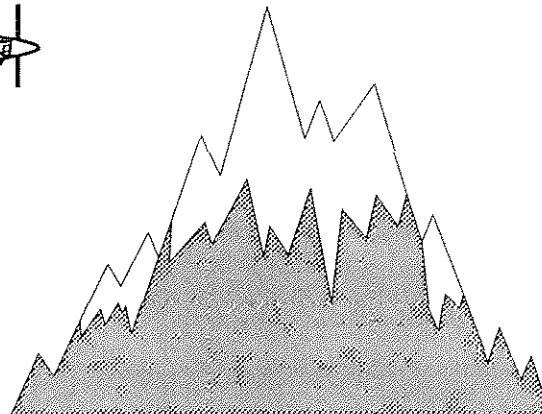
**Craftmanship is not a
skill, it's an attitude.**

Harvey has these fine statements posted on his wall in the shop



Mountain Flying

by Hal Stephens



MOUNTAIN FLYING (or flying in mountainous terrain)

Flying in "them there hills" is as simple as 1,2,3!

One is the wind, the two is weather, and three is density altitude.

Wind: air movement is like water in a stream. It kind of babbles along over the rocks, swirls around the larger ones and drops into the holes between them making a splash as it does so. Across the flat bottom portions of the stream the water just flows smoothly following the slope of the ground. Watching a tiny twig floating in a stream is like being in a light aircraft in the mountains when there is a wind. Of course, it's much nicer to fly through the mountains in your T-18 when there is no wind (or very light winds). Imagine a stream in late August when the spring runoff is over. What a placid little brook it becomes. What a wonderful place to fly! Now think about the spring runoff and how the brook becomes raging white water. You've seen it on TV. Heavy winds in mountains are the "white water" of air flow. Unless you're familiar with the feeling of being tossed about and have the skills to fly in it, it's best to wait it out. A better hour will come. Water runs down hill controlled by steepness of the slope and quantity necessary to move. Wind runs down hill from a high pressure area of the atmosphere to the low pressure area.... from a high to a low. The volume of air that flows depends on how high the "high" is as compared to how low the "low" is. The greater the difference between

the high and the low the greater the volume of air must move through the area. My rule of thumb is ... If the wind aloft at 6000 feet and 9000 feet is above 15 to 20 knots, I think seriously if I need to be where I think I want to be at that time. Winds usually subside in the evening and are usually lower in the early part of the day so maybe a different time would be better. Remember, when you have time to spare, go by air!

Weather is next: Weather means clouds. Clouds sometimes mean low visibility and even rain. The rule in the mountains is don't fly in the clouds and the rain.... unless of course you're a competent cloud flying mountain checked out pilot. Weather changes quite rapidly in the mountains. It's controlled a lot by moisture content and convection. Of course there are the frontal systems that are the same to cope with everywhere whether it's in the plains or the mountainous areas and you deal with them in the same manner. Fly between the frontal areas and not through them as they can get both wet and bumpy. In the mountains after a series of rain showers has passed there is a lot of moisture and it tends to rise in the afternoon when the sun heats the ground and in the mountains it's sometimes hard to crossover the ridges into the next valley if the one you were flying in has been filled up with a cloud or two. The rule of thumb here is to know where you are and to turn around if need be. Don't push it! If you have time to spare, go by air! Again, morning and evenings are generally cooler. Convective air is diminished greatly. It's a great time to fly!

Density Altitude: This one is a sleeper. Rule of thumb is Don't fly into high altitudes when it's hot and you're heavy! It's even harder to get out. At the higher altitudes the air is thinner (lbs./sq.in. and all that science stuff). When it gets hot it acts even thinner than thin and can't hold you up there as easily as it does at sea level, or thereabouts. You'll notice that when flying at the higher altitudes the controls seem a bit looser and the plane can wallow a bit more. Given the opportunity, a landing at an airport above 3000 feet will seem the ground is moving along a lot faster on final approach but your airspeed is pegged on the normal approach airspeed. It's true, you will be moving over the ground at a faster pace..... the air is thinner and the "ground speed" will be higher, thus your approach will be hotter. Your landing distance will be longer and stopping will take awhile. Don't choke up..... keep the airspeed up. A stall is not wanted now!

When it comes time to leave the high altitude airport think about the temperature. If it's hot, stay cool. Kick back and wait for the temp. to drop back into the 60's or low 70's. Also think about the load you're going to ask that little engine to lift up into that thin air. Most airplanes don't fly out of ground effect at gross loads, ie, full tanks, full baggage, and full people on hot days. That 150 horsepower engine that you zoom around with at sea level is now putting out as little as half the horses, and gasping for air at that! Check weight and balance again, recompute the take off distance and double check the rate of climb you'll get at the altitude and the temperature you're leaving from. It's basic private pilot stuff but seldom used, except on the exam, unless you're in the mountains. Then it's **IMPORTANT!** Typically, you can expect to use two to two and a half times the normal runway length to get off and have only 250 to 400 feet per minute climb rate when the normal is about 800 to 1000 feet per minute. You'll wonder what happened to the rubber band up front! Just be patient..... don't pull back on the stick and stall it..... keep the airspeed up and give her time to climb!

One last thing about flying about in the mountains. The old tycoons that built the railroads weren't dumb. They laid their tracks in the easiest terrain they could find--smooth gentle turns and gradual grades. The engineers that came along later with the roads followed the tracks but got a bit more risque. The term IFR means different things to different pilots but in the mountains it means, I follow railroads, rivers and roadways. If you plan your trips through the mountains considering the

above factors, chances are you'll thoroughly enjoy every minute of your trip and be hankering to come back. The people are friendly and the food is great and of course, the sightseeing is unbelievable!

Hal Stephens biography: I now have over 4000 hours flying in the past 25+ years. Have flown 45 different kinds of aeromachines; have over 1200 hours teaching flying-mainly in "taildraggers" and have spent a lot of time up in the mountains. I am rated Commerical, Single & Multiengine, Instrument Land, Certified Flight Instructor & Instrument Flight Instructor. I currently own a Cessna 185 and a 125 HP Cuby (SuperCub Clone)



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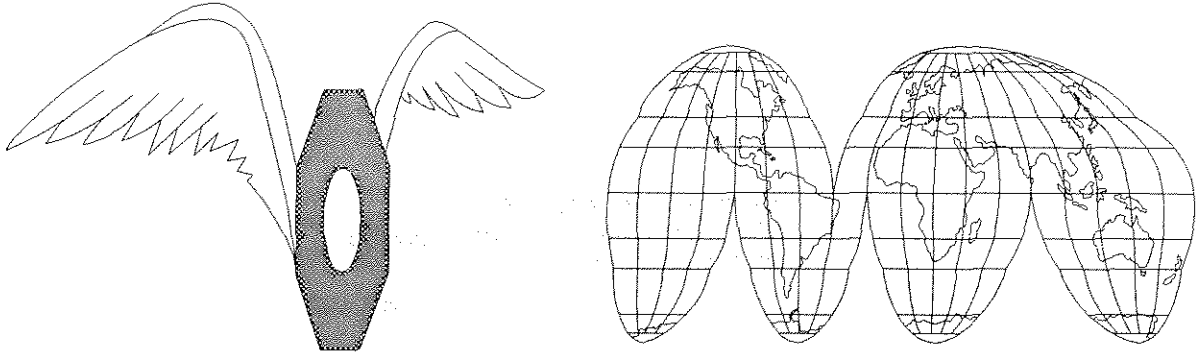
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The John Thorp Legacy

Editor's Note: I hope this list of John Thorp's designs is correct, it came from an old article by Don Downie in Private Pilot.

T-1	1931	Design study only for a two-place lightplane.
T-2	1932	Design study only.
T-3	1933	Four-place, all metal, retractable; originally designed with a seven-cylinder, 1 10-hp Warner; originally equipped with a six-cylinder Lycoming.
T-4	1934	Design study only.
T-5	1935	Built by the Boeing School of Aeronautics, Oakland, California, where Thorp studied and remained as a teacher. Finished in 1938.
T-6	1936	Design study only.
T-7	1939	Serious design study for an all wood airplane.
T-8	1940	Design study only.
T-9	1941	Design study only.
T-10	1942	Lockheed Little Dipper design for the flying infantryman.
T-11	1945	Sky Skooter. Eight were built by Thorp in a factory adjoining what is now the Van Nuys Airport (then Metropolitan Airport). Altogether, 11 were built. The main difference between the original T-11 and the T-211 production model today is the use of the 100-hp Continental rather than the original, 65-hp Lycoming.
T-12	1945-50	Design study only.
T-13	1950	FL-23 built by Fletcher Aviation, then in Pasadena, California, as a high-winged observation aircraft to win a competition against Cessna's L-19. One FL-23 was built, with a 225-hp Continental engine.
T-14	1951	Fletcher Aviation designation was the FD-25 (Fletcher Defender), a single-seat, armed lightplane with a 225-hp Continental.
T-15	1952	Fletcher agricultural aircraft FU-24, known affectionately as "Smelly Nelly," it still is used extensively for "top dressing" in New Zealand. Aircraft was designed with matched hole tooling and initially was shipped to New Zealand in predrilled, flat sheets.
T-16	1956-58	Piper Cherokee prototype, the PA-28, originally designed with 180 hp. First airplane built had only 150 hp. Entire Cherokee production dates back to this prototype design.
T-17	1958	Wing Derringer. Began as a simple, twin-engine Sky Skooter.
T-18	1960	We know this part of the story!
T-19	1962	Design study for Frank Nixon for a four-place, twin-jet aircraft.

This NUT Flew Around The World Contest

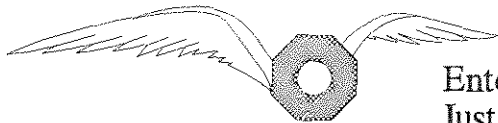
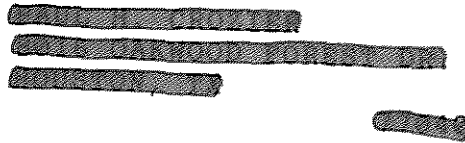


This is your chance to win a piece of history. Don "around the world" Taylor has given us 24 pieces of his famous airplane "Victoria". Hardware that he had left from the bird after he gave it too the EAA Musuem in Oshkosh. It won't be hard to win. Just send an article or note about building some assembly or flying the T-18. The first 24 people will receive a part of Don's T-18 Make a plaque to show the part off or attach it to your T-18 for good luck. Enter now. Send your articles and pictures to me at the following address:

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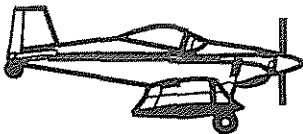


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Just send a short article on building or flying the T-18 and
win a piece of history. Courtesy of Don Taylor.

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