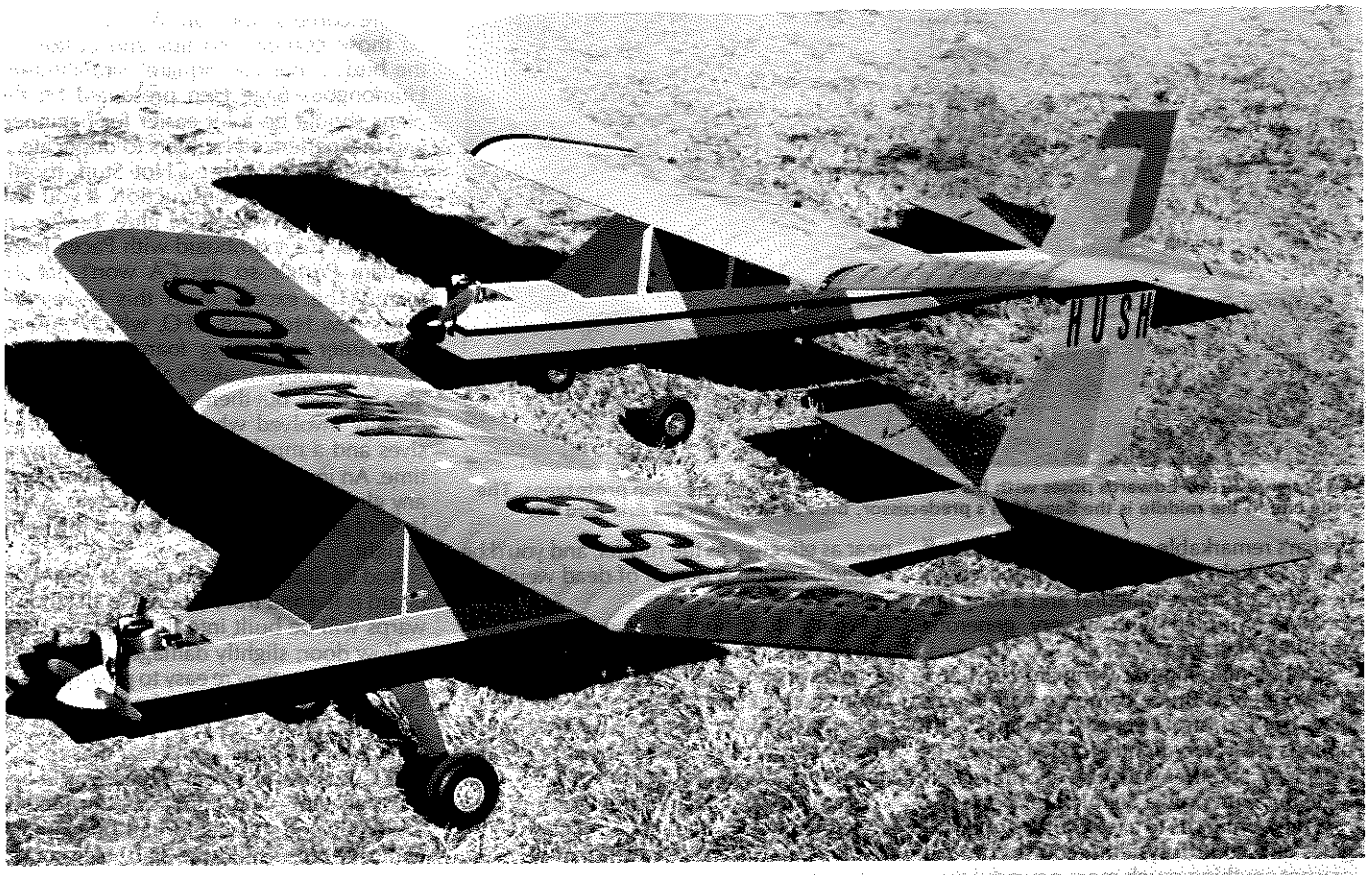


HUMONGOUS SAGE HEN

By BRUCE EDWARDS and AL ALMAN. . . What this lightweight seven-footer lacks in sexy curves, it more than makes up in its ability to be easily built and flown by the rank beginner. It's the ultimate R/C trainer.

• This design originally started out as a dandy little 18-inch rubber-powered model manufactured by Peck-Polymers. Then, because he liked it so much, Bob Peck kitted an even dandier .10 to .15 powered version called the "Prairie Bird 50" that turned out to be a superior basic trainer; it was easy to build, very slow, very stable and very forgiving.

But for all its inherent goodness, Mr. Peck's Prairie Bird 50 needed improvement in one area: it was kinda small and therefore hard to see at any real distance or altitude.

So, since we can't offer the world what it sorely needs. . . a five-cent cigar. . .we decided that the next best thing would be to out-dandy the Prairie Bird by making it into an 84 inch Humongous Sage Hen. Our basic philosophy was based on a very simple fact of life, that BIG BIRDS FLY BETTER!

But why 84 inches? Well, what really happened was that Bruce's old calculator had a stroke when first turned on, coughing up a factor of 1.68 just as it expired. . . and since this happened on his birthday and remembering that he was born on the cusp, Bruce was convinced that 84 inches had been predestined. ("It was written in the stars," is what he actually said.) Of course, in the face of such an overwhelming scientific argument, Al had to agree that 1.68 was a very nice factor, indeed.

By this time you're probably looking for the wild and extravagant claims usually found in most other construction articles. . . promises that the plane will be great for both training and aerobatics along with subtle hints that bad breath, body odor and a shallow personality will also improve once you've got this terrific new design flying.

Well, surprise, surprise. . . we're not about to blow any smoke about the Sage Hen because like the five-cent cigar, there also ain't no free lunch.

In other words, this bird can't and won't double as a basic and aerobatic trainer. Like any aeroplane it would be too severely compromised to do both jobs well.

Our one and only promise is that built and powered as recommended, the Hen will be the best possible trainer for a beginner. It'll make learning to fly a most enjoyable and low-stress adventure, allowing you to build up confidence, solo and then progress on to an intermediate trainer in jig time.

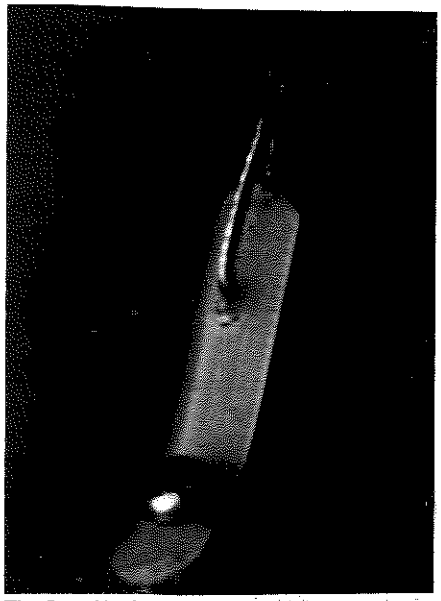
The problem is that all too often guys will end up with the worst design to learn on, with the result being: 1) they're so intimidated by the airplane that they never feel comfortable enough with it to even try to solo. . . usually because it's too fast, leaving them with the terrible feeling that their reflexes are hours behind the bird and will never catch up with it; or 2) they finally do solo, but only after an unnecessarily frustrating and protracted period of time. . . and even then remain quite shaky if a competent pilot isn't standing beside them during each and every flight.

The fact is that too many people are lost to our hobby because they start with the wrong airplane. . . and end up with a learning curve that is too flat. Where is it written that learning to fly must be less than enjoyable, and full of nervous frustration, anger and an overpowering feeling of inadequacy?

Three prototypes of the Humongous Sage Hen were built and have racked up something over 100 hours of wonderfully relaxed flying time so far. And nine youngsters (ages 8 to 65) have discovered how satisfying and easy on the nerves it can be to learn R/C by starting with the Hen. . . a plane so well suited to a beginner's needs. Four of the students never flew before and the other five had been trying unsuccessfully for years with the wrong type of "trainer." All nine, including Al's eight-year-old, Adam, zipped through training and soloed with ease. . . mainly because this airplane builds gobs of self-confidence and self-reliance.

Even experienced pilots can enjoy this gentle bird. We personally accounted for well over half of those 100 hours doing touch-and-go's, chasing thermals, taking photos and dropping candy. . . with skis and floats planned for the future.

Obviously we had nothing to do with this



The Sage Hen's tail surfaces are wire braced. One-inch strips cut from nylon cable ties were used to attach the wires to the structure.

design's remarkable stability. She started off "right", a light, flat-bottomed airfoil cabin design with ample dihedral and a long tail moment coupled with a very generous amount of tail area.

But by enlarging her wing area to 1,265 square inches, Bruce came up with a size that's not too big . . . yet at a nominal 7-3/4 pounds she's very lightly loaded (about 14 oz./sq. ft.) and therefore flies effortlessly on the wing with only a Saito 45 for power.

Which brings us to a few words about engines and control systems. You don't need or want anything much more powerful than a Saito 45, nor do you want scads of rpm or too much speed. All three prototypes flew outstandingly well with Saito 45's (one also flew well with a Davis Dieselized World Engines Brat 25) and large props . . . like a 12x4, 12x5, 13x4 and 14x4. If you use a two-cycle engine don't go over a .40, and do try something larger than the typical 10x6.

The Sage Hen was *not* meant for aerobatics. She's a putt-putt. You can, however, push her into some wide barrel-rolls and loops by carefully trading altitude for airspeed . . . but cramming in an oversized, more powerful engine would be a bad move.

Also, she was designed to fly with three channels (rudder and elevator on the right stick and throttle on the left stick). Messing with ailerons would be an absolute waste of time because they wouldn't be anywhere near as effective as the rudder, and you'd be lugging around a bunch of dead weight to boot.

What's that, bunkie? You say that you can't fly without ailerons? Not so! All you've gotta do is plug the rudder servo into the aileron channel. Neither the plane nor the radio will know or care what you've done, and once the stick twiddling starts it's not going to matter to you, either.

Some folks like to argue that starting with three channels is bad, that it makes the inevitable transition to four channels (ailerons and elevator on the right stick and rudder and throttle on the left stick) a problem. We've found that this just isn't so. Learning to fly a well-mannered three-channel bird first builds up a very solid foundation of the aforementioned self-confidence and self-reliance, allowing a fledgling to transition smoothly to four channels.

However, if your transmitter has an aileron/rudder coupling switch you can put it to good use and simulate four-channel operation right from the start. Turn this switch "on" and connect your rudder servo to the rudder channel as you normally would when using four channels. Now both the aileron and rudder sticks will control rudder movement; you can use the left stick for taxiing and initial takeoff corrections, and then switch to the right stick to complete the takeoff and for normal flying.

In regards to the Hen's straight lines and square corners, you can, of course, round off those corners and tips and customize the bird . . . but the "square" straight-lined Humongous Sage Hen presented on the plans should be a lot easier for beginners and inexperienced builders to duplicate.

About glue: We used Hot Stuff, mostly "Special T," for all construction. If you also use a cyanoacrylate (CA) glue, be sure to first spray the foamboard with Pacer Tech's Z-Foam Primer so the CA won't eat the foam. (The exception to this is Satellite City's new Hot Stuff UFO, which requires no primer for gluing foam.) Of course, epoxy or cabinet maker's aliphatic glue can also be used, but there is a very real weight penalty involved when using these adhesives and a much longer curing or drying time. An important fact to remember about any glue is that too much is a no-no. A thin layer of glue is all that is needed if the joints fit right.

And be absolutely certain that your work board is flat and true, otherwise all kinds of warps will be built into the airplane. Try a hollow door; slightly damaged ones cost a mere pittance, they're easy to push pins into and most always are warp-free.

TAIL FEATHERS

1) Cover the plans with clear plastic.

2) Cut all 1/4-inch balsa pieces to fit and glue together—and don't forget to include the hardwood gussets for tail bracing and control horns. Build the stab, elevator, fin and rudder separately.

3) When the glue is dry remove the parts from the board and sand lightly, rounding off all edges.

4) You can prepare the control surfaces for hinging before or after covering with your favorite iron-on. Either way, a good choice would be Sig's new Easy Hinges. As the name implies, they're easy to install and a drop of regular (thin) CA on each side anchors them permanently.

5) After all tail pieces are covered, install the control horns on the hardwood inserts.

6) Glue the base of the fin into the slot in the horizontal stab. Make sure that the fin is perpendicular to the stab and that this glue joint is wood-to-wood and free of any covering material. Install Easy Hinges at this time. Make sure that the bottom center part of the horizontal stab that glues to the top rear of the fuselage is also free of covering.

WING CENTER SECTION

1) Cover the plans with clear plastic.

2) Cut out the bottom 1/16-inch balsa sheeting and pin in place over the plans.

Note: Only the middle five W-1 ribs are completely sheeted top and bottom. The rest of the center section is sheeted on the bottom only from the leading edge to the first spar and on the top and bottom from the rear spar to the trailing edge.

3) Glue the 3/8-inch leading edge dowel in place on the top front of the leading edge sheeting.

4) Glue the 1/8-inch square hardwood strip to the rear of the trailing edge sheeting.

5) Carefully mark the position of the lower front 1/4-inch square spruce spar on the sheeting and then glue the spar in place.

6) Carefully mark the position of the lower rear 1/4-inch square spruce spar on the sheeting and then glue the spar in place.

7) Glue lower capstrips in place.

8) Glue all centersection ribs (1/8-inch balsa or foamboard) in place. Angle the left and right outboard ribs to the 15° dihedral angle of the outer wing panels.

9) Glue the top front 1/4-inch square spruce spar in place.

10) Fabricate the hardwood wing mounting blocks that are built into the center section. Drill 1/4-inch holes in the blocks using a drill press and glue the blocks in place as shown on the plans.

11) Shape the balsa wedges that go in the center section trailing edge areas. Be sure the blocks fit and are in place before sheeting the top of the center section.

12) Glue in all front and rear 1/8-inch balsa shear webs. Make sure that the grain is vertical.

13) Lift the wing from the plans and carefully extend the three 1/4-inch wing bolt holes through the bottom sheeting.

14) Replace the wing on the building board and glue on the top 1/16-inch balsa center section and trailing edge sheeting. Glue the upper capstrips over the top of all other ribs.

(Note: The upper capstrips are much easier to install and will curve to the top airfoil shape if a knife handle or dowel is rolled along their full length.)

15) Remove the wing from the board and carefully extend the three 1/4-inch wing bolt holes through the top sheeting.

LEFT AND RIGHT WING TIP PANELS

The building sequence for both tip panels is essentially the same as for the center section, except that there are of course no angled ribs, no center mounting blocks or bolt holes, and no center section sheeting. Final step is to glue on the 3/8-inch balsa tips.

WING ASSEMBLY

1) Trial fit the left outer panel to the center section. Make sure that the front and rear plywood wing joiners fit and that the leading edge, trailing edge, and spars mate properly.

2) Repeat Step #1 and trial fit the right outer panel to the center section.

3) Pin the wing center section flat on your board and, placing the dihedral guage under the left outer panel wingtip so that it's jacked up to the correct angle, glue this panel to the center section. Make sure that the plywood wing joiners/dihedral braces are securely glued to the spars.

4) Repeat Step #3 for gluing the right

outer panel to the center section. The dihedral guage should insure that both tip dihedral angles (15 degrees) are the same.

5) Sand the entire wing in preparation for covering.

6) You must balance the wing or else your Hen will always want to turn toward the heavy tip. This can and should be done before it is covered. Turn the wing upside down and place the middle W-1 rib on a straightedge. Bring the lighter panel into balance by gluing small fishing weights or sheet metal screws into the inside of the tip rib.

FUSELAGE

1) Cover the plans with clear plastic.

2) Splice the four spruce longerons to be glued to the fuselage sides, making sure that each longeron is spliced at a different point along its length.

3) Cut out the 3/16-inch Sig foam core fuselage sides and splice as shown on the plans.

4) Glue the spliced longerons to the top and bottom of each foam core side.

5) Glue the 1/16-inch ply doubler to the inside of each fuselage side.

Note: Make sure that you end up with a right side and a left side.

6) Lay the two foam core sides flat on your building board so their fronts are even with each other and their top longerons are running parallel to, and touching, each other. Be sure that both sides are identical. Consult the plans and, using a square, draw the firewall and former locations on both sides simultaneously.

7) Cut the firewall (F-2) to size, drill holes for the engine mount and install 6-32 blind nuts.

8) Lay the right fuselage side flat on the workboard and, using a triangle or any tool that has an accurate right angle, glue the firewall, 3/4-inch triangle firewall supports and formers F-4 through F-7 in place. Make sure that all formers are vertical.

9) Glue the left fuselage side to formers F-4 through F-7, making sure that each former is properly located where marked.

10) With the forward, bottom part of the fuselage secured in place over the fuselage top view, pull the tail section together directly over the centerline. The whole idea here is to make sure that when gluing the tail post in place, the fuselage ends up symmetrical and not shaped like a banana.

11) Install all of the remaining formers and the 1/8-inch plywood strips that go on the upper sides of F-4, F-5, F-6 and F-7.

12) Install the landing gear blocks and gussets.

13) Glue the 1/16-inch balsa doubler in place (grain vertical) that's located under the horizontal stab.

14) Glue the 1/8-inch sheet balsa stab seat in place between the two rear fuselage sides.

15) Install the 1/4-inch square hardwood tail wire brace mounts on the rear bottom of the fuselage so they will be flush with the outside surface of the sheeting.

16) Install the outer Sullivan Gold-N-Rod casings for the elevator, rudder and throttle.

17) Sheet the remaining fuselage areas (top and bottom) as shown on the plans.

18) Glue on the 1/2x1/8 balsa strips at the front and rear of the cabin so that heat-shrink covering can be applied with ease.

19) Fabricate a 1/8-inch lite-ply hatch cover for the fuel tank/battery compartment. Use four #2x1/2-inch screws to secure the hatch in place.

20) Fabricate the landing gear (aluminum or fiberglass landing gear blanks can also be used) and install. Use four landing gear straps and eight #4x3/4-inch screws for securing the landing gear in place.

21) Install the servos. Hardwood rails glued in between the fuselage sides work well as a servo tray, or cut a tray out of 1/8 or 3/16 ply.

22) Insert the inner parts of the Gold-N-Rods and hook up the controls to the servos and their respective control surfaces. A "Z" bend is a simple and positive way to hook up to the servos, and a metal clevis, large nylon snap clevis or a ball link can be used at the control horn.

23) Install the engine, fuel tank, battery pack, receiver and switch harness (mount this on the side opposite the exhaust) and connect the servos and all other wiring. Be sure to mount the fuel tank, receiver and battery in at least 1/2 inch of foam rubber. A ball link is especially helpful to insure a friction-free hookup when connecting the throttle control to the engine carburetor arm.

24) Install the tailwheel bracket and 1/16-inch wire tailwheel assembly using brass tubing, then glue the balsa tailpost block over the tubing.

Note: The upper part of the tailwheel tiller rides freely in the small piece of brass tubing glued to a concave area in the lower rear of the rudder, so that rudder movement also provides tailwheel steering. This area should be free of covering to insure a good glue joint.

25) Install the two forward hardwood wing mounting blocks in F-5 and the rear mounting block in F-7. Don't drill the holes for the wing hold-down bolts yet.

26) Fuelproof the engine and tank compartments with epoxy or polyester resin (dope doesn't do a good job). Epoxy costs more but polyester stinks and tends to be somewhat brittle.

FINAL ASSEMBLY

1) Although we normally prefer something stronger like dacron, ceconite or a polyester for covering a BIG Bird, a plastic iron-on would be suitable in this case because it is lighter and faster.

Cover the Hen with contrasting colors, particularly on top of the wing and the horizontal stab. Remember, if you have trouble seeing your bird and telling what it's doing, then you're gonna have trouble controlling it. (Betcha didn't know that red-and-white airplanes fly better.)

2) Glue the tail section in place on the 1/8-inch balsa stab seat at the rear of the fuselage, being careful to align the fin with the center of the fuselage.

3) Place the wing on the fuselage cabin top over formers F-4 to F-7. Square up the wing so it's in alignment with the horizontal stab and the fuselage.

4) Hold the wing in place and mark the hole locations on the hardwood mounting blocks where the screws will go. An easy way to do this is to rub soft lead (a #2 pencil) on the bottom of the 1/4-inch nylon bolts. When shoved through the holes in the wing and rotated while being pressed down against the mounting blocks, the bolts will leave an accurate mark for drilling.

5) Remove the wing from the fuselage. Drill three holes where marked on the hold-down blocks with #7 bit. Use a drill press if possible to keep the holes vertical.

6) Tap the holes with a 1/4-20 tap. Then apply thin Hot Stuff or other CA to the holes. When dry, retap. This will greatly strengthen the threads in the holes and allow a more secure mounting.

7) Install tail bracing. It takes eight bracing wires, four on top and four on the bottom. Two different types of bracing were used successfully: Jomar's Aramid Cable with DuBro #201 rigging couplers and 2-56 threaded clevises, and turnbuckles (DuBro, Proctor or Hobby Lobby) with Berkley Steelon (20-30 pound test) leader material. Don't forget to safety wire the turnbuckles. Nylon wire ties make fine lightweight brackets when cut into one-inch strips. The braces should be just taut enough to keep tension on the tail pieces, but not so tight that the stab or rudder get warped.

HOMEWORK

1) The wing tip panels should have washout, which means that the wing tips are angled or twisted so that the tip trailing edge is higher than the tip leading edge. This keeps the outer part of the wing flying after the inner section has stalled; it allows for tighter turns and lower flight speeds, and makes the Hen a veritable pussycat.

Here's the way to do it. In a seated position, hold the wing vertically so one wing tip is resting on the floor while the wing is locked solidly between your legs/knees. Then twist the upper wing tip until its trailing edge is higher than its leading edge (1/8 to 3/16-inch) and use your heat gun on both sides of that wing tip area. Hold that twist until the iron-on plastic covering cools and the washout remains. It's very important that the amount of washout be the same at both wing tips. Double check that you have not twisted either wing tip the wrong way.

2) The Sage Hen can be safely balanced anywhere between 4 to 5 inches back from the wing's leading edge (she's much more receptive to thermals, but still not tricky, when balanced close to the 5-inch mark). This is done with the bird completely assembled, ready-to-go, but with the fuel tank empty. Proper balancing is *vital* and must be done in your shop, not at the field where wind and peer pressure will guarantee that you'll do a lousy job and most probably end up with a poor flying, if not unsafe, aircraft.

Here's a simple, effective way to balance. Install two 1/4-inch #4 sheet metal screws into the bottom sheeting of the wing center section. Locate these screws so that one is 3-1/2 inches out from the center of the wing toward the left tip and the other is 3-1/2 inches out from the center to the right tip. Make sure that both screws are the same distance (somewhere between 4 to 5 inches) back from the leading edge. Then, place the tips of your forefingers under each of the screw heads and gently lift the bird off the bench. Ideally she should hang slightly

nose down.

Try to bring her into balance by moving the battery or receiver. If shifting equipment around still doesn't help, consider going to a heavier (1200 mAh) battery pack. Add dead weight (like lead) only as a last resort. In fact, an extra coat or two of fuelproofing resin would make more sense than screwing and/or gluing in pieces of lead. All three prototypes came in between 7-1/2 and 8 pounds.

3) With a Robart incidence meter check that the wing incidence is between zero and one degree more positive (the leading edge is higher than the trailing edge) than the horizontal stab. Shim the wing if necessary. Make very sure that the wing is not negative to the stab.

4) Like most every other sport-type flyer, the Sage Hen flies best with its engine thrust line offset . . . and Ernst has engine mount thrust plates that are perfect for this job. These tapered plates will allow you to set in the needed 3 degrees of both down and right thrust. Use the Robart meter to check these thrust settings.

5) Double check for perfect alignment between the wing and horizontal stab, and between the wing and fuselage. The fin should be vertical to the stab and on the reference line between the tail and the center of the firewall.

6) A little toe-in (2-3 degrees) on the wheels is OK.

7) Rudder throw: no more than 3/4-inch in either direction is necessary. If you have dual rates, set low for 1/2-inch and high for 3/4-inch . . . and use low once you're off the ground and tooling around.

This bird doesn't need much rudder for effective turns and small movements will help to minimize overcontrolling both on the ground and in the air.

8) Elevator throw: you really don't need more than 3/8-inch up and down. If you have dual rates, set low for 1/4-inch and high for 3/8-inch. Unless the bird is balanced severely nose-heavy, you shouldn't have to worry about running out of elevator when flairing for a landing.

9) The engine should have been run for at least an hour or so on a test stand so that you've become familiar with its handling characteristics. Also, this running will give you a good idea where to set the carburetor barrel for approximate best idle when installed in the plane.

10) After the engine meets with your approval on the test stand, reinstall it in the Sage Hen and test run *before* going out to the field. At this point only a small adjustment of the throttle control or throttle servo should be needed to arrive at the optimum idle setting. Also make sure that the throttle servo doesn't bind at either high or idle, and that there is enough throttle trim left to cut the engine off when desired. This is not difficult to do but does take a little extra time to get it right.

11) Make sure that right stick gives right rudder and that back stick gives up elevator. Any wrong movement can be corrected by using the transmitter's reverse switch for that channel. (Older sets won't have reversing switches, so in these cases you'll either have to route the control rod connection to the opposite side of the servo, obtain an opposite rotation servo, or go into the servo and reverse both the motor and pot connections yourself.)

Even experienced pilots sometimes screw up when checking control surface direction, so it's best to stand directly behind your bird when doing this. And don't forget that the throttle should be advanced by pushing that stick forward.

12) Range check your radio according to the instructions that came with it. All radios are not the same. Some are range checked with the first antenna section out, some with the antenna completely collapsed, and some with the antenna removed from the case. Get to know the antenna requirements for your specific set and what the minimum expected range should be. If you don't get the recommended range, and/or your servos are jittery or humming, don't fly until you find out why. Be prudent and don't risk your plane and possible injury to others or damage to property by being impatient and unsafe.

13) If no extra weight is needed for balance, the standard 500 mAh pack that came with your radio would be suitable for use in this slow flying, lightly loaded BIG trainer. However, an 800 or 900 mAh pack would yield almost twice the usable on-time without much additional weight.

14) All three prototypes flew well with Saito 45's, so any 40 to 50 size four-stroker would be an excellent choice. The best prop to start with would be something like a 12x4, 12x5, 13x4 or a 14x4.

These large, low pitch props will insure that your Hen flies *slowly*, that she'll accelerate faster in an emergency and that your idle will be enhanced due to flywheel effect. Also, at idle a larger prop acts like a solid disc, slowing the bird down and allowing a more positive and controlled descent . . . and with a large prop on a four-stroker or diesel, you're talkin' real Q-U-I-E-T.

Please don't stick anything bigger or more powerful than a four-stroke 50 on this bird. More power isn't needed and will, in fact, be too much for this gentle and easy-to-fly very basic trainer.

FLYING

You're really gonna fall in love with the Sage Hen. Besides being docile and inherently stable (if you get in trouble just let go of the stick and she'll right herself), she's also a very graceful looking bird in spite of all those square corners.

And don't let her being a taildragger scare you. She handles very well. Just don't rush your takeoffs. In addition to minimum rudder throw and toe-in, coming up slowly to about 25-30% throttle and letting her stabilize at that power setting for a few seconds will allow you to maintain control. Then, as you ease her up to full power, concentrate on steering straight down the runway. Don't skimp on the amount of runway used for takeoff. Let the Hen build up a good head of steam and a slight nudge of back stick will have her climbing out at a safe and realistic attitude. Stay on that takeoff heading until you're at least 100 feet high, and then make your left or right turn out of the traffic area.

You're gonna find that most every turn requires some up elevator in order to keep the nose from dropping. You're also gonna find that this bird is hard to stall . . . and when she finally does succumb, she won't suddenly fall off on a wing. Instead she'll mush, drop her nose and lose about ten feet of altitude, picking up enough speed to keep on trucking.

Don't get locked into making only left-hand turns while you're learning. Too many guys practice only left turns, so when the inevitable emergency pops up and they must turn right, they're in deep trouble.

Also, get into the habit of setting up a rectangular landing pattern which consists of slow, gentle 90 degree turns onto an initial heading (down the runway), a crosswind leg, a downwind leg, base leg and final approach. Throughout this pattern you should be slowly coming back on the throttle so that your bird has a chance to bleed off excessive speed and you have the time to mentally adjust to the idea of a landing.

Depending on whether the turn onto final approach is left or right at your field, the best way to prepare for a landing is to throttle back to a moderate speed and:

1) Start your landing pattern by flying upwind parallel to the active runway about 150 feet high.

2) When you're just beyond the far end of the runway make a 90 degree turn onto your crosswind heading and start to throttle back.

3) After about five seconds make another 90 degree turn (in the same direction); this is your downwind leg.

4) Wait until the plane is just abeam of the approach end of the runway, then make the 90 degree turn onto your base leg, all the while slowly coming back on the throttle.

5) Start your turn onto final just a few seconds after rolling out on your base leg. The idea here is to ease the bird onto the runway heading. If you wait too long to turn onto final, you'll have to rack the plane over to make major heading changes, and this is bad news when you're low and slow and inexperienced. A very gentle turn onto final will allow you to line up with the runway.

At this point you should be carrying very little power, but don't be afraid to add throttle if it looks as though you're going to be landing short. Come all the way back to idle as you cross over the runway threshold, and when you're just a few feet off the deck start to flair by feeding in a tad of up elevator. If you've landed anywhere on the field and your bird is still right side up, congratulations. With a little practice you'll be landing on the runway most every time.

The Sage Hen has consistently handled 12-13 knot winds with no sweat, and typically, most of her flying has been while loafing along at no more than 15-20% throttle.

One last comment. If at all possible, utilize a buddy-box during your training because this setup eliminates most of the strain and pain usually associated with learning to fly. The Sage Hen teamed up with a buddy-box is a combination that can't be beat.

Soooo . . . if you've had a rough time learning how to fly, or are just starting, let the Humongous Sage Hen mother you; after all, it is her specialty. •