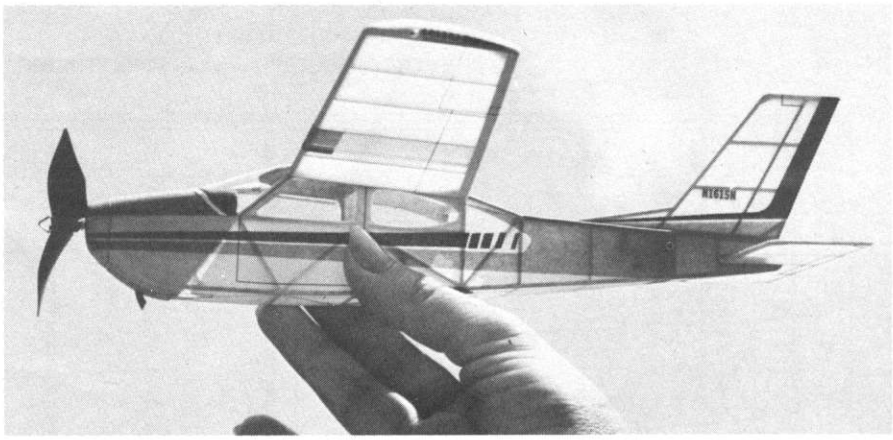

PHOTOS BY AUTHOR

PEANUT SCALE

CESSNA

CARDINAL RG

By NICK DECARLIS . . . Here's a clean, lightweight Peanut that really performs. Scale documentation is as close as your local airport.

• Although Cessna has discontinued production of the Cardinal RG, we modelers can still appreciate the aircraft's clean, uncluttered lines. Perhaps the most aesthetic of the Cessna singles, it features a tapered cantilever wing which most readily distinguishes the Cardinal from its brothers. I was also drawn by the propects of savings both in drag and weight afforded by the representation of the landing gear in the retracted position.

A model would offer some challenge as well. It seems as though the ideal competition Peanut had to have a fairly long fuselage and acres of wing area. Witness the profusion of Laceys and Fikes. Could a smaller and lighter ship (requiring less power) be equally or perhaps even more competitive?

The first prototype was completed and detailed with color trim, as I had no intention of proving a "ghost" ship could fly well. The model flew well, and was easy to trim. The first "trial by fire" came at the 1979 Rebel Rally, where a 2-1/2 minute test flight was followed by two officials in the fifty second range. The Cardinal RG astounded everybody on its last official flight by flying out of sight. The timer lost it at 5:03!

The model shown in the photographs was then built and was found to fly equally well, proving that the first was no fluke, both in duration and ease of trimming. If you would like to be competitive with something different, or are looking for a stable, realistic-flying model to relax with, here is your plane! Scale views may be found in recent *Janes* volumes, or in *The Single-Engine Cessnas* by Joe Christy.

The key to this model flying well is light weight! Both prototypes weighed in at under 10 grams with rubber. This is not a difficult task if the sizes of balsa indicated on the plans are followed. Using 1/16 square stock for the fuselage and tail assemblies is not recommended.

The fuselage is of the basic box type. Note that there are several sheet parts to be added when laying out the basic sides. When joining the sides, note that some cross pieces are replaced with sheet parts (F2-F4). The top of the cowl should be carved from very soft balsa, which is then hollowed to save weight and to provide clearance for the rubber motor. You may find, as I did, that this model will come out marginally nose-heavy without the addition of weight, so make no attempt to "build heavy" in the nose area, as one normally does. The nose block is made removable to facilitate winding. Use 1/16-inch diameter aluminum or brass tubing for a bearing, Hot Stuffed in place. Note that there is a slight amount of down thrust. I find this type of bearing to be superior to nylon bearings, especially when setting the amount of down thrust.

The tail is built in the normal fashion over the plans, as are the wing panels. Note that the wing gussets are from thin sheets and are fit so as to be flush with the upper surface of the wing. Their purpose is more to eliminate corner wrinkles than to add strength. Note also that the soft balsa tips "droop" when viewed from the front.

After spending some time sanding the model with fine wet-or-dry sandpaper, the frames are covered with white Japanese tissue. I prefer white glue diluted with water for this. To save weight, my model was not doped, but rather sprayed with 3-M Scotchguard, which provides a nice finish. To attach tissue trim, position the trim, and attach with diluted white glue applied with a tiny brush *only* around the edges of the trim. When dry, the trim areas may be shrunk by spraying with alcohol. Whatever you do, don't try spraying this model with water, or you'll end up very disappointed!

The trim colors on my model are red and black. The registration on the rudder is from small rub-off type graphics lettering. Rub them onto a scrap of white tissue and trim the tissue close to the numbers. Then simply apply as you did the color trim. The wheel wells are black tissue. I added a small oval from silver paper to simulate the wheel hub which is visible in the doorless wheel well. Panel lines and separations are done with 1/64-inch matte black graphics tape.

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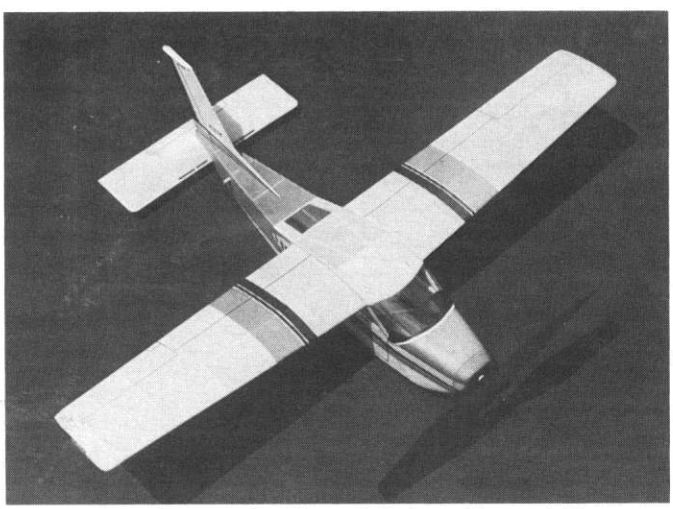
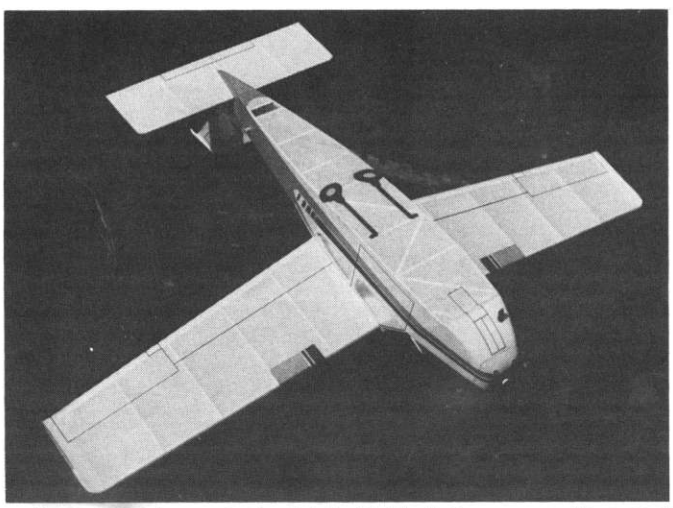


Light weight is the reason for this model being such a good flier. Author's version is quite well detailed, yet weighs under 10 grams.



Retracted main gear is simulated with black tissue paper. Absence of gear saves much weight and drag, makes for longer flights.

Peanut . . . . . *Continued from page 55*

The prop is a 5-1/2 inch North Pacific, greatly sanded to reduce weight. Re-

member, the prop is no place to incorporate nose weight. A thick-bladed, heavy prop requires more rubber to turn it. Rubber is 1/16 F.A.I., lubed. Windy days may requi.e going to 3/32 rubber, and the model definitely climbs with this power!

To trim for a left pattern, only a slight amount of rudder was needed. If your model dives in to the left under power, try washing-in the left panel (trailing edge down). It is best to try this out with a masking tape trim tab first before you warp the panel. When trimmed, give it 1200-2000 turns (depending on your rubber!) and learn as I have to *avoid* thermals with your Cardinal RG. •