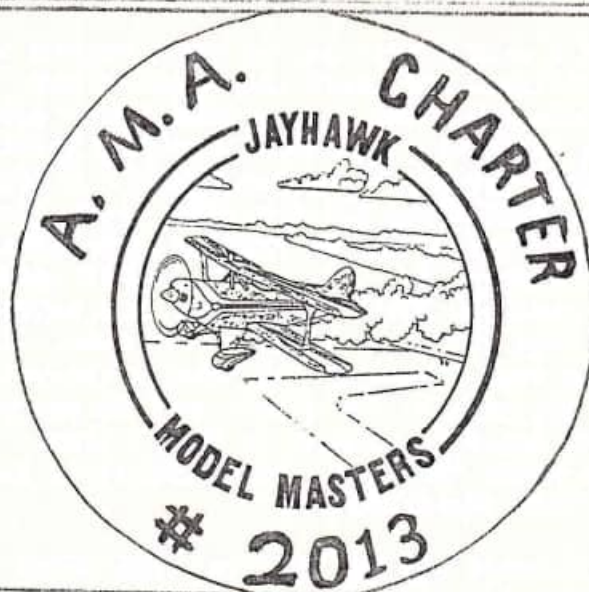


NEWSLETTER OF THE

JAYHAWK MODEL MASTERS  
132 FLORIDA  
LAWRENCE KS  
66044



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ISSUE DATE:

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NEXT MEETING WILL BE:

DATE: March 18th

TIME: Breakfast at 8:00a.m. Meeting at 9:00

PLACE: All Seasons Motel, The Greenery Restaurant

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Event Calendar 1989:

March 18, 10:00 a.m. to 9:00 p.m. Model Aviation Show, Metcalf South Shopping  
March 19, 12:00 a.m. to 5:30 p.m. Center, 9635 Metcalf, Overland Park KS

April 23,---- KCRC Fun Fly Jacomo

May 13, 14, Kansas Aviation Conference in Salina KS.

May 13 KCRC Pre Novice Pattern Contest, 12:00 noon. (Good one to go too guys)

May 20-21 Richards Gebauer Open House

May 27-28 KCRC Fan Fly, Jacomo

May 27-28 LAMAS Pattern Contest, La Cygne Kansas

June 3-4 Ace Float Fly, Higginsville Mo.

June 17-18 KCRC Pattern Contest, Jacomo

July 15-23 AMA Nationals, Richland, Wash.

Minutes of Jayhawk Model Masters Meeting  
February 18, 1989

Following breakfast at the All Seasons Motel, club members retired to the Jayhawk Room for our monthly meeting. Richard Ballard reported that the club currently has \$1348.08 in the treasury, and then moved quickly through a series of short announcements. At this time many of us learned that we now have a weekly trash pick-up at the flying field which costs us only a few dollars a month. Another problem solved. Also, Dave Born is still working on compiling information for a club membership directory. If you haven't yet completed his information form, ask him for a copy and fill it out. The last date for getting information in the 1989 directory is March 31, 1989; that directory will then be printed so it can be distributed at the April club meeting.

Following our short business meeting, we were treated to some of the most amazing scratch built airplanes you could ever hope to see. Darrel Cordle arranged for Mr. George Fischer, who now lives in the Kansas City area, to display and discuss a couple of his building projects. The first plane he talked about was his quarter scale Goon, which included absolutely amazing detail. I mean this plane had lines of rivets and slotted screw heads along all the edges where sheet metal was held down on the 1/1 scale plane, a functioning set of exhaust ports along the side of the engine, functioning retractable landing gear, etc., etc. Truly amazing! His other plane was a Curtis-Hawke P6E. In case you don't know, this is a biplane which George had assembled with the same type of detail found in his Goon. In case you're wondering, these planes were made up from Fiberglass and, that's correct, George Fischer made the molds producing most of the detail. He didn't tell us how many hours were involved in producing one of these beauties because he didn't know. However, he did say he had worked on the Curtis-Hawke for three years, and if he finishes it the Smithsonian Institute may take it. Very impressive!!

Also on display this month was Ron Griffin's ACE 4-120 powered by a Quadra 35. This is another quarter-scale, and probably the largest plane we have had on display at a club meeting. From reports, this is a very gentle flier, and obviously majestic when airborne. If size turns you on, and you're thinking about building large scale, be sure to at least talk with Ron. He might be able to save you some grief. By the way, he's promised us an even larger critter in the near future.

Larry Wise showed us his O.K. Sportsman ARF, and expressed his great Satisfaction with the kit. Larry is into flying planes rather than building them, and has experience with a number of ARF (almost-ready-to-fly) models. If this is your inclination, you might contact Larry for some advice before making a purchase. Apparently he had a Kyosho ARF that was a disaster. In contrast, his O.K. Sportsman fit together almost perfectly, included everything required for complete assembly, and is a terrific flier.

After the display and discussion of fully assembled planes, Richard Ballard and David Plamann talked us through the process of building from scratch (rather than a kit). For this "talking tour" they had set up a table, had a partially completed "scratch-built" plane, a collection of simple tools for building, and between the two of them a hefty collection of wisdom. The discussion ranged from selecting a model for a first "scratch-built" project, obtaining plans, how and where to obtain materials, necessary tools for building (including some of Richard's clever little "specialty" items), cutting identical parts, bending heavy wire for landing gear, etc. An extremely informative and interesting half hour for all of us. The word on the street is that "scratch-built" planes are very satisfying to build and fly.

Finally, I would be remiss in not mentioning that David Plamann displayed the wings for a SIG Morse-Bravo he is now building. The wings revealed the fine construction we have come to expect from his work, but more important he promised us a completed Morse-Bravo at our April meeting. Now that the promise is public, the pressure is on for him to deliver. C'mon, Dave, we know you can do it.

#### Frequency Alert

Recent action by the FCC confirms that older transmitters can be modified to meet "narrowband" specs. without requiring another type-acceptance. A meeting between reps. from AMA, their legal counsel, and the FCC occurred in Oct. of 88.

At this meeting, it was agreed upon that the FCC would allow transmitters to be "narrowbanded" so they will operate at a 20 KHz frequency spacing. These modifications are treated as Class 1, permissive change. The permission to make said changes is granted to only the manufacturer, or their authorized service reps.

DP

DATE: 3-1-89

TO: AN OPEN LETTER TO ALL USERS OF THE CLINTON LAKE R/C FLYING SITE

FROM: RICHARD BALLARD, PRESIDENT, JAYHAWK MODELMASTERS R/C CLUB

SUBJECT: CONDITIONAL USE PERMIT REQUIREMENTS, U.S. ARMY CORP. OF ENGINEERS

Dear fellow R/C hobbyist

There seems to be some misunderstanding concerning our insistence on the use of A.M.A. cards, etc. in our frequency control board at the field. It is not our intent to try and force anyone to join either A.M.A. or the Jayhawk ModelMasters club. What we are required to do however, as one of the conditions of our field lease, is provide the Corp. of Engineers with a one million dollar liability protection insurance policy naming them, and our club as co-insured. We have found that the only practical way we can afford to do this is through the A.M.A. club charter insurance plan. Without insurance, we would not have a flying field! It is as simple as that.

One of the provisions of our A.M.A. Charter is that ALL CLUB MEMBERS MUST BELONG TO A.M.A. for our insurance to remain in effect. Non-club members however would need to provide their own insurance policy (or A.M.A. Membership) naming the club (as the lease holder) and the Corp. of Engineers (as the land owner) as co-insured in the amount of one million dollars. As part of our lease agreement we are required to insure that ALL PEOPLE WHO FLY AT CLINTON HAVE THIS INSURANCE.

Again, most people will find it very costly to purchase this kind of insurance coverage. In most cases it will be cheaper to simply join A.M.A. and be automatically insured as part of the membership package. I DO WANT TO STRESS HOWEVER THAT YOU DO HAVE THE OPTION OF OBTAINING YOUR INSURANCE ANYWHERE YOU LIKE. We are not trying to force you to join A.M.A. but rather only try to remain in compliance with the terms of our field lease.

Moving on to another subject we would like for you to be aware of the fact that our club spends close to one thousand dollars each year to mow the grass, haul the trash away, fill and seed the runway, and other field improvements. The Corp. of Engineers provide NO SERVICES to our club (or the flying field) from your tax dollars. Any money spent on field upkeep is club money! Again as part of our field lease we are permitted to charge an annual fee (from any and all users) to be applied to field upkeep. We are required to submit an annual report of all receipts and expenditures. We are not allowed to make a profit from operation of the Clinton Lake Flying Site.

So far we have not found it necessary to collect user fees from non-club members as most people see the logic (and fairness) in simply joining the club to share in the expense of operating the flying sight. They know that their club money is being well spent to provide them with one of the best flying sites in the United States. They also enjoy the fellowship, help, club newsletters, meetings, and many other things that they get for their \$25.00 annual club dues.

Once again I want to stress that we are not trying to force you to join either the club or A.M.A. but only insure that you understand our position in regard to our field lease requirements and upkeep expenses. You are perfectly welcome to fly at Clinton (Club member or not) but you must provide us with proof of insurance as part of our lease agreement with the Corp. of Engineers.

If you have any further questions or would like to discuss this further you can call me at 843-8623 (afternoons) any day of the week.

Yours Truly  
Richard L. Ballard  
*Richard L. Ballard*  
President  
Jayhawk ModelMasters Inc.  
132 Florida  
Lawrence KS 66044

## REFLECTIONS ON THE SPECTATORS

Hardly a day at the field goes by without several people coming along and watching the activities. This is great and no doubt many of us got our start in R/C this way. I always try to take the time to answer the standard questions such as:

- A. Can they fly away?
- B. Is it expensive?
- C. Is it as fun as it looks?
- D. Will it hurt if you stick your finger in the prop?
- E. Shouldn't you be home mowing the yard? (From my wife!)

The answer is always "yes" which seems to make everyone happy!

### BUT THE MEN:

What would happen if someday we ask all of the male spectators to bring their scale P-51 Mustangs, Zeros, Corsairs, and B-29s to the field? We could reenact W.W.II!

It seems that every male between the ages of 13 and 89 has an R/C War Bird at home in the A. Spair Bedroom B. Garage C. Basement or D. Attic, but hasn't had time to fly it lately!

What if we had an OLD ENGINE DAY? Every other person that comes along has "several" or "a few" old model engines at home, but they are always a lot "bigger" than the little .40s and .61s we are flying. One guy actually brought a Win-Mac .049 out to the field to see if I could get it to run. They wouldn't run in 1957 when they were new so why should they run now?

### AND THE WOMEN

If the males get you going what about the ladies? Have you ever had someone that looks like a Playboy Bunny in a wet T-Shirt stand behind you on the flight line doing "Oh's & Ah's" in your ear while you were trying to land a scale Space Shuttle on one engine??

Well, neither have I!

### AND THE PETS

Who can forget the 190 lb. Black Lab that used to visit the field every Sunday morning. His "owner" also "owned" a percentage of our field because he was a Tax-Payer too! Old Shep took great pride in running through the pits and WHIZZING on the first running engine he came to. His "Owner" thought it was great. Usually it was a .40 engine. One morning it was a Qudra 50!

Old Shep has since become Old Shep'et by loss of most of one hind leg and all of the family jewels. We felt real bad but then again he really needed more leadership to excel in his sport. Too bad his "owner" didn't try it first!!

### AND THE KIDS

But what about the kids? I will never forget the time we took some planes to a static display at a car show. If you ever get the chance, don't do it! I was talking to a mildly retarded individual about the likelihood of building a Anti-Gravity R/C model when all of a sudden a four year old decided to use my AeroMaster as a hobby-horse!

Thank god for strong landing gear and 6oz. Glass cloth. (Total damage was a very low slung AeroMaster and a very insulted mother and child) Charges were pending but as luck would have it the police chief had a Scale P-51 in his Bedroom but is really too busy to fly it !!

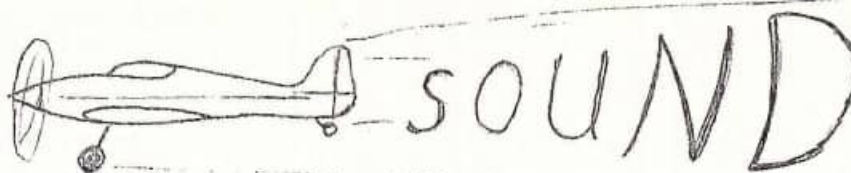
### AND US!

On the other hand what about the time I stopped by an R/C field in Kansas City on a VERY cold and snowy day just to watch. Some guy I had never seen before took off with a negative aspect ratio experimental model then handed ME the transmitter while he went back to his car to find his gloves!! No, I didn't crash. But then again how in the world did he even know I could fly R/C?

Buy the time he came back I knew how good it must feel to be accepted by the great bunch of people who fly R/C. It feels like nothing you have ever felt before. No, it feels even better than that !!!

FLY SAFE

R.L.B.



Much has been written lately about loss of flying fields because of noise complaints. Could it happen to us? After all we have a long lease from the Corp of Engineers and are in a very remote location. Who could care how much noise we make with our model airplanes? Consider this. There are peoples homes less than 3/4 mile from our runway and more are being built as you read this. One noise complaint from a home owner in the area could do us in.

If you are one who persists in flying to the east or south over the road then your aircraft is coming with-in 1/2 mile (2,640 feet) of someones home! How would you like to wake up at daylight on a calm Sunday morning and listen to the sound of a 2-cycle model engine doing its thing? If you were not into R/C you wouldn't!

"O.K., What can we do to be a good neighbor and help prevent problems?" First of all we need to start observing our field lease agreement and fly mostly to the north and west of the runway (over a 500 acre hay field). This removes your plane from our neighbors homes by an additional 1/4 to 1/2 mile!

Second of all start thinking quiet! How do you do that? Here are a few things I plan to try this year.

1. Fly a little later in the day then sunrise on weekends
2. The most important thing each of us can do is stop drilling out stock muffler outlets to gain 50-100 R.P.M.! Stop trying to gain a 1% increase in power at the expense of a 3 dB. (100%) gain in noise!
3. J'Tec now makes a Snuffler muffler add-on that can reduce sound by 1/2 and at the same time give an increase in R.P.M.. It fits almost any stock muffler and costs less then \$25.00. I have one on order for tests.
4. My next plane will incorporate a rubber engine mount to reduce aircraft vibration induced noise. This can also add years to the life of your radio!
5. The pattern people have found out that prop tip noise is also a major factor. The carbon fiber and laminated wood props they use are very expensive but do reduce noise a lot. It is to much to expect the average sport flyer to buy these special props at \$15.00 to \$35.00 each. What we can do is run a higher pitch prop of the same diameter we usually fly. This will reduce engine R.P.M which also reduces engine and prop noise. On the bright side a lot of R&D money is going into "quiet" props. You can expect to see quiet cheap props on the market before much longer.
6. What else can we do? Experiment with sound reduction on your sport planes. Try a J'Tec Snuffler, try a higher pitch prop, try anything you can think of to reduce aircraft noise! The field you save could be your own!!

It should be noted that on my last outing to the field I saw Dave Vinyard flying with a stock "Glass Pack" muffler. Dave added some stuffing to his Super Tigre muffler. Did it work? Well not real good but it was a lot better then when Dave drilled out the stock outlet last year to gain a little power. By the way, Daves plane didn't seem to be under powered by any means!! Go for it Dave!

Special credit to those who deserve it!

J'Tec = Snuffler muffler add-on at an affordable price.

Davis diesel = SoundMaster mufflers.

Macs products = muffled pipes.

Hatori = quiet pipes

K&B Sportster mufflers. The only engine manufacturer to furnish a real muffler.

Fox = Sound reduction testing program

Dave Vinyard = for trying something!!

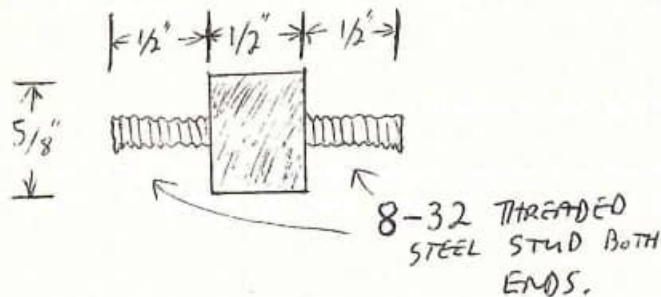
Fly Quiet! R.L.B.

## HOW TOO: MAKE YOUR OWN VIBRATION DAMPENING MOTOR MOUNT

As part of my testing in search of a quiet airplane I happened by Patchen Electric Supply (602 E. 9th., Lawrence ks). I found exactly what I was looking for as well as something else I wasn't. Tom Patchen has a large stock of rubber mounts that are used on some of the compressors and pumps that they service.

If you were at the January meeting you got a look at the S-T .61 I had set up in a Vibra-Damp mount. This mount sells direct from the manufacture for \$18.95. What you get are four rubber mounts along with the necessary nuts and washers and some little plastic tabs that bolt to the engine backplate. The price seems a little steep when you consider what you get but then they are "Speciality items" made for model airplanes so!

### RUBBER MOUNT



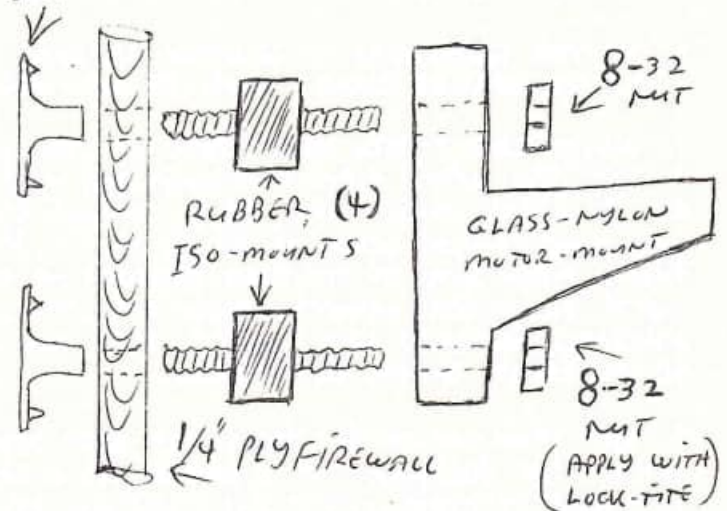
What I found at Patchens are basically the same little rubber critters but they only cost \$1.70 ea. or \$6.80 for four. By combining these with your regular Glass-Nylon motor-mount you can use the same holes in the fire wall you started out with and end up with a rubber mounted engine for less than 1/2 the price of a commercial mount. The drawings show the dimensions of the rubber mounts and also how to combine them with your present motor mount.

What I also found out was that Tom Patchen stocks these things in larger sizes than the 8-32 thred that we plan to use for .40 and .61 engines.

If you ask real nice old Tom can dig out a set big enough for a G-38 or maybe even a Qudra 50. Of course you won't get them for \$6.80 a set but if you fly 1/2 scale, price is no object anyway! Right?

Why not be nice to your plane and radio system and install a set of rubber engine mounts this winter. The result will be not only longer airframe and radio life but a much quieter airplane. An all around good deal it seems to me! RLB

### 8-32 BLIND NUTS



\$\$\$ \$ LATE NEWS FLASH \$\$\$ \$

### PROP & WHEEL HOBBIES OFFERING CLUB DISCOUNT

I got a call late this week from Rick Zarly with some welcome news for all club members. Rick tells me he is now offering an across-the-board 10% DISCOUNT to CLUB MEMBERS who present their membership card at time of sale!

PROP % WHEEL has recently marked prices down on most items in stock and now with an additional 10% discount to club members will be VERY COMPETITIVE with mail order discount houses. Lets all support Ricks efforts and buy locally.

SUPPORT YOUR LOCAL HOBBY SHOP. ITS THE ONLY ONE YOU'VE GOT!!!!!!

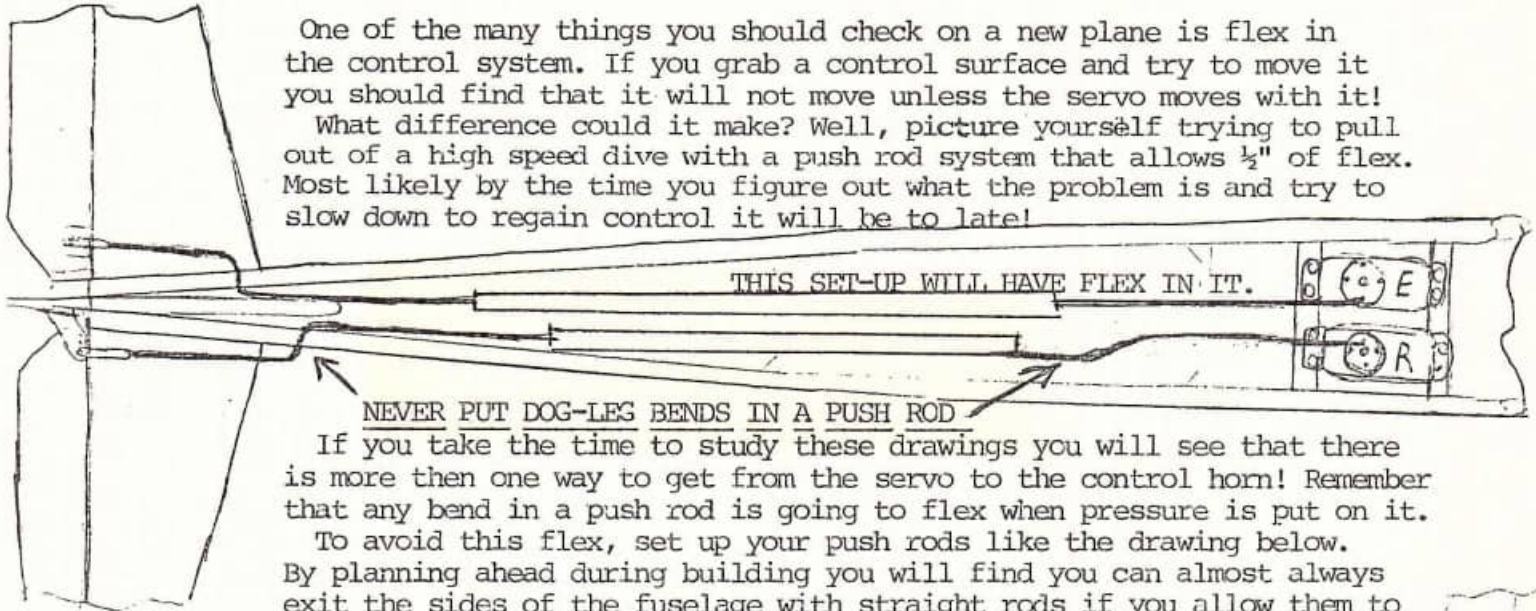
RLB

I am re-running this article because of its excellent content in information. We have a lot of new airplanes being built this year. Please read carefully!

### HOW TOO: MAKE FOOLPROOF CONTROL PUSHRODS

One of the many things you should check on a new plane is flex in the control system. If you grab a control surface and try to move it you should find that it will not move unless the servo moves with it!

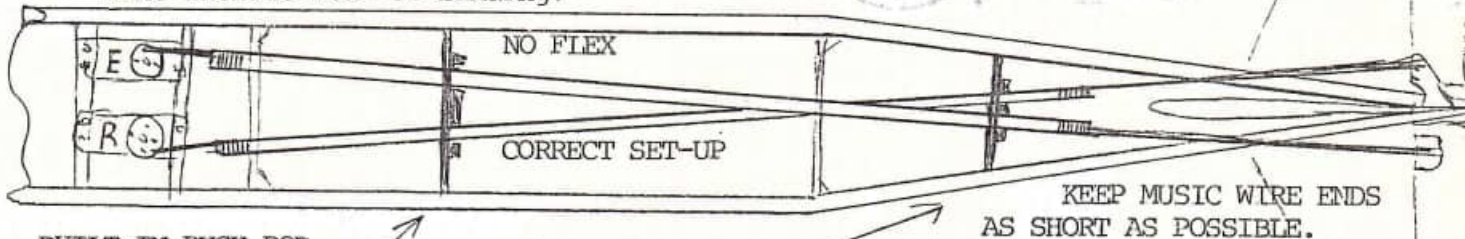
What difference could it make? Well, picture yourself trying to pull out of a high speed dive with a push rod system that allows  $\frac{1}{2}$ " of flex. Most likely by the time you figure out what the problem is and try to slow down to regain control it will be too late!



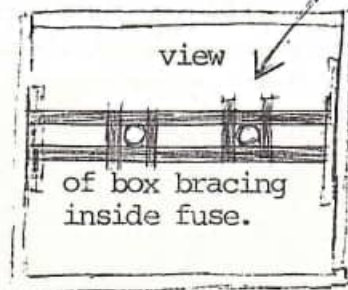
NEVER PUT DOG-LEG BENDS IN A PUSH ROD

If you take the time to study these drawings you will see that there is more than one way to get from the servo to the control horn! Remember that any bend in a push rod is going to flex when pressure is put on it.

To avoid this flex, set up your push rods like the drawing below. By planning ahead during building you will find you can almost always exit the sides of the fuselage with straight rods if you allow them to cross over each other inside the plane. If you are using hardwood dowel as push rod material it will not hurt anything if they touch each other. Friction will be minimal and the contact will help dampen vibration. If you are using NY-ROD or other rod-in-a-tube type control rods you can run them any way you want without fear of binding.



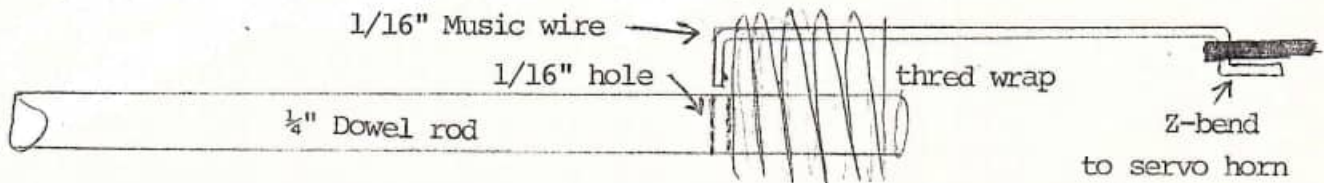
BUILT-IN PUSH ROD BRACE KEEPS RODS FROM FLEXING.

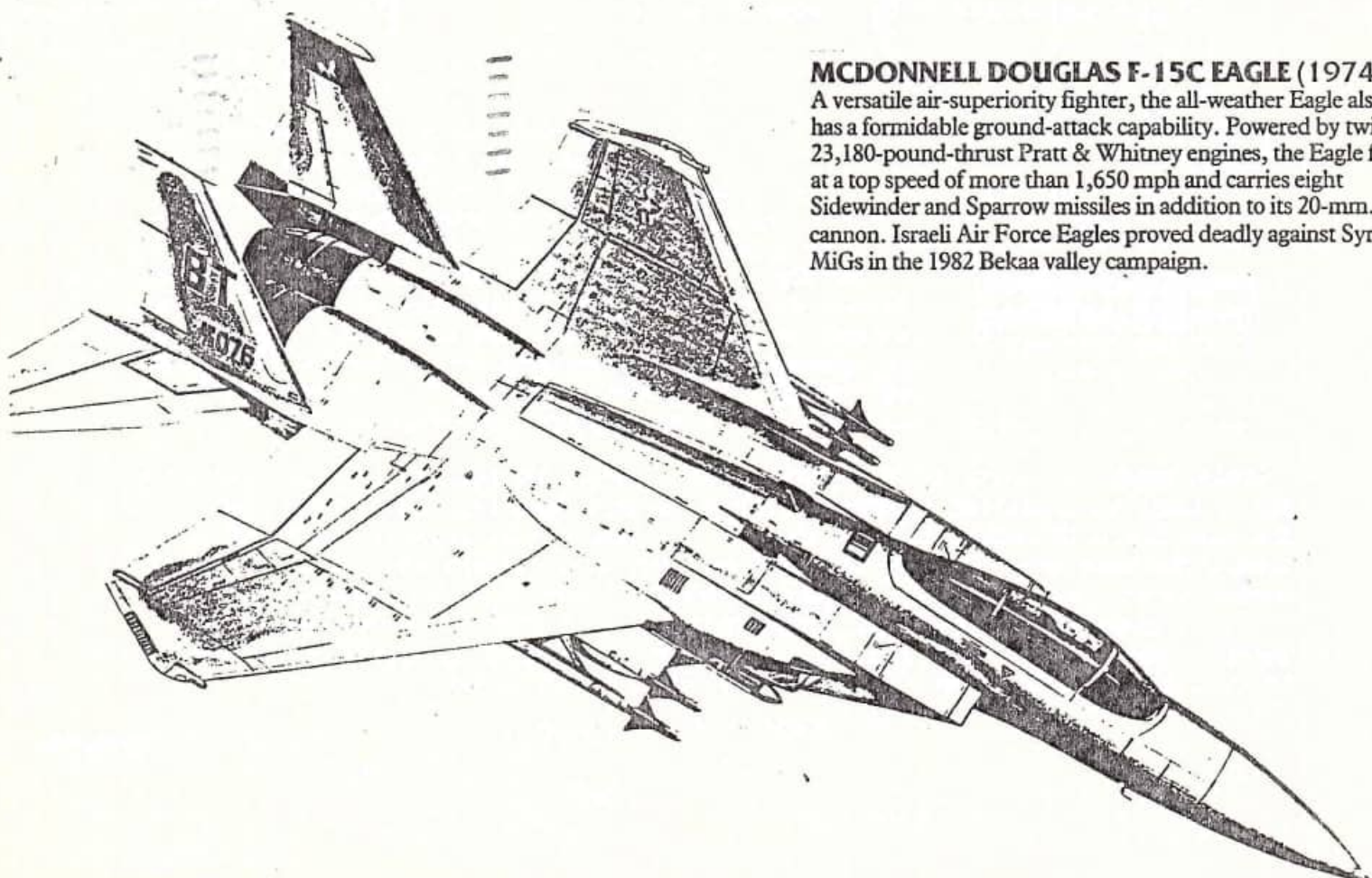


Another trick you should try while building the plane is to box in the push rods with  $\frac{1}{4}$ " SQ. balsa. Allow just enough room for the dowel section of the rod to slide freely without binding. If you are using NY-ROD or other rod-in-a-tube type controls do the same thing only glue the tubes where they go through the box braces. As you can see from the drawings, a straight push rod combined with box bracing simply cannot flex under any normal flight loads. The result is a better flying aircraft with a much longer life expectancy!!!!

Shown below is a drawing of a dowel & wire type push rod. Notice that the dowel has a small hole drilled through it about an inch from the end. Notice also that the wire has a 90 degree bend in the end. To make a very positive push rod end, insert the wire into the hole in the dowel and wrap tightly with thred or unwaxed dental floss. Once the wrap is complete, soak it with thin CYA adhesive or Epoxy.

I will guarentee the end will never pull out of a push rod assembled in this manner. Why not try this type of control set-up in that new plane you are building? It will give you one less thing to blame it on if you crash!! RLB





**MCDONNELL DOUGLAS F-15C EAGLE (1974)**  
A versatile air-superiority fighter, the all-weather Eagle also has a formidable ground-attack capability. Powered by twin 23,180-pound-thrust Pratt & Whitney engines, the Eagle flies at a top speed of more than 1,650 mph and carries eight Sidewinder and Sparrow missiles in addition to its 20-mm. cannon. Israeli Air Force Eagles proved deadly against Syrian MiGs in the 1982 Bekaa valley campaign.