

Mikoyan Gurevich MIG-3 late version

by Thierry Laurent

TYPE: Mikoyan Gurevich MIG-3

SCALE: 1/32

COMPANY: Trumpeter

KIT Number: 2230

MOLD CREATION DATE: 2004

TWEAKS LIST VERSION 1.0 (publication date: April 2005)

The following list is intended to help modelers in improving scale accuracy of an airplane model replica. In no way is it intended to support or be offensive towards a scale model company.

As such, it is only the result of a progressive process and is in no way intended to be absolute or even comprehensive. Hence, it is intended to focus on commonly admitted discrepancies and will probably not cover some errors. It is up to the modeler to decide whether correcting the listed issues is worth the time and money he will have to invest in the quest for accuracy process.

No aftermarket correction or detail set is mentioned in this document as the availability of such items may be very variable. Hence, refer to other LSP sections to find relevant information. Moreover, aftermarket sets do not necessarily correct all listed issues. Please refer accordingly to relevant documentation.

#### 1. NOTICEABLE FUSELAGE ISSUES (from front to rear)

- Propeller is a little bit overscale (diameter is more or less 2mm too large) but this is not really noticeable. Blades are misshaped (a little bit less than 1mm too large) and are far too thick.
- One small air intake is missing under the nose (drill a hole and put a small brass tube in the middle of the larger under nose bulge front). Two other tubes should be added in the front air intake located on the belly behind the propeller.
- Note that engine and wing air intakes have no mesh parts (use aftermarket ones).
- Drill machine guns barrel parts.

#### 2. NOTICEABLE WING/WEAPONS ISSUES

- Add landing light in the wing edge.
- Rockets have too thick wings and nose airscrew. Replace them with modified, scratchbuild or aftermarket items (photoetched ones).
- Flaps have two-dimensional internal details and some nasty injection marks to fill. Either detail them with plastic strips or replace them with photoetched ones. Whatever maybe the chosen solution, do not forget to fill the void under the Karman wing/fuselage area or you will look at the back of the seat from the plane belly!

### 3. NOTICEABLE COCKPIT ISSUES

- Front instrument panel is simplified but globally correct. Add details or replace it with a photoetched panel. In the second case, add the big landing gear lights and knobs on the bottom of the main panel. Note that under the main one there was a far more detailed separate panel than the kit one (KPA-3 bis oxygen device controls). Gun arming handles (looking like horseman spurs) are missing on the main instrument panel.
- Kit PBP-1 gunsight is good but may be detailed a little bit. Add its missing support transversal bar
- Kit cockpit has a floor. Actual airframe had no floor as such. The cockpit structure was a tubular structure similar to the one of World War Two Hawker fighters. Accordingly, an embossed iron sheet was fixed on this structure in front of the pilot's seat. Hence, there is no floor under the seat. Modify accordingly the floor or replace it with photoetched parts. Note that kit (or aftermarket sets) shows the two lozenge-shaped plates (in front of the seat) as protruding ones. Such shapes were actually recessed as they were embossed in the aforementioned floor plate. The two wells either side of the central Y shaped section are far too shallow on the kit. They are actually much deeper. Also add the missing plate (scratchbuild or photoetched) that is located between control column and rudder pedal mounting points. Some handles (similar to the ones on the instrument panel) are missing on the floor. A lever is also missing immediately in front of the seat (starboard side).
- For the same reason, actual airframe had no sidewalls. Cockpit side parts should not be used as they are flat (they should have the same curvature than the fuselage as the inner side of the fuselage paneling was visible through the tubular frame). Replace them with panel framing and fastener strips on the fuselage sides (plastic strips or photoetched parts). Their location is easy to spot: just look at rivet lines on the external side.
- Abovementioned cockpit tubular structure is incomplete and the side parts are a little bit too short. Rebuilt them or at least add the missing bar on each side. Other bars are missing behind the front instrument panel (to support the plane tank) but this is not visible. As well, the ones supporting the seat should be added.

- Add some detail (wires, hoses, wheels and boxes) on the side tubular structure (scratchbuild and /or photoetched parts). Starboard side electrical controls console is missing a row of switches. The butt of the pistol in the holster on the starboard tubular structure is off (edges are smoother on an actual flare pistol). Add cooler flap position indicator on the port side.
- Add straps on the rudder pedals.
- Kit control column is good but may be improved. Add some folds in the leather cover protecting its base. The handles may also be detailed (non-slipping pattern may be simulated with very fine wire glued with super glue). Trigger shape is a little bit off.
- Seat back plate is too thick and has sharp angles. This should have none as this was actually an embossed armored iron plate. Hence, fill the recessed hole behind the head rest and sand all edges to restore a thinner single plate look.
- Kit seat back cushion has a far too pronounced horizontal curvature that is not on the actual seat. The easiest solution is to rebuild the cushion double curvature with two components putty. Do not forget adding a slot in this cushion to fix the back seat belts.
- Seat bucket is also misshaped. It should have a far narrower border and the bucket should have a double curvature (it just has a front-rear one). This is very difficult to correct. Sanding the edge to a narrower profile and smoothing angles will improve the look. Try to put the belts in order to hide as much as possible what cannot be corrected! There are also four holes (making a square) in the bucket.
- Add seat belts.
- Structure supporting radios is not correct. There should be one bar (part of the abovementioned tubular structure) linking left and right side. Change the kit parts or even remove it as many Russian airplanes had no radio. In the latter case, detail the area behind the seat (add bulkheads, oxygen bottle and other details according to available scale plans). If you intend keeping the radios, detail them a little bit (add braces and wires). Scale plans show differently shaped radio boxes but as there is no known picture of radios in MIG 1/3, one may not assume that kit radio boxes are not correct.

#### 4. NOTICEABLE CANOPY ISSUES

- Kit has no side and median sliding canopy side guides.
- Kit has two outside frame members whereas there should be none. There is no easy solution. Either vacuform a new canopy windscreen or put clay in the kit part to sand and polish it cautiously.

#### 5. NOTICEABLE LANDING GEAR ISSUES

- Main landing gear rims do not look like actual ones (they have circular holes rather than recessed oblong holes on the rim border). Correct and detail them. This is a nasty issue as no aftermarket set is really correct (wrong size and number of rectangular holes) and simply using photoetched parts will give a too two-dimensional look.
- Replace or detail oleo scissors on the main landing gear legs.
- Add hydraulic fluid hose on the main landing gear legs.
- Add landing gear door retraction mechanism (scratchbuild or photoetched parts)
- Fill injection marks and sand main landing gear doors (too thick). Add structural detail on their internal face (scratchbuild or photoetched parts).

## 6. OTHER NOTICEABLE ISSUES & MISCELLANEOUS REMARKS

- Kit shapes & dimensions seem correct.
- Except some parts such as the wing slats, fit is generally excellent.
- Some odd detail accuracy errors were found. Main reason seems to be that Trumpeter engineers probably used scale plans (two dimensions) and a MIG 3 replica as references.
- No engine, front instrument panel dials film or vinyl tires in this Trumpeter kit.
- Flaps, stabilators and tail moving parts use photoetched hinges and iron pins to keep them “movable”.
- Rivets’ engraving is a little bit on the heavy side (more particularly on the fuselage belly and stabilators).
- Similar remark may be done regarding fabric covered moving surfaces (it is recommended to sand them a little bit).
- According to the airframe to depict, check the type of tail wheel. Note that the kit has the retractable tail wheel and bulged doors. On some late examples (including “Za Rodinu”), it was fixed, doors were removed and its base was protected by a canvas cover.
- According to the airframe to depict, possibly add the exhaust inert gas take off pipe behind the port exhausts.
- Kit depicts a late MIG 3. Many pictures show early versions. If you consider converting the kit into an early one, be aware this implies many time-consuming changes: no slats, completely different nose engine cowling with different panel and rivet lines, different exhaust and machine guns fairings, longer side plates behind the cowling, additional air intakes and exhausts, etc.)

The following sources were used to build this list.

- Some magazines articles (more particularly from Scale Aviation Modeller International, Replic & Wingmasters)
- Some web pages (more particularly Massimo Tessitori web page, scale plans from Russian sites and Rusavia pictures of a currently restored airframe)

No other ones were used as no really relevant modelling book was found (old or recent).  
The true MIG-3 modeller reference book has still to be written...

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