

Late August '84: OSH '84 is history and according to all reports it was bigger and better than ever. Sure wish I could have made it, but I'll have to admit that I wasn't up to it physically. I just plain ran out of gas I guess. Thanks to JOHN WALTON, who kept me posted with reports and some photos, and JOHN BUFFINGTON AND BOB JAEGER, who sent me tapes of both the T-18 Forum and the T-18 annual dinner, I was able to capture a goodly portion of the flavor of events there. Sure hated not to be able to visit with all you guys again. Really missed seeing so many of my good friends. Maybe next year. To all of you that have inquired by letter and phone I deeply appreciate your expressions of concern and I'm happy to report that I am feeling considerably better. If I keep on this way I'm hopeful I may crank up enough energy to make the Kerrville Fly-in in mid-Sept.

Here's the list of T-18s at OSH this year that JOHN WALTON sent me:

N51863	John Walton	Houston, TX
●N83MK	Karl Lipscomb	Lamar, MO
N18VP	Vern Peppard	Dallas, TX
N89RB	Dan James *	*
N88DT	Don Thompson	North Hills, PA
N118GG	Gary Green	San Antonio, TX
●C-GFPB	Fred Gindl	Agincourt, ONT
N12055	Bob Griffith*	Hampshire, IL (?)
●N76KC	Dan Culhane	So. Windsor, CT
N5GL	Gayle LeCount	Georgetown, IL
N8428	Pete Eversole	Stoddard, WI
N89SB	(owner unknown, do YOU know?)*	*
N8952	Earl Ody	Torrance, CA
N583C	Cecil Hendricks	Seattle, WA
N2NE	Nate Eastman	Kimball, NE
●N1308B	Jerry Stallings	Ferriday, LA
●N3124T	Steve Holbert	Houston, TX
N3706	C. Shuster *	Park Ridge, IL
●N2819L	Wayne Irwin	Merced, CA
N3WC	Bill Cox	Baytown, TX
N9996Q	Harold Weeks*	*
●N31BD	Bob Dial	Bloomfield Hills, MI
N851LT	Lyle Trusty	Lancaster, CA
N50RH	Robert Hastings	Modesto, CA
●N69HC	Harlan Cavin	Miami, OK
C-GRAP	R. A. Froebel	Westhill, Ont.
N600HH	Howard Henderson	Kirkwood, MO
N(KONG)	Bob Hudgins *	...MI
C-FYFI	Bob Affleck	Harrow, Ont.
N1396	Bob Griffith*	*
C-GIBH	Bert (?) Hamilton*	*
N12055	Ed Burke	Pittsburgh, PA
N3020	Cecil Williams	Cooper City, FL
N2KP	Ken Parton (?)*	*

The * following the name indicates a NON member of the T-18 Builders and Owners Association and we do not have an address on them. If you know the address (all or part) of any of these people please let me know so we can track 'em down and let them know of our group and its aims...the furthering of T-18 safety standards, exchange of service problems, etc. We now have a goodly number of owners that are not builders, so it's essential we get in touch with these new owners.

CONT'D ON PG. 2

(● ABOVE = 1ST TIME AIRPLANE AT OSH)

(cont'd).....Estimates on the number of T-18s that have flown range from 450 to perhaps 600-700. My personal wild guess is about 500, but no one really knows for sure and it would be very difficult to find out, even using the U. S. Civil Aircraft Register (which I understand isn't published any more). One trouble is that a number of them are listed as the "Jones Special", or "Smith-Thorp Special", etc. Using listing from those that registered at OSH (as published in Sport Aviation) we come up with about 125 and our records indicate about another 60 or 70 that have belonged to the MAS. There are about another 75 that have flown in Canada, Australia, New Zealand, Mexico, Barbados, So. Africa, etc. and perhaps those numbers are on the high side. For some reason a sizable number of new builders or new owners never get around to notifying John Thorp, Ken Knowles, Lu Sunderland, or myself that they have flown their birds. If you know of a T-18 anywhere near you or one you've seen at a fly-in someplace, or have even heard a rumor of one someplace, PLEASE notify us and maybe we can somehow track down the owner. If you sell your airplane or project, it would be a big help if you would send us the details. Also, if you change your mailing address I would appreciate it if you would immediately let me know. In mailing NL#59 I had 6 of them returned by the PO Dept. because it had been too long for them to forward mail to the new address. I will know that at least 5 of those 6 will write me in a few months and wonder why they no longer are getting the NL. I would greatly appreciate your help in these matters, gents, as I have a heck of a time keeping up with correspondence in this area. I won't plead old age just yet, but I've noticed that when one gets to be 68 that they drop the ball a lot more often than they did before. I'm involved in several other very time-consuming activities and sometimes it's a problem to squeeze in a couple of hours to cut my yard, so please forgive me if I'm super slow, forgetful, or absent minded sometimes, amigos.

Listening to the tape on the T-18 Forum I couldn't help noticing that there were quite a few tips, opinions, experiences, etc. on quite a variety of subjects about build and flying that were sounded out and discussed at some length and there were several items brought up that all would benefit from. I became puzzled at this point: Now if you guys can get up in front of an audience and expound on these things, would it be too much trouble to set it down on paper to use in the NL???? I will know that some people are most reluctant to write anything, but usually those same people are timid about public speaking in any form, too. Anyway, friends, I think you get the point without my beating it to death.

If any of you have a complete set of color prints of all the T-18s that were at OSH this year I'd be most grateful if you'd get another set run off and send 'em to me. I'll reimburse you for them and postage, of course. I usually shoot a picture of each airplane's interior and inst't panel, too, so if you also have any of these I'd sure appreciate.

How would one of you like to own one of those slick little handheld 720 channel Narco HT-800 transceivers??? Especially if it didn't cost you a single penny?...!! Now have I got your attention? Well, some lucky paid-up member of our T-18 Builders and Owners Association will soon do just that! Here's the how and why:

First the why: In order to expand our newsletter subscriber base, so that we can reach more T-18 owners and builders (like I wrote about in the preceding paragraphs) and perhaps stimulate the ones searching for a project to build a T-18, plus widening our statistical base and increasing the input of informative material, we have come up with a plan to accomplish

those goals...(I hope). If this is successful it should also lower our unit cost per newsletter a bit.

Here's the how: Everyone paying their 1984-1985 dues of \$10 between Aug. 8, 1984 and Dec. 31, 1984 will qualify for a chance to win the Narco HT-800. Our fiscal year will run from just after OSH to just after OSH the next year. Each member will be assigned a 4 digit number in the order of when they send in their subscription. A letter containing their personal no. will be sent immediately on receipt and this letter will also contain a questionnaire sheet to be filled out and returned no later than Jan. 15, '85 ONLY THOSE RETURNING THE QUESTIONNAIRE WILL QUALIFY FOR THE NARCO DRAWING! In order to remove any suspicion of hanky-panky, 4 independent selections of the 4 digit numbers will be made by non-interested parties. (The 1st digit will be picked by John Thorp, the 2nd by an EAA HQ person, the 3rd by Mr. G.B. (canopies), the 4th by Steve Wittman. The winner will be announced no later than Feb. 10, 1985. Incidentally the odds are fabulous in your favor, in comparison to most such drawings.

Incidentally, if you've never seen or tried the Narco it really works great. I've tried out several of them and I can work the tower from my car from 5 miles away (loud and clear both ways) and while riding in 5 different airp planes lately I had no trouble working the tower 15 miles away, and all this was using the little "rubber ducky" antenna. It is a simple matter to attach it to the regular aircraft antenna via a B & C connector and you can also plug in a remote mike and earphone. You can store 10 channels and use all the 720 channels between 118.0 and 136.0, too. It also has a scan feature that's pretty handy. We can get them from the local dist'r for \$476 (plus state tax), but I imagine any of you can probably get the same price most anywhere else. Be glad to get you one, but better wait until we have the drawing. You just might be the lucky one.

In case you are a new member of the T-18 B & O Association, please be advised that since its beginning in 1963 that it has been and is a non-profit group, with the newsletter costs entirely supported by donations of its members. Also, NOTICE: (STANDARD DISCLAIMER) As always, in past, present and future newsletters, we would make you aware that this newsletter is only presented as a clearing house for ideas, opinions, and personal experiences of both members and non-members in both building and flying and anyone using these ideas, experiences, or opinions, do so at their own discretion and risk. Therefore, no responsibility or liability is either expressed or implied and is without recourse against anyone.

On pg. 1 in the list of OSH T-18s, a brand new T-18 was chosen as the Peoples Choice and it was built by Karl and Mazie Lipscomb, of Lamar, Mo. I was pleased to hear this, as Karl and I go 'way back together to the very early '30s when we both learned to fly in Springfield, Mo and it was my pleasure to help him get started on his T-18 in late '80. Karl also built a Starduster Too, that was judged the best Starduster at OSH, and was the SA-300 rep at the Dayton Air Fair, so again, Karl, congratulations! He was also a Braniff captain until the early '50s, when he temporarily lost his medical on a fluke. We'll have his story in a later issue.

Speaking of OSH T-18s, another slick one was Nate Eastman's, of Kimball, NE, and he represented the T-18s this year at the memorial Wright Bros. ceremony that's part of the Dayton Air Fair. Nate, like the previous T-18s at Dayton, was overwhelmed with the red carpet treatment of the sponsors of the event. (His story is in another part of the NL). Congrats, Nate!

● "WELDING CANOPY FRAMES".....contributed by LU SUNDERLAND

When I recently went to show my new son-in-law, Jeff Van Gorden, how to oxy-acetylene weld a canopy frame for his T-18, I had to turn to the old T-18 Newsletters to refresh my memory. It's been many moons since I made mine in 1967, but it looks as though I was too busy finishing my airplane to document that operation. It was good to re-read the old newsletters anyway. After a day of re-learning aluminum welding, here is what I discovered:

I did find a comment in the newsletter saying that aluminum welding is easy. Don't believe it. The easiest welding is on 4130 steel. Next is stainless exhaust tubing and the hardest is thin wall aluminum tubing. I used to think that only 6061 aluminum could be welded, but now I find that with the new rods available that you can also weld 2024 alloys. The rod specified for 2024 is called "brazing rod", but it is applied in exactly the same way as aluminum welding rod as far as I can tell.

The problem with welding aluminum is that it conducts heat away so rapidly that before you can recognize that the base metal is hot to accept the filler rod, the whole surrounding area overheats and starts to sag.

When starting a fresh joint before it gets coated with flux, it is possible to observe a slight texture change under the flame when it is hot enough to flow rod. But as the weld progresses, the flux makes an orange envelope in the exhaust flame, practically obscuring the puddle.

First, let's look at the materials used for oxy-acetylene aluminum welding. It is possible to use ordinary acetylene gas, but it is preferable to use hydrogen instead, since it produces a lower temperature flame.

There are a number of types of welding rods available. Some are bare aluminum alloy and some are coated with flux (or filled with flux). It is necessary to use a special flux for welding aluminum. It is more convenient to use the flux-filled rods rather than the bare rods, which must be dipped continuously in flux. The only problem with the filled rods is that they are quite large (1/8") and after you decide that the base metal is hot enough for adding rod, it takes awhile to get the rod heated. If you stick the rod in before the base metal is hot enough, the flame can melt the rod and a huge ball will form on the end of the rod. This must be shaken off and discarded before proceeding. Also the filled rod makes a larger fillet, which doesn't look very attractive. You might like to try it, however. I personally prefer it.

The flux-cored aluminum torch alloy rod I used was MG420, made by the MG Products Co., Menomonee Falls, WI. Tensile strength is 34,000 psi and it melts at 1100° F. Instructions say, "With oxy-fuel torch adjusted to a slightly carburizing flame (excess acetylene), heat work to about 1000° F." It does not say how you know when you reach 1000° F. Here's how you know. If it gets hotter than that the base metal will sag and possibly cause a hole. If it is under 1000° F and you stick in the rod, it won't flow, but will make a neat ball about like a glob of mercury laying on a table. The only real way to detect temperature is to try applying rod. If it doesn't flow, flick it off and apply more heat. The instructions continue, "Melt 1/4" of the rod; continue heating until the alloy flows out. Lower the angle of the torch; continue adding alloy a drop at a time until weld is complete. Whatever you do, practice on scrap tubing before attempting the real thing.

(CONTINUED)

The bare 1/16" rod is fairly easy to use, but you can't make rapid progress because you must dip it in the flux. The secret is to get a rod that melts at low temperature.

It is generally better to weld only a short distance at a time and then back off for a short while. (This is called "puddle welding with steel.") Otherwise the surrounding bare metal can easily become overheated.

Bending the .035 wall tubing for the T-18 canopy frame can be rather tricky especially the front member which joins the windshield frame. It can be done without kinking if a 3/4" tubing bender is used and care taken. You can soon find that the tubing can be worked through the bender with less tendency to kink if it is fed with the straight, yet-to-be-bent part being forced down around the radius. If you proceed in the other direction, lock out.

If you elect to take your frame to a shop for welding, it can be Pop riveted together on the airplane, using sheet aluminum or steel gusset plates across the joints. Cut out clearance areas in the gussets to allow room for welding. Once the frame is tacked together, the rivets can be drilled out. Don't get the rivet holes where Riv-nuts will be located. The tack welding can be done on the airframe, but be sure to use sheet steel plates to protect the skin.

There is no need to bend the tubing continuously around the corners at the rear end. Instead a single piece can extend across the back, with joints at each rear corner.

If you can't locate aluminum rivet nuts for use in the frame, J. C. Whitney has them in boxes of 25. You'll need three boxes at \$5.00 a box.

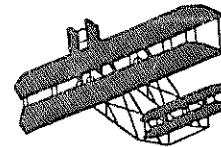
Drilling the 1/2" holes in the windshield and canopy is a breeze if you can locate or grind a sheet metal grind drill. These are ground with a little nib in the middle and the outer edges projecting down enough to cut out a disc.

Thanks, Lu, for still another excellent how-to-do-it article. We are very lucky to have a contributor with the caliber and talent that Lu has. He not only has the expertise, but also the ability to draw a word picture that is very clear. Thanks again, Lu.

At this year's Forum, ROGER DENGLER, of Arlington, TX, passed on a very good tip on drilling the 1/2" holes in the plexi. He used the Unibit, a step drill, that is sold by many specialty tool suppliers that cater to machinists and tool makers. I can also vouch for this drill. In addition it is really handy to have around for drilling large holes in aluminum. Some builders have also used wood countersinks or various type grinding stones to drill the plexi. In any case, NEVER, NEVER USE A REGULAR DRILL ON PLEXI! A regular drill will grab as it goes thru and it only takes one such grab to crack your canopy and ruin it, so don't gamble.

We drew a rough sketch of what a sheet metal grind looks like in N.L.#55, in case the term is new to you.

I might add one thing to Lu's words on tube bending. Years ago I was trying to bend the canopy frame to fit the windshield roll bar, using one of hickies that electricians use, and I found you must use a form block to bend to a shape accurately. Don't try to freehand bend if you want to save a lot of frustration.



THE AIRPLANE FACTORY INC.

7111 BRANDVISTA AVE.

DAYTON, OHIO 45424

More info on the cutting and drilling of plexiglas (from JOHN WALTON)

PLEXIGLAS HINTS

1. Cutting: An abrasive disc powered by a high speed drill, a Dremel tool, or a hand held circular saw is recommended. We have found that abrasive cut-off wheels of aluminum oxide or silicon carbide provide excellent cutting results. A six inch disc is available at most hardware stores for around \$3.50. A small grinding disc or Dremel saw disc will also give good results. Reciprocating saws like saber saws are not recommended and will probably break your canopy. A tool that progresses slow and hot to grind through the canopy is best. Tape a poly plastic cover on the canopy and mark your outline with masking tape. Never cut a cold canopy. Allow the canopy to warm to 70° or more for at least an hour. Don't allow the canopy to vibrate or chatter during the cutting or it may chip and crack. Support your canopy on a flat surface so it will not twist or spread during the trimming. Duct tape is handy to hold things in place. Remember; cut slowly, don't push the cutter. Let the tool do the work. Be sure to use eye protection. Plexiglas chips can be a problem in your eyes since they are clear and difficult to see.
2. Drilling: The drill should be ground off to a zero rake angle to prevent digging in, chipping and cracking the Plexiglas. A standard drill bit, ground with no cutting edge pitch, is a safe method of making holes. Be sure to make the holes oversize to allow for motion caused by thermal expansion and contraction. The drill bit should not be allowed to chatter or it will chip and break the Plexiglas.
3. Cleaning: A damp soft cloth or an air blast will clean the saw dust away. The damp cloth will also dissipate static electricity. To clean dirty plexiglas use plenty of water and a non abrasive soap or detergent. Dry with a clean chamois or soft cotton. Never use acetone, benzene, carbon tetrachloride, lighter fluid, lacquer thinners, leaded gasoline, window sprays or scouring compounds. Grease or oil may be removed with kerosene, white gasoline, naphtha or isopropyl alcohol. Small scratches can be buffed out with "Mirror Glaze" HCH-17 and lot of rubbing. Hard automobile paste wax should be applied as a protective coating and buffed with a soft cotton flannel cloth. Do not use cheese-cloth, muslin or shop cloths, they scratch. For deep scratch removal, procure a hand polishing kit from a Plexiglas dealer or your canopy supplier.

Experiment with all the above on scrap plexi before you tackle the real thing. Like everything else, perfection comes thru practice.

THORP T-18 BUILDERS & OWNERS ASSOCIATION
EAA CONVENTION, WITTMAN FIELD
OSHKOSH, WI. 54901

July 31, 1984

Mr. John Thorp
Box T
Lockeford, Ca. 95237

Dear Mr. Thorp;

This Association met tonight in Oshkosh for its Seventh Annual Meeting. Over 125 members and guests were in attendance. During this meeting the following statement was drafted and unanimously endorsed for forwarding to you.

The Thorp T-18 Builders & Owners Association salutes John Thorp on this the Twentieth Anniversary year of the first flight of the first Thorp T-18, N96752 (See enclosure).

Your Thorp T-18 design has accrued over 120,000 hours of flight time; making it one of the most proven homebuilts. In addition the Thorp T-18 is widely admired and regarded as one of the premiere lightplane designs, regardless of licensing classification. This achievement would not have occurred without your considerable vision, design skills, and tenacity.

This association takes this opportunity to extend its admiration, thanks and best wishes to you.

Sincerely,

Thorp T-18 Builders & Owners Association

By John G. Walton

And all of us that weren't at OSH, we, too, add our deep felt thanks to John Thorp for giving us the finest homebuilt aircraft design in the world....and after over 20 years, it's still the best!



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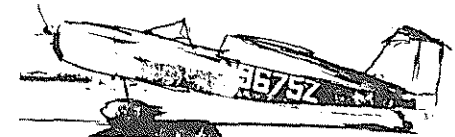
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AUGUST 1984
TWENTIETH ANNIVERSARY

The T-18 Flies

By Bill Warwick, EAA 3775
5726 Clearside, Torrance, Calif



I FEEL somewhat justified in writing what I consider to be a most incomplete report, due to the fact that I know a lot of Thorp T-18 builders were getting anxious to hear about my T-18. Possibly, I can make amends at a later date with a more factual report.

At the time of this writing, the airplane is incomplete as far as upholstering, landing gear fairings and canopy are concerned. These items should arrive with the ship at Rockford.

I have a Lycoming O-360 engine with a Hartzell constant speed propeller and full electrical system, so my empty weight came out a bit on the high side at 983 lbs. Even so, I think that it all paid off with an outstanding rate of acceleration and climb and I'm sure that with a canopy, a most respectable cruise.

Now, you're probably wondering why I haven't given any figures on these points and the reason is that, at this time, I just don't know! With the static system it now has, I can indicate an easy 140 mph on a power setting of 19 in and 2200 rpm, which is too high, I know.

At any rate, I haven't been too concerned with this sort of thing as yet. My most pressing problems have been to get my required flight time in the test area, which is 50 miles from home, and to get a canopy built.

The "A" frame gear is working out quite nicely in my opinion. I don't like a mushy gear, nor a hard one either, and this one seems to be a happy medium. If your flying is to be done off sod fields, then you might consider it too stiff, which might necessitate 6.00 x 16 wheels, but for hardpan and concrete, it's okay!

For those of you who are accustomed to long-winged Cessnas, or lungeed "Tri-Pacers," you're in for quite a surprise. The aileron control on the T-18 is one of the best you'll ever feel. Incidentally, a very nice coordinated turn can be made with the feet on the floor. Rudder control is very positive just as soon as a little prop wash gets back there and I've never experienced any difficulty keeping her straight either on take-off or landing.

Since there's no trim system as yet, it takes back pressure for climb and forward for cruise. This item rates high on the priority list due to the discomfort of holding a stiff arm. However, the control about the pitch or lateral axis is good and positive.

I do hope that I've succeeded in touching the spurs to the T-18 builders, because I'm sure now that when you finish, you will be the proud owner of one of the most popular little sportplanes ever to come along. I am!

● **TAILPIPE DRAG:** A rule of thumb in estimating drag of a standard exhaust pipe is to assume that the pipe extends 18" beyond its actual end. This extension allows for drag loading caused by pressure differential generated at the tailpipe end as the slipstream bends the exhaust plume.

If two 2.75" pipes exit the cowl at 45 degrees and extend 4 inches into the slipstream, the resulting drag at 170 MPH is about 24 pounds. Total drag of a clean T-18 at this speed is about 220 pounds. Those tailpipes are costing 2 MPH in drag! Reducing the angle to 30 degrees will cut drag to 14 pounds or 5 MPH.

In an effort to get the most speed from my airplane, I used "ejector stack" tailpipes on my crossover exhaust system. Use of simple ejector stacks should eliminate the drag penalty and add 3 to 5 pounds thrust. The price of ejector stacks is a bit of fabrication effort and an exhaust stained belly (my flush ejector stacks leave two trails of light grey soot back to the tailwheel).

My ejector stacks consist of rectangular tailpipes dumping into rectangular nozzles cut flush into the belly of the fuselage. The fast moving exhaust gas mixes with engine compartment air in the nozzles and exits flush from the belly giving a net jet thrust greater than that of a standard tailpipe.

The "nozzles" are rectangular ramps cut into the 523-2 forward floor skin and the firewall. The left ramp is 4.6" wide placed between the floor extrusions that are either side of the pilots left foot. The ramp ends 5.5" aft of the firewall lower corner, and is as deep as possible at the forward end, extending up to the edge of the 527-2 extrusion which runs across the firewall. The D-609 drawing top view shows such a ramp. The right hand ramp is identical, located under the co-pilots right foot.

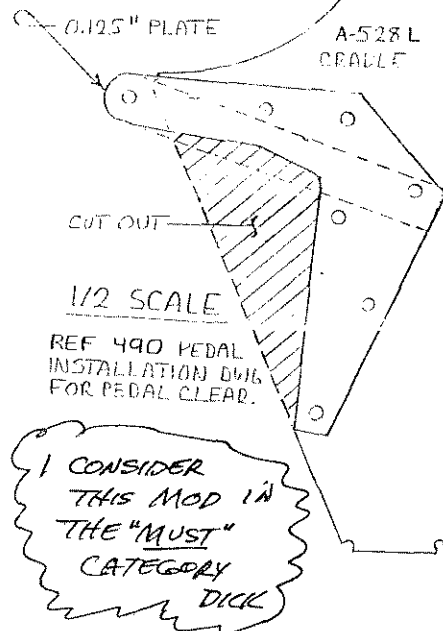
The resulting openings in the firewall are 1.2" by 4.6", and a bend in the lower cowling increases this area to 1.5" by 4.6". The 0.7" by 4.1" (I.D.) rectangular tailpipe ends are centered in the openings with ends coincident with the firewall face.

The "ramps" are extended forward of the firewall into the engine compartment by 1.5" radius .025" aluminum inlet guides to eliminate sharp corners of the firewall edges.

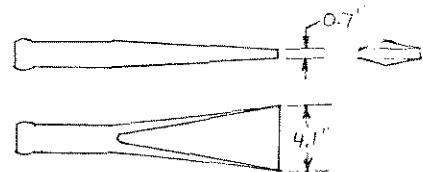
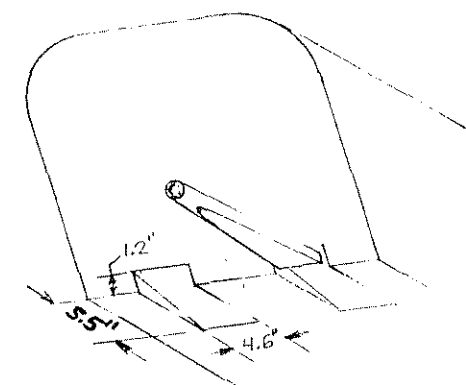
Heat shields for the "ramps" and the floor skin were fabricated from .016" aluminum (extending 24" aft of the nozzles). A sheet of asbestos paper between the .016" heat shields and the airframe provides insulation.

The basis of my exhaust system is a DIX crossover exhaust with ball joints connecting to my custom tailpipes. The left pipe is a straight run from the crossover to the nozzle, but the right pipe needed an 'S' curve bent into its forward end to keep the pipe exit parallel to the airplanes belly.

*Thank You for the newsletters Dick!
Tom Kerns*

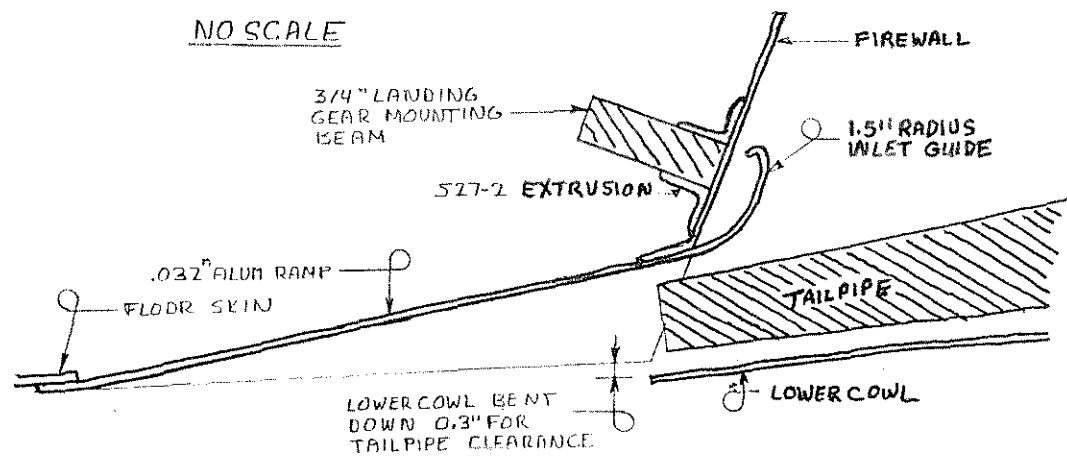


I CONSIDER THIS MOD IN THE "MUST" CATEGORY DICK



STANDARD TAILPIPES WERE CUT LENGTHWISE, SPREAD APART, AND TRIANGULAR PLATES WERE WELDED IN TO FORM THE TOP AND BOTTOM SURFACES OF THE TAILPIPE.

NO SCALE



INSPECTION ALERT: (to be part of the T-18 Owners Safety Manual)

From B.C. ROEMER, Manitowish Waters, WI.: He writes, "I now have over 1000 hours on my T-18 and when I did the annual this year I found nothing, but last year we found the steel reinforcement "L" plate mounted at the bottom of the rear bulkhead (#576), where the tail spring mounts on, was cracked in MANY places, including the bend! This is the .060 4130 steel plate, that they put in in place of the original .040 one (which had also subject to cracking). I replaced the .060 one with one of .090 of regular flat cold rolled steel and I feel this softer steel will soak up the shocks better without cracking like the 4130 did. The 4130 cracked at many different rivet holes that were not even near the bend. It must have age hardened. Looked real good this inspection, so maybe the cold rolled is the answer. In case you are wondering, we have the steel tail spring, not the original solid aluminum one."

- ④ Please inspect this fitting on your airplane as soon as possible. If any of you find a similar condition please forward a simple report to us. A simple sketch of any failure areas would also be helpful.

B. C. further writes, "We find it IMPORTANT to keep the coil springs tight (the ones between the rudder mast arm and the tail wheel steering arm). When you put two people in it and possibly some baggage it will cause the geometry to change (as on a hard landing), causing the springs to slacken and steering goes to hell and direction control can get dangerous."

Thanks, B.C. for both of those timely tips. We all need to know about these things ASAP and the NL is the only conduit of information for the great majority.

- ④ From LYLE FLEMING, one of the many T-18ers living in Lancaster, CA, writes, "On page 16 of NL #59 you had an article about alternators. I had a Motorola automotive alternator on my O-360-A1A Lycoming for over 1000 hrs. with not one bit of trouble.

I know the alternator ran backward to what it did in a car, but it worked just fine. I did not change the cooling fans, either. It was 35 amp capacity.

The landing gear on my T-18 developed a crack just below the lower bolt at the corner of the fuselage, but this didn't show up until after I had 1000 hours of landing on the VERY rough airstrip I normally used most of the time. This might be an area that other T-18 owners may want to check pretty carefully."

Thanks, Lyle, for your reports. I had my tongue in my cheek when I ran that alternator article, since it was written by a repair station operator. In any case, it's good to see both sides of a situation. As for the gear cracking comments it seems that the occurrences reported are probably isolated instances that show up after excessive rough field operation. Dr. Cottingham, who now has well over 3000 hrs. on his T-18, with 90% of his T/O and Ldgs. made on rough, turf fields, and he hasn't had any such problem Bill Warwick probably has well over 2500 hrs. on ol' Tiger and he, too, has been free of gear crack incidents. Nevertheless, such reports serve to highlight the fact that every T-18 is an individual airplane, even tho' they look alike, so it would seem prudent to not get careless and take things for granted, don't you think.

Again, we solicit your prompt reports of ANY problems.

From our old buddy, BOB DIAL, who also needs no introduction to newsletter readers:

(received prior to OSH '84)

Dear Dick,

Got your last newsletter a few days ago and, as usual, you have done a fine job.

I have finally finished my second T-18. Painted, inspected, licensed and ready to go, --I thought. I filled the gas tank and ran the engine for the first time and the tank leaked badly. I had assumed the builder of the tank had pressure tested it and that was a bad mistake. Consequently, I had to take the tank out and you well know what that involves. I ended up building a new tank and by the time I finished it the weather had turned bitter cold and I don't do nuthin' at my hangar in cold weather. The tank is sitting out at the hangar ready to be installed and the airplane is all apart and that is where it will stay until warm weather next spring. The airplane is beautiful. I had the paint job done professionally as well as the interior and it turned out really well. The empty weight of the airplane is 325 pounds, neither light nor heavy. It is a simpler airplane than my first one. A good basic instrument panel with post lighting, a new KX-155 state of the art radio, electric flaps but no electric trim. It has running lights, landing lights, phone jacks and intercom on both sides, a new, solid state, Davtron omni head with localizer, adjustable seats, and a few other really nice goodies. It is powered with an O-320A1A Lycoming O time first runout with all new accessories, plugs, harnesses, mags, vacuum pump, starter, 30 amp alternator, and whatever else it took to make it new and first class. It is a 160 hp engine. Right now, I have a new Sensenich wood prop on it but I think I will chance that to a metal prop since the wood prop is overpitched and won't let the engine turn up enough. This airplane is much cleaner externally than my first airplane and I think that it will be quite fast. I'll send you pictures as soon as it gets warm enough that I don't freeze my buns taking them.

Incidentally, I can add a little to the history of Arch Maxwell's airplane. The airplane was built by Bill Hart here in Detroit and he moved to Arizona before he finished it. It was one of six that was started here by a group that included Parver Miller, Bill Davidson, George Kittle, Bill Oliver, and two others whose names escape me. The only two that were finished and are presently owned by the original builders are Parker's and Bill Oliver's. The others were bought and sold many times and finished by other builders. All six were finally finished and are flying today. One is owned by Nick Saraphinoff here in Detroit. Another was finished and turbocharged is owned and flown by Tom Baczanyi in Okla. Mich. Another was finished by Dick Burlingame of Milos Mich. and has since been sold. Arch has the other one.

There are presently seven T-18's at Pontiac airport here. There are four in my hangar: mine, Bill Oliver's, Dick Baczanyi's, Don Bourcier's. Then there is Al Rosinetti's, Gary Cosenland's, Dick Rosden's, and one was sold last week and went to the west coast. That one belonged to Mark Younggren.

I will write to Vern Peppard and volunteer for the C.G. section of the proposed manual. I have a nice program that I wrote for my computer for weight and balance for the T-18 and if anyone wants to send me their data I will run it through the computer and send them a nice print out like the one I am enclosing. The only thing I ask is a self addressed, stamped envelope. I have the capability of computing the weight and balance for any T-18 if I am just furnished the weight on each main wheel, the weight on the tail wheel, and the max gross weight of the airplane. WARNING! THIS WILL ONLY WORK FOR A STANDARD T-18. THE GAS TANK MUST BE IN THE POSITION CALLED FOR ON THE PLANS. EVERYTHING MUST BE LOCATED AS PER PLANS. THE GAS TANK CAN HAVE ANY VARIOUS CAPACITIES, JUST LET ME KNOW. If some one has a non standard arrangement, (extra gas tanks, etc), I can still run it out for them but I would need all the various arms to work with.

Also Dave Johnson from down in Virginia called me the other day about buying plans for the T-18. I referred him to you and it occurs to me that maybe you could ask some of our good members through the news letter if they know where plans are available now that John is out of business. I know that Ken Knowles has the wide body version but I seem to get a lot of queries about the standard plans.

If you think there would be any demand for it, I would be happy to draw up some sketches for electric flap installations and my version of the instrument panel installation.

Hang in there and let me hear from you.

Regards,
Bob

Bob also enclosed the following three examples of CG computation on his latest T-18:

Most FORWARD C.G.

LOADING SUMMARY

ITEM	WEIGHT (LBS)	ARM (IN)	MOMENT (INCH/LBS)
EMPTY WEIGHT	933	74.01	69050.00
FUEL	174	66.00	11484.00
OIL	15	34.75	521.25
PILOT	180	99.50	17910.00
PASSENGER 1	0	0.00	0.00
BAGGAGE	0	0.00	0.00
TOTALS	1242	274.26	92965.25

PLANE IS WITHIN LIMITS BY 338.00 LBS.
C. OF G. IS AT 74.89 INCHES
L. OF G. IS WITHIN LIMITS 73.50 AND 83.00

MAX GROSS WEIGHT

LOADING SUMMARY

ITEM	WEIGHT (LBS)	ARM (IN)	MOMENT (INCH/LBS)
EMPTY WEIGHT	933	74.01	69050.00
FUEL	174	66.00	11484.00
OIL	15	34.75	521.25
PILOT	180	99.50	17910.00
PASSENGER 1	180	99.50	17910.00
BAGGAGE	90	119.50	10755.00
TOTALS	1572	493.26	127634.25

PLANE IS WITHIN LIMITS BY 8.00 LBS.
C. OF G. IS AT 81.19 INCHES
L. OF G. IS WITHIN LIMITS 73.50 AND 83.00

Most AFT C.G.

LOADING SUMMARY

ITEM	WEIGHT (LBS)	ARM (IN)	MOMENT (INCH/LBS)
EMPTY WEIGHT	933	74.01	69050.00
FUEL	18	66.00	1188.00
OIL	15	34.75	521.25
PILOT	180	99.50	17910.00
PASSENGER 1	180	99.50	17910.00
BAGGAGE	90	119.50	10755.00
TOTALS	1416	493.26	117334.25

PLANE IS WITHIN LIMITS BY 164.00 LBS.
C. OF G. IS AT 82.86 INCHES
L. OF G. IS WITHIN LIMITS 73.50 AND 83.00

Bob, many thanks for the newsy and informative letter and for your other contributions to the NL in the past. You have a great wealth of T-18 experience that you have most generously shared and we all truly do appreciate it! Also, thanks for your efforts as an M.C. at the Annual T-18 Dinner and for the work that you, Lu Sunderland, and John Walton did at OSH on the T-18 forum.

Now that Bob is the coordinator for the CG Section of our new manual, I'm going to ask him to do a detailed article on how to go about weighing a new T-18 and how to compute the CG location at various loadings. Now Bob is in effect an editor for this section and as an editor he needs reporters to feed him "stories", so how about YOU sending him your figures on the CG computation for YOUR airplane???????

(MORE CG INFO IN NL #61)

The following two pages are reprinted from the EAA Designee Newsletter:

AIRCRAFT HAND RIVETING

by Charles W. Penry, from EAA Chapter 168 Newsletter, Dallas, Texas

FIG. 7 SHOWS BOTTLE BAR DRILLED TO ACCEPT HAND OR STANDARD .401 DIAMETER RIVET SET SHANK.

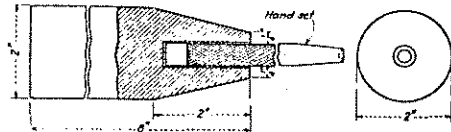


FIG. 7 - BOTTLE BAR

Under certain conditions and circumstances aircraft riveting must be done by hand. Hand riveting is simply upsetting the shank end of the rivet with a hand set and hammer while bucking the manufactured head with a hand set and bucking bar (Fig. 1). The upset head should be formed on the structural side wherever possible.

Flat-Head and Countersunk Rivets

If the parts are small and flat head rivets are to be driven, they may be placed on a bench plate with manufactured heads down (Fig. 2a). When the hand operation is to be done on the airplane structure, a flat bucking bar is used to buck the manufactured head (Fig. 2b). Never drive the manufactured head with the buck-up tool.

Oval-Head Rivets

When the manufactured head is oval-shaped, a straight hand set and buck-up tool or a hand-set adapter and cupped dolly may be used, either by placing the set in a vise or by bucking it up with a heavy bucking bar or bottle bar (Fig. 3). Figure 4 shows buck-up set in a vise with a helper holding the parts to be riveted. The rivet is in place with manufactured head in lower set. Material is held firmly at right angles to set. Slight pressure is exerted downward to prevent parts from bouncing off the set and to keep the manufactured head tight against the sheet. Lightly tap the material on each side of the rivet to draw up manufactured head and to eliminate any sheet gap (Fig. 5). This technique eliminates use of a draw tool but care must be taken to prevent cutting material around rivet shank with tool edge if it is tilted. With flat hand set on the rivet shank at right angles to sheet, strike the set one or two blows to start the heading process. Repeat drawing operation only if necessary. Immediately after striking the hand set, it should be pulled upward away from the

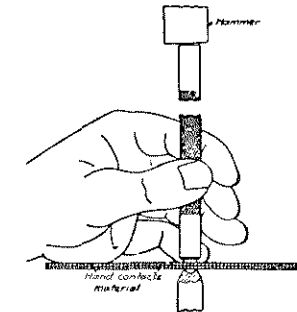


FIG. 1 - TYPICAL FLAT HAND SET OPERATION

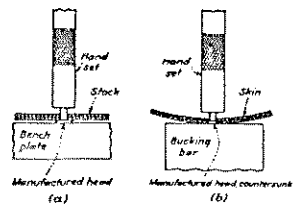


FIG. 2 - HAND OPERATIONS ON (a) BENCH PLATE, (b) CURVED SECTION

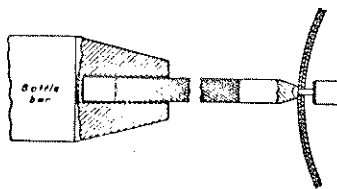


FIG. 3 - OVAL HEAD HAND OPERATIONS ON A CURVED SECTION

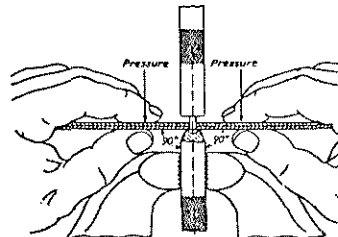


FIG. 4 - HAND RIVETING IN A VISE

rivet shank to prevent marking or "pulling" the head to one side by the rebound. If the shank shows signs of bending to one side, it may be pulled back by rapidly drawing the set in the corrective direction simultaneously with the impact of the hammer (fig. 6). The remainder of the rivet shank may be formed with one or two additional blows. A ball peen hammer whose weight is 12 to 16 ounces works fine on 3/32 and 1/8 diameter aluminum rivets. Swing hammer to obtain blows similar to that of driving a nail in wood. Drive shank to obtain the acceptable 1/2 diameter rivet shank height and 1-1/2 O.D. head.

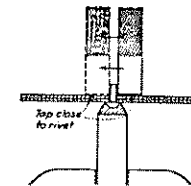


FIG. 5 - "DRAWING UP" WITH A FLAT HAND SET

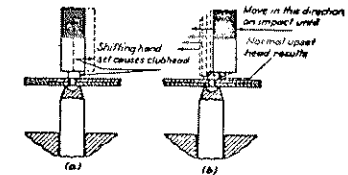


FIG. 6 - HAND-SET OPERATIONS. (a) RESULT OF SHIFTING HAND SET (b) CORRECTING AN OFF-CENTER (CLUB-HEAD) RIVET WITH A FLAT HAND SET

SOME THOUGHTS ON AIRCRAFT WIRING

by Dave Palmer, from EAA Chapter 165 Newsletter, Little Rock, Arkansas

The following admonishments were garnered from a real avionics designer with whom I am honored to work at Arkansas Modification Center (and who I am endeavoring to proselyte! This is, according to Paul P. and SPORT AVIATION, the Experimental Aircraft Association...even for avionics folk!).

My pal, Al Wright, offers this for openers:

- Make sure engine block grounds to airframe and (-) side of battery.
- All ignition and generator and running light wires shielded.
- All airframe metal parts bonded to ground (-).
- Install generator and magneto filters (RF).
- Strobe lights, use shielded wiring and must have ground bonded.
- Install static wicks.
- Install separate circuit breakers and/or fuses (isolate functions as much as possible).
- Be sure wiring is of adequate size --- use as few splices as possible.
- DO NOT use electrical tape.
- DO NOT run radio wiring in same bundle as battery or generator cables.
- DO NOT use standard hook-up wire (flammable insulation).
- Use fiberglass or teflon insulated wire.

(LETTER FROM DAN CULHANE)

Hello Dick

I just received the latest newsletter with your little mind jigger on the back and I have to admit that I have been a little delinquent in filling you in on the progress of my T-18 project. So, here it goes.

It was just four years ago that you called to tell me of the T-18 project that Keith Cobb had for sale and it was in May, 1980 that I made the purchase and brought the project home. But after seeing Keith's nice big workshop, I told myself I would not build another airplane project in a one-car garage. So, I had a 24'X 34' building constructed in my back yard and I finished the inside including wiring myself, which all took time. I'm not a very fast worker, I must admit.

Well, I finally started working on the T-18 in the spring of 1981. As you may recall, the basic airframe shell, with the exception of the fuselage belly skin, had been all riveted together by Keith. I completed the airframe with seat and baggage compartment installations, engine installation, windshield & canopy inst'l, ~~engine~~ engine cowl inst'l, fuel & electrical system inst'l, made MLG fairings and fit wheel pants etc., etc., and finished up with a DuPont Iacon paint job this past August, 1983.

This is the first item that I have ever spray painted and I was a little hesitant at first. I read all of the helpful hints in the newsletters, talked with local EAAers who had painted their airplanes with no previous experience, and bit the bullet. It doesn't look quite as nice as a Keith Cobb special (that guy is good), but it is presentable I think. I probably put too much paint on and suffer the weight penalty, but that's the price of gaining experience. One thing I underestimated was the amount of work involved in painting an airplane, and my paint scheme is a very simple one. Enough of this; on to some vital statistics. Keith's reg. no. (N15KC) was not retained; I kept my old reg. no. N76KC but it has his initials.

T-18, S/N 1165, N76KC
Builders: Keith Cobb/Dan Culhane

Fuselage: Standard configuration with .032 side skins
Wing: Standard configuration with .032 center wing skins and 12 gal fuel tanks in the outboard wing L.E.
MLG: Long gear Paint: Iacon over Corlar epoxy primer
Engine: Lycoming O-360-A2F Engine Cowl: Kattray
Prop: Seasenich 68LY80 with epoxy L.E.
Instr. Panel: Full gyro with Comm, Nav, & Xpdr
Empty Wt.: 985 lbs. Empty Wt. C.G.: 2.5" or STA 63.5
Fwd CG Extreme: 2.8"/STA 63.8 (pilot, \emptyset bag, \emptyset fuel)
Aft CG Extreme: 15.2"/STA 70.2 (Pilot, CP, 60#Bag, \emptyset fuel)

(cont'd)

(cont'd from pg. 20)

First flight: 7 Oct 1983
Stall speed: 65 mph IAS
Max speed to date: 195 mph IAS @ 2000' MSL, 2700 rpm, 26.5" H₂O
45°F OAT
Handling characteristics: Excellent.

I installed a fixed tab on the left aileron to counteract a slight right wing heavy tendency, but with a 160# pilot this is not required. I weigh 150#. Lateral weight distribution does have an effect as you well know. I have yet to fly with the wing tanks fueled.

I should note here that the pitot/static system is not B/M T-18. The pitot is a Piper blade type mounted under the left wing just inboard of the wing break, and the static consists of a port on each side of the fuselage at approx STA 149. An airspeed check was made along side a Beech Bonanza; at the low end (100 mph) my reading was approx 4-5 mph lower and at the high end (195 mph) my reading was 13-15 mph lower than the Beech. A ground speed check (no wind) was made which verified the lower IAS readings. A trip has been installed just upstream of the static ports and now the airspeed readings seem to be more in the ball park. Stall speed did not change.

In retrospect, I must thank you again for introducing me to Keith Cobb. He did a fine job on the airframe-- no complaints.

HAPPY NEW YEAR!!! Hope to see you at OSH 84.

Sincerely,



Congratulations, Dan! As you know, I didn't make it to OSH in '84, so didn't get to see the fruitage of your labors. I'll have to admit, too, that it would have pleased me to see a beautiful flying T-18 like yours that once started out on my workbench as some flat sheets of aluminum.

Thanks, too, Dan, for taking the time to send the most excellent loading envelope (note that they show both limit load factors and CG location for pilots weighing 150#, 170#, & 200#, with various combinations of fuel and baggage). We are reproducing these sheets full size, because of their importance. Please retain these sheets for inclusion in your Operation and Safety Manual. Using Dan's graphs, you can construct your own loading graph by simply interpolating the data. Thanks again, Dan. Hope to see you at OSH '85.

(Note the graph pages are not numbered and are at end of NL)

(LETTER FROM RICHARD ORIBE, 5130 E. CHARLESTON BLVD., LAS VEGAS, NV, 89122)
 Since most all are interested in Loran C these days, here's a report:

HI DICK,

I'M SCRAY THE FIRST ACCOUNT OF MY TRIP WAS LOST IN THE MAIL, SO HERE GOES AGAIN.

I DEPARTED BISHOP, CALIF AND MADE IT ALL THE WAY TO PIERRE, S.D. THE FIRST DAY WITH FUEL STOPS AT SALT LAKE, AND NEWCASTLE, WY (7 HRS FLYING TIME WITH TAIL WINDS). THE NEXT DAYS FLYING WENT FROM PIERRE TO DALLAS, TEXAS WITH A FUEL STOP AT HUTCHINSON, KAN. I FINALLY GOT TO MEET DICK AND SEE HIS BIRD (AND GOT A CAN OF TOP -- 80 OCTANE WAS HARD TO FIND). FROM DALLAS TO SOMERSET, KY WITH FUEL STOP AT LITTLE ROCK. NEXT DAY -- SOMERSET TO NORTH-CUMBERLAND CO. AIRPORT, PENNSYLVANIA WITH A PIT STOP IN MARYLAND. I SPENT FOUR DAYS VISITING FAMILY AT THE PEAK SEASONAL COLOR CHANGE. THE FALL COLORS REALLY MADE AN IMPRESSION ON ME I'LL NEVER FORGET.

FROM PENNA. SOUTH TO ROCKY MOUNT, N.C. FOR FUEL AND THEN NORTH MYRTLE BEACH, S.C. WITH DETERIORATING WEATHER. GOT OUT OK IN THE MORNING BUT ONLY AS FAR AS SAINT SIMMONS ISLAND, GA. -- SPECIAL VFR (THAT'S WHERE MY LORAN-C REALLY PAID OFF). I SAT IT OUT FOR FOUR DAYS BEFORE HEADING SOUTH AGAIN ALONG THE FLORIDA COASTLINE - THE MOST FUN PART OF THE TRIP THOUGH AT ALTITUDES LOWER THAN ONE IS NORMALLY COMFORTABLE WITH. FORT. PIERCE, FLORIDA FOR FUEL AND THEN EASTBOUND FOR THE GRAND BAHAMA. THAT WAS SPOOKY! I'VE FLOWN ACROSS THE WESTERN SIERRAS MANY TIMES BUT THERE'S SOMETHING ABOUT FLYING OVER WATER THAT'S DIFFERENT. SEVENTY MILES BEACH TO BEACH -- LESS THAN 30 MIN. - THE LONGEST 30 MIN I'VE EVER SPENT. TO MAKE MATTERS WORSE I COULDN'T SEE THE ISLAND BECAUSE OF BUILD-UPS AROUND THEM EVEN THOUGH IT WAS CLEAR OVER THE WATER. MIAMI CENTER WAS WITH ME ALL THE WAY ACROSS, CONFIRMING MY LORAN-C DATA. THE RETURN FLIGHT WASN'T QUITE SO BAD EVEN THOUGH I COULDN'T SEE THE FLORIDA COASTLINE. IT SURE WAS GOOD TO GET TO Ft. pierce again.

THE NEXT DAY SOME HARD FLYING. FT. PIERCE TO PANAMA CITY, FL. TO ALEXANDRIA, LA. TO GRAND PRARIE, TEXAS (AGAIN 7 HRS FLYING TIME WITH TAIL WINDS). TWO NIGHTS IN FT. WORTH AND THEN THE LONGEST DAY -- GRAND PRARIE TO ROSEWELL, N.M. TO FLAGSTAFF, AZ. TO BISHOP, CA. -- THIS TIME WITH HEAD-WINDS -- 8½ HRS -- MADE POSSIBLE PARTLY WITH TEMPERFOAM SEAT CUSHIONS AND AN INFLATABLE BACK SUPPORT.

A GREAT TRIP! ONLY TROUBLE WAS WATER IN THE STATIC SYSTEM AFTER HEAVY RAIN IN PA. (A GOOD WINTER PROJECT IS TO ADD A DRAIN) AND MY TRANSPONDER WENT OUT ON THE RETURN TRIP.

ALL TOTAL, 44.4 hrs AVERAGING 156 MPH AIRPORT TO AIRPORT (INCLU CLIMB AND WINDS). MY T-18 WAS BUILT BY RUDY ADLER AND IS POWERED BY A JOHN THORP BUILT O-290-G. I AVERAGED 7 GPH GIVING 22.3 MPG. TOTAL FUEL COST WAS AROUND \$600. NOW THAT'S AFFORDABLE FLYING!

(cont'd)

-2-

MY LORAN-C WAS THE MLX BY SRD LABS IN CALIF. WEST-COAST RECEPTION IS GREAT. JUST SOUTHWEST OF SALT LAKE IT BEGAN TO DETERIORATE. SIXTY MILES EAST I BEGAN TO PICK-UP THE GREAT LAKES STATIONS THOUGH INNACURATE. BY PIERRE, S.D. I WAS STILL 7 MILES OFF (THE MLX ONLY HAS THE SOUTHERN FILTERS. THE NEWER L-NAV 25 WHICH I'VE SINCE UPGRADED TO HAS ALL THE FILTERS FOR TOTAL U.S. COVERAGE). BY HUTCHINSEN, KAN. IT WAS RIGHT ON AGAIN. WORKED GREAT IN TEXAS AND ON ACROSS UNTIL MARYLAND AND PA. WHERE IT BECAME UNRELIABLE. NOT UNTIL SOUTH OF RALEIGH, N.C. COULD IT BE COUNTED ON AGAIN -- BUT FROM THERE TO THE GRAND BAHAMA AND AROUND THE GULF STATES IT WAS FLAWLESS (VFR FLAWLESS). JUST WEST OF ROSEWELL, N.M. I LOST IT AND GOT IT BACK JUST EAST OF LAS VEGAS, NEV. FOR WHAT THE UNIT DOES AND ESPECIALLY THE PRICE I WAS REAL SATISFIED WITH IT.

JUST WRITING ABOUT IT MAKES ME WANT TO GO AGAIN. AFTER ALL, I'VE GOT TO TRY OUT THE NEW LORAN-C UP IN THE NORTH-EAST TO SEE HOW THE NEW FILTERS WORK.

THANKS FOR ALL YOUR HELP, DICK! KEEP UP THE GOOD WORK!

SINCERELY,

Rich Oribe

Thanks, Rich, for a most interesting travelogue. What a great space ship John Thorp has given us, a solid and dependable air vehicle that can take us just about any place on the face of the globe (not only can, but HAS)!

B.C. Roemer was probably the first to install Loran. They mounted it in the center of the top of the instrument panel, actually cutting out a section of the glare shield above the panel to inset it. I can't seem to find the note they sent me on it, but I do remember that their unit was a very low priced one (under 1K) and that they were delighted with it. I have recently had occasion to use a Micrologic on several flights in a couple of airplanes and I was impressed with its accuracy and usefulness. It basically did everything the quarter-million dollar INS sets we had in the 747s would do, with the exception of a couple of functions, and even those functions would be easy to plug in in future units. It is so very versatile that it could actually be used like a synthetic ILS, by using a pre-selected descent profile from a synthetic X mile DME fix from the runway. (I've done it and it brought me down the centerline of the runway when I raised the hood to visually flare). It certainly would be a really marvelous tool for finding any airport anywhere when the visibility was down. It is possible to pre-program nearly every airport in the U.S. far in advance of flying a trip and if necessary to deviate around wx enroute you just tell it to take you to airport X or Y and it tells you the heading and distance and your Ground Speed. It's a simple matter to get an ETA from those figures. If you are tight on fuel or are having an engine problem it would be a valuable help in decision making.

Someone asked me the other day if I had to make a choice of putting in a Loran C or an artificial horizon in my T-18, which one would I choose? I said the Loran, because the T-18 is very easy to fly on instruments, using only primaries (by a competent inst. pilot, of course) and since I wouldn't deliberately fly IFR, I wouldn't need an artificial horizon. Depends on what drummer you might listen to.

FOR SALE CORNER:

LYLE FLEMING, 46035 20th St. E, Lancaster, CA, 93535, 805/942-2481 is building his second T-18 and has the following items very reasonably priced: Dynafocal Engine Mount; Gas tank; Fuselage (needs some repair); set of wheels, brakes, & axles; Horizontal tail assembly; Rudder pedal assembly; Lyc. 0-360 A1A disassembled (crank NG). All accessories, mags, recently rebuilt, 800 hrs. since rebuilt (engine).

Frank Lanier, P.O. Box 195, Colorado City, CO, 81019, 303/676-4142. has an engine mount ring horseshoe (flatback) with pilot holes drilled for \$50; dynafocal mount rings that can be used to make up a dynafocal mount for \$75 ea.; a 67-68 prop)SMOH for \$175; a battery box \$20 (35 amp).

Russell Ross, Box 318A, RR#1, Sioux City, IA, 51108, has (all new) Rattray cowl w/gill fairings, prop extension, spinner, two fiberglass seats, and says prices are reasonable.

John Walton, 5726 Boyce Springs Dr., Houston, TX, 77066, 713/440-8093 still has that superbly built std. wing for sale that he removed from his T-18 when he built the folding wing. Someone is really missing the boat on this wing. He's selling it for replacement part cost from KK and someone will get some 1st class craftsmanship for practically free. I've about talked him into building a new fuselage for it and selling a complete air frame unit if someone doesn't buy it soon, so don't delay too long.

Lee Skillman, 6964 Airport Blvd. Apt. 82, Mobile, AL, 36608, 205/342-3967 still has his prize winning bird for sale (as per NL #59) and if you are one that appreciates excellent workmanship, you won't go wrong with his.

PAUL STANLEY, 2012 29th St., Galveston, TX, 77550, writes: "My airplane s/n 671, has been flying over 9 yrs. now, accumulating well over 300 hrs. on a GPU engine burning no-lead auto gas exclusively, with no fuel related problems of any kind. Several years ago a new set of wings were made that are similar to the current folding wings. It has an 8 ft. center section with two 6 ft. outer panels. I made the ailerons 6 ft. long, matching the outer panels. The flaps are about 2 ft. long, matching the center section. This arrangement simplifies the control mechanism with very little change to the flight characteristics. The flap effectiveness is really not very outstanding, as you might expect with only 2 ft on ea. side, but the original wing had no flaps. "

Thanks, Paul, for that brief report. I'd like to hear more details about that wing. Sounds interesting.

TOO LATE TO FINALIZE AT PRESS TIME: We are trying to possibly put together an all T-18 event like we had at Temple, TX last year if there is enough interest. It has been proposed to hold this year's conclave at the Holiday Inn at Sherman, Tx, with daytime activities at Grayson County Airport (formerly Perrin AFB) which has 12,000 runways, a huge ramp, large hangars, several FBOs, etc. Sherman is about 70 mi. north of Dallas on hiway 75 (DAL-TUL) and is adjacent to the huge Lake Texoma. The last week end in Oct. or the 1st week end in Nov. has been proposed. If you are interested in attending plz write me IMMEDIATELY and state your date choice (weekend, not your wife) and if enough commit we'll advise via personal letter or phone. Time is short, so plz don't procrastinate (like I do!)

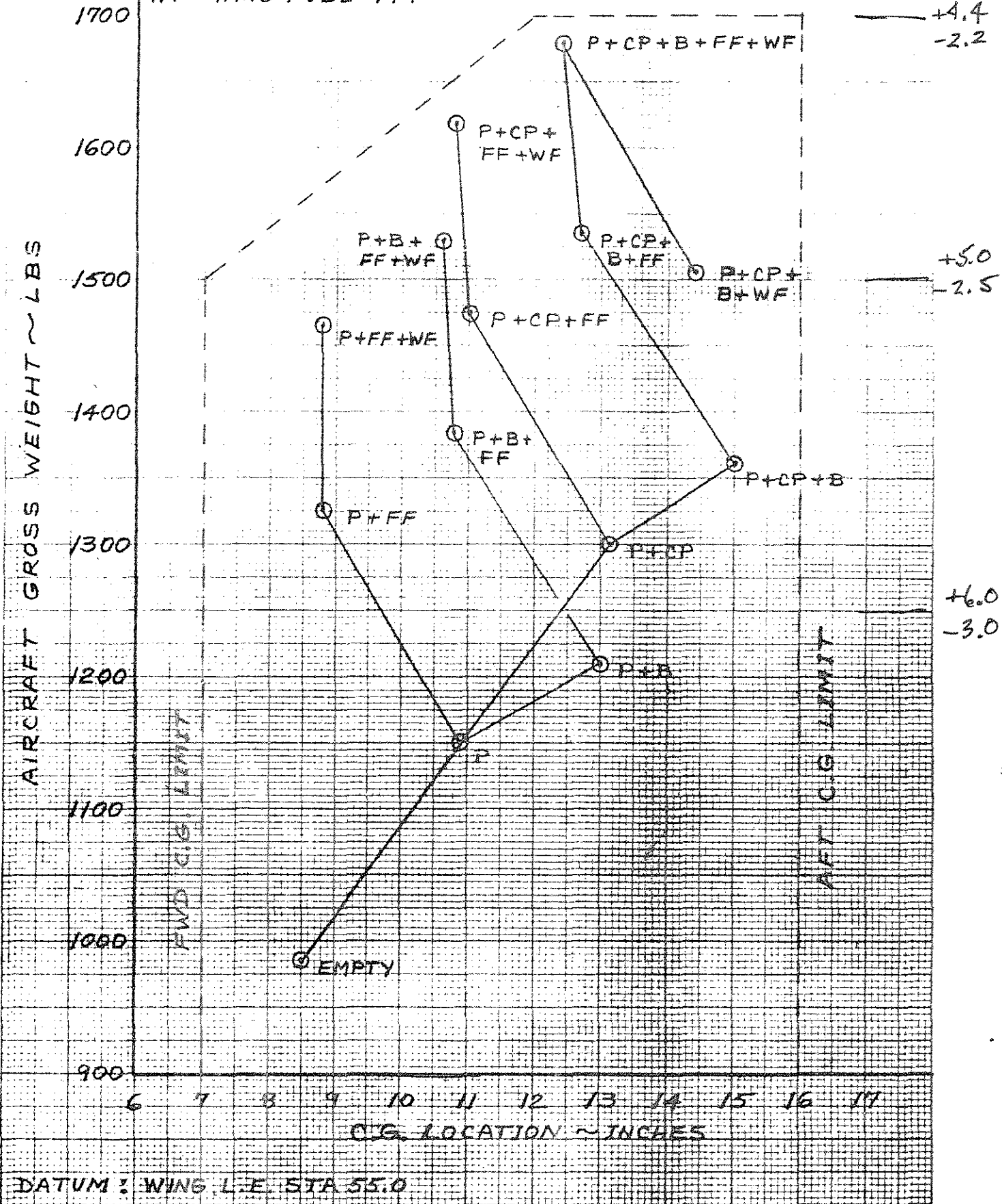
NEWSLETTER #61 will be mailed about Thanksgiving time.

Sick Carin

N 76 KC

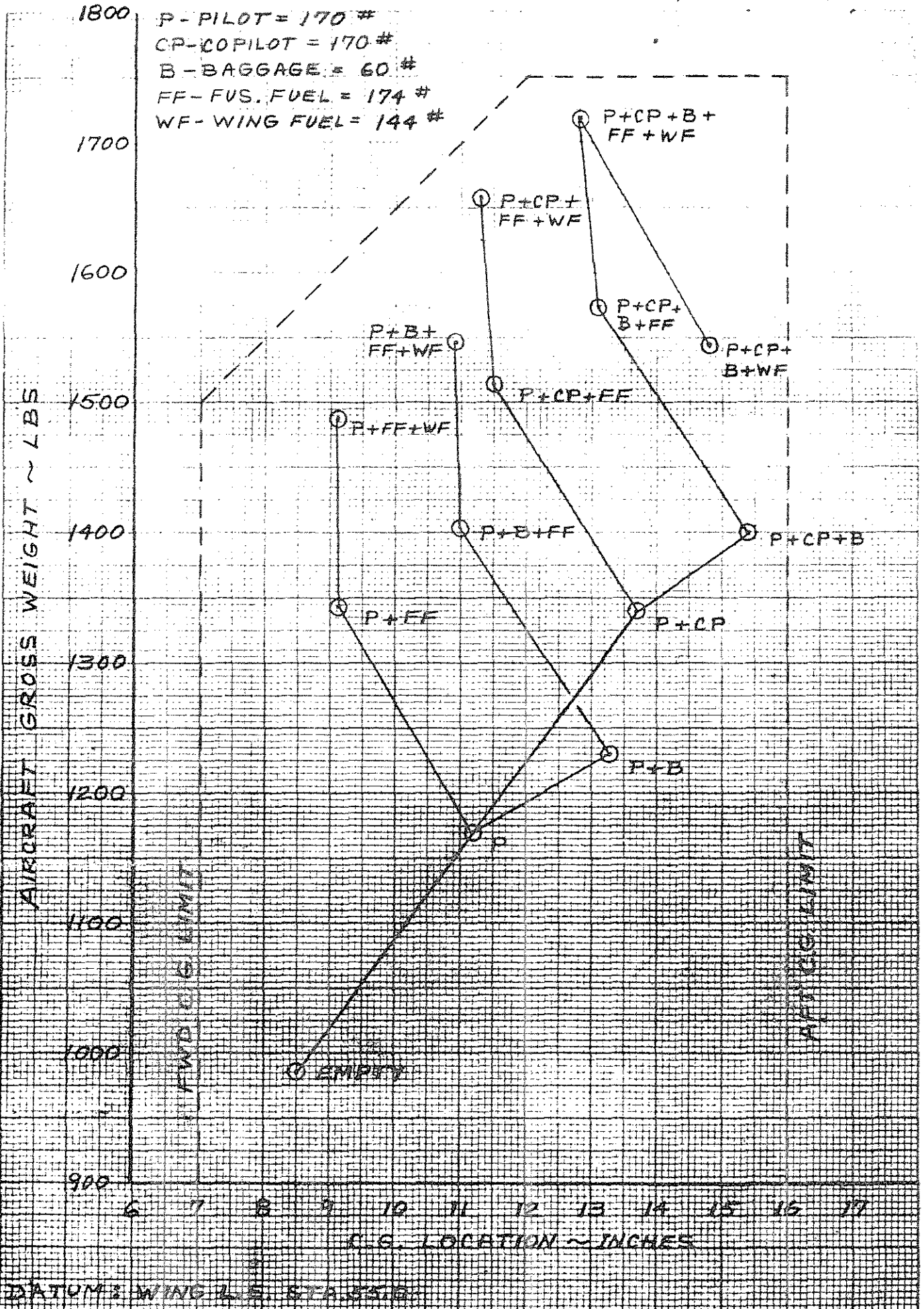
P - PILOT = 150 #
 CP - COPILOT = 150 #
 B - BAGGAGE = 60 #
 FF - FUS FUEL = 174 #
 WF - WING FUEL = 144 #

- LIMIT LOAD FACTOR
↓



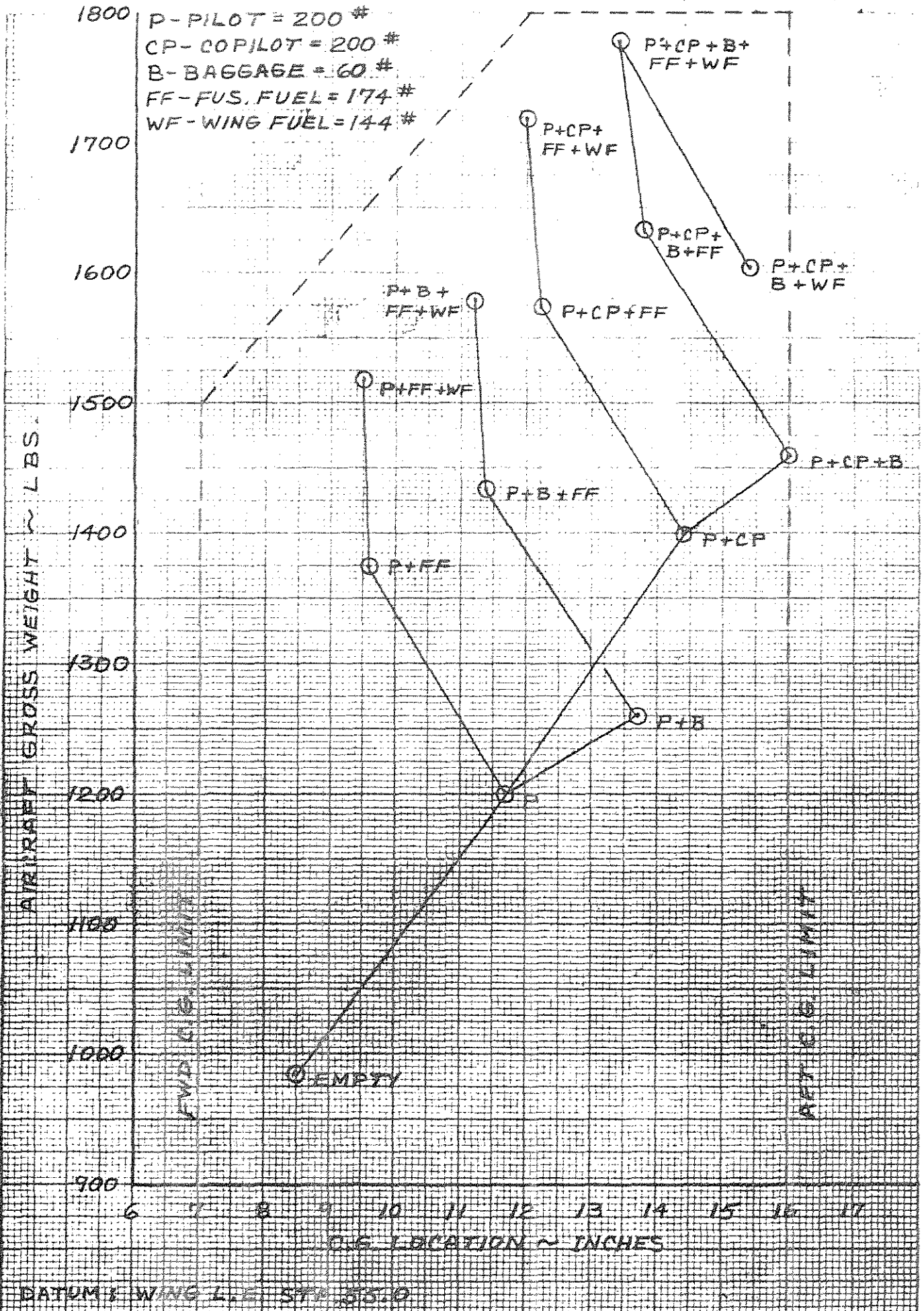
N76KC

P - PILOT = 170 #
 CP - COPILOT = 170 #
 B - BAGGAGE = 60 #
 FF - FUS. FUEL = 174 #
 WF - WING FUEL = 144 #



N 76 KC

P-PILOT = 200 #
CP-COPILOT = 200 #
B-BAGGAGE = 60 #
FF-FUS. FUEL = 174 #
WF-WING FUEL = 144 #



DATUM & WING L.E. STN 35.0

AIRFRAME GROSS WEIGHT ~ LBS.

EMPTY CG LIMIT

AFF CG LIMIT

C.G. LOCATION ~ INCHES

...V. P. O. Sheet Projector B2-E...

...V. P. O. Sheet Projector B2-E...



