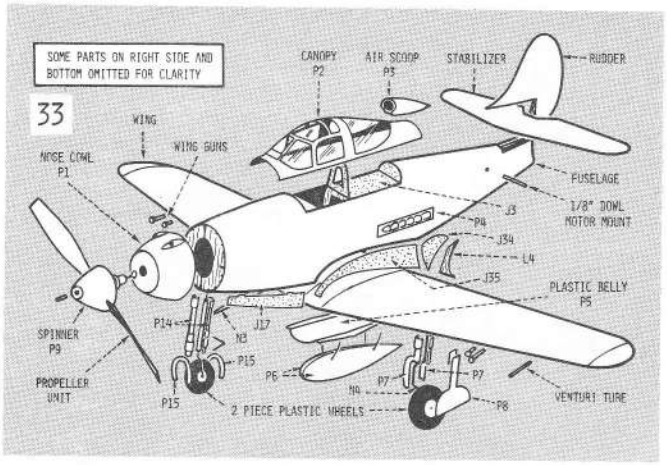
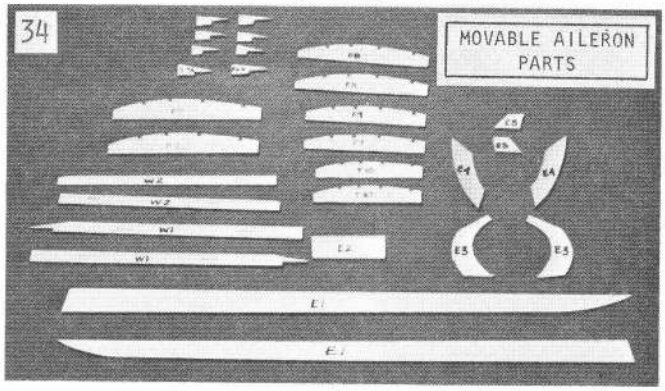
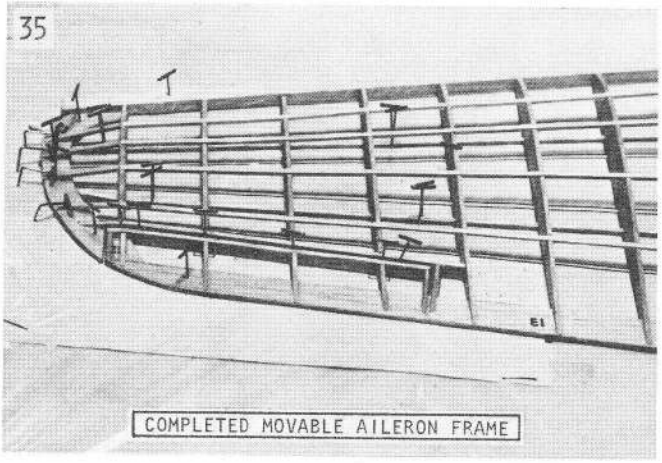
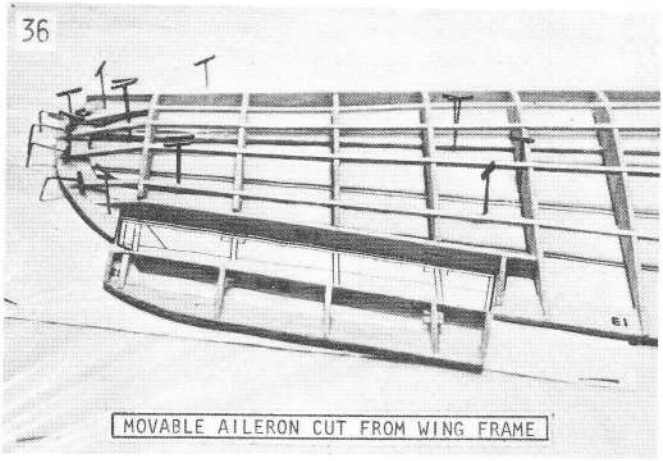
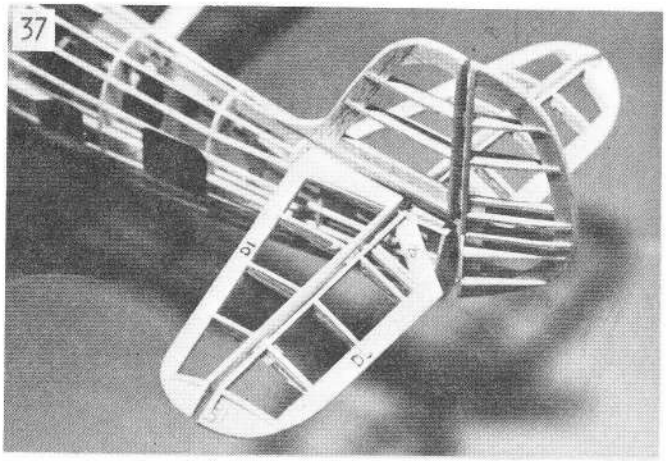


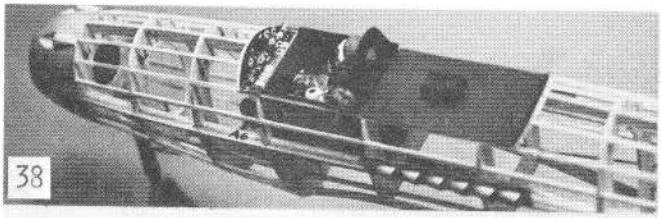
THE FOLLOWING ARE MISCELLANEOUS PHOTOS

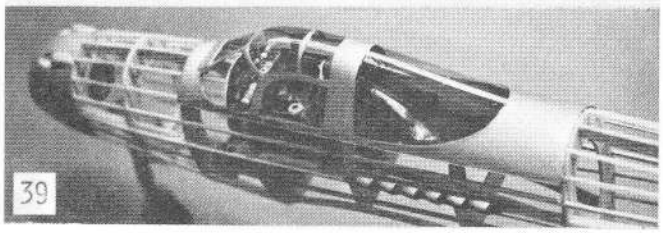


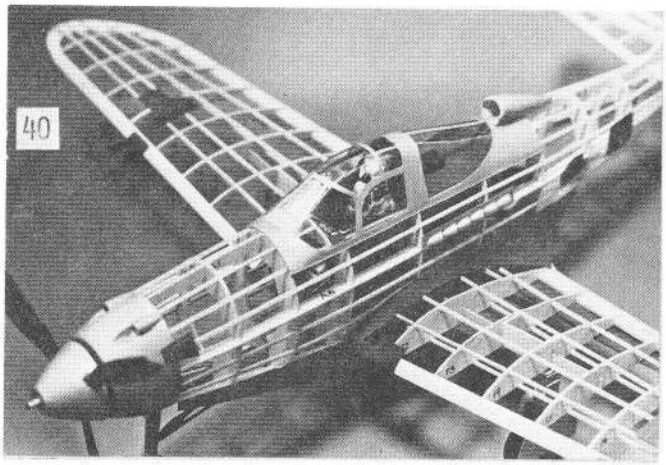


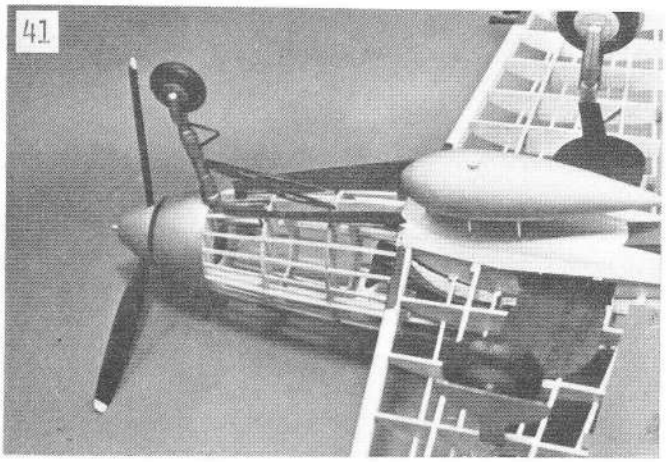












PREPARING THE PLASTIC PARTS

See drawing 29 and photos 30 and 31. The opaque vacuum-formed plastic parts should first be numbered as per drawing 29, then cut apart with a pair of scissors. Using the point of a modeler's knife or a single-edged razor blade, score the plastic part as close as you can at the trim points. The score should be deep but not through. Score twice if necessary. After scoring, gently bend the excess material back and forth until it breaks away. Now sand all the edges to smooth them off.

Use a plastic cement when joining the matching halves of parts such as P3 and P6 that require joining before being added to model. After cement has dried, lightly sand the joints for a smooth finish.

If building a scale non-flying model, cut out and join the halves of the plastic pilot. Drawing 32. When dry, paint pilot figure as indicated referring to instructions supplied in Painting The Model. When complete, install pilot in cockpit area, cementing lightly in place.

The plastic spinner and propeller should now be assembled — both flying and non-flying scale types are shown on plan.

Except for any special cut-outs such as mentioned in the "Gas Free Flight" instructions, the plastic parts are ready to be attached to the model.

The clear plastic canopy is made from acetate and is a different material than the other plastic parts. Extra special care should be taken when cementing the canopy in place and when painting in the window separations. If these suggestions are followed, you should have no problem with the attachment of plastic parts thus insuring a neat appearing model.

Refer to "Painting The Model" for special information to be aware of when painting the plastic parts.

ASSEMBLING THE MODEL

Repeat Note: All frames are covered BEFORE assembly

See drawing 33 and Miscellaneous Photos 37, 38, 39, 40 and 41.

Trim the plastic nose cowl (P1) to shape. For a rubber-powered model, use about one half of the clay supplied for an interior nose weight inside cowl. Make the clay soft and pliable by working it in your fingers then press it into the inside front and bottom of the cowl as shown in dotted lines on the side view of the model. Work the clay into position so that it fills the particular area. The remaining portion of the clay will be used later for final balance of the model.

Cement the plastic cowl to the front former "B1" by first beading the immediate inside edge of the plastic cowl with cement and also beading around the edge of "B1" former. Slip the cowl onto the fuselage and after lining up the cowl carefully, wipe off any excess cement. After the cement has dried, you will note that the edge of the cowl has shrunk and blended itself into the fuselage. A light amount of sanding around the edge will smooth the joint.

Next cement the stabilizer in fuselage slot and on top of stringers. Cement rudder in place lining up carefully — if necessary, use pins to hold alignment until cement has hardened. Fill in the area on each side of fin, on top of stabilizer and between formers B9A and B11 with short pieces of 1/16" sq. stringer stock. Carve and sand smooth after cement dries.

Now add the wing fillets as per directions on the small instruction sheet. The light cardboard fairing parts (J34 and J35) can be pinned in position until dry if required.

Trim and cement in position the other plastic parts referring to plan for identity and location.

To do a neat job of cementing plastic parts to the model, follow this procedure — first, locate the part on the model without cement and while holding it in position, with a very soft pencil, mark around the part and onto the model. Then when cementing part to the model, the part can immediately be positioned without guesswork. Plastic parts should be held in position until dry with pins or with rubber bands. If the model is to be only a show model, then any additional cockpit detail you desire should be incorporated into the model at this time.

Finally cut out the remaining light cardboard "J" parts and, except for the J17's, J18's, J30's and J31's, cement them in place on the tissue-covered surfaces of the wing and fuselage. To simulate rivet heads, the cardboard parts with black dots can be pinpricked and attached upside down. When the model is painted later, the pinpricks will show as small "bumps" on the surface of the J parts.

PAINTING THE MODEL

Before starting paint job be sure and read the instructions for Painting the Plastic Parts printed as part of the small model kit listing. Always test cements and paints on scrap pieces of plastic before use on finished parts to determine adhesion and coverage.

For the most satisfactory results on models other than a rubber-powered job, it is recommended that for the final paint coats, the entire model be painted with enamel. The non-plastic areas can be painted with clear dope to build up a paint base then enamel can be used overall for the finish. Always remember, enamel can be painted over dope but dope cannot be painted over enamel without spoiling the finish. For a lightweight rubber-powered model, refer to painting instructions on front side of plan.

The following general information should be helpful when you decide to paint your model.

There are two types of fast drying colored dopes you can use on your model. One is Nitrate and one is Butyrate fuelproof. The Butyrate is fuel resistant but the Nitrate is not. You can also use a plastic base type paint finish (see your hobby dealer) that is also fuel resistant and fast drying. You can use any of these three types for the rubber and non-flying scale version of the model, but you must use a fuel resistant type if you use a gloplug engine, because the potent materials in the fuel will soften and dissolve the nitrate dope. This, of course, will spoil your finish.

Generally, the colors on the war planes were of a dull or semi-gloss finish. Most of the dopes are a glossy paint. Ask for and use a paint that has authentic dull finish and makes for real scale effect when used. The proper colors can be had by intermixing the paint colors. Also, the glossy paints can be used and dulled after they are dry by using an abrasive mixed with water, such as Bon Ami powder. Rub the surface just enough to take away the high gloss and then wash the powder off with clear water.

(continued on page eight)

The painted finish of your model will only be as good as your preparation. The consistency of the paint should be such that it does not dry out while being applied and still not so thin as to run easily. Use a good 1/2" to 3/4" brush and, assuming that the model is clear doped, smooth and clean, proceed as follows: Paint all of the edges first. Paint one half of the fuselage at a time starting at the nose and proceeding to the rear.

Next, paint the top and bottom of one wing panel and stabilizer-elevator and one half of the fin-rudder. When dry, so you can handle the model, paint the remaining half of the model. On the fuselage, brush on all coats the length of the fuselage. On the wing and tail surfaces, brush each alternate coat on in opposite directions, finishing with the last coat running in the same direction as the fuselage.

Apply only enough colored paint to give complete coverage, as colored paint is heavy. Usually, two or three coats is enough. When more than one color is required on a model, finish the lightest color first and the darker color last, because dark colors cover over light better than light over dark. Allow sufficient time between coats for the paint to dry.

COMPLETING THE MODEL

After the model has been painted, ink in the control surface lines — refer to drawings for positions. Apply decals to model in positions shown following instructions on back of decals. Add finish details such as remaining "J" and "P" parts, guns, etc. Paint and install wheels as shown.

For a rubber-powered model tie strip of rubber into a double loop and install in fuselage as follows: Tie one end with about 10" of light string. Insert other end into fuselage with nose up, so rubber will go through inside of formers easily. When rubber is at proper former, it can be seen through dowel hole on "L" part. Insert 1/8" dowel through "L" part and through rubber loop. Pull front end of loop through with string. Remove string and slip motor over the propeller hook.

The model can now be balanced at the point shown on the plan by adding the necessary amount of clay to the front and bottom of the cowl. Soften the clay and smooth it on so that it blends with the cowl area. In the event that the model is nose heavy without the additional clay, you can add a small amount of clay to the underneath rear section of fuselage.

ADJUSTING AND FLYING THE MODEL

The wings and tail surfaces should be checked for possible warps. These can be detected by sighting the surfaces from the center of the model, either by looking from the front or the rear. If warps are apparent, follow this procedure in removing them. Warps can be removed by direct dry heat or by moist heat or steam from the spout of a water or teakettle. Steam is more effective for removing warps. With the kettle about half full of water, bring the water to a boil so steam is pouring out of the spout. Now, turn down the heat until the water is just at or above the boiling point and the steam is floating out of the spout rather than being forced out. Holding the model in a manner that allows you to twist the warped surface and still keep your hands well away from the steam, proceed to remove warp in this manner: Hold the warped area close to the steam and move the area over the steam and around in a circular pattern until you see the covering relaxing or even getting loose. Now, gently twist the surface in the opposite direction and a little more than is needed to remove the warp. Take the model away from the steam, still holding the surface in that state, and hold that way until the surface tightens up again. After releasing the surface, it should have removed the warp.

If more twist is needed, repeat the procedure until the warp is removed. If you went too far, repeat the procedure, but slightly in the opposite direction.

You are now ready to test glide your model. If possible, select a grassy area such as a field to test in. Do not test glide or fly your model on a very windy day as the wind can raise havoc with adjustments and flying, and can also damage your model unnecessarily.

Holding the model by the fuselage and just behind the trailing edge of the wing, thrust the model gently into the prevailing breeze with the nose slightly down. Even better, if you aim the model at a pre-determined spot on the ground about one hundred feet away from you, this will set you up for the proper glide angle to thrust the model. Of course, the model will not glide that far from this height, but it should glide smoothly without veering up or down and touch at about the distance you get by multiplying the height of the launch times ten. As an example, you thrust the model from a five foot height (your height plus the raising of your arm). Multiply the five foot times ten and your model should glide about fifty feet. This is an approximate footage as it will vary with the amount of breeze blowing.

If the model dives extremely, raise the rear of the elevator by breathing on it until the glide is good. If the model raises its nose too much or shows signs of "ballooning", depress the elevator to remove this condition. The model should also glide straight. "Breathe" the rudder to the right if model goes left and vice versa.

Make the first power flights with about fifty turns on the motor. Wind the motor clockwise. Hold the model the same way as if you were going to glide it with the tip of the propeller held with your other hand. Release the propeller and thrust the model forward and into the wind with the nose slightly up. The power launch should be no harder than the glide launch because the propeller thrust takes over as soon as you release the model. The model will fly with just a gentle turn to the left. Wind the propeller twenty-five more turns this time and launch. Note the flight pattern. If the model starts to tighten up in the left turn, then "breathe" a little right rudder into the model.

Keep increasing the winds twenty-five times each flight until maximum turns of two hundred and fifty are reached. Keep adjusting the rudder to the right until, under full power, the model flies either straight ahead or a little to the left and glides to the right towards the end of the flight.

Longer flights can be had if you lubricate the rubber with straight castor oil. Lubricated, you can put three hundred and fifty turns into the motor. By stretching the motor while winding, even more turns can be added. If you wish to increase the turns even more, purchase some 1/4" wide T-56 rubber at your hobby store, lubricate, stretch, wind and you can more than double the original turns. With someone holding the model, stretch the rubber about three times its original length, and by holding and supporting the wood thrust button with your thumb and index finger and winding with your other hand, you can put in maximum turns. As you are winding slowly, move toward the model until full turns are stored.

If excessive climbing or "ballooning" is encountered under full power, this can be taken out by breathing the elevator down just a little.