PHOTOGRAPHY: JOHN C. THOMAS, DLJ STUDIO PRODUCTIONS, INC.

It shouldn't be any surprise that the wood parts count is low in Sig's *Fazer*. It's a profile R/C ship, most of the wood is used for the wing which houses all the radio equipment.

An FM Product Review:

Sig Manufacturing's FAZER

By John Thomas and Dennis Fitzgerald

This is a fun-fly ship for fun—and it looks like a real plane. Has profile fuse construction for easy building.

The last kit review I did for FLYING MODELS was back in February of 1993 and at that time I wrote how great it was to build a good kit after scratchbuilding so many models. Building a quality kit made for great time savings because of my crazy work schedule and the fact that my two children needed some extra attention. Well guess what? When I got the call to do the review of the new Sig *Fazer* I found myself in worse shape than in 1993.

I thought about my dilemma and decided to do a different type of kit review this time. I called a good friend of mine, Dennis Fitzgerald, who has had a lot of extra time on his hands. With 30 plus kits built to his credit and one of the top builders in our area, I figured he would be a great partner in this kit review. After building so many kits in the last three years Dennis has a definite and educated opinion of what's good or bad in one.

I got to do the best parts of this review: 1. opening the box to see how it was packed; 2. giving the kit to Dennis to build; 3. taking all the photographs; 4. installing the radio; and, 5. best of all, test flying.

Our finished model used Sig Supercoat covering, Sullivan 4-ounce fuel tank, 2¼ inch wheels, O.S. Max 40 FP engine with a Rev-Up 11–4 prop and a DuBro 2-inch spinner and an Airtronics Infinity 660 radio for guidance. The all-up weight of the model was 3¾ pounds which is really light and right in the ballpark for fun fly airplanes.

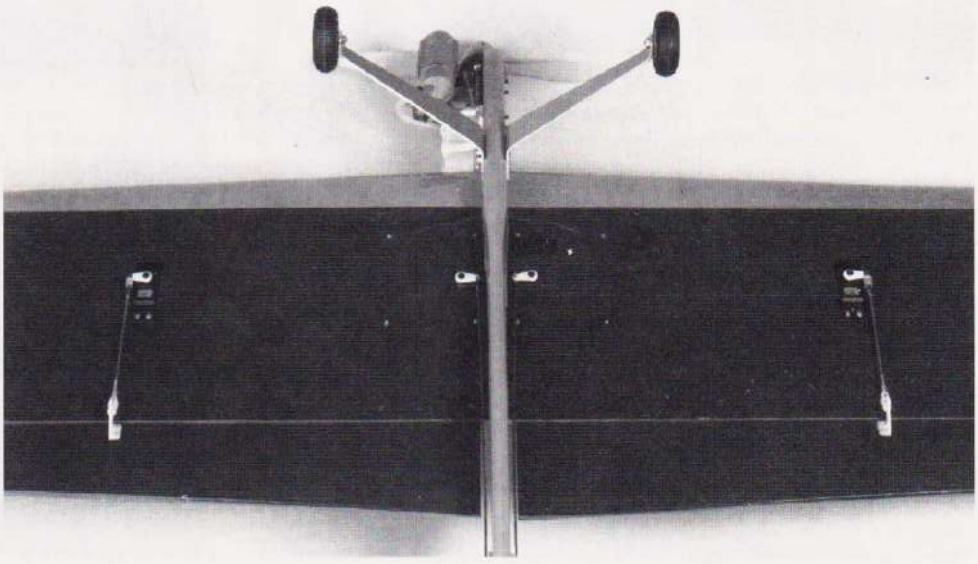
Dennis built everything as per the plans except the position of the throttle servo. I asked Dennis to move it back and to the left of the rudder servo so I could have easy access to that servo. This is not at all necessary, but sometimes I do a lot of servo swapping in test models and this just made it a little easier for me. All the servos mount in the wing, as well as the receiver and battery pack. All the push rods exit on the bottom of the plane which leaves the top untouched and looking great.

Now I think it's time to turn things over to Dennis so he can tell you how the *Fazer* builds.

Here's Dennis

The new Sig *Fazer* is a fun fly airplane that actually looks like an airplane. Sig did a very nice job with this kit. The die cutting is excellent with a good set of plans and their instruction manual is very complete. The *Fazer* can be built two different ways, radio control or control line. If you decide to use a four stroke engine, you will have to modify the plywood doublers on the fuselage. Instructions and new patterns are included in the manual for these modifications.

On to the construction. Build the tail, build the wing, sand everything in between. Well, it's not quite that easy, but I feel the wing is about 90% of the construction. The wing is built upside down over the plans. Remember this, because the tube for the antenna is installed in the left half of the wing. The elevator, rudder, two aileron and throttle servos are all mounted in the wing. The leading edge is formed by gluing a piece of ⅜-inch square balsa into V-notched ribs and sanded to shape. The trailing edge consists of two pieces of 1/16 × 1-inch balsa sheeting, with a piece of ¼ × ⅜-inch balsa glued to the back edges of the sheeting and ribs. All ribs have trim tabs front and rear to hold the



A look underneath the wing and you see the individual aileron servos, out board on the wing panels. Near the center section you can see the protruding elevator and rudder servo output arms.

The antenna wire was run inside the wing panel. You can see its tail end hanging out the small exit hole in the wing tip.

wing in position while building. The wing is sheeted with 1/16-inch balsa from the spar to the leading edge and the center section top and bottom. The spars are 1/4-inch square balsa, joined with plywood at the center of the wing; 3/32-inch balsa shear webs are installed in all outer rib bays between the spars. When the wing is completed it's light and strong.

The sheeting on the bottom center of the wing is cut out to form two compartments. One contains the throttle and rudder servos. The other, elevator servo, receiver and battery pack. These are covered by two pieces of plywood that screw down over these openings. When completed, it makes a nice, neat radio installation and also makes the radio gear easily accessible. Die-cut plywood servo mounts are included for servo installation. Check the fit of your servos in these mounts before you glue them in the wing. I had to file these openings a little bigger to fit the servos we used. It's a lot easier to do this before they are glued in the wing. Ailerons are stick construction as are the fin, rudder, stab and elevator.

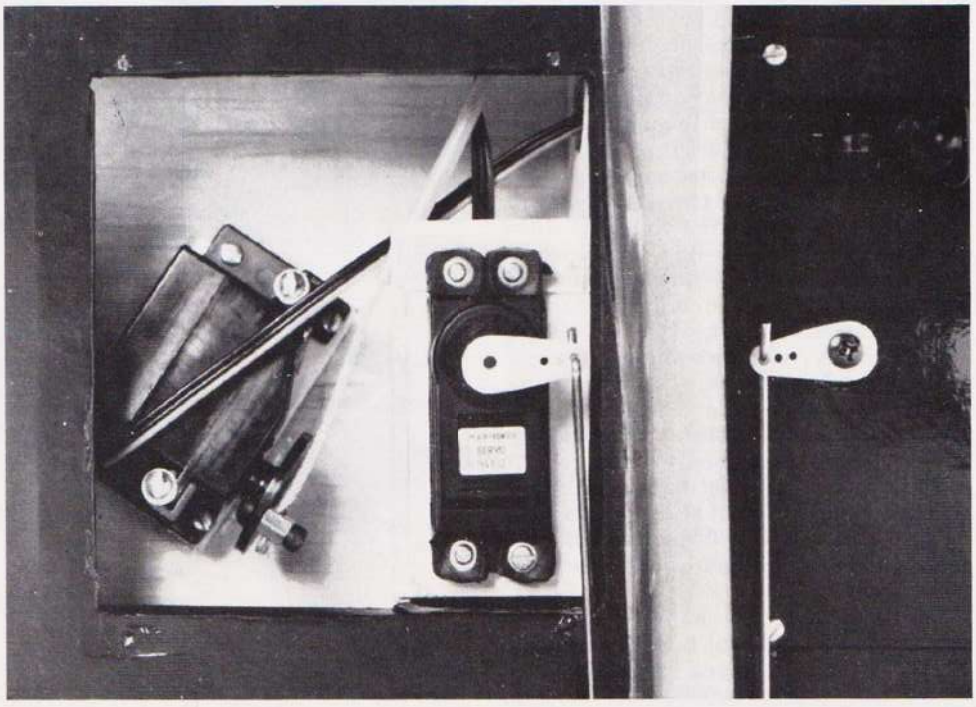
The fuselage is one piece of 1/2-inch balsa, routed out for the wing, stab and motor mounts. They have a simple but unique way you install the motor mounts to fit the width of your engine. First, glue the top maple motor mount in place. Set your engine on the mount and slide the lower motor mount in place. The lower motor mount opening is routed oversize to allow the mount to be moved, narrower or wider, to fit your engine. When you have the right width for your engine, glue balsa spacers between the mount and fuselage. Plywood doublers are then epoxied to each side of the fuselage.

There's a cutout in one doubler for the engine. Make sure this cutout is large enough for your engine before you epoxy it to the fuselage. The plywood doublers cover the motor mounts and extend past the opening for the wing. Drill the motor mounts and landing gear holes, sand the fuselage and you're ready to glue the wing to the fuselage. I looked at the routed hole in the fuselage, then at the wing, prayed a little, then slid the wing through the hole. It fit—well, almost. Actually, very little sanding was needed to get a nice fit.

Once the wing is glued on, you're ready to cover the *Fazer*. I covered ours with Sig Supercoat and used Sig Supertrim for the white sections on top of the wings. I won't go into any covering details because everyone has their own preference on colors, types of covering and the way they install it. You will have to make a pattern for the wing opening. To cover the fuselage you have to slide the covering over the wing. Cover the tail sections separately and glue them on after the fuselage is covered. If you want to make the *Fazer* look like the original, there are three large decal sheets included in the kit, with positioning guides on the prints.

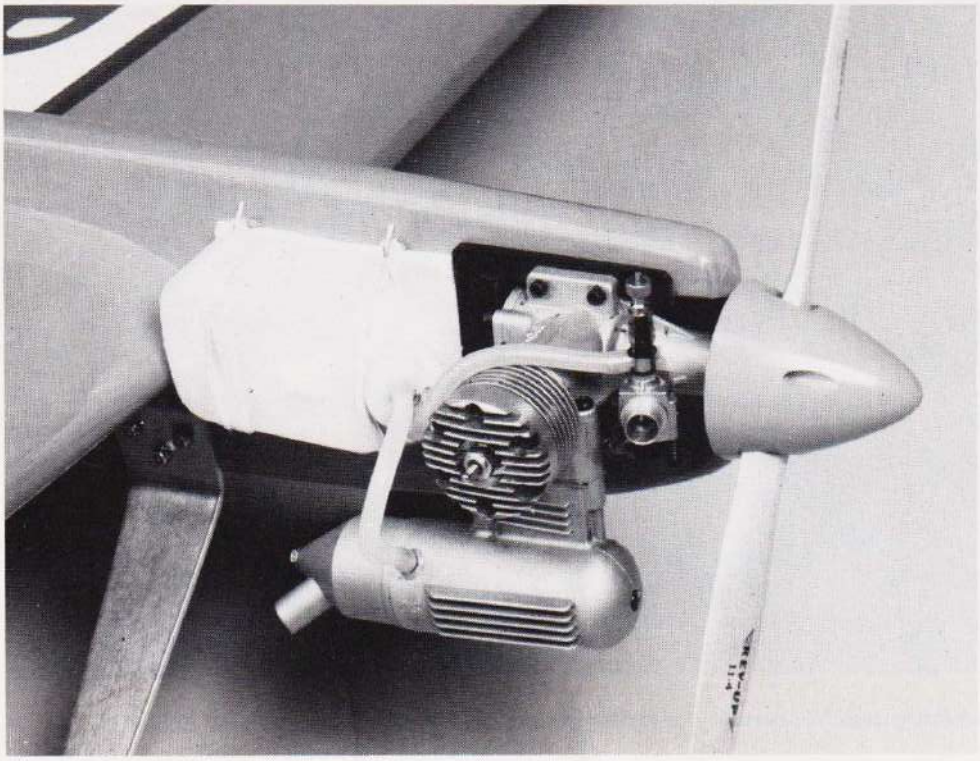
The radio installation is pretty straight forward. We changed the position of the throttle servo for our convenience. Besides, I think it's an unwritten law, you have to change something in a kit. We decided to use a mini servo with Graupner flat mounts and move it back beside the rudder servo. Original installation was forward of the rudder servo under the sheeting attached with servo tape. All push rods are exposed with rudder and elevator push rods sleeved and attached to the fuselage for stability, midway between the wing and stab.

That's about it for the construction. It may



A look inside the right wing servo bay shows the rudder and the throttle servos. The author modified the throttle servo installation for easy removal if some maintenance is required.

Sig Manufacturing's Fazer



An O.S. .40FP sits in the nose with a Rev-Up 11–4 prop screwed onto it. Initial ground acceleration is slow but once in the air the plane comes alive and tracks incredibly straight. Hard to fit more than a 4-ounce tank.

seem short, but this airplane builds quickly and there's no sense spending a lot of time reiterating what the construction manual already covers. So if you want a fun fly airplane that builds quickly and looks great, this *Fazer's* for you.

I'm back

Dennis is right about the *Fazer* looking great. It's the only fun fly plane that actually looks like a real plane. Unlike most plane-on-a-stick type fun fly machines, this one has a profile fuselage, conventional landing gear and a slightly tapered wing, which makes it really look like the *Bud Light Laser*. Sig designed this plane to throw in the back of your compact car, pull it out and fly the socks off of it just for "plane" fun.

Some of the appeal of this airplane is its light weight, 3¾ pounds. It takes off normally, snaps, spins, loops and flies knife-edge like no other fun fly airplane I've seen.

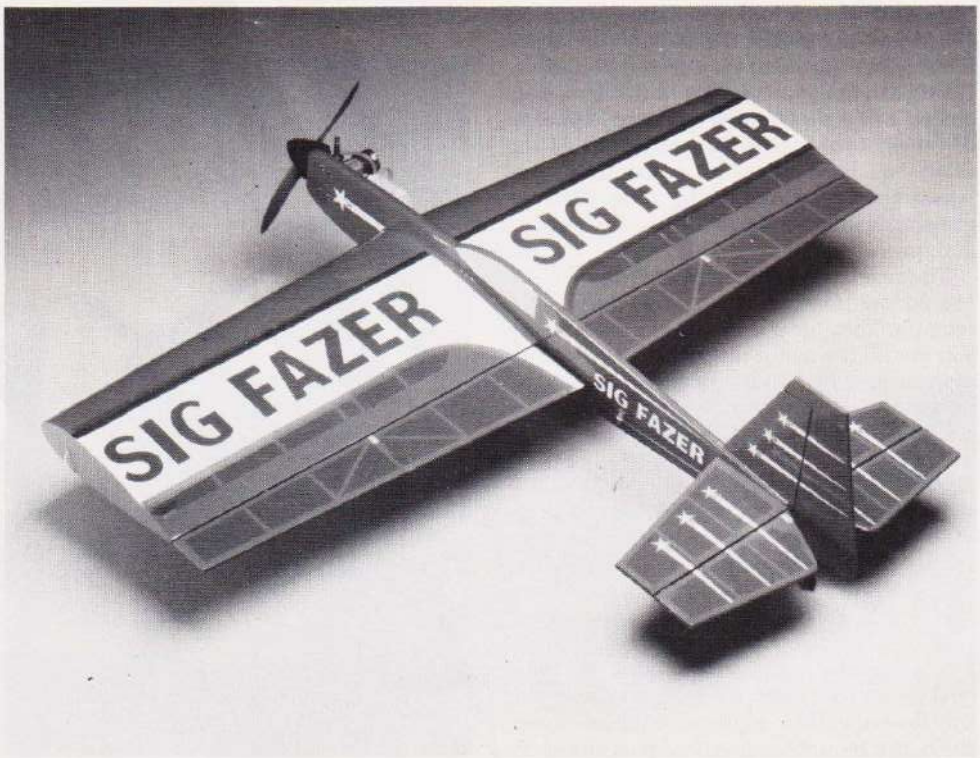
I suppose it's about time to let you know how it really flies, but first a little about radio programming. With the Airtronic Infinity 660 it's possible to program in different functions to improve certain maneuvers. With a servo on each aileron, and mixing, you can have elevator-into-flap mixing, which means when you give up elevator, the flaps drop down much like a control line airplane. This makes for really square corners in loops and really tight turns. I had this function set up so I could turn it on and off for test purposes. To tell you the truth, the plane makes really square corners without the mixing.

The other function is in the flaperon mode. The ailerons still function normally during all the different preprogrammed mixing modes like down flaps for landing. This mixing function is not needed either since the plane, with its thick wing, can hover in a slight breeze, so in my opinion flaps are not needed. Well, let's gas it up and fly this thing.

After double checking all the control throws and getting the engine started, I taxied out and pointed the *Fazer* into the wind. Well, it's time to bury the throttle. With an O.S. Max .40FP and an 11–4 prop, the acceleration was quite slow. The model tracked really straight and, after 40 feet plus a little back pressure on the stick, the plane was in the air. I gained some altitude, set the trims and proceeded to have a blast. This plane, even though it has five servos, can be flown on a 4-channel radio just fine without mixing. If you have dual rates, use them! If you don't, set the plane up with the minimum control throws recommended. I fly my *Fazer* with maximum throw on the rudder, low rate on the elevator and ailerons. For really tight loops, switch your elevator on high and mix the flaps in. The *Fazer* will roll really fast with low rates on the ailerons but over all they don't seem too twitchy. Switch to high rate and the *Fazer* looks like a solid tube going by. If you're not careful with the ailerons on high rate it doesn't take much to get behind the plane. Go ahead and try knife-edge flight. This plane has enough fuselage to handle it. Stall turns, spins and inverted flight with just a touch of down. Cut the throttle in half and come in close for some of that "in your face" aerobatics!

Well, I'd been flying about eight minutes with a 4-ounce tank on my .40 so better set up for a landing. The *Fazer* lands at walking speed or less with good control until touch down. The fact that the *Fazer* has that thick wing and light wing loading translates into not much penetration into the wind at idle. The *Fazer* really slows down quickly when you cut the throttle to land.

I think the *Fazer* is a great flying plane but one of the things that really sticks out in my mind is its ground handling. I've flown a lot of taildraggers in my time and most of them are kind of like chasing a greased pig. Without a doubt, the *Fazer* is the best tracking taildragger that I've flown to date. I think the large, low pitch prop has something to do with it, but I also think its part of the design as well. I think Sig really has a winner here. A light weight, well-designed airplane, but best of all, it flies great! Try one—you won't be disappointed.



This is a nimble ship claims the author, and it won't hurt to have a radio with dual rates. At high aileron rate the plane becomes a blur, and its easy to get behind it. High rate elevator yields extremely tight loops.