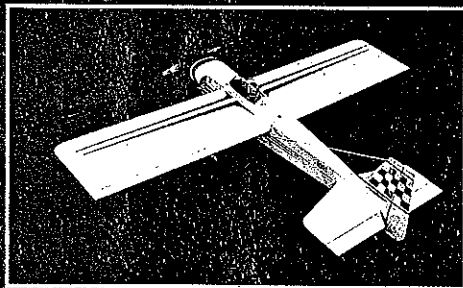
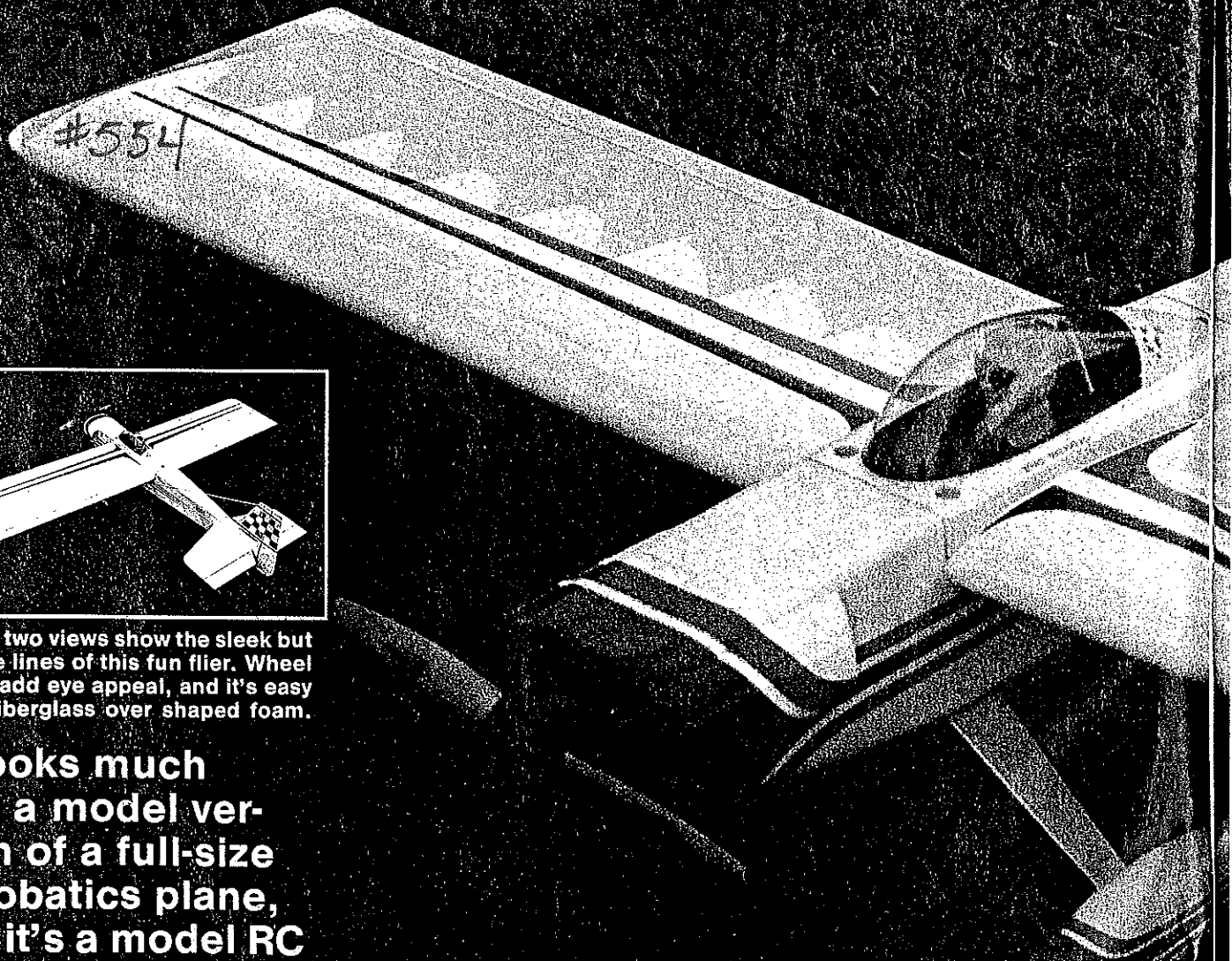


# SuperD

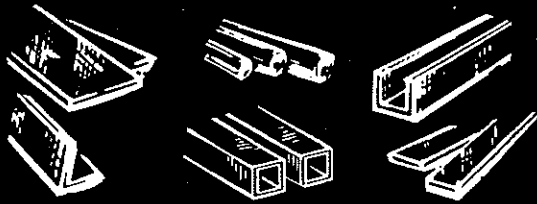
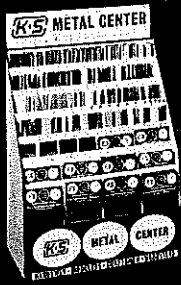


These two views show the sleek but simple lines of this fun flier. Wheel pants add eye appeal, and it's easy with fiberglass over shaped foam.

**It looks much like a model version of a full-size aerobatics plane, but it's a model RC sport flier all the way. Uses a .40 four-stroke engine and four or five channels—five for barnstorming with the smoker.**

**■ Brad Shepherd**

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STOCK NO.	SIZE	PRICE EACH	STOCK NO.	SIZE	PRICE EACH	STOCK NO.	SIZE	PRICE EACH
100	1/16	.25	262	3/32 x 3/16	1.10	250	.005 Brass	.70
101	3/32	.30	264	1/8 x 1/4	1.20	251	.010 Brass	1.10
102	1/8	.30	266	5/32 x 5/16	1.30	252	.015 Brass	1.50
103	5/32	.35	268	3/16 x 3/8	1.40	253	.032 Brass	2.70
104	3/16	.40	<b>BRASS STRIPS (12")</b>			254	.008 Tin	.50
105	7/32	.45	230	.016 x 1/4	.20	255	.016 Alum.	.50
106	1/4	.50	231	.016 x 1/2	.30	256	.032 Alum.	.80
107	9/32	.55	232	.016 x 1	.50	257	.064 Alum.	1.35
<b>ROUND BRASS TUBE (12")</b>			233	.016 x 3/4	.40	258	Ass't Brass	1.30
125	1/16	.30	234	.016 x 2	.90	259	.025 Copper	2.60
126	3/32	.30	235	.025 x 1/4	.25	<b>BRASS ANGLE (12")</b>		
127	1/8	.30	236	.025 x 1/2	.40	171	1/8 x 1/8	.45
128	5/32	.35	237	.025 x 1	.70	172	5/32 x 5/32	.50
129	3/16	.45	238	.025 x 3/4	.55	173	3/16 x 3/16	.55
130	7/32	.50	239	.025 x 2	1.30	174	7/32 x 7/32	.60
131	1/4	.55	240	.032 x 1/4	.30	175	1/4 x 1/4	.65
132	9/32	.60	241	.032 x 1/2	.50	<b>BRASS CHANNEL (12")</b>		
133	5/16	.65	242	.032 x 1	.85	181	1/8	.55
134	11/32	.70	243	.032 x 3/4	.65	182	5/32	.60
135	3/8	.75	244	.032 x 2	1.60	183	3/16	.65
136	13/32	.85	245	.064 x 1/4	.60	184	7/32	.70
137	7/16	.90	246	.064 x 1/2	1.00	185	1/4	.75
138	15/32	.95	247	.064 x 3/4	1.25	<b>SOLID BRASS ROD (12")</b>		
139	1/2	1.00	248	.084 x 1	1.70	159	.020	.08
140	17/32	1.05	249	.084 x 2	3.00	160	1/32	.08
141	9/16	1.10	<b>SQUARE BRASS TUBE (12")</b>			161	3/64	.12
142	19/32	1.20	149	1/8 Square	.50	162	1/16	.20
143	5/8	1.25	150	3/32 Square	.55	163	3/32	.25
144	21/32	1.40	151	1/8 Square	.60	164	1/8	.40
<b>COPPER TUBE (12")</b>			152	5/32 Square	.70	165	5/32	.50
117	1/16	.25	153	3/16 Square	.80	166	3/16	.80
118	3/32	.30	154	7/32 Square	.90	167	.114	.40
119	5/32	.30	155	1/4 Square	1.00	168	.081	.40
120	1/8	.40	<b>BRASS STREAMLINE TUBE (12")</b>			169	.072	.25
<b>SOFT BRASS FUEL TUBING (12")</b>			122	Small	.75			

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oz. tank should give flights of 10 to 12 minutes.

Install the fuel tank and also the smoker tank if the latter is desired. My method is shown in the pictures. A slot is cut in the top of the firewall for the fuel lines, then a piece of balsa is glued over the lines; the cavity is filled with epoxy.

My smoker tank required a hole to be drilled in the firewall (note the picture). An application of epoxy completely fuel-proofed the front end. Place foam around the tanks (careful not to bind the throttle rod) and 3/4-in. triangle pieces with 1/8 in. trimmed from them.

The 1/4-in. top and bottom sheets are glued on and the front end squared up with a sanding block. Mark centerlines on the sheets and also on former F1 (note the pictures). Glue F1 in place. Mark the position of the 1/16 x 1/8-in. cowl flange strips on the fuselage sides, and glue them in place. Glue on the C1 formers and cut the 1/4 ply cowl to fit against the formers and flange strips. When a good fit is obtained, coat one side with 1-hr. epoxy and install on the formers and strips (pinning in place until cured). I used CyA to install the second layer, but a coat of epoxy is just as suitable.

Rough-cut the 1/2-in. balsa nose piece. Glue it on F1. The cabin section can be pinned back in place while round corners are being sanded. The front end should be sanded to final shape as shown in the picture. The removable section of the cowl is laid out with a pencil and then cut off with a Zona Saw. Install ply tabs, dowels, and blind nuts to hold the cowl in place.

Glue on maple wing hold-down blocks if you are going to use the bolt method of wing attachment, then FWB and RWB; epoxy-glye all the joints. Disregard this step if you are going to use rubberbands to hold on the wing. Instead, put in the 1/4-in. dowels as shown on the side view. The Lite Ply rear plate for the wing hold-down is glued on first and the maple block is glued to it.

Position the wing in the saddle on the fuselage. Get it square. Pin it in place, and drill the holes through the maple blocks for the screws. Remove the wing, and tap the threads. Screw the wing in place and slide the stabilizer into its slot. Check the stab for squareness to the fuselage and the wing. When satisfied, glue the stab in place. Attach the elevators with hinges.

The ply sub-fin with the Klett aileron fitting, 3/32 tubing, and 1/16 wire is glued in the slot on the ply flange. The vertical fin is check-fitted, then epoxied in place with the aid of scrap 90° angles to hold it. Glue a scrap piece of balsa in the slot behind the elevator on the fuselage.

Wheel pants dress up the Super Doubler II and make it look more like a miniature copy of a full-size aircraft. They are not at all difficult to make when foam is used for the shape. The shaped foam is covered with fiberglass cloth and epoxy, then the foam is dug out. I had to remove the wheel pants for the initial flights because our field needed to

Continued on page 146

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## Safety/Preston

Continued from page 22

on the ground. After a couple of minutes he had the engine running perfectly, so he throttled back. All of a sudden the Helicopter engine started to rev up, and in seconds it was hovering nicely without any boom deviation. Moments later it started climbing. What a first flight! No need for trim, no need for a touch on the control sticks, no need for the transmitter, either! What had happened?

"It turned out that the battery voltage had dropped below the safe level, and the fail-safe devices took control. As a result, the Helicopter became just a point in the sky. After a while the engine stopped, and it started coming down. Hi-robo must be very proud because, after an auto-rotation, the Helicopter landed with only minor damage.

"The question, after all of this, is: 'What is the reason for all these fail-safe switches and devices, since we don't know the time and the attitude of the model when we are really going to use them?' I would like to know if any of your readers have reported anything in favor of them.

"The device we really want, in my opinion, is a switch to a secondary frequency during an emergency, because the purpose is to not lose control rather than to have the control surfaces of the model move to preset positions."

I am not familiar with the radio system involved, but it seems to me that the fail-safe device on the throttle was reversed. The drop in battery voltage to a level that was unsafe should have closed the throttle rather than opened it.

However, that is not the issue in the question that Antonis has asked readers. What he wants to know is the advantage, if any, in having the control surfaces go to a preset position (neutral in the case of flying controls) in the event that the transmitter signal is lost, for whatever reason. Certainly this isn't going to help the Aerobatic flier save his model if the control surfaces suddenly go to neutral in the middle of a complex maneuver.

On the other hand, I'm all in favor of having the engine go to low throttle upon loss of transmitter signal or when the receiver battery voltage drops below a safe level. If any readers wish to express their opinions, I'd welcome their letters.

Have a safe month.

John Preston, 2812 Northampton St., N.W.,  
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## Doubler/Shepherd

Continued from page 36

be mowed; the grass was a little too tall.

The lettering on my model was done with dry transfers from an art supply store. A coat of clear Sig Skybrite was applied over them for protection. The sponsor decals on the canopy are from model auto decal sheets, and the pilot head started out as a Williams Bros. figure. The back side of the goggles was painted with black enamel to give the appearance of sunglasses.

I am pleased with the way this project has turned out. It is easy to build, and it flies very nicely. I will either clip the current wing or build another with reduced span. I will also be trying other engines. A modeling event that is becoming quite popular with local clubs is a "500" sport racer with stock Royal .25s or HB .25s. A clipped-wing version should fit right in with this expanding Pylon Racing event.

For me this model is quite a change of pace. If you decide to build it, I hope you will have fun and enjoy it. Remember, four-cycles don't scream; they just putt-putt!

## Radio Technique/Myers

Continued from page 39

by the FCC. In time, they will be able to tell you whether or not the system you are contemplating has been certificated according to the AMA Guidelines. Right now, they have nothing.

**Resource management: Noninterfering RC channel arrangements.** I think that Dennis Tierney has the best solution. (See "If the Whistle Blows, Don't Fly" page 93 et seq, *Model Aviation*, March 1987.) I urge Dennis to continue working on his design until it includes all 80 RC channels which are scheduled for 1991 as well as the seven old channels and all of the 27 MHz, 50 MHz and 53 MHz channels.

Besides that, he should reduce all the wiring to one double-sided PC board. That will put him in a position to sell a useful gimmick to RC airplane, boat, and car clubs all over the United States and Canada. I have the feeling that, once people see how easily Dennis' gadget works, every organization will want one. It's a sort of self-policing transmitter impound manager. Go, Dennis!