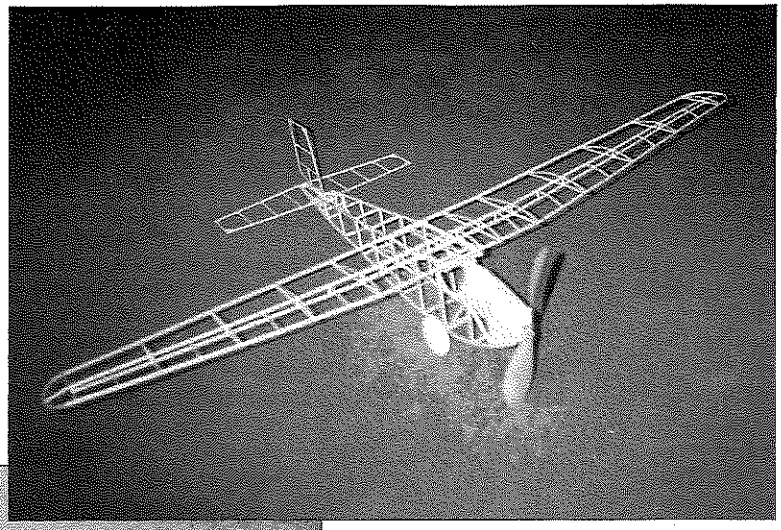
# JUMBO SCALE MESSERSCHMITT M.18

**A great flying replica of Willy Messerschmitt's first really famous aircraft, circa 1925. Build it for Jumbo or Coconut Scale.**

BY DAVE LINSTRUM

Surely you know the most famous Willy Messerschmitt design, the ME-109 flown by the Luftwaffe. But did you ever hear of his first *airliner,* the 1925 M.18, which evolved from the Munich-to-Rome prize winning M.17? After the prize was won by Willy's pal Theo Cronweiss, they teamed up to start the *Nordbayerische Verkehrsflug* airline to fly people all around Bavaria. The seven-cylinder, 80-horsepower Siemens engine hauled the M.18 aloft with three passengers—a big deal back then!

**Framework of the lightweight Coconut Scale indoor version of the M.18. Note the foam wheels, built-up ribs and wing spar. Outdoor Jumbo Scale model has more robust construction.**




The model presented here spans 42 inches and qualifies for both outdoor Jumbo Scale and indoor Coconut Scale—the latter version of course being built much lighter. For scale documentation, we've included a photo and three-view on the plan. The entire model is silver (aluminum) in color. Identification numerals, lettering, cowl combing and tires are black.

So you want to build this historic flier? Read the callouts on the plans and assemble the necessary tools, balsa, tissue and paints. Pick 6-8 pound balsa for an indoor Coconut—12 pound stock for an outdoor Jumbo.

We find the following to be the *minimum* workshop inventory: X-acto knife with a #11 blade or a broken double-edge razor blade (non-stainless), dressmaker's pins (we like the bead-head type), self-healing cutting board (a scrap of artist's matt board works well), glue applicator, artist's sable brush and needle-nose pliers. Be sure



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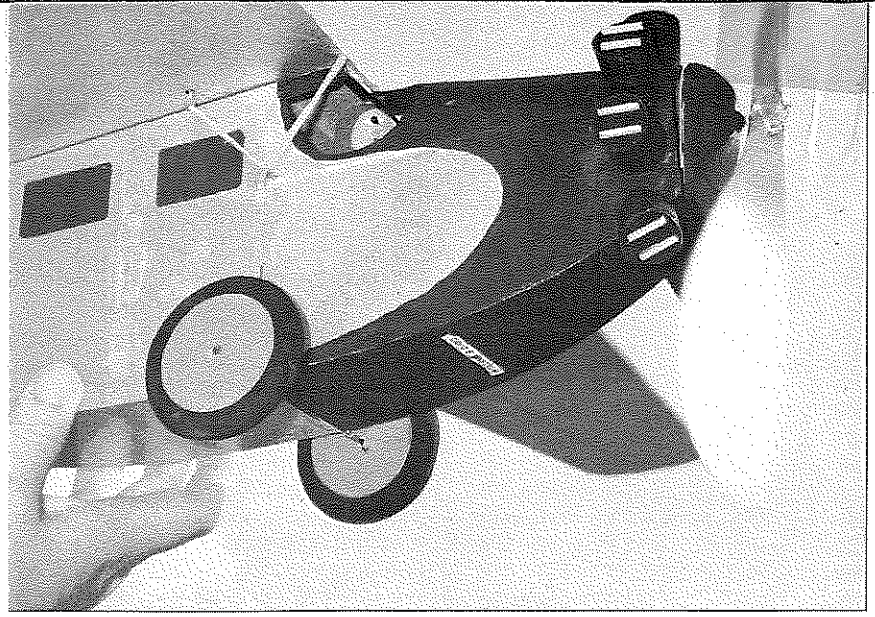

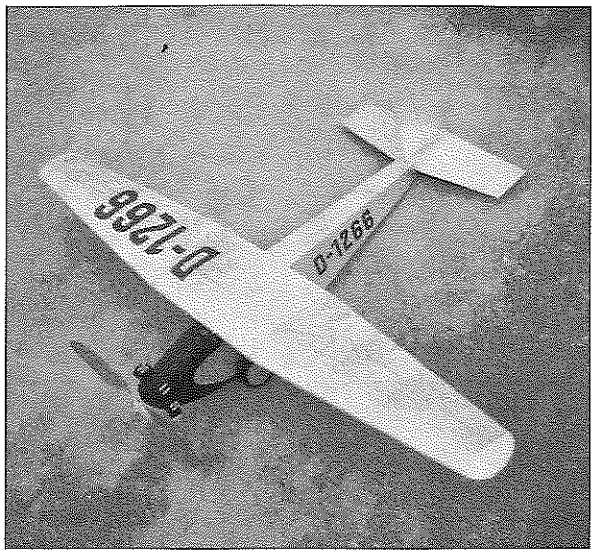


**■ LEFT: Close-up of the wing hold-down rubber bands, dummy engine, foam pilot and wheels.■ RIGHT: To lift four people at a decent rate of climb with only 80 horsepower, the M.18 had to be an exceptionally clean design—almost a big powered glider—which is the main reason the model is such a good performer. No struts or flying wires on this one! The model M.18 spans 42 inches and has a wing area of 198 square inches. Scale it up a bit (25 or 30 percent), re-engineer the structure as needed and you'd have a terrific subject for a 1/2A Texaco Scale model. Would be perfect for a small electric system, too.**

to do your building in an uncluttered work area with good lighting. We prefer listening to jazz while building—some say it enhances craftsmanship!

Silver (aluminum) tissue is unavailable commercially. We make our own by mist-spraying Krylon or Testor's acrylic in an aerosol can onto white Japanese tissue. Be sure to spray in a well-ventilated area, and apply only a light coat. It will look mottled if you hold a piece up to a bright light, but it will appear uniform on the model, even in flight. You can use a silver felt-tip pen to color the edges of the surfaces after covering. Cut the black I.D. numerals from the plans (make a photocopy pattern to cut through) and affix them to the covering with 3M SprayMent. We prefer to do this before covering.

The skeleton photo shows the major framework assembled and the plans are fully annotated, so we will not tell you how to "Glue Part A to Part B" here. You should not attempt to build the M.18 until you have some experience with stick-and-tissue construction. A Peck-Polymers Peanut such as the Pietenpol Air Camper or Nesmith Cougar will teach you the tricks. These are available at your local hobby shop or by mail order—see Peck's ad elsewhere in this issue of *MB*.

A word about covering: *do not use colored dope anywhere on this model!* Black acrylic paint and a silver felt-tip marker for coloring, and thin white glue for adhering the tissue to the framework are perfect. They are odorless (no health hazard) and clean up with water. An India ink technical pen such as a #8 Micron Pigma is great for lettering and detailing; trace right onto the tissue on a light table or sunlit window, marking registration for covering and control surface outlines.

A further word about assembly: the indoor Coconut version has a rubber band wing hold-down and tube/pin plug-in tail. Use stronger hooks and bands and a pop-up tail dethermalizer on the outdoor Jumbo version. This big model can easily fly O.O.S. in a thermal without a DT. Use a fuse or Tomy timer.

The plywood/plastic laminated prop blades may seem strange, but it is a quick, easy way to get more diameter/blade area. The model's 42-inch span is too big for the normal P-30 prop. Note that the gear extends farther down for the indoor version, where the rules require ROG takeoffs. Be sure the wire is a tight fit and that the aluminum tubing is securely glued to the fuselage uprights.

High-wing monoplanes like the M.18 seem to do best when trimmed to fly to the right under power. With Coconut Scale, the glide is a minor part of flight, so if you fly indoors (having built a very light model which allows a small motor cross-section), the power portion of the flight should last until touchdown. Be sure the CG is as shown on the plans. You may have to add a bit of solder below the nose to get the model to balance properly. We prefer solder (smash it flat with pliers) to bulky, messy clay. Using down and right thrust, and possibly a bit of right rudder, trim for a loose, right spiral climb.

We hope you enjoy this historical replica of the first German airliner! For a little harmless fantasy, pretend you are a pilot for the *Nordbayerische Verkehrsflug* airline, taking off from a grass field, carrying three passengers from Schweinefurt to Dresden. Happy Landings! ***MB***





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