

RAPID

A-3 Glider

Designed by JAROMIR JINDRICH with text by STU RICHMOND... What's new, you ask? Well, how about a Nordic A/3 glider that's easy to build, fun to fly, and sure to be one-of-a-kind at the flying field... for a while, anyway.

• Spectating is a drag... the fliers have all the fun! I live in the central Florida area, near Orlando. We have three power R/C aircraft clubs, one R/C glider club, two R/C car groups, a well-organized R/C power boat club, a group of R/C sailboaters, but the newest group of modelers in this area are the fifteen or so non-R/Cers who are flying tiny peanut scale rubber jobs, R.O.G.s, hand-launched gliders and a variety of rubber models at the Orlando Central (Industrial) Park where there's lots of open flat land to be enjoyed on calm Sunday mornings.

To go down there and watch on a Sunday morning can be kind of interesting... but to FLY with these guys is where the fun is!

In the summer of 1985 I sat with Jaromir Jindrich quietly talking in his upstairs workshop in a small Czechoslovak town where he lives. Visiting another modeler's workshop is always interesting. I spotted a partially-built small model... he pulled out two sets of plans to the model, passed them to me and said... "Here, take these to America... maybe somebody will want to build the model... I designed it... we've had about twenty of them built and they really fly well... maybe you can get the plan published in your country... anyhow our hobby shops don't have balsa wood available at this time so nobody here can use these plans." I admired the straight-forward design... a simple basic model that looked amazingly like an R/C

glider I've sketched out but never built. I thanked him for the two sets of plans and we went onto discussing other modeling subjects.

I needed a model to join in on the Sunday a.m. flying sessions with this new Orlando group (I fly R/C power every Sunday afternoon with one of the three power clubs) so out came the plans to Jaromir's "RAPID" and as he says... I went to balsa butchering.

Jaromir explained that Nordic FAI classes in Europe include the A-3 class that is not published in our AMA rule book... they are less than one meter (39.37") wingspan, must weigh 150 grams minimum which is a shade over 5 ounces and have maximum wing-plus-stab area of under 12 square decimeters (about 200 square inches), if I remember correctly.

A couple of hours on the first night gave me all the parts cut out and ready for gluing. All the parts were CA'd together the second session and covered. The third building session was spent applying three thinned coats of dope to the tissue and squirting thin coats of Coverite's Black Baron spray paint on the fuselage, adding vinyl stick on lettering and admiring.

A SPECIAL WING-BUILDING NOTE: When you build the wing over your plan **DO NOT GLUE** the wing's three trailing edge pieces in place. Please note that the trailing edge droops... it follows the curvature of the TOP of the wing rib. Use scraps of 1/8-thick balsa to "jack up" the front of the trailing edge pieces above the surface of your building surface. Then carefully fit the rear of each wing rib into it's proper cut-out of the trailing edge. When in place, glue with a drop at each juncture and you're ready to plane-off and sand the wing to the shown cross-section. When you cover the wing, be sure to glue the bottom covering... no, be sure to *dope down* the tissue bottom covering to the entire *underside* of the trailing edge. The trailing edge then acts as a drooped flap that really enhances the flying on this type of airfoil.

Although I used harder/firmer than normal balsa for the model in the pictures, I came up below the 150 gram minimum weight... I'm at only 115 grams or about 1 ounce light! I'm balanced at 50%-55%

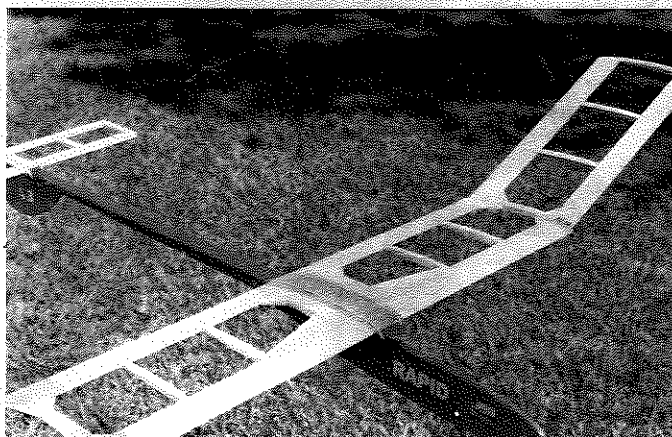
of the wing chord, have 1/8 inch of washout twisted into each outer section of the wing, carry a bit of left rudder to offset the asymmetric force of the line on the towhook (the hi-start wants to turn the model to the right on launch... a bit of left rudder counters this in launching and then the left rudder yields nice predictable circling). My model has the stabilizer's trailing edge shimmed "up" with one thickness.

It's safer to fly first with a towline... about 100 feet of light nylon fishline with a metal ring and a piece of tissue near the ring to blow the line free from the model at altitude... but I chose the hi-start which I remember enjoying so much years ago with my Jasco TROOPER (it also had the tow-hook off center).

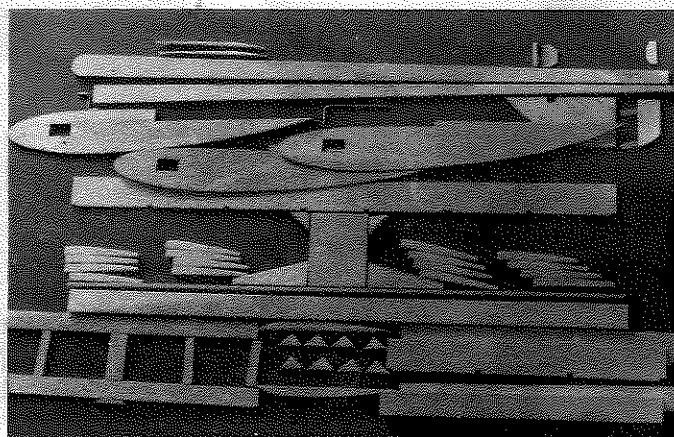
Jaromir calls for the wing's center section to be reinforced under the two #64 rubber bands that hold on the wing. I chose to glue in place a piece of new space-age material called CARBON FIBER PAPER to do the job... I also cut tiny reinforcing pieces of CARBON FIBER PAPER and CA'd them in place above and below the dihedral joints of the wing's leading edge pieces... lotsa strength in this new miracle material. (Send \$1.00 and a stamped self-addressed envelope to: CARBON FIBER PAPER, D & D GRAPHITE, 6005 Anno Avenue, Orlando, Florida 32809... they're the prime supplier of all modeling graphite products in the USA... they'll send you back a large useable sample of this new material. Their business is supplying carbon/graphite composites to America's aerospace industry, but they're modelers too!)

Maximum launches are achieved with the rubber stretched to about three times its length. I'd suggest you also take a wad of modeling clay with you for fine tuning the balance of your RAPID. The cut-out through the fuselage's three thicknesses works great to hold two 1/4-ounce tire weights that are hooked together and epoxied in place. Clever!

RAPID means very fast... this model builds very fast... it glides very fast and flat... it got me equipped to fly with the fellows at Orlando Central (Industrial) Park very fast... it's a quick key to free flight flying fun... order your plans and build your own RAPID... rapidly!



Uncovered framework shows the simplicity of the construction, mainly balsa sheet. A-3 class is popular in Europe.



Here are all of the parts of the RAPID cut out and ready for assembly after one short evening's effort.