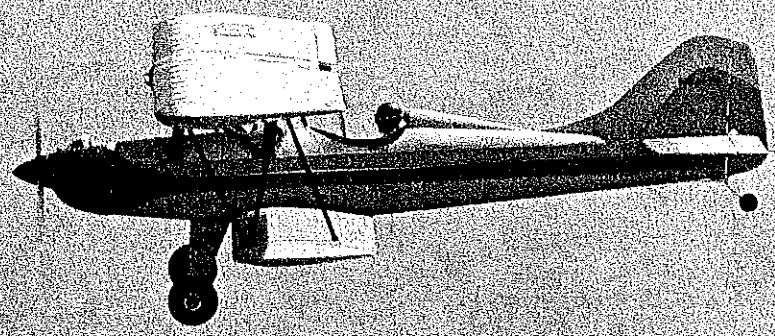
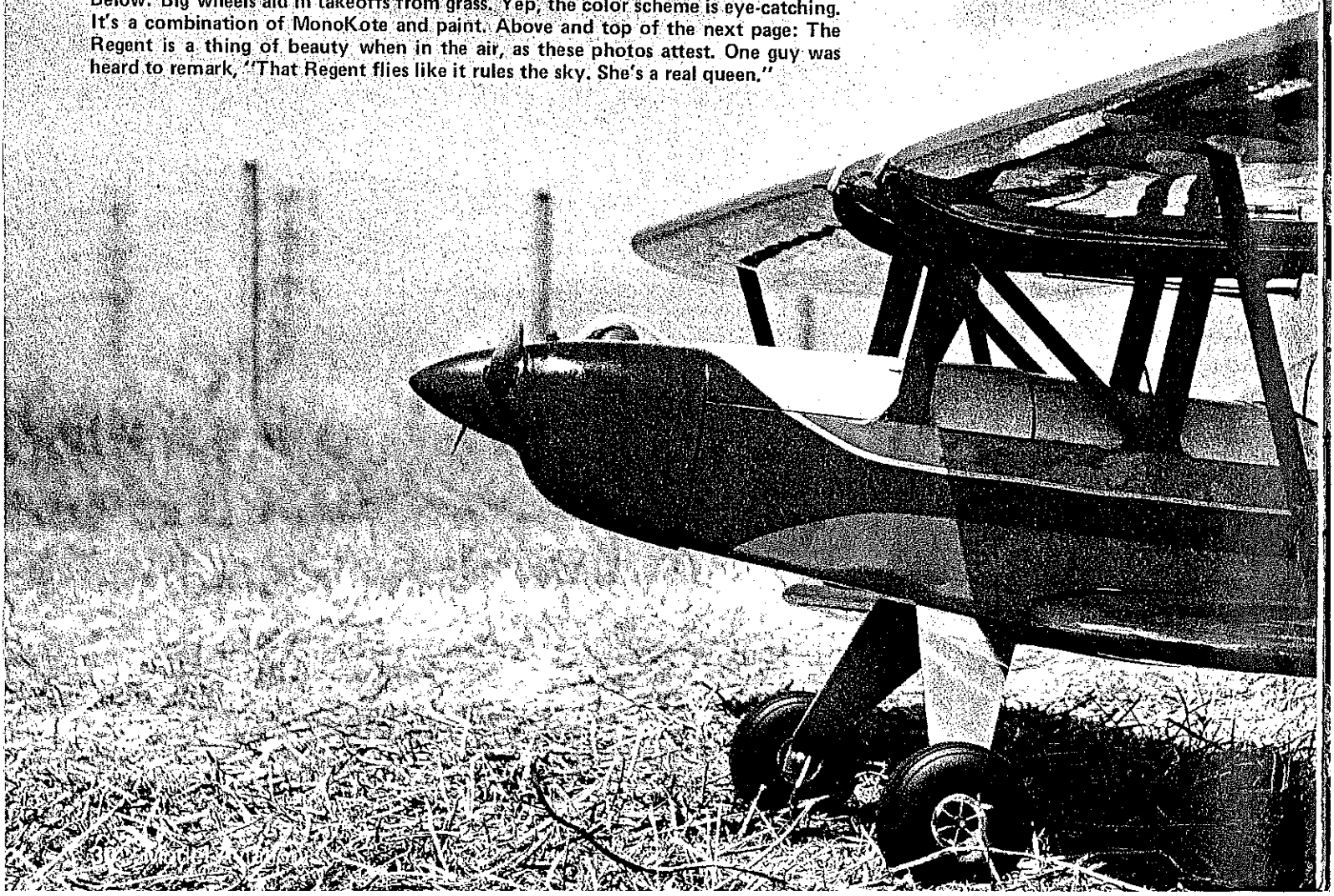
REGENT



If there's an RC bipe in your future, you should consider this one for .40-.60 engines and four-channel controls. As you might expect from the master of RC sport plane designers, it has good looks and is well-behaved. ■ **Ken Willard**

Photos by James M. Wade, Jr., Cory Wade, and the author.

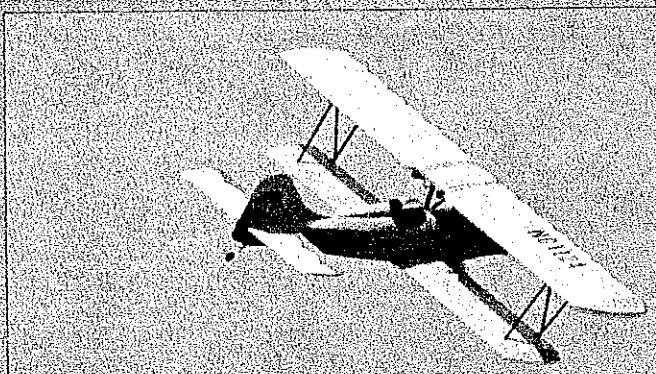
Below: Big wheels aid in takeoffs from grass. Yep, the color scheme is eye-catching. It's a combination of MonoKote and paint. Above and top of the next page: The Regent is a thing of beauty when in the air, as these photos attest. One guy was heard to remark, "That Regent flies like it rules the sky. She's a real queen."



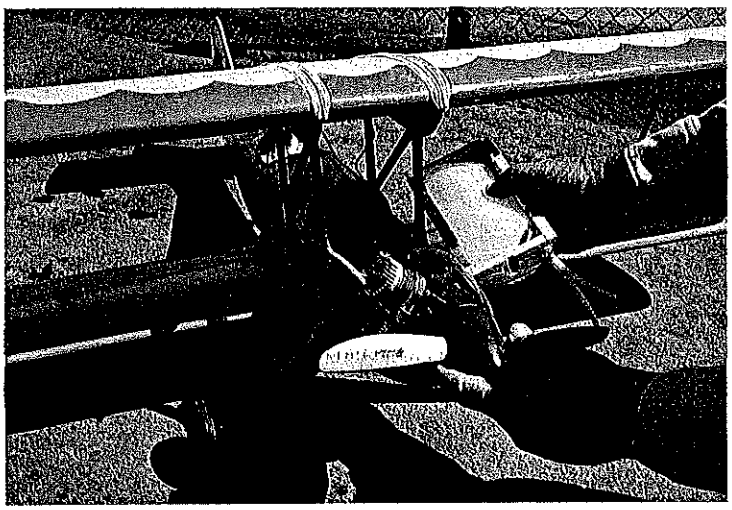
THIS IS THE latest design in a series of trainers for beginners and intermediate sport fliers. The Schoolmaster, Headmaster II, Headmaster Sport 40, and Seamaster Sport 40 were all monoplane designs that were intended for training and sport flying. They have all been quite popular.

"How come there isn't a biplane trainer?" a modeler recently asked. "I understand that biplanes are trickier to fly and harder to adjust," he continued.

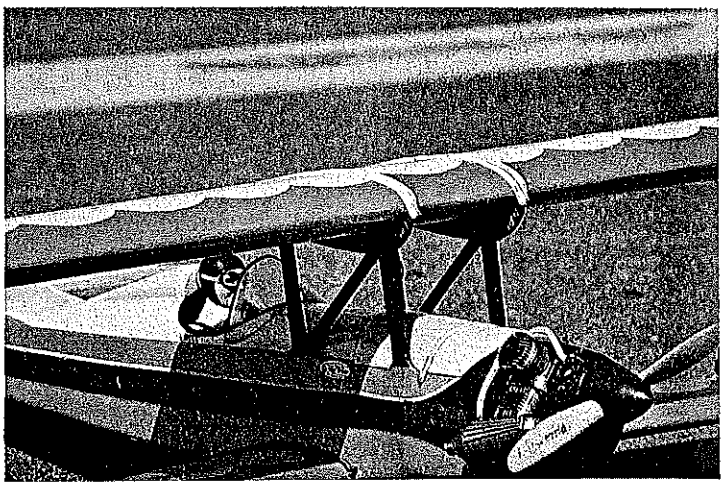
"Depends on how you go about it," I opined. "Most of the designs that are available are Scale, or semi-Scale versions of full-size planes like the Pitts, Christen Eagle, or the Skybolt. Lou Andrews' Aeromaster bipe is an excellent flier, but pretty fast for a



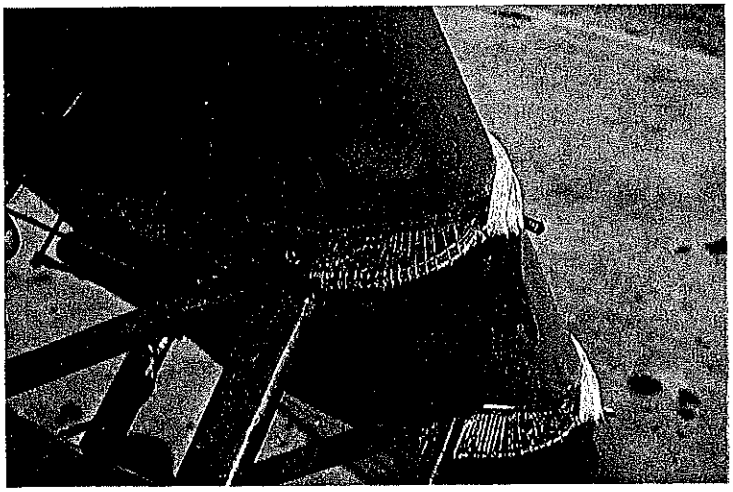
The author stops flight-prep work a moment for this pic. The N-struts add a lot to the appearance of a bipe, but in this case they aren't functional.



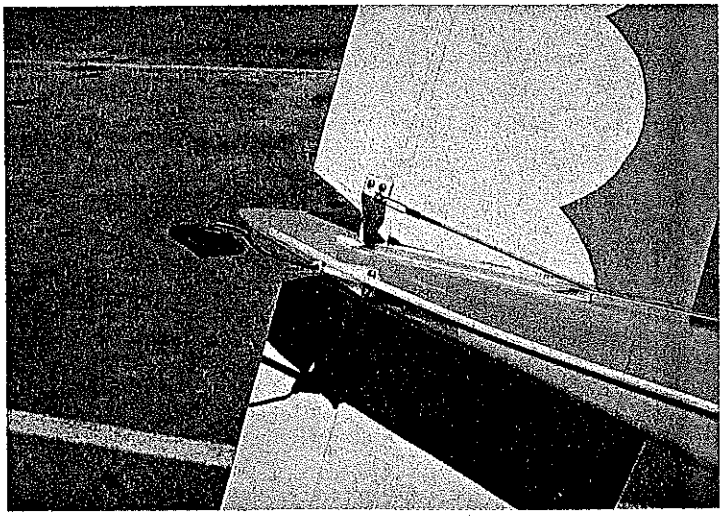
Fuel tank is removable with the hatch. A .40-size engine, such as this K&B, is right for training. Move up to a .60 for bipe aerobatics.



Cabane structure mounted on the outside of the fuselage sides adds a lot to overall strength, and it is easier to install than other methods. To boot, it's not very noticeable when the airplane is completely finished.



Author rubberbanded the upper wing to allow for incidence adjustments if necessary. Instead, you could install hardwood crosspieces for bolts.



Nothing unusual with the tail fittings. Nyrod tube houses the antenna.

beginner. Seems that modelers who fly biplanes like hot performance."

"Well, there are a lot of us who would like to have a nice biplane that we can handle while we're learning, then soup up later for hot performance. How about coming up with one?"

Why not? It sounded like an interesting challenge.

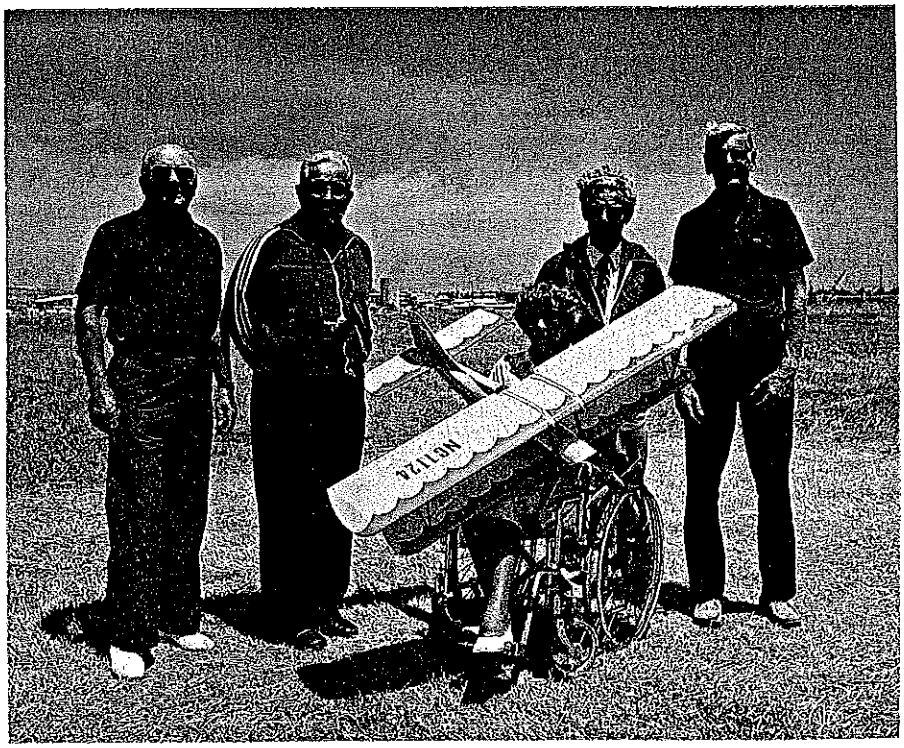
First of all, it has to be easy to build. That means conventional balsa and plywood construction (at least to me). Fiberglass and foam wings are alright, but old-fashioned biplanes had ribs and spars and longerons.

One of the tougher parts in building a biplane of the open cockpit type is the cabane structure. Gotta keep it simple.

Another requirement is to make it good looking—like the biplanes of the Thirties—the Wacos, the Pitcairn, the Swallow, the Travelair—all those old-time beauties.

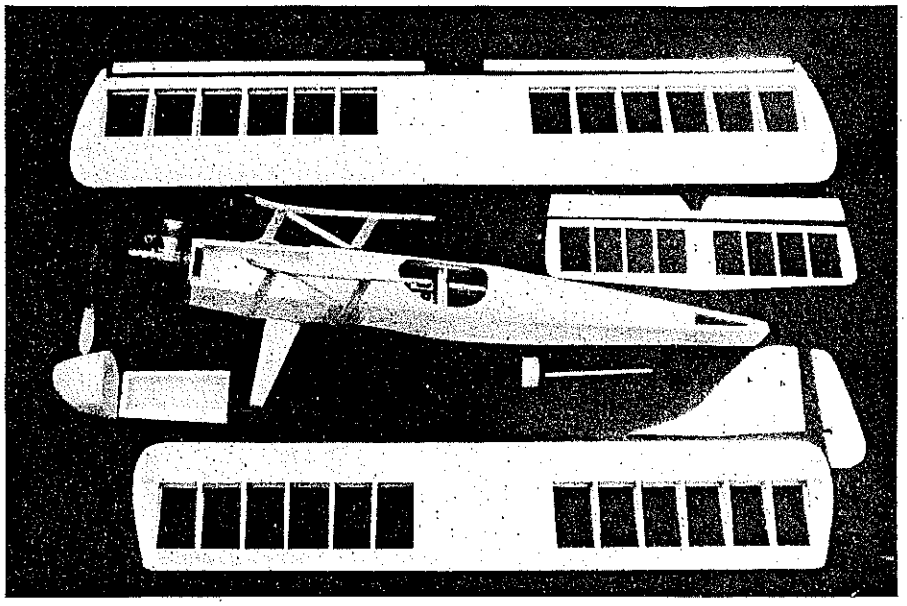
One day I was out in the shop, cleaning off the Seamaster wing after some water flying. As I took it over to the wing rack, where a Headmaster II wing lay, I held the Seamaster wing above it for a moment before putting it down.

Bingo! An unequal-span sport biplane! Just the right size for a .40-powered trainer

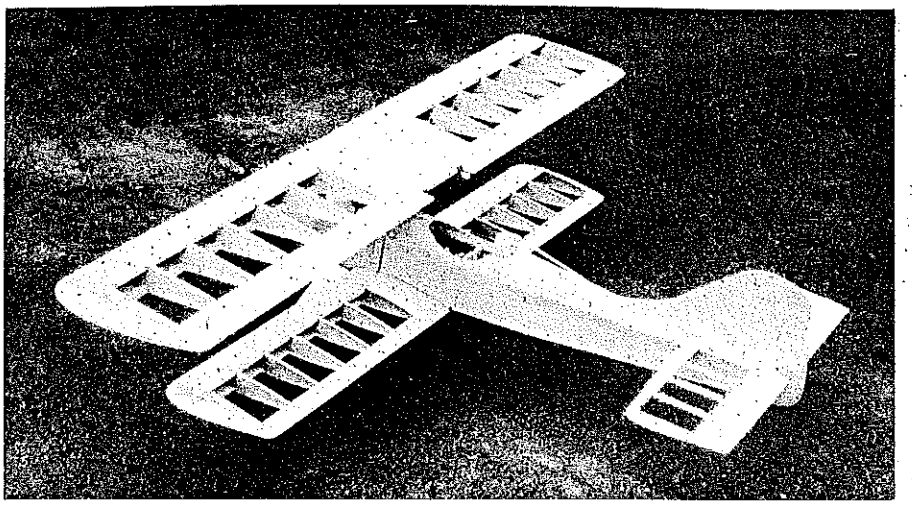


Why VWCCC under the cockpit coaming? Initials stand for those who participated in building the Regent (L-R): Bill Venable, Ken Willard, Lanie Callery, Curtis Christen, and Bill Callery.

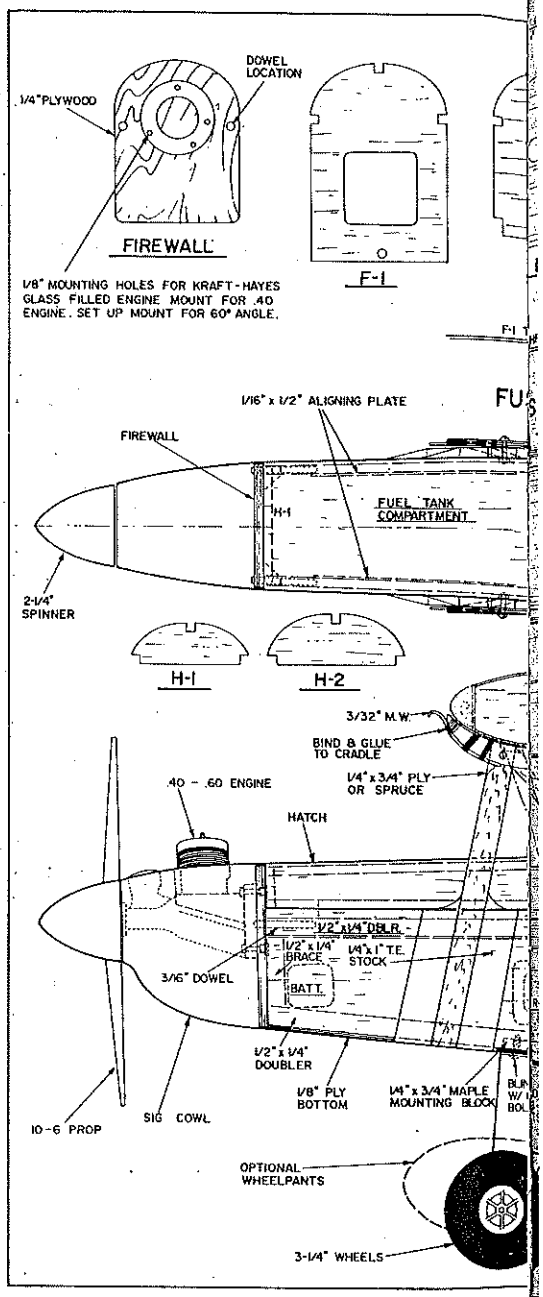
SOLID BLOCK
1/4" SHEET
1/4" BALSA RUDDER
1/4"X 1 1/4" L.E.
1/4"X 3/4" BALSA POST AND L.E.
1/4" DORSAL
1/4" SQ. RIBS
2" SIG AILERON STOCK IS ONE PIECE
1/4"X 1/2" SPAR
1/8" BALSA WEBS TWO BAYS ONLY
W-2 1/8" PLY SHORT
3/16" PLYWOOD CRADLES
AIL. LINKS AND TUBES
W-3
1 1/4" TAIL WHEEL ON RUDDER STEER WIRE
W-2 1/8" PLYWOOD LONG
W-1 1/8" PLYWOOD REINF. L.E.
1/8" BALSA SIDES, BOTTOM - ON 1/4" SQ. LONGERONS
1/16" SHEET HATCH WRAP
3/32" RIBS TOP WING
1/16"X 1/4" CAP STRIPS
3/4" SQ. T. EDGE
F 1 TO 5 1/4" BALSA BULKHEADS
1/2"X 1 1/4" AIL. STOCK
1/4"X 1/2" DOUBLERS
H-1-2 1/4" FORMS ON 1/4" SQ.
1/4" SHEET WING TIPS
3/8"X 1/2" BALSA SPARS TOP-BOTTOM
40.-60. ENGINE ON TATONE MOUNT
3/4"X 1 3/8"( ) BALSA L. EDGE TOP WING
1/16" PLY SPAR JOINERS
SIG PLASTIC COWL
1/4"X 3/4" L.G. MOUNTS
1/16" SHEET RIBS LOWER WINGS
1/4" BALSA WING SADDLE
1/4" PLYWOOD FIREWALL
1/4" DOWEL (1) INTO DOUBLED 1/4" C/L RIBS AS WING L.E. ANCHOR
DOUBLE SPAR 4 RIBS OUT
1/16" SHEET L.E. COVER - TOP AND BOTTOM
1/4"X 1/2" DOUBLER
3/16" NYLON BOLTS (2)
1/8"X 1/2" BALSA STRUTS INTO NEOPRENE TUBING
1/4" X 3/4" PLYWOOD OR SPRUCE CABANES BOLT TO WING CRADLES
1/4" X 1" T. EDGE STOCK BRACES FAIR CABANE
3/32" BRIDI FORMED GEAR
3 1/4" WHEELS
3/16"X 1/2" SPARS IN LOWER WING
1/2" X 3/8" FORMED L.EDGE
1/4" EXTENDS INTO SOCKETS



With major construction components laid out, you can see how individual parts are easily made.



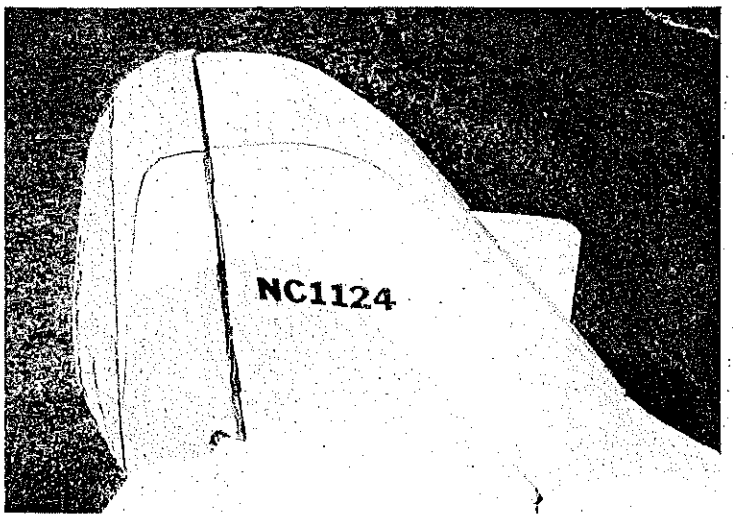
When you reach this point, the model is ready for covering. But stop for a minute to admire your handiwork. Upper wing is the same as the Headmaster Sport 40; lower wing same as Headmaster II.

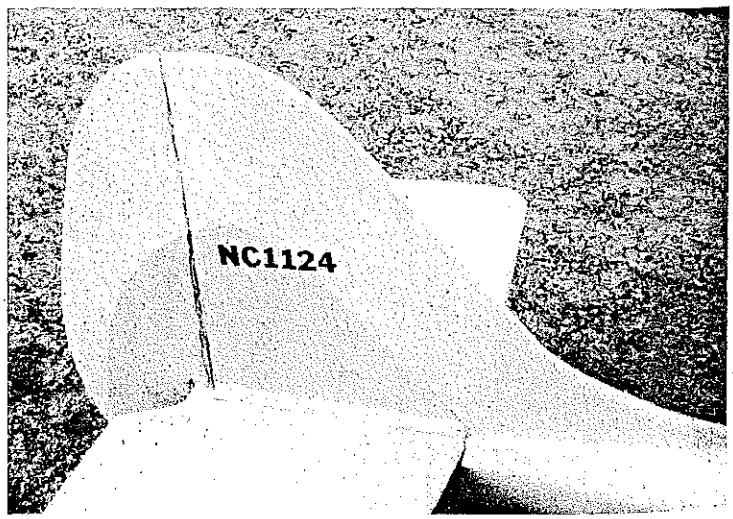


or a .60-powered aerobatic sport flier—and I'll bet that someone will decide to put a .90 in it. How come? I don't know. The Headmaster II is designed for .15s to .25s, but I've seen a lot of them with .35s tooling around the sky. Some guys just *love* power.

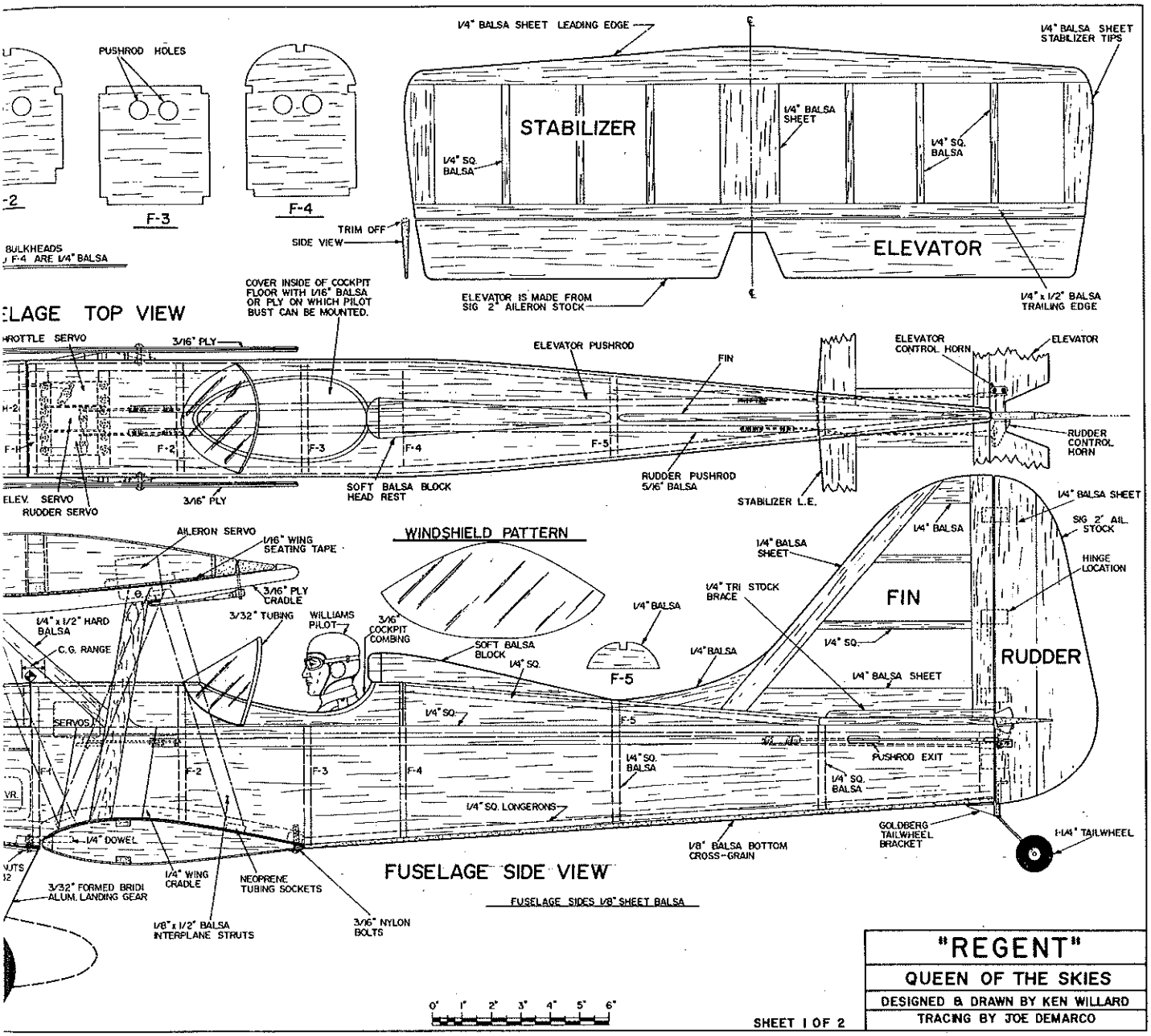
What could be easier than to use a couple of monoplane trainer wings to make a biplane? Also, the generous horizontal tail area of the Seamaster would be just right for the bipe. All that remained was to design a simple fuselage.

The Regent, thus, was conceived: a Headmaster II lower wing, Headmaster Sport 40 upper wing (it's the same as the Seamaster), the Sport 40 tail feathers (except for the vertical surfaces, which had to be





Left, you can see the area added to the fin and rudder to obtain better tracking. After finishing, it's hard to tell that they once were different.

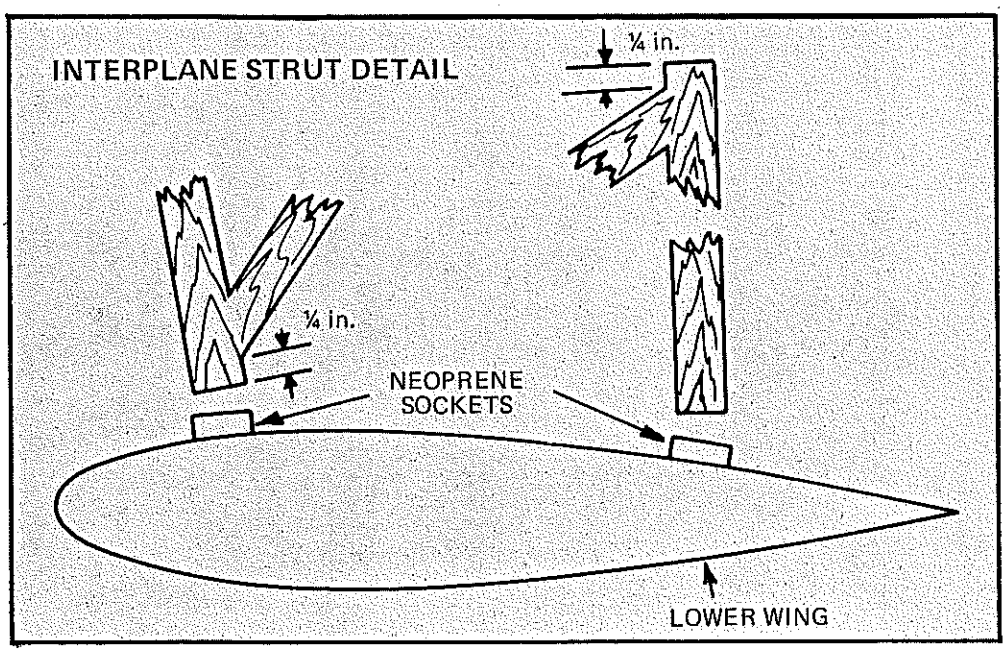


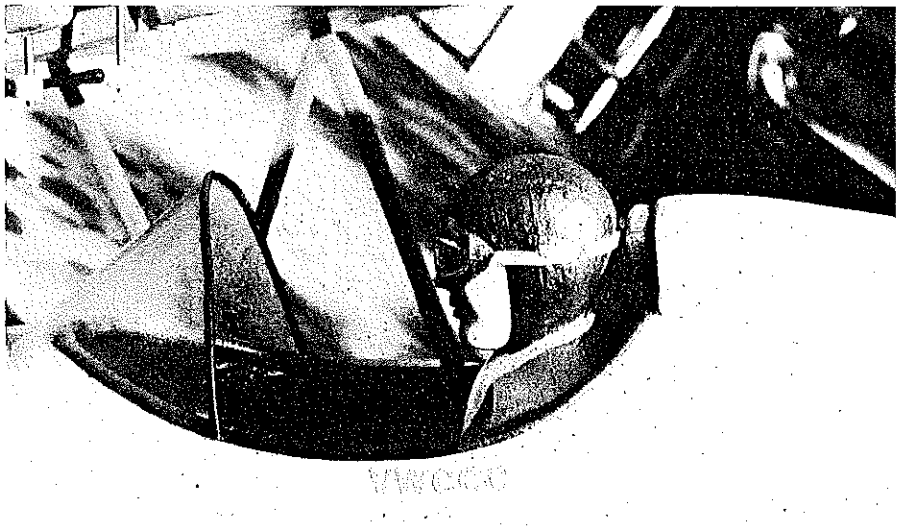
larger), and for good measure, the Sport 40 firewall and cowl. Should be a snap. It is.

The name was easy to come by. For a while I considered calling it the Professor, but that name had been used. Also, professors report to headmasters, and this was to be higher in the pecking order. Headmasters report to a board of regents. So, let's call the design the Regent. Later on, after the flight tests, an onlooker remarked: "That Regent flies like it rules the sky. She's a real queen." I didn't argue.

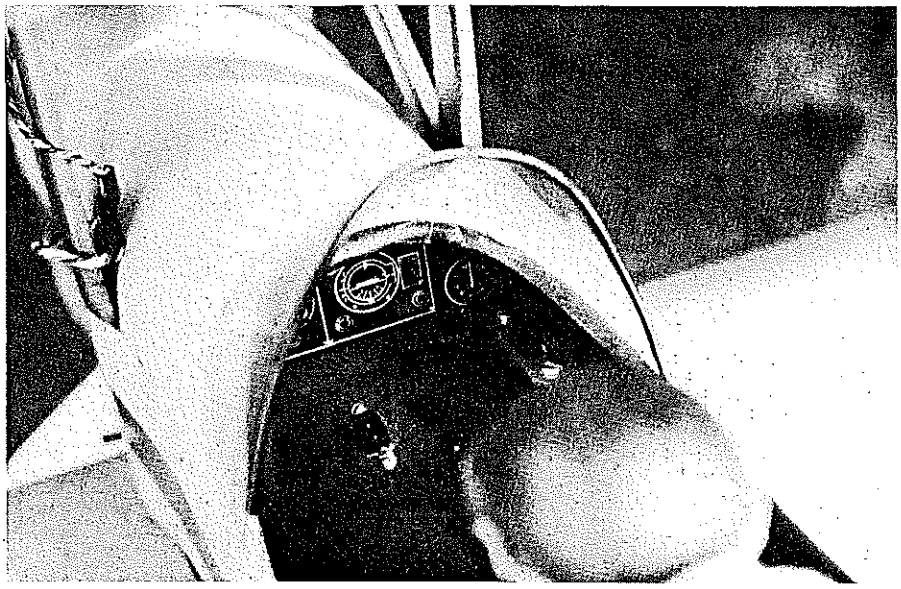
In order to prove that it wouldn't be hard to build, I decided to assign the job to some of my flight students. However, that was after the first prototype, which was built by Curtis Christen, had a mid-air crash with a Pattern plane that just about wiped out both of the planes. Even so, half of the upper wing was still intact.

Bill and Lanie Callery built the wings and tail surfaces, using part of Curtis' upper wing in the process. I built the fuselage, and Bill Venable covered the model with Mono-

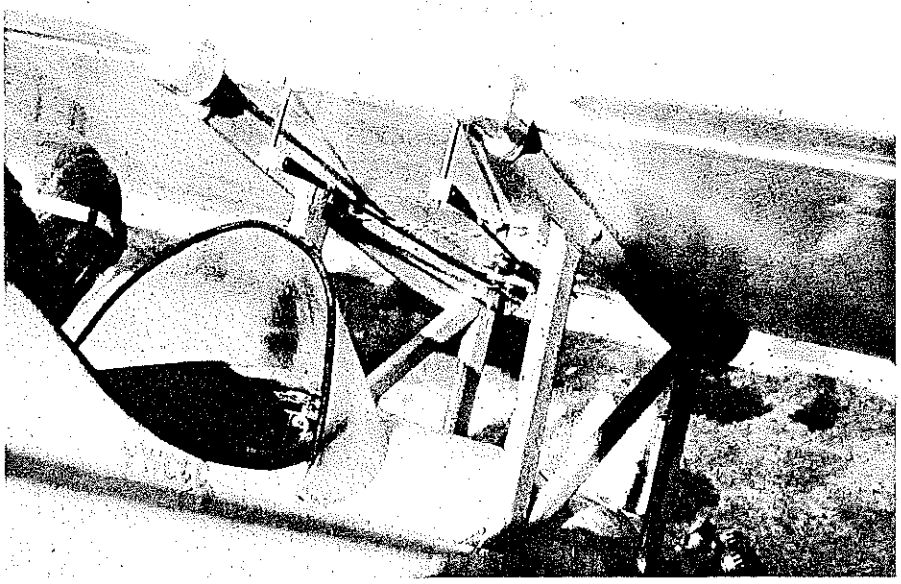




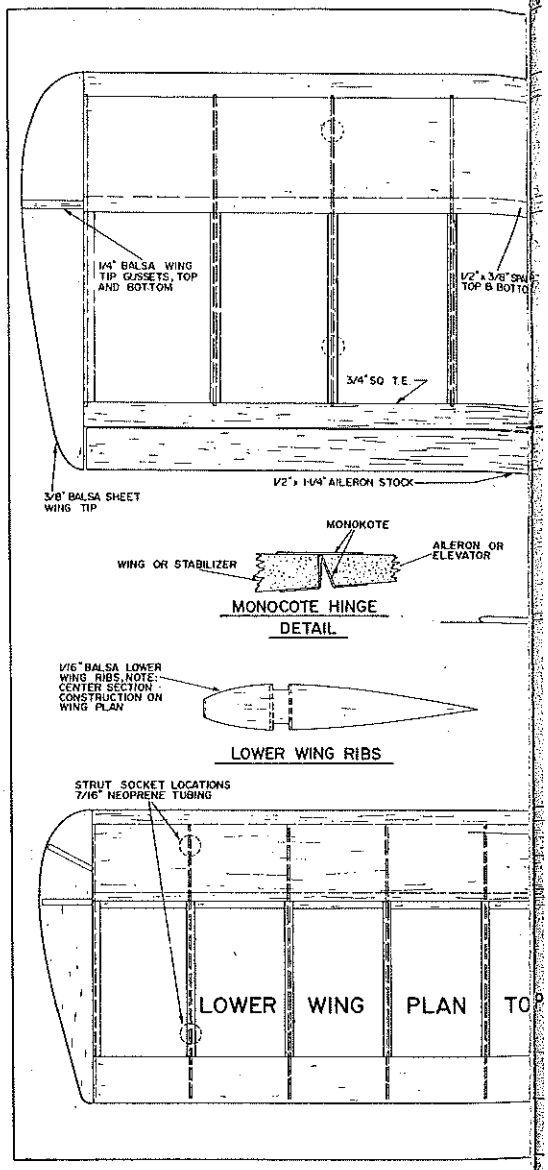
Good detailing pays off in oohs and ahs even for a sport plane. That's a Williams Bros. pilot.



Charging jack and switch are located in the cockpit, and we also see a nice-looking instrument panel.



From this view we can see the aileron servo mounting and control arms between the cabane struts.

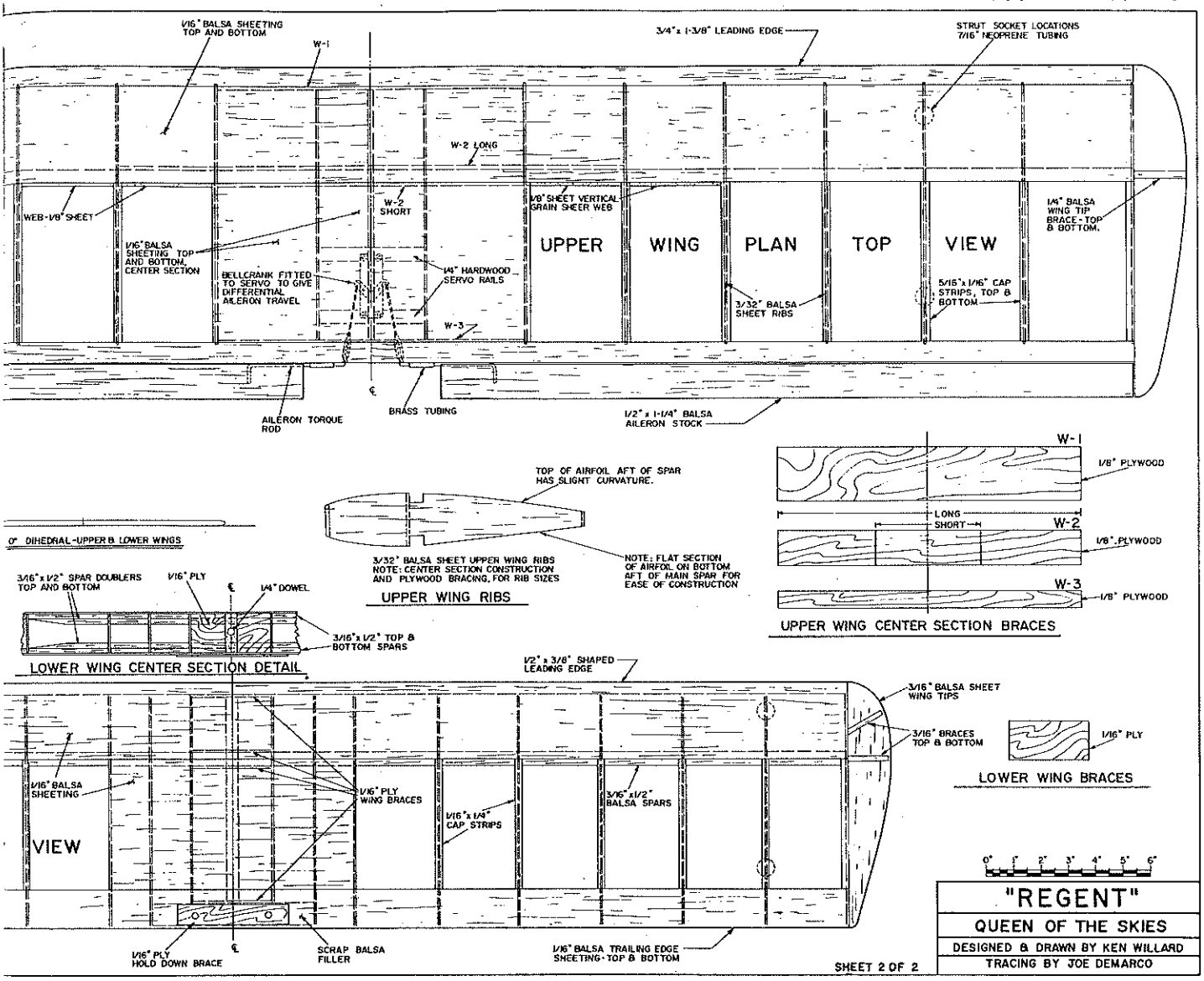


Kote, using a design that was developed by "the committee." It *is* colorful, isn't it? When we first showed it at the field, some modeler asked: "What Mexican artist decorated it?" True enough, it does have a lot of color just like some of the beautiful buildings in Mexico City.

Note the VWCCC under the cockpit coaming. The letters are the initials of the builders: Venable, Willard, Callery, Callery, and Christen.

Build one, and put your own name on it. You'll like it. Start with the easy part—wings and tail surfaces. That will inspire you to get busy with the fuselage, which isn't hard, but it does have some construction methods that take time.

Both wings are pretty much standard rib and spar construction. In fact, if you happen to have a Headmaster II and a Headmaster Sport 40, or some friends who have them, or a Seamaster Sport 40, you can follow the instructions in the kits—except for the center section. Since the Regent has full-span strip ailerons on the top wing, no dihedral is required. Oh, if you want to have some, it won't hurt, but it's unnecessary.

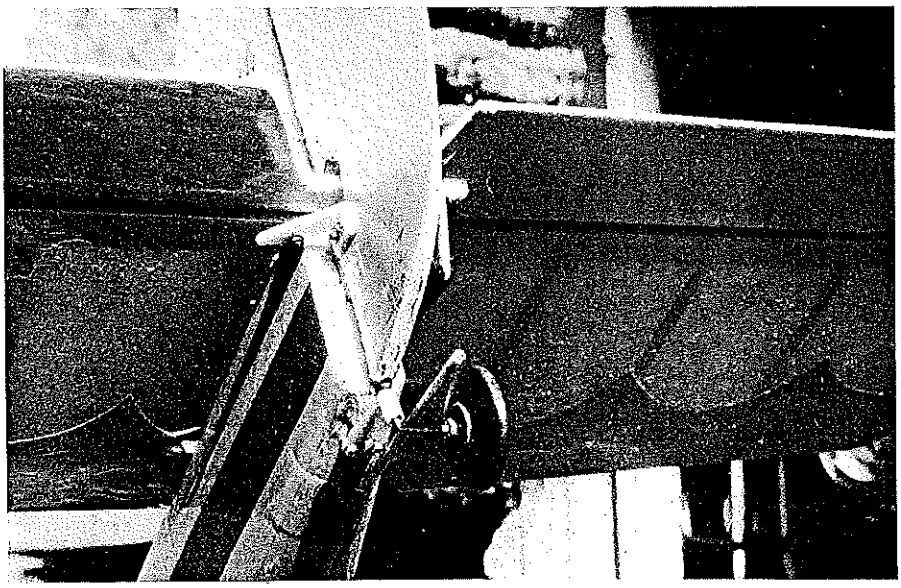


If you prefer, you can make the spars in one piece. George McGinnis (144 Murray Ave., Goshen, NY 10924) has 5-ft. strips of basswood in various sizes, including the sizes of the spars in the Regent's wings. If you use them, the weight penalty is minor, and the increase in strength far outweighs the weight increase in importance.

Note that the aileron servo has the same 45° offset for the connections to the aileron pushrods as was the case with the Seamaster Sport 40. This provides the differential travel (more upward movement than downward) which makes the turns smoother and eliminates the need to coordinate the rudder. Matter of fact, you don't need rudder in the turns at all—or you can make the turns just using rudder (although there will be a bit of skid if you do).

In case you're wondering why the upper wing is mounted using rubberbands, and the lower wing uses the dowel and nylon bolts, the reason is simple. Both wings on the prototype were first mounted with rubberbands. Then, when I was satisfied with the settings, I went to the dowel and bolt mount on the lower wing, but left the upper wing mounting unchanged so that I could experiment with various incidence settings.

The incidence setting I liked best is shown on the plans. If you like it, too, but want to eliminate the rubberbands and use nylon bolts, go ahead. A simple crosspiece of ½ × 3/16 hardwood at the forward end of the wing cradle, and another at the trailing edge location of the wing, will give you a base



Another view of the horns and controls operating the elevators and rudder/tail wheel.

The Lady on the Cover

Thirty some years ago, Lanie Callery ws a vivacious and active young lady who loved flying. She had her private pilot's license; so did her husband, Bill. They delighted in taking flying trips, alternately flying the plane so each could enjoy the scenery as it passed below.

Then fate struck a cruel blow. Lanie became a victim of the dread disease, polio. For a while she was totally incapacitated, but after many months, adding up to years, careful therapy and treatment succeeded in partially restoring Lanie's ability to control some of her muscles.

Although confined to a wheelchair, Lanie never lost her indomitable spirit and will to live a full life. She and Bill continued to do things together as much as they could—but Lanie couldn't fly. Nor could she ski, or play golf, but she insisted that Bill continue his activities.

Bill worked hard. At one time, when he was with Hiller, he learned to fly helicopters; then he went on to other pursuits until the time came to retire. That was a little over a year ago.

It was at that time that they became interested in flying Radio Control airplanes. It was challenging and something they could do together—although Lanie just said she'd like to learn to do banks and turns high in the sky.

Bill, though, went at it with an intense desire to become a proficient sport flier. After several months of lessons, crashes, repairs, more lessons, and lots of practice, Bill was flying solo and practicing aerobatics.

Meanwhile, Lanie would take the transmitter, and several of us who were club instructors would give her lessons.

"All I want to do is fly around in the sky," she kept insisting.

I knew better, but never let on. I could see the inner longing to be able to solo her airplane. As she got more proficient, making figure eights without losing or gaining altitude, and flying an oval pattern, I kept having her do the oval pattern lower and lower. Then, one day, it got real low, just over the end of the runway.

Lanie and Bill Callery with the wings they built for the Regent. Lanie's involvement with modeling, we hope, will be an inspiration to others.

"Throttle back now, and keep the plane level. Let it sink slowly; hold a little up-elevator. Let it sink. Easy now. There! You've made your first landing!"

Her eyes were glistening. "You tricked me!" she said happily. "I wasn't going to land it!"

"But you did—and it wasn't really all that hard, was it?"

Lanie was the first student I ever had who landed her model before she learned to take it off. But there wasn't any way I could trick her into a takeoff. No matter; after a couple more flights and landings, she made a takeoff, flew around, and soloed her airplane. She then was, and still is, totally hooked on flying RC. Oh yes, she's had her share of crashes, but they just inspire her to try harder the next time.

And she has also served to inspire all of us to try harder. She has shown, as have several other RC fliers who are confined to wheelchairs, that such confinement is no hindrance to participation in the sport of RC flying. Further, the sport of RC flying gives Lanie and Bill a chance to share the fun together—including not only the flying, but also the building—and yes, the repairing. But the repairing is getting less and less frequent as Lanie continues to improve.

No wonder she improves her flying skills. Bill confided to me that one time he woke up in the middle of the night and found Lanie sitting propped up, with her hands in front of her—just as though she were holding a transmitter.

"What are you doing, Lanie?" Bill asked.

"Oh, I was just mentally going through the landing pattern so I can make some good approaches tomorrow. You know what Ken always says, 'A good approach usually leads to a good landing.'"

Now that's dedication to the sport—just like another time, when she said to Bill, "I hope we don't have any company this week. It interferes with my flying!"

Perhaps this little story about Lanie Callery will serve to inspire all RC enthusiasts to try harder. And if you have any friends who are confined to wheelchairs, but can control their minds and their hands, and would like to learn to fly, tell them about Lanie Callery. She did it.

So can they—with your help.

Ken Willard

through which you can thread some nylon bolts. Just be certain that the crosspieces are firmly glued to the cradle, or even bolted with some 90° mounting brackets. Losing the upper wing in flight could ruin the entire flight pattern!

Tail Surfaces. The stabilizer and elevator are identical with that of the Seamaster Sport 40. However, for you power enthusiasts, should you decide to try a .90, I suggest you make the stab out of solid sheet.

The vertical fin and rudder are of standard construction. You may note some differences which show up in the photos. What happened was that I originally had a smaller fin and rudder. The airplane flew alright, but I did notice some "hunting" at low speeds, so I added some area. It not only eliminated the hunting, but improved the tracking in loops and Cuban eights. More about that later.

Fuselage. Take a little time to study the plans before you start building. Do that not because it's difficult, but after looking at the structure you'll have a better feel for the sequence in which to build it.

Note that Bulkheads 1, 2, 3, and 4 are all the same width. That makes the basic construction very simple. Cut out the sides from ⅛-in. sheet, glue the longerons and forward doublers in place, then lay the right-hand side on your flat working surface, and glue the formers to it. Make sure they are vertical. When dry, glue the left side to the opposite side of the formers. Incidentally, be sure to make one left side and one right side. It's quite a strain on your temper if you

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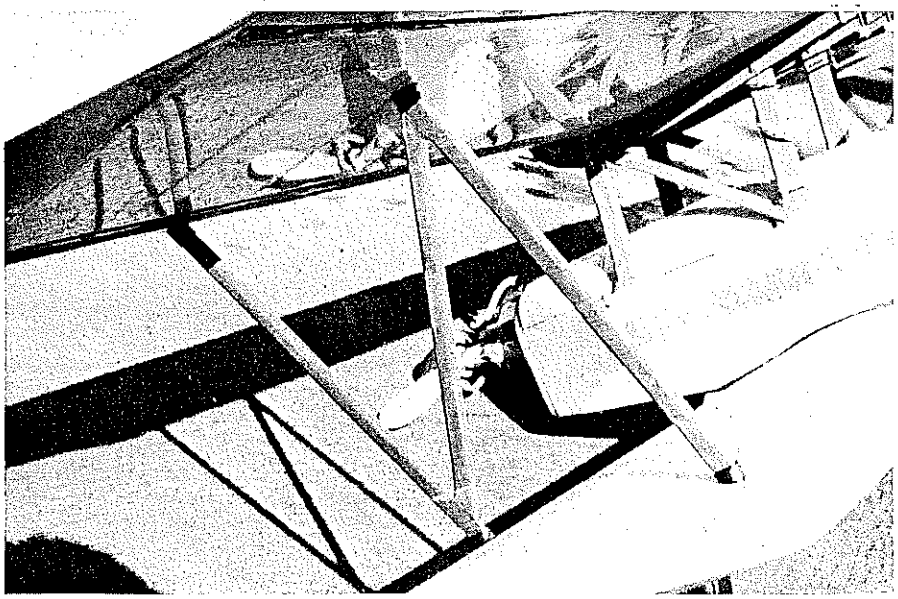

The black ends of the N-struts are neoprene tubing attached to the upper and lower wing. The tubing at each location forms a socket for plugging in the struts. A sketch shows this in detail.

Richard McCauley, Travis McGinnis, Evlos McKenley, Eugene C. McMahan, Tom McPherson, Don McDonald, Ronald W. Merrill, Samuel Meyers, Bud and Grace Meyers, Miami Valley RC Club, Bob Miller, John E. Miller, Robert A. Miller, , Lee Minin, Jesse R. Mitchell, Robert Mitchell, Carl E. Mohs, DDS, Michael Moody, Robert M. Moore, Ronald M. Morris, W.J. Mowrey, Joseph Murray.

John Nelson, John J. Nelson, Richard W. Nicely, Nick Nicholson, John Nicolaci, Joe Norcross, Lee Norcross, J.H. Norris, North Dallas RC Club, Anthony Novak, Joseph M. Nunes, Omni Electronics Systems, Lawrence P. Ott, C.V. O'Donnell, Tom O'Keefe, Jim O'Reilly, Ed Paige, Richard Palmer, Pandajis, Pan American Distributors, Armando Pardini, Larry Parfitt, Frank L. Parmenter, Robert L. Payne, Pensacola Aeromodelers, Faye W. Peoples, Jr., Lyle Pepino, Charles Perry, C.A. Perry, Russell J. Petersen, Dean P. Phillips, Pioneer Valley RC, George Pitelka, Paul Plecan, Kee C. Pohar, Polks Hobbies, John Porter, Jim Powers, James Powers, Steve Powley, Ralph Pressler, John Preston, Arnold R. Proff, Charles Puckett.

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Tom Tappan, Carey Thake, Charles Thomas, James Thornberry, Tokay RC Modelers, Jim Traw, Tri Valley RC Club, Tri-County RC Club of New Jersey, Inc., Tri-River RC Modelers, Arthur Turrill, James R. Tyndall, Ukiah Prop Busters, Robert Underwood, Sheldon W. Urlick, Milo Valencic, Robert J. Vandenberg, R.A. Varcoe, Michael Vorbau.

Darrell Wagner, Robert Waterman, Charles K. Wearing, Richard White, Gary Widmer, Leonard Wiederhoeft, John A. Williams, Al Williamson, Grant Wilson, Robert Wimmer, Robert Winchell, Margaret Wischer, Robert W. Wischer, Bill Wisniewski, Gordon J. Wisniewski, May and Ed Wisser, Elbert Witt, Wooden Specialty Company, Wesley T. Woods, James Woods, MD, Ernest Wrisley, William R. Wronski, Dan Yarchin, Ernest Zam, D.R. Zipoy, William D. Zobel, Don Zook.

Vince Mankowski
Assistant Executive Director

Regent/Willard

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don't, and you'll have to make another one. (I know; I've done it.)

Next, pull the tail ends of the sides together and glue them to the tailpost. Taper the longerons at the tail as shown in the top view so they fit closely. Also, make sure that the curvature on both sides is equal to the center line.

Pull the forward ends of the sides together, and attach the firewall. Note the very slight downthrust. In gluing the firewall to the sides, leave about 1/16-in. of the sides extending out from the edge of the firewall. Then, when you attach the cowl, it will be flush to the sides.

At this point, with the basic structure aligned and together, it's a good idea to set up the servo mounting rails. This will, of course, depend on which servos you plan to use. The illustrated setup is for medium-size servos, such as the Kraft KPS-14. Note that they are well forward and close to bulkhead No. 1.

On the prototype I made the mistake of putting the servos farther back, which necessitated ballast on the firewall. Of course, if you use a heavier engine, that's different. The holes shown in the bulkheads for the pushrods also will have to be cut out to fit your installation if it varies from the one on the plans.

The rounded top of the fuselage is next. It's made in two pieces (not counting the hatch), one going from bulkhead No. 1 back to bulkhead No. 4; the other extends from bulkhead No. 4 back to the leading edge of the stabilizer.

Cut out a piece of ⅛ balsa sheet 12⅝ in. long and approximately 5½ in. wide. This will be the forward top curved surface. Make sure the grain runs lengthwise. Don't cut out the hole for the cockpit; that comes later.

Wet one side of the balsa, and carefully bend it over the bulkheads (wet side out). Work it slowly to the curve of the bulkheads, wetting it more if needed to keep it from cracking. Trim the edges as required so the curved sheet fits snugly to the bulkheads and also the edges are flush to the top of the fuselage sides. When it fits, glue it in place.

The rear curved top surface will taper from about 5½ in. at the front to 1⅜ in. at the rear. Repeat the above procedure with it. The ¼ sq. stringer along the top center line helps to keep the curved surface in line.

Now you can cut out the cockpit hole. If you had done it before mounting the sheeting, it would have sagged.

Install the bottom sheeting aft of the lower wing.

Note that the forward bottom sheeting is ⅛ plywood. Also, it's a flat plate, which simplifies mounting the landing gear. Before gluing the plywood sheet in place, mount the

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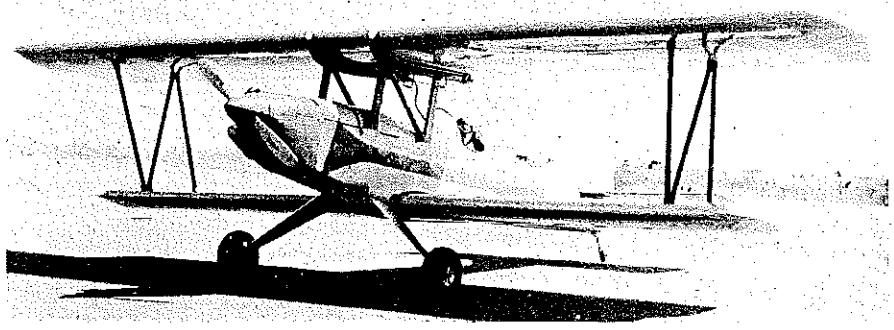
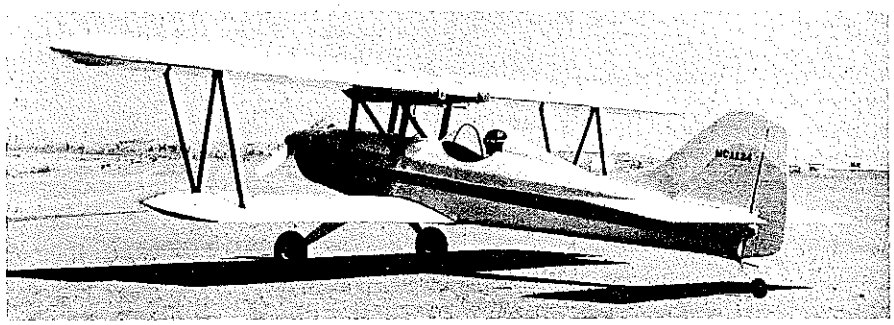


The Regent on the flight line. It looks realistic, we'd say. Uses a pre-formed Bridi aluminum gear.



The Regent's design criteria: an easy-to-fly biplane for learning that can be souped-up later for hot performance. All of the beginning modelers who helped in building flew it on the very first flight.

landing gear braces to the sheet, trimming them so that it is almost a force fit to put the sheet up in place for gluing. The ends of the cross braces should fit tightly against the forward doublers on the sides. This unit gets some hard knocks.

The plans show a Bridi aluminum gear. If you prefer the Hallco gear, tailor the blind nut locations to fit it (or whichever gear you use).

With the bottom sheeting and landing gear fitting all set up for a snug fit, apply glue generously, and force the assembly in place on the bottom of the fuselage. This part of the plane gets the hardest usage, so make sure it is the firmest glue job you can do.

Cabane structure. The first thing you will notice about the cabane structure is that it is mounted on the outside of the fuselage sides. This may offend the aesthetic sensibilities of the purists, but it will please the beginners and sport fliers to no end—for several reasons. First, it adds a lot to the total strength of the structure; second, it's easier to install; third, it's easier to align properly.

Glue the cabane struts in place on one side first. Make sure they are parallel to the corresponding struts on the other side, then glue the others in place. Add the fairings fore and aft of the struts, made from the ¼ × 1 trailing edge stock. Next comes the diagonal brace from the forward top end back to the rear strut at the top side of the fuselage. Add the soft balsa fairings for appearance.

Here comes a critical part—attaching the upper wing cradle and getting it at the right setting. True, if you goof, at least you can add shims as needed, but do it right, and you won't have to (I hate to admit it, but I goofed and had to add a shim on the prototype!)

Before you attach the wing cradle permanently, it is a good idea to tack-glue the stab and fin assembly on the fuselage. Then you can sight along the fuselage from the front and make sure that the wing, when setting in the two cradles, is parallel to the stab. This is also a good time to check the cradles for the lower wing as well.

When you have everything aligned, glue the cradles to the cabane struts. When dry, drill holes as shown, and bolt the cradles to the struts as well (using 6-32 bolts). Install the forward wire mounting hooks and the trailing edge aligning blocks. The cabane structure is now complete.

Hatch. No problems here. There are two bulkheads, three stringers, and a curved sheet covering. Install just like on the main fuselage.

Assembly. I have purposely not gone into narrative detail on some of the fittings (tail wheel mount, hinges, firewall engine mount, firewall reinforcing dowels, etc.) because the plans show them better than words. Word description tends to be redundant. Also, unless I miss my guess, a lot of you will come up with your own solutions and make changes to some of the detail structures.

A good example for a variation would be the flooring for the tank compartment. I used an oval Sullivan tank laid in at an angle, so the flooring is higher than it would be for a square Kress or Kraft tank. I used MonoKote hinges on the upper wing and on the stab; you may prefer nylon.

There is one feature in the assembly process which is a bit unusual, and that is the mounting of the interplane struts. First, it should be understood that these struts are not functional; if you don't want to bother, you don't have to make them at all. The wings are more than strong enough to withstand the airloads by themselves. However, the cosmetic effect of having interplane struts makes the model that much more realistic, and the benefit of having them instantly removeable and easy to install eliminates the gripe about having to spend too much time putting a biplane together.

The struts are fashioned out of ½ × ⅛ balsa and glued together in the standard "N" configuration. The end of the "N" diagonal strut fits the bottom of the forward strut and the top of the rear strut with about ¼ in. of the upright struts extending out.

A "socket" made from 7/16-in. neoprene tubing is glued with a cyanoacrylate to the wing at each strut location. The tubing is cut at an angle to align with the strut, as per the sketch.

Now, when you put the top wing on the cabane structure, you fit the struts in place in the sockets, and when the wings are firmly in place, the struts are held in place by the

sockets. It's simple but effective.

One of the most common remarks you will hear at the flying field when someone asks, "Did you make it from a kit or plans?" will be the reply: "I followed the plans for the most part, but changed them here and there wherever I had a different idea that I thought was better." In deference to your individual designing skills, schematic details are shown, but there are many variations—such as bolting on the upper wing instead of using rubberbands.

Finishing. As noted earlier, the prototype was built by five different peole. One of them was Bill Venable, who covered the model. Bill has been into RC less than a year, but he is a meticulous workman. He painted the cowl and the cabane structure, and covered the rest with MonoKote. Some of you may prefer to paint the whole structure. It's builder's choice.

Flying. The prototype had the following surface movements. Ailerons: ⅝ in. up, ⅜ in. down (¼-in. differential). Elevators: ½ in. up and down. Rudder: 1 in. right and left.

With those movements, the Regent is quite gentle but responsive. All of the beginners who participated in the building actually flew it on the very first flight—although they did not land it or take it off. That comes later.

The "hot biplane" enthusiast may think that the Regent is too much airplane for a .40-sized engine. All I can say is that the prototype is fully capable of all of the usual maneuvers—rolls, loops, Cuban eights, outside loops, inverted flight, whatever turns you on. No, it won't do a vertical torque roll—neither could the Waco Taperwing or the Pitcairn Mailwing. The Regent weighs about 7½ lb. and has almost 8 sq. ft. of wing area. The prototype actually weighed over 8 lb. with a full tank of fuel. Even so, it takes off easily and climbs out rapidly.

Best of all, due to the thick wings, the Regent does not pick up excessive speed in a dive. Some, yes, but not a lot, and that's good for beginners. The glide is slow and steady, yet if there is a wind, the penetration is very good.

Since most biplanes are tail-draggers, they are a bit more difficult to steer straight down the runway on takeoff. In the case of the Regent, due to the relatively light wing loading, this problem is minimized. Takeoffs are almost as easy as they would be with a trike gear.

You'll like the Regent. It's easy to build, easy to fly, does all the maneuvers, and its airspeed makes it highly realistic as it moves through the air. And it looks and flies like a queen of the skies.

Radio Technique/Myers

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channel center means that the Common Carrier transmitter effects our receiver as if the transmitter output power were divided by the Power Ratio:

Its the same thing, really! The difference comes from how you read the curve. Try it on your calculator and see. The important thing to remember is that you can make *one* correction or the *other*, **Not Both!**

$$h^2 = \frac{1^2 \times .300 \times 1}{\frac{25}{50} \times 5} = .12$$

$h = .3464$ mi. $= .3464 \times 5{,}280 = 1{,}829$ ft.

The closer you fly to the ground, the more accurate this assessment will be.

Important Point

You should realize that *all of the above testing would be unnecessary* if the manufacturers would supply you with 3 pieces of information: 1) Their transmitter output power; 2) Their receiver's response 10 KHz off the channel center; 3) Their receiver's response 40 KHz off the channel center. It may be that they will give you that information in terms of "so many dB down" or "–dB." In either case, read the dB off Figure 4. Read straight up to either Distance or Power, then read over to the ratio number. *This is a plea to all manufacturers for publication of that information!*

They won't provide these figures unless you demand them, and you won't get them then until you convince them that you will be able to use them in a fair and intelligent manner. I think you can do it. Go get 'em!

George M. Myers, 70 Froehlich Farm Rd., Hicksville, NY 11801.