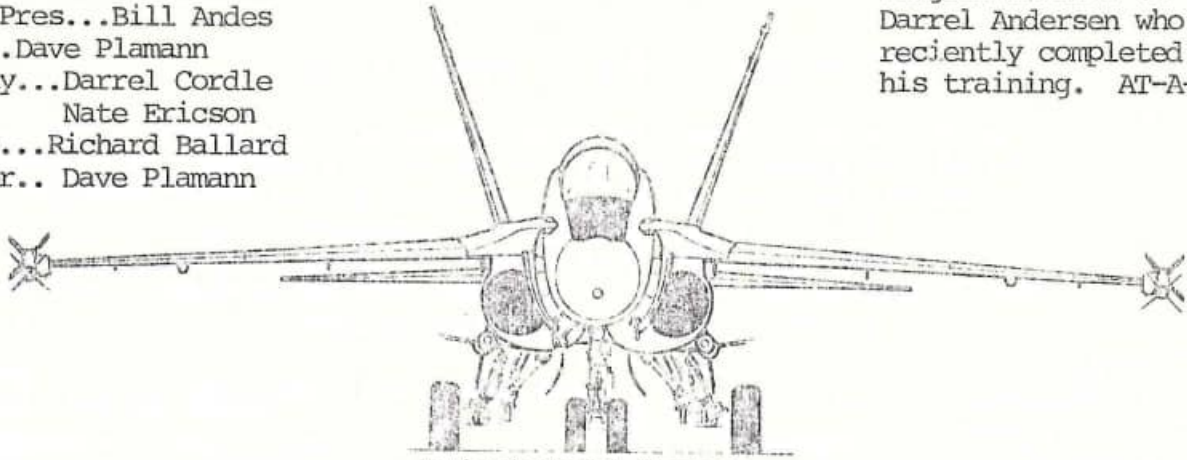


Pres...Richard Ballard
Vice Pres...Bill Andes
Sec...Dave Plamann
Safety...Darrel Cordle
Nate Ericson
Treas...Richard Ballard
Editor.. Dave Plamann

Congradulations to
Darrel Andersen who
recently completed
his training. AT-A-BOY!



Jayhawk Model Masters
August 1988

For those of you who missed our July meeting. You really missed the boat! Mr. & Mrs. Jr. Hammig were kind enough to have us into their home to see Jr's PT-17 Stearman. Not the model, the real thing! Jr. did a fine job of walking us around explaining the history of this airplane, and part of what it takes to rebuild one. (A fine bit of craftsmanship it is too!) Our sincere thanks to Jr. and his wife for allowing our intrusion. (Hope we didn't drool all over the nice covering job too much Jr.!)

Our August Meeting
August 20, 1988

With all the comment's we've heard about our not yet having a Fun-Fly, everyone should be happy to discuss the possibilitie's at this meeting. I would hope every-one would show up, willing to contribute the time it takes to pull one off. We'll need to round up a committee, and begin the discussion of what event's to fly etc.



BUILDING TIP

When is a push-rod not a push-rod? Why, when it's pulling of course! If you must put a dog-leg bend in a push rod then try this tip. Install the elevator control horn on top insted of the underside of the elevator. You will have to exit the fuselage in a slightly different location but this shouldnt be a problem.

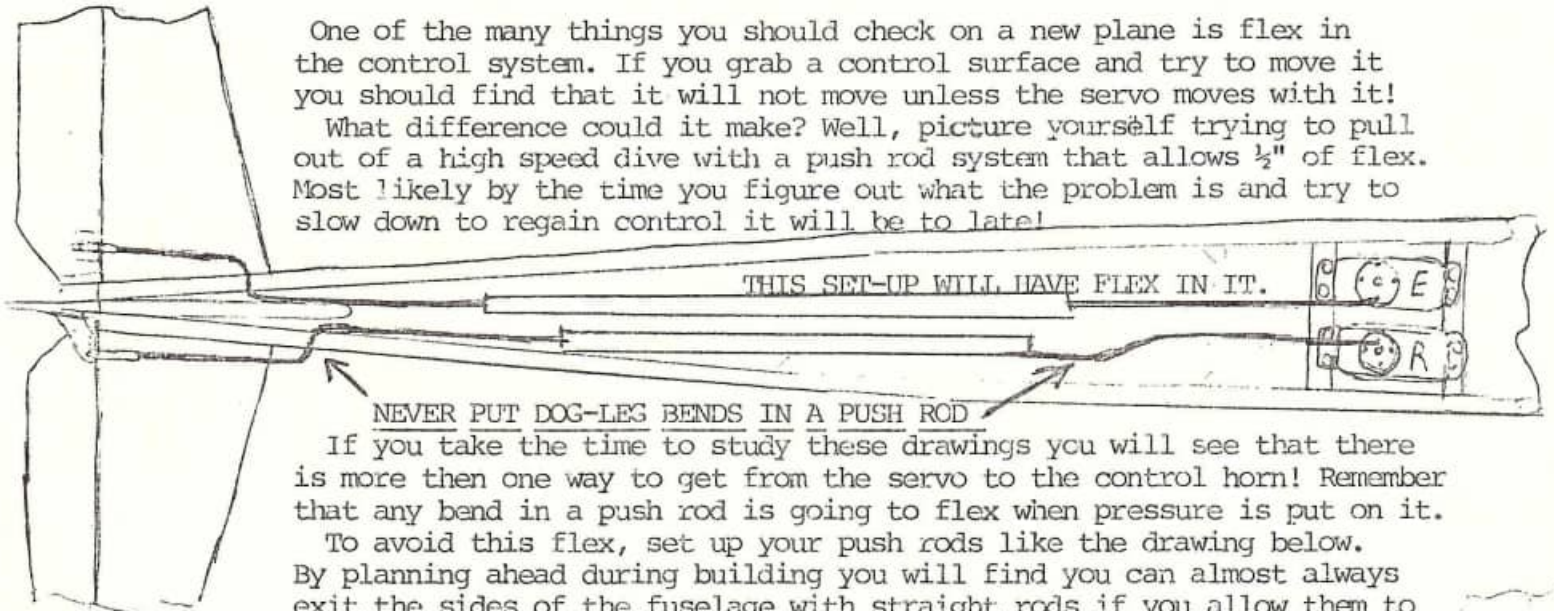
Whats the advantage? A flexible push rod won't flex nearly as much when it's under tension (pulling) as when under compression (Pushing). By putting the control horn on top you will be pulling to get up elevator to get yourself out of that terminal high speed dive! Of course, you will still get flex when you give full down elevator but how often do you do that anyway?

RLB

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!

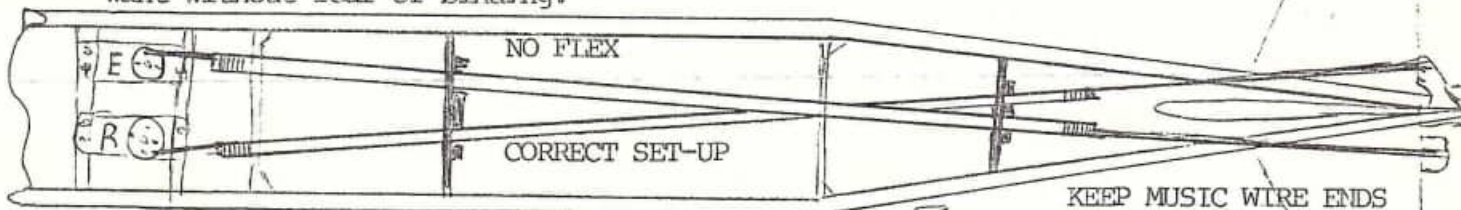
What difference could it make? Well, picture yourself trying to pull out of a high speed dive with a push rod system that allows $\frac{1}{2}$ " of flex. Most likely by the time you figure out what the problem is and try to slow down to regain control it will be too late!



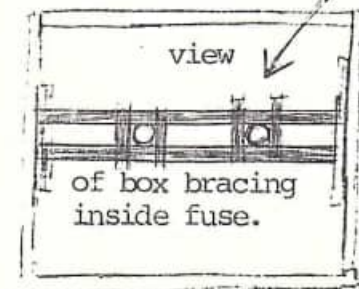
NEVER PUT DOG-LEG BENDS IN A PUSH ROD

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.

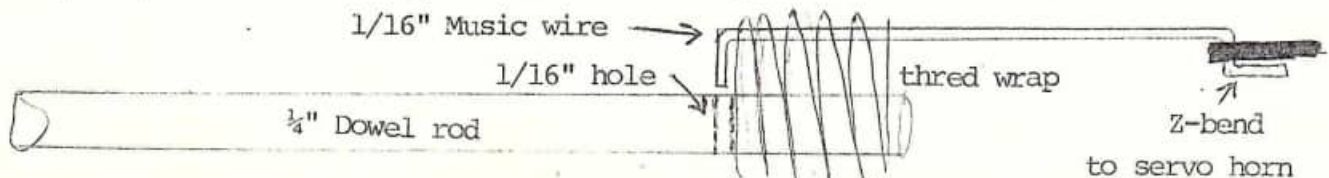


KEEP MUSIC WIRE ENDS AS SHORT AS POSSIBLE.

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 guarantee 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





DO YOU ASSUME TOO MUCH?

Ask yourself the following questions:

1. Do I check an airplane closely for problems after a day at the field? (battery connection, servo connections, control horns, links, pushrods, etc.)
2. Do I range check my plane often enough?
3. Do I really understand why my airplane flies?
4. Am I as concerned about safety issues as I should be?
5. Do I check the control surface functions before each flight?
6. Do I maintain at least 25 feet between my operating transmitter and others?
7. What could I have done (ahead of time) to prevent my last crash?
8. Do I maintain my batteries the way I should?
9. Have I ever flown an airplane that I knew wasn't safe to fly?
10. Do I assume everything is OK??
11. Do I realize that my friends at the field are assuming my equipment and methods are safe?

Dave Plamann

AN @\$\$\$ KICKING CONTEST?

Did you here the one about the R/C pilot who crashed his plane in an old farmers bean field? As he was about to climb over the fence to get his plane the old farmer roared up on his tractor. "You can't cross that fence onto my land!" said the farmer. The R/C pilot pleaded with the farmer but he still would'nt let him cross the fence. Finally the farmer relented and said "I'll make you a deal! We will take turns kicking each other in the groin. Who ever lasts the longest gets to keep the plane." The R/C guy thought it over and decided he would do it if it ment getting his plane back.

The old farmer said "I get to go first because it's on my land!" With that he let go with a kick that would have made a mule proud. After some minutes of rolling around on the ground in agony, the R/C pilot staggered to his feet ready to take his turn. But then the old farmer said "OH HECK BOY! GO AHEAD AND TAKE YOUR AIRPLANE. I DON'T KNOW HOW TO FLY ANYWAY!!!"

RLB

HOW TOO **** WHEEL PANTS THAT WORK

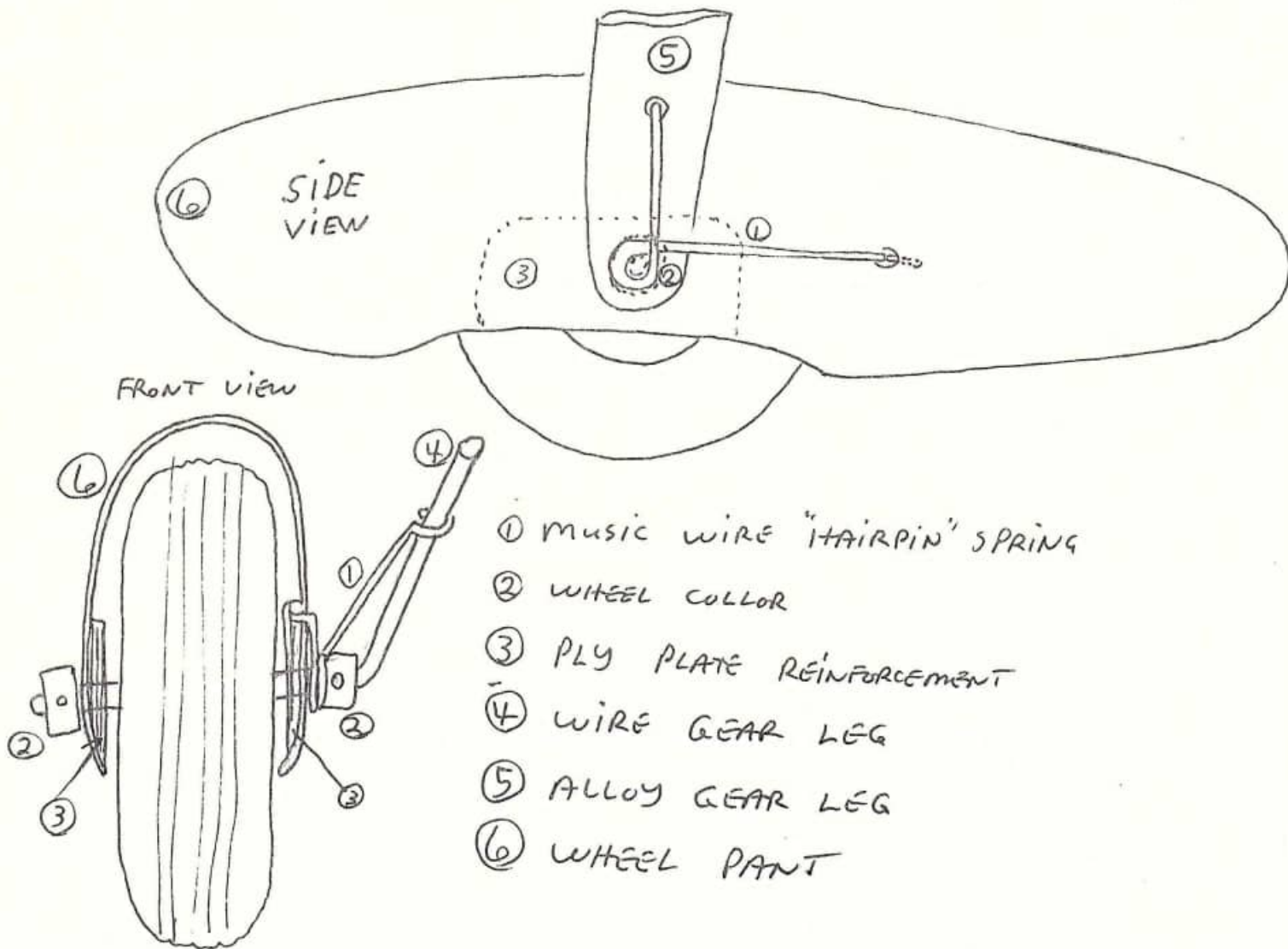
Of all the things I have tried to do in modeling, wheel pant installation has presented the most problems. Try as I might they always end up crooked, loose or broken after the first hard landing. After several attempts at doing it the way the plans called for I can only surmise that no one else has much luck either! Nothing works.

After thinking it over however, I think I have the answer. Logic dictates that if you drop a 6 pound airplane on a 1 oz. wheel pant, something has got to break and it won't be the airplane! The problem is that all wheel pant mounting methods attempt to firmly lock the pant in place with no movement possible.

What if we spring-load the wheel pants so that they can move under impact, then return to normal position later? Normal bumps and bounced landings would only move the wheel pant and not break it or its mount.

A music wire "hairpin spring" around the axle connected to the pant would allow this movement yet still keep the pants properly aligned during flight. look at the drawing and give it a try. I bet it works better than your present method.

RLB



*** GETTING IN TUNE! ***

During the Ace R/C Transmitter tests at the March meeting I found out that my Futaba FGK/6 AM radio was not up to par. While it passed the "Wide-Band" test and got a "Silver" sticker, I was told that it was marginal in performance. Shortly after that I started getting bad Glitch problems while flying the AeroMaster.

It seemed like the only thing to do was box it up and send it back to Futaba for an Attitude adjustment! While I was at it I also ask them to "Narrow-Band" it if possible and change the channel from 48 to 52. Off it went to Futaba on March 22.

I received it back on June 1, along with a bill. Total charges were \$12.74 for the two new crystals, \$18.00 labor, and \$5.10 shipping for a total of \$35.84. For this I got a channel change, a tune-up, and my transmitter is now "Narrow-Band" complete with a "Gold" sticker! Except for the rather long wait (11 weeks) this was not a bad deal at all. Without the channel change, the total cost to go Narrow-Band was only \$23.10. You might want to consider doing the same with your system!

RLB

The people to contact if you have further questions about Narrow-Banding your Radio is:

Futaba Corporation of America
Att. Service Dept.
555 West Victoria Street
Compton CA 90220

I would suggest that you talk to them before sending in your radio as I understand some models cannot be converted.

Dear Editor;

I recently took some friends to the field to see some of the members fly their aircraft. I thought that this would be a nice experience for them. When we got to the field there were about three planes flying. We stayed in the parking lot because we didn't want to bother the people in the pits. While watching people fly, there were several occasions that we looked up and saw an airplane coming straight down. On the same day we saw a crash. It seemed to be caused by a radio failure by the way the transmitter was being held in the air.

Thinking back on the last few months there have been several radio or similar problems. I had a complete radio failure, Larry had a battery pack go out, Chuck had a failure that caused his plane to go off into the lake, and Dave had a servo go out on his plane.

In the last two months there have been five times that I know of that someone could have said "I don't have it". What would have happened if just one time it would have been the person doing a dive on the parking lot that had lost control of his airplane? Maybe nothing, or maybe, just maybe, there might have been a person standing between that plane and the ground. SOMETHING TO THINK ABOUT--RIGHT!

T.P.

(Its good to know someone besides the Safety Officers think about these things.)

KIT REVIEW ** GREAT PLANES SPORTSTER BIPE .40
(THE POOR MANS AEROMASTER!)

PART 1 *** THE KIT

Before I start this kit review, I think a little background on my prior Biplane experience might be in order. I built an AeroMaster II by great planes last year. While the kit was rather complex, it was an enjoyable building experience. Flying it however, was another matter entirely! I would like to say that it flew right off the bench, but it didn't. From the moment I took off, I knew I was in trouble! I had never flown a plane that was so pitch sensitive and in general, unstable. The first flight resulted in a crash! Even after it was repaired and flying again, I just didn't like to fly it! Finally last summer, I decided to do something about it. I changed the incidence settings called for on the plans and set up the whole plane with "zero incidence" on all the flight surfaces. I also added some right thrust on the engine to counteract the severe torque roll on takeoff. The result? It flies like a dream!

The Great Planes Sportster .40 Bipe is in many respects, nothing more than a "Baby AeroMaster". After looking through the excellent 31 page photo illustrated instruction manual, and checking over the very good plan sheet, I was hooked! One thing I noticed was that this Bipe is set up with zero incidence on everything. (Except 1/32" positive incidence on the bottom wing) It looks like Great Planes must have figured out the same thing that I did. If you have three different flying surfaces, they should all be pointed more or less in the same direction!

Anyway, getting back to the Sportster Bipe kit. Upon opening the box you will be impressed with what you see. There is a lot of very good Balsa wood in this kit! Also several plastic bags stuffed full of hardware, wire parts, and ply and hardwood parts. You will also find a set of ABS wheel pants and a nicely formed canopy. The kit is very complete except for the normal items you seldom get with a kit. (Wheels & collers, Tank, Spinner, Covering, and Glue.) It is also typical of all Great Planes kits I have seen in that the quality of die cut and parts fit is just excellent! While this kit will not build up as fast or as easy as a Big Stick or PT-40, the same quality and attention to detail is still there. I wouldn't however, recommend the Sportster Bipe (or any other Bipe, for that matter) for your 2nd. airplane because some building and flying experience will be necessary to insure success with this ship.

What have I found that I don't like about this kit? Well, there are a couple of things. For one, the landing gear consists of a couple of pieces of pre-bent wire which you are required to solder together. The rear brace wire only has about 1/4" of bearing surface on each leg. In my opinion, this is not enough and I doubt that it would ever hold together if you only use soft solder on it. For this reason, I assembled mine with real silver braze and an acetylene torch! I also added a third wire "Shock Brace" which will be rubber banded to a J-hook in the landing gear plate. (Bill Andes suggested this mod after seeing my landing technique with the AeroMaster!) I went ahead and brazed on the wheel pant mount plates although I doubt that I will install them. They look real nice, but are not worth the trouble on a grass field!

The other thing I don't care for is the way the top wing is attached to the Cabine strut. The plans call for the use of a couple of aluminum plates and a "Double Handfull" of #2 wood screws! I know there must be a better way. I just haven't figured out what it is yet! In part 2 of this report, we will get out the Hot Stuff and start building. Untill then,
FLY SAFE!

RLB

ENGINE TEST: FOX .50 BB

Whats not much bigger then an average .40 size engine, weighs the same, and is almost as powerful as a lot of .01's?

If you guessed the new FOX .50 BB you are correct. Last year Duke Fox offered a deal to A.M.A. members where you could get a .40 BB Deluxe engine and a bunch of other goodies for \$50.00 and a coupon from A.M.A.. I ordered one and found it to be one of the best all around .40 size engines I had ever flown. I later picked up another one, and it was just as good as the first one.

This year there is a coupon in your A.M.A. membership booklet for a Fox .45, an aluminum spinner, and 5 Miracle Glow Plugs for \$60.00. About this time Fox announced the new .50 BB which is a bored .45 engine on the same case. I wrote a letter to Fox and ask if I could get the .50 insted of the .45. The answer 4 days later was "YES" for an extra \$10.00. I mailed a check for \$70.00 on Friday and got my engine by U.P.S. the following Wednesday! This is real good service folks! But then again, the Fox factory is in Fort Smith Ark. (only 260 miles as the run-away Sharp .45 flies!) One of the really great things about Fox products is the excellent service they provide. You can talk to Duke Fox one day and have a U.P.S. truck in your drive-way two days later! (Try that with an O.S. engine part sometime!!)

So far I have flown the engine on my Big-Stick a little and the engine is going to be a power house. I tryed 10/6, 11/5, 11/6, 11/7, and last but not least, a monster 13/6 prop on the engine. All but the latter performed well, although the engine turned close to 10,000 R.P.M. with the 13/6 which is not bad in 90 degree weather! (Further R.P.M. tests are on hold untill it cools off outside) Overall handling and idle is excellent even though the engine is not fully broken in and is still tight. A 2,000 R.P.M. idle with instant acceleration is easily attained.

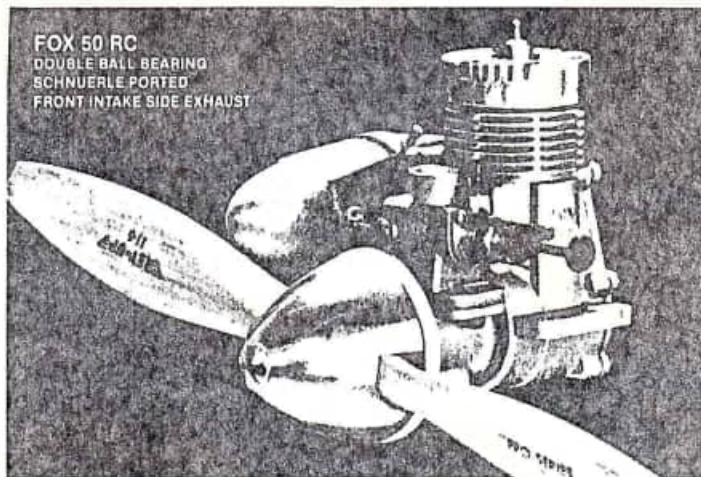
If you are in the market for a little more performance on your .40 size plane, dig out your A.M.A. booklet and find the Fox coupon. A check for \$60.00 (for the .45) or \$70.00 for the .50 gets you the engine, aluminum spinner, and 5 Glow Plugs.

Faster then a speeding bullet? Able to leap tall buildings? Is it a bird? A plane? NO, ITS THE NEW FOX .50 BB. Get yours before the coupon expires on Oct. 1.

RLB

TEST DATA FROM R/C REPORT PAPER

| PROP SIZE | R. P. M. | STATIC THRUST |
|-----------|----------|---------------|
| 9/6 | 14,900 | 4.93 LB. |
| 10/6 | 13,200 | 5.75 lb. |
| 10/7 | 12,300 | 5.31 lb. |
| 11/5 | 12,300 | 6.87 lb. |
| 11/6 | 11,900 | 6.25 lb. |
| 11/7 | 11,000 | 5.75 lb. |
| 12/5 | 10,900 | 7.18 lb. |
| 13/5 | 9,900 | 7.62-lb. |



FOX CREATES
OTHERS
IMITATE



MANUFACTURING CO.
5305 TOWSON AVENUE
FORT SMITH, AR 72901
PHONE (501) 646-1656

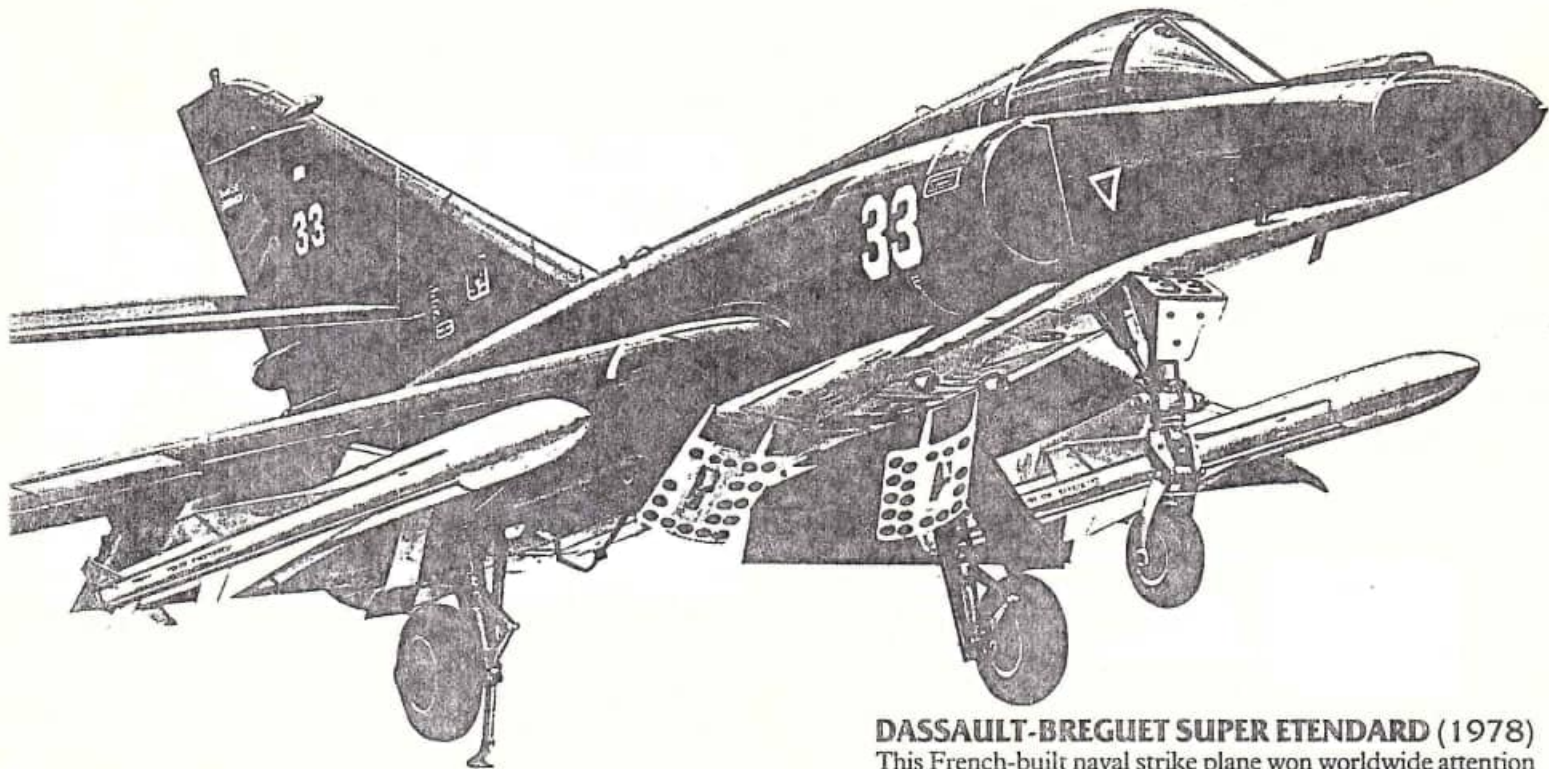
Some things you should consider when comparing the Fox 50 with other brands:

Every Fox motor is test run at the factory and checked for idle, full power, throttle response, and compression. Only motors that meet our performance standards are sold. Most of our competitors are reluctant to spend the time and money to check run their motors and risk spoiling the exterior appearance. We think it is more important that the motors run well.

The finest motor in the world is no good if a part is broken and you can't get another. Fox owners can get a part promptly by calling 501-646-1656, giving us the motor size, part name or number, and a Visa or Mastercard number.

Duke Fox has been building model airplane motors here in the U.S.A. since 1943. Labor is 100% American and all material, except ball bearings, is American made.

"IF GOD HAD MENT FOR MAN TO FLY R/C,
HE WOULD HAVE GIVEN HIM MORE MONEY!"



DASSAULT-BREGUET SUPER ETENDARD (1978)
This French-built naval strike plane won worldwide attention in 1982 when a Super Etendard operated by the Argentine Navy sank a British destroyer off the Falkland Islands. Powered by an 11,265-pound-thrust engine, it has a top speed of 745 mph and a range of 1,243 miles. The plane depicted here, belonging to France's Aéronavale, carries the same Exocet air-to-surface antiship missiles used in the