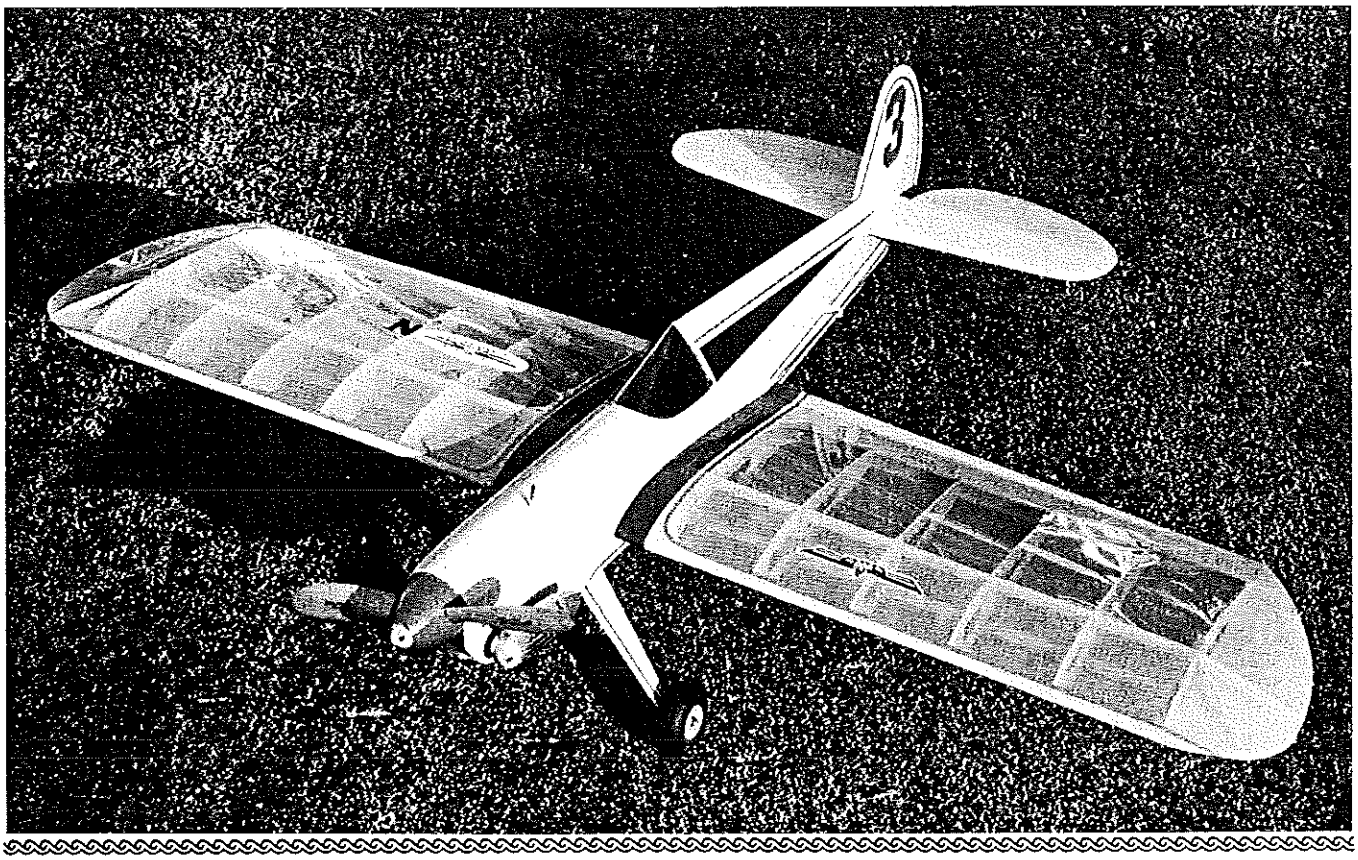
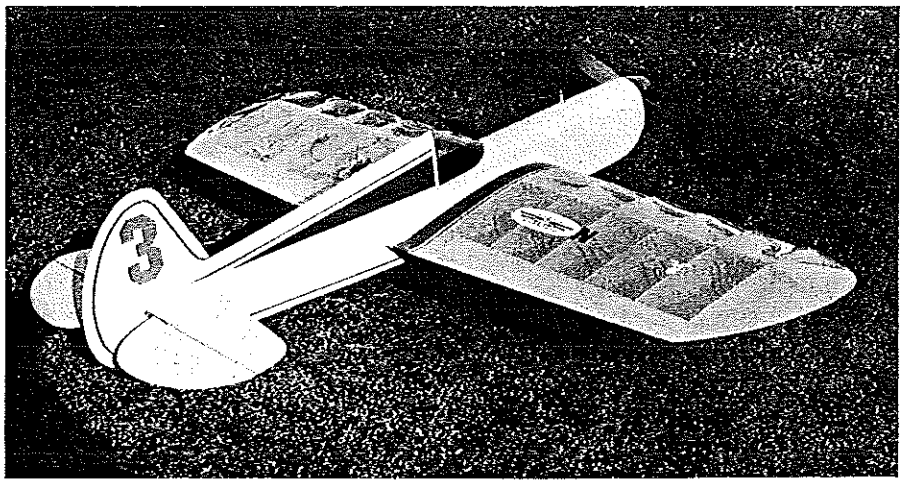


HAPPY DAYS

In the rush of things it's sometimes easy to lose sight of the fact that having fun with a model airplane is the most important factor of all. This Control Line Stunt model for intermediate fliers is designed just for that, and its small size adds spontaneity to the appeal as well. ■Jim Kostecky



Top: The translucent covering provides a look at the light but strong construction used in the wing. Above: The generous tail area and moment, and overall lightness allows tight turns.

THERE I WAS, raking my yard on a gorgeous fall day with one of those perfect blue skies. The sun was really pleasant where it touched my skin. It was September, and I had been back for the first week of teaching school. It was one of those moments that evoke all the magical times from your past—those simple pleasures from long ago that have etched themselves into your memory bank, where they seem to lie in wait for some like experience to trigger them.

Then I heard it. The hair raised on the back of my neck. Suddenly, I wanted to drop my rake, grab my bicycle, and go find the source. My fingers tingled. My senses reeled. I was possessed by a feeling that I hadn't experienced in quite the same way since childhood. I was spellbound by the desire to find that model, and to stand watching it in total fascination as I had done so

many times in the past.

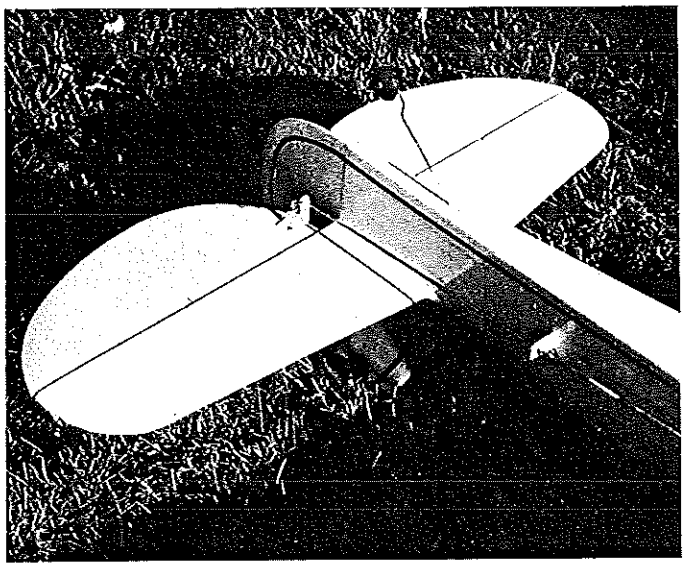
Almost as abruptly as it had come, all at once it was gone—not the noise, but the reverie. Now I knew the noise for what it was: a chainsaw, probably two streets over, shattering my peace and quiet. I wasn't 10 years old anymore, I was 45; and the woman telling me she'd be back in half an hour from the store wasn't my mom, she was my wife!

Not that my wife isn't pretty sharp, and my life with my kids and teaching career terrific. It's just that I would have given anything to be 10 years old again, searching on my bike for the schoolyard or ball diamond where that model airplane was flying, as if by magic, on the end of steel wires. Whether yellow, orange, red, or blue, those Control Line planes never failed to call me with their siren songs, their barking engines exuding speed and power as they looped and flew upside down and then glided silently into a landing. For me, that truly was a sort of "Splendor in the Grass"!

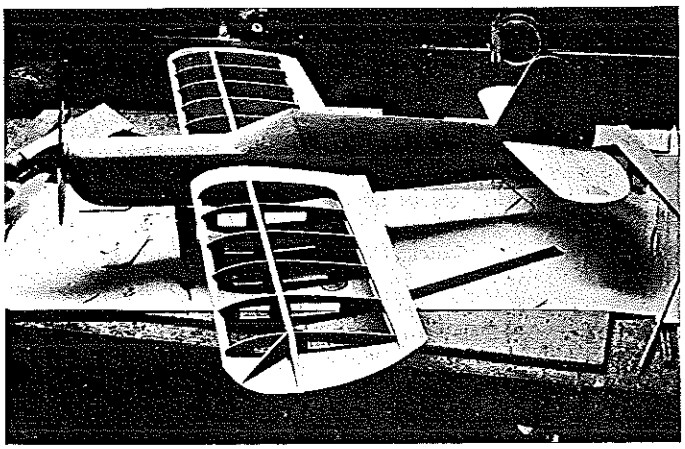
Probably only a modeler could understand how I felt, on that clear September afternoon, when the sudden, grating blare of the chainsaw excavated those long-dormant memories of my childhood fascination. I hadn't built a Control Line airplane since 1972, when I constructed my last competition Stunt ship. Somehow, the simple pleasure that I'd derived from Control Liners in those early years had evolved into a very fulfilling competitive Stunt career, which in turn had succumbed to responsibility and family activities. But I'd never forgotten the wonderful times with Precision Aerobatics and those less complicated earlier planes. Thomas Wolfe may have believed (or half-believed) that "You Can't Go Home Again," but nevertheless I sure as heck was going to try. That very night after the chainsaw episode, I went downstairs and designed the subject of this article. Just for the joy of it. Somehow, it had to be called *Happy Days*.

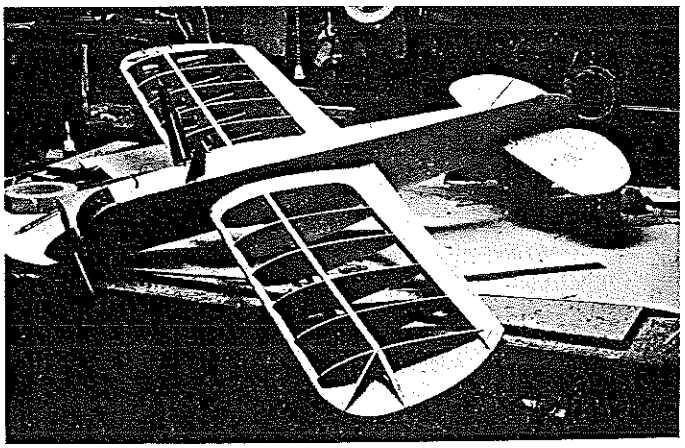
Back in those years, there was a whole genre of sport Control Line airplanes. Between the simple profile ships like the Ringmasters and Yak-9s, on the one hand, and competitive Stunt ships like the Thunderbirds and early Noblers on the other, the Wildcats, Warriors, Squaws, Super-Ringmasters, Continentals, and a host of others had a very legitimate role to play. It was on these intermediate-category planes that I honed my building and flying skills. Learned how to build a fuselage, mount gas tanks and wheel pants, sand, apply finishes, solder—all those good habits that were to save so much grief and aggravation when tackling major Stunt projects later on. There would come that enchanting moment—those of you who are old-timers know what I mean—when you actually *flew* a square loop or triangle with a small, heavy airplane without stalling out of the air. These neat little planes taught me more than you can imagine about "feel," about truly *flying* a competition ship rather than simply jerking it through a series of maneuvers.

For some, as for me, the Happy Days will provide a pleasurable nostalgia trip. But the airplane can also make a fun and valuable project for the intermediate Control Line flier. In fact, I've seen some fliers set

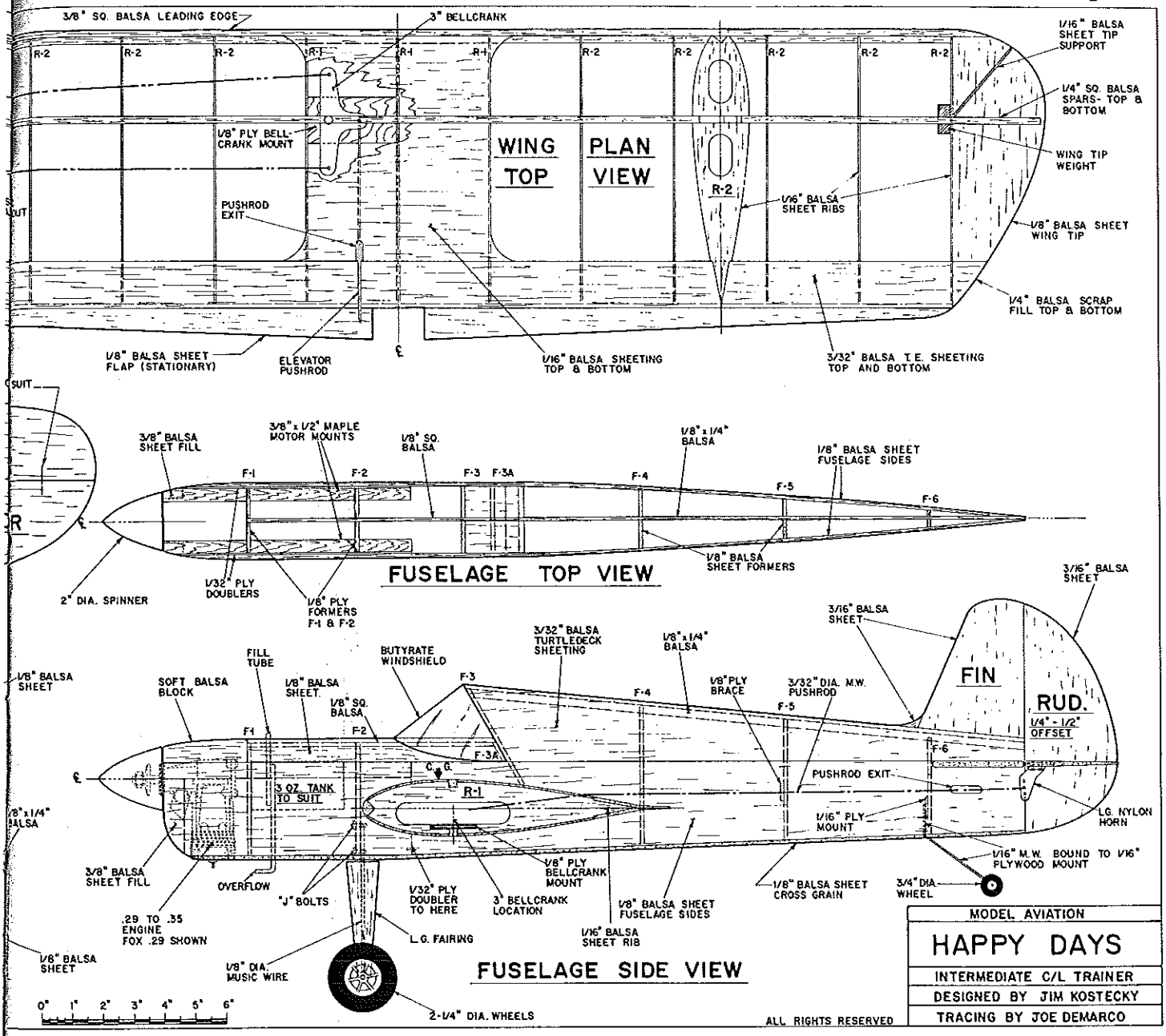


Left: The author's sons, Jim and Jeff, stage this shot "preparing" the model for flight. The plane is equally at home on grass or blacktop, although the gear could be shortened if your flying is done exclusively from hard surfaces. Right: Pushrod guides are made from plywood, and the tail wheel protects the rudder from scrapes with the ground. Any standard control horn, and pushrod keeper complete the elevator hookup.





Left: With the model approximately 80% completed here, a paper template is made for a guide in cutting out the butyrate windshield. Right: It's a simple, efficient structure designed not only to fly well but also to fill the gap between rudimentary profile models and full-blown Stunters.



nut. Add the top sheeting, allowing a neat slot for the pushrod exit.

Cut out and attach the wing tips. Add the wing tip braces, and epoxy the brass tubing lead-out guides to the tips. Cut out the ⅜-in. flaps, but do not attach them to the wing. They will be added after the wing is installed in the fuselage. Smooth the wing carefully with a sanding block, making sure to round the leading edge to the contour shown on the plans. A sharp leading edge will spoil the plane's cornering ability.

Fuselage: Now that the doublers have dried, check the fuselage sides for accuracy in terms of wing cutout and stabilizer notch. Their centerlines and the engine thrust line should all be parallel. Epoxy the hardwood engine mounts to the plywood doublers, and be glad you made a right and a left side.

J-bolt the ⅛-in. landing gear to the plywood landing gear mount on the fuselage former. Assemble the fuselage sides, plywood firewall, and landing gear mount using five-minute epoxy.

Draw the rear of the fuselage together, and add formers 4, 5, and 6. Slide the wing into the fuselage, make sure it is square to the fuselage centerline and sides when viewed from the front, and glue in place. Add formers 3 and 3A, then add the top stringers on the nose and turtledeck.

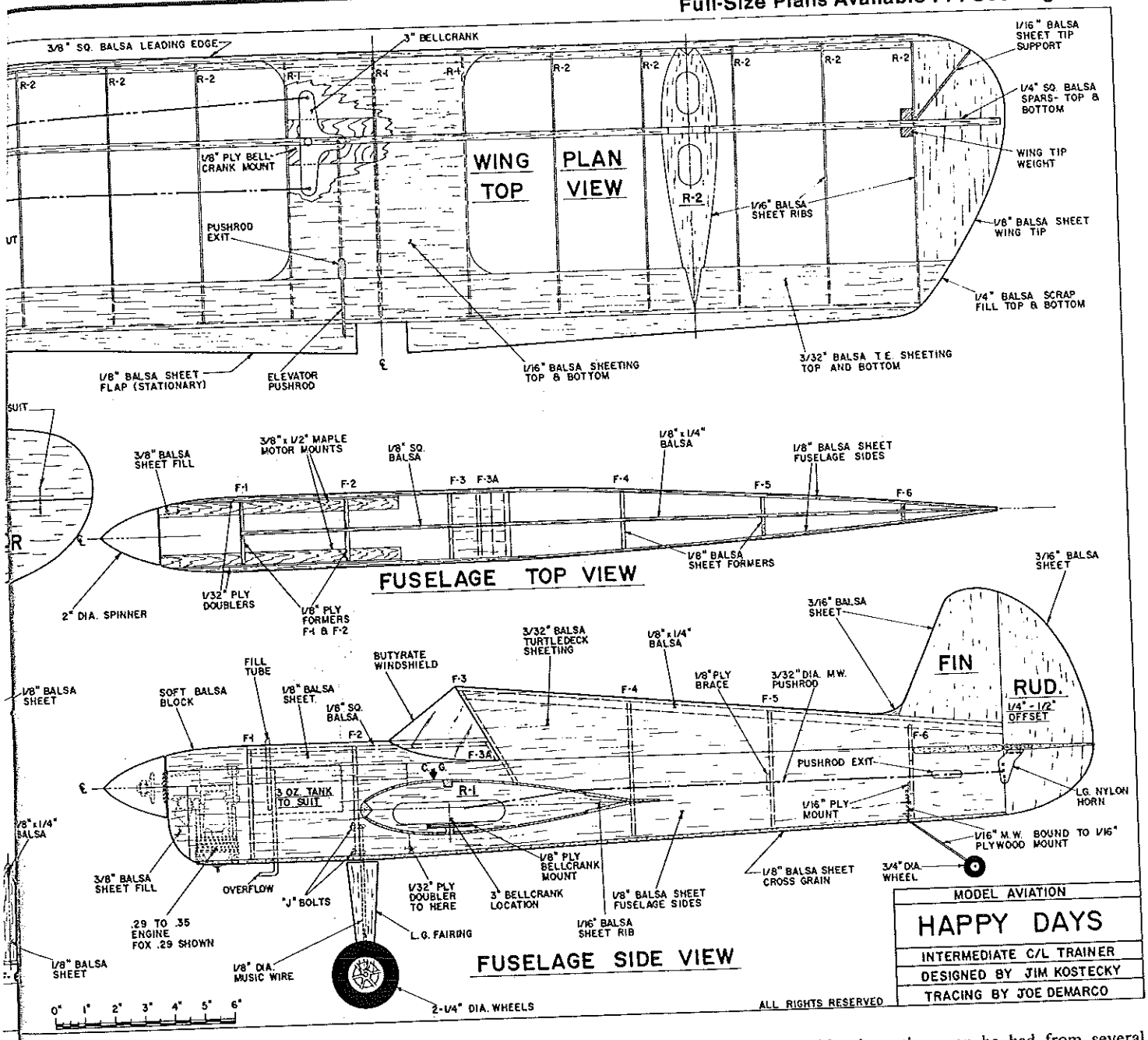
Mount the engine (any good .29-.35) using blind mounting nuts and Allen bolts. Add the soft balsa top block. Mount the fuel tank, to which you have soldered brass tube vent extensions. When flying, I bend the lower vent into the slipstream and cap the upper one with a piece of fuel line with a screw in it. My hobby shop still stocks the Perfect Brand fuel tank with the dimensions shown on the plans. If yours doesn't, suitable alternatives can be had from several sources who advertise in this magazine.

Plank the nose section and turtledeck with the appropriate sheet balsa. The nose is easy if done in two pieces. I glue these to the sides, moisten them, and draw them down to the middle. The middle seam is glued with CyA, and the whole works held with masking tape until the moisture dries out.

Plank the bottom of the fuselage with the grain running across it. Be sure to install the tail wheel before planking over its location. Add ¼-in. sheet nose fillers, and cut out exhaust and needle valve holes.

Block sand the fuselage, rounding all corners and smoothing the seams. Epoxy the balsa fairing onto the landing gear, then shape and sand. Glue the stationary wing flaps in place.

Continued on page 162



nut. Add the top sheeting, allowing a neat slot for the pushrod exit.

Cut out and attach the wing tips. Add the wing tip braces, and epoxy the brass tubing lead-out guides to the tips. Cut out the ⅜-in. flaps, but do not attach them to the wing. They will be added after the wing is installed in the fuselage. Smooth the wing carefully with a sanding block, making sure to round the leading edge to the contour shown on the plans. A sharp leading edge will spoil the plane's cornering ability.

Fuselage: Now that the doublers have dried, check the fuselage sides for accuracy in terms of wing cutout and stabilizer notch. Their centerlines and the engine thrust line should all be parallel. Epoxy the hardwood engine mounts to the plywood doublers, and be glad you made a right and a left side.

J-bolt the ⅛-in. landing gear to the plywood landing gear mount on the fuselage former. Assemble the fuselage sides, plywood firewall, and landing gear mount using five-minute epoxy.

Draw the rear of the fuselage together, and add formers 4, 5, and 6. Slide the wing into the fuselage, make sure it is square to the fuselage centerline and sides when viewed from the front, and glue in place. Add formers 3 and 3A, then add the top stringers on the nose and turtledeck.

Mount the engine (any good .29-.35) using blind mounting nuts and Allen bolts. Add the soft balsa top block. Mount the fuel tank, to which you have soldered brass tube vent extensions. When flying, I bend the lower vent into the slipstream and cap the upper one with a piece of fuel line with a screw in it. My hobby shop still stocks the Perfect Brand fuel tank with the dimensions shown on the plans. If yours doesn't, suitable alternatives can be had from several sources who advertise in this magazine.

Plank the nose section and turtledeck with the appropriate sheet balsa. The nose is easy if done in two pieces. I glue these to the sides, moisten them, and draw them down to the middle. The middle seam is glued with CyA, and the whole works held with masking tape until the moisture dries out.

Plank the bottom of the fuselage with the grain running across it. Be sure to install the tail wheel before planking over its location. Add ¼-in. sheet nose fillers, and cut out exhaust and needle valve holes.

Block sand the fuselage, rounding all corners and smoothing the seams. Epoxy the balsa fairing onto the landing gear, then shape and sand. Glue the stationary wing flaps in place.

Continued on page 162

photos. Other tools and accessories are in the smaller drawers.

Rubber stuffer. Jim Clem's tool for loading motors in Manhattan, Scale, and Bostonian models is the subject of another of this month's photos. To give you an idea of the size, the shaft is 1/16-in. welding rod. The notched side pieces are styrofoam sheet left over from Dannon Yogurt containers after he cut out Bostonian prop blades (see the photo in my December 1987 column, wrongly identified as a Manhattan prop). A thread wrap and epoxy completes the job.

CL Happy Days/Kostecky

Continued from page 65

Tail surfaces: Cut them from light C-grain balsa. Add the 1/16 plywood control horn mount to the elevator, and join the elevators with wire joiner. Round all edges, and taper the rudder and elevators. Hinge the stab and elevator; I used nylon RC piano-type hinges. Glue the stabilizer assembly into the fuselage slot. Add the fin, then add the rudder with about ¼ to ½ in. offset.

Covering and finishing: Glue ¾ oz. of weight to the outboard tip. Attach the control horn, and bend the elevator pushrod. Slide the plywood fair-lead onto the pushrod, and epoxy it to the fuselage. For really fastidious or industrious builders, the controls could be enclosed in the fuselage, but attaching them externally is quicker and easier, and that suited me fine. Remove the horn, and start the finishing process.

There are a multitude of options for finishing, from dope-and-silkspan to epoxy and iron-ons. If you're planning to build a Stunt ship and need experience with dopes, this plane's size doesn't rule out the dope-and-silkspan method. If, like me, you want quick results without sacrificing durability, do the following:

Sand everything with 400 wet or dry paper used dry. Vacuum the structure. Cover the wing with MonoKote. Mask the wing covering about 1/16 from the edge where it meets the planking, so that the finish you apply overlaps the seam and seals it.

Next, apply a heavy coat of K&B epoxy primer. When this is dry, sand smooth with 400 paper. If too much grain is showing, repeat the filler coat and sand again.

If you're fastidious, spray a coat of K&B epoxy on the whole thing. I found a can of Black Baron Epoxy under my bench and brushed one coat of yellow on. It came out looking acceptable—certainly not concours quality, but far better than my planes of 20 years ago. Some striping tape and MonoKote trim, as well as an acetate cockpit, finished the job.

Don't hesitate to experiment with all kinds of miscellaneous extras on this project: wheel pants, enclosed controls, and cockpit detail to name a few. Learning these techniques can be aggravating, but you can transfer the experience to more advanced projects later on.

Attach the elevator horn, then solder on a retaining washer and a set of wheels. A piece of fuel line and a filter, and, once the engine and muffler have been bolted on, we're ready to go.

Flying: This model is just a pleasant, smooth, forgiving plane to fly. It'll do the whole Precision Aerobatics pattern, although not competitively.

Check the center-of-gravity. I can't imagine the CG coming out anything other than nose-heavy initially. Fly it that way at first, adding tail weight until it responds to your taste. Sixty-foot lines and a 10-in., six-pitch propeller were used on the original.

Was taking on the challenge of designing and building this Happy Days worth it? You bet. Every once in a while when weather, schedule, and mood all click, I drag it out and go flying. For a brief, shining spell I'm a 14-year-old kid again, savoring the moment as I did then. And that kid on his bike tripping over my lines? And that one . . . - and that one? Each of them is me, back in those happy days, those golden halcyon days of Control Line flight.

CL Aerobatics/Fancher

Continued from page 66

envelope to Tom Dixon,'Beginner Pattern,' 1938 Peachtree, Suite 401, Atlanta, GA 30309."

This is a really great idea by the Sky Rebels—and one which is continuing the successful pattern established by the Old-Time Stunt fliers of providing well-administered unofficial events to supplement the official AMA Stunt events at the Nats. This is a particularly good idea in that it should draw some people to actually participate at a Nats who might otherwise simply come to spectate—or who perhaps might not bother to attend at all. The extra excitement which comes from actually participating in a Nationals is a terrific stimulus to a person's interest. Once bitten by the Nats bug it is tough to shake . . . just ask the wives of us Stunt junkies about whom you've been reading since Stunt's inception as a truly Precision event with the advent of the Nobler.

I encourage all of you with even a passing thought of sometime getting "good enough" to fly at a Nats to drop Tom a line and join in the fun. You won't regret it.

Along similar lines, although not yet off the drawing board, is a proposal for another supplemental event from Doc Passen, P.O. Box 111, Jasonville, IN 47438. Doc is spearheading a group who would like to initiate what they call a Nostalgia Stunt event. This would be similar in concept to the now-familiar Old-Time Stunt event in that only designs from a particular era would be qualified to compete—in this case the years from 1953 to 1963. They plan to use the 1957/58/59 AMA rules, which are essentially the same as today's (with the exception of the appearance points, which range from 16 to 40 points) except that they include the intriguing statement in the maneuver description of the horizontal round and square eights that either the inside or outside loop may be performed first.

Doc feels that this era has greater potential than OTS in that the number and familiarity of the models which qualify is much larger and more familiar than the pre-1952 vintage of the OTS