



I P M S
M A G A Z I N E



INTERNATIONAL PLASTIC MODELLERS SOCIETY

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COVER COMMENT

THE YAKOVLEV YAK

By Robin M. Algar

Cover Photo: Yak 9D's in wartime finish. Credit via W. B. Klepacki.

In the shape of the Airfix Yak 9 kit the modeller is provided with a useful basis for constructing in 1/72 scale one or all of the series of Alexander Yakovlev's simple but effective fighters. Although produced in their thousands for the regiments of the Soviet Air Force the modeller will probably be content to portray just one or two of a particular version.

The drawings show the differences in appearance of the Yak 1, 7, 9, and 3 together with colour schemes for each.

CONVERSIONS (with the due acknowledgments to Bob Migliardi and I.P.M.S. Canada-RT Magazine).

Using the Airfix Yak 9, compare the fuselage halves and wing sections with the centre spread outline drawings and note the differences.

Yak 1. Similar main dimensions to Yak 9. Although fuselage was shorter by $2\frac{3}{4}$ " this will not show, especially as some shortening takes place in the removal of the rudder trim tab.

Fuselage. The cockpit is moved forward and is of a different shape—suggest using the windscreen and centre section with the centre section of a second cockpit (occasionally there are more than one included in the package) and overpaint the appropriate areas to depict the curved outline rear view panels of the early production Yak 1.

Build up the rear fuselage, either with your own favourite putty on the kit sections or by cutting away the fuselage decking and introducing a wooden or plastic fairing smoothed into the fuselage with putty.

Remove the ventral coolant radiator and fit a new one further aft—this will satisfactorily cover the slot for the display stand.

Reduce the angle of the fin leading edge.

Delete the rudder trim tab and scribe a new inset type. Move the tail wheel forward (Note—this is non-retractable and has no doors).

Remove gun breach fairing and cut trough for starboard gun.

The spinner should be made more pointed preferably by substituting a longer spinner.

Main Planes. Block up the wheel wells using the wheel doors and cut new openings. To give support to the main undercarriage members, slice away the locating socket and cement in new position. Cut new main wheel covers—but note that each is in two pieces and that there are no inner wheel doors as on the Yak 9. Remove aileron trim tabs and lengthen ailerons inwards. Cut out and form landing light in port wing leading edge.

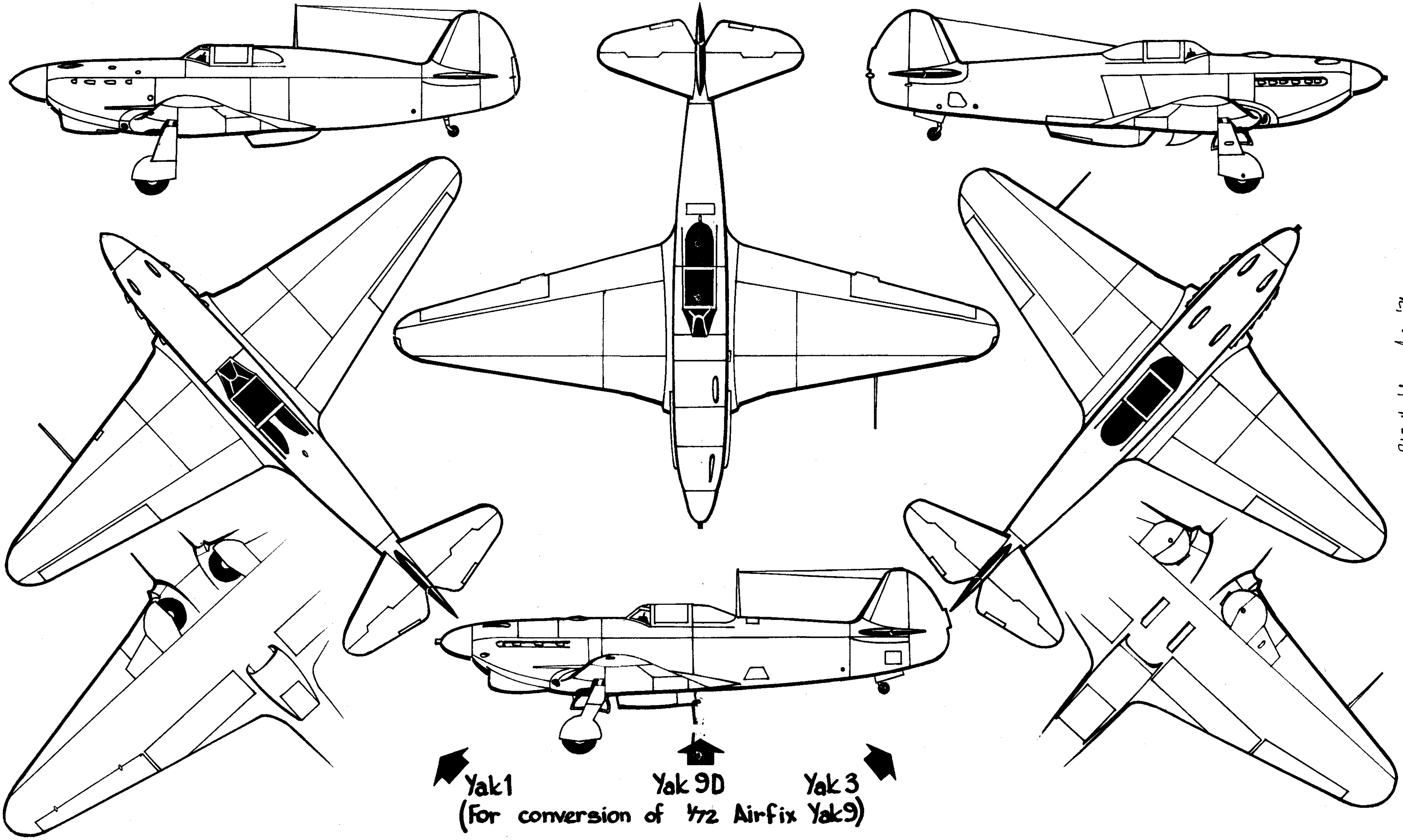
Tail Plane. Scribe trim tabs of the inset type—as for rudder.

Yak 7a. Externally similar to the Yak 1 described above—most of the changes listed will apply with the following exceptions:—

Fuselage. The cockpit has a wrap over rear section. The ventral coolant radiator can remain being correct as moulded. Move the tail wheel forward as for the Yak 1 but fit the doors of the Yak 9. Retain the gun breach fairing and add another on the starboard side together with the trough for the barrel. Retain the spinner as moulded in the kit but clip off half the protruding barrel length.

Main Planes. Retain the wheel wells and doors as moulded for the Yak 9.

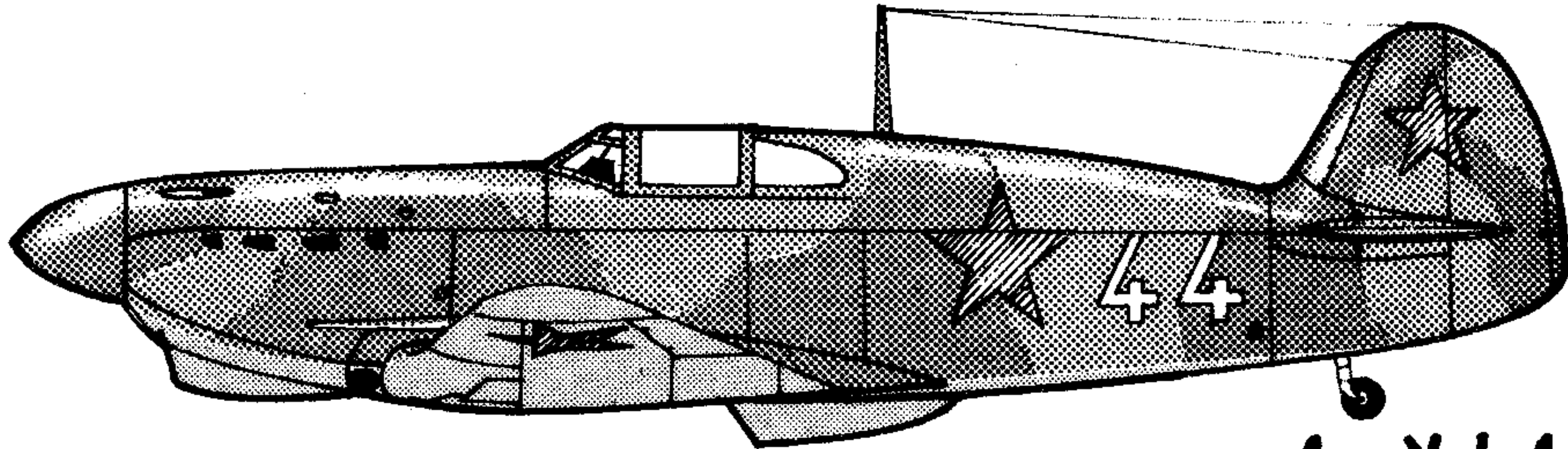
Yak 9D. When the kit was first issued there was considerable interest aroused which soon turned to disappointment when, like the proverbial curate's egg, it was found to be good only in parts. It is substantially accurate but suffers from several detail faults; to produce an accurate representation the following points need attention.



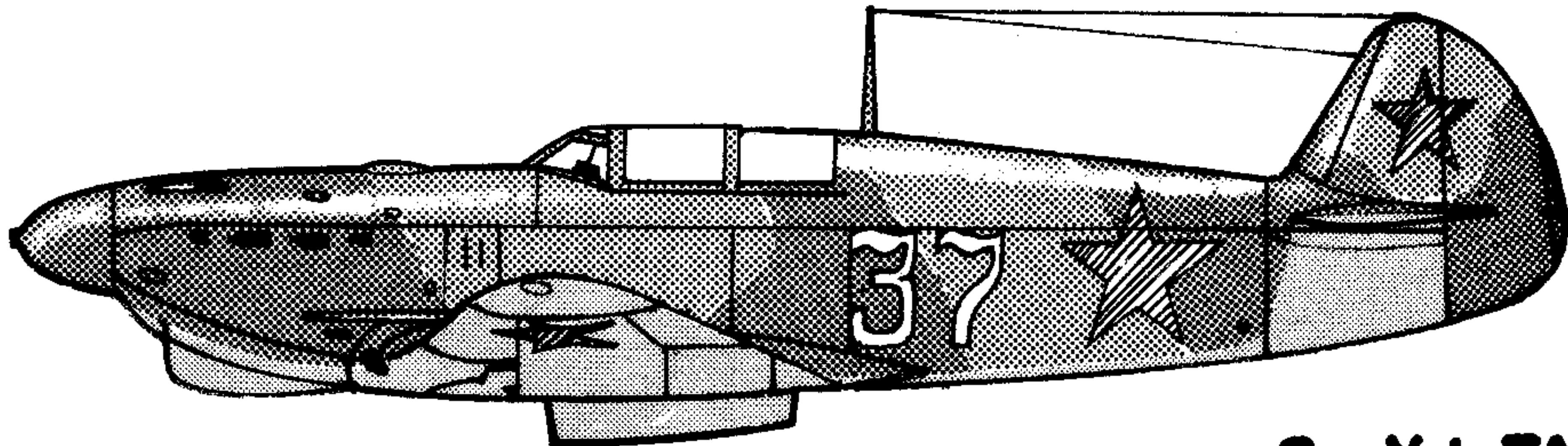
↙ Yak1 Yak 9D ↘ Yak 3
(For conversion of 1/72 Airfix Yak9)

WITH THANKS TO R.T. MAGAZINES VOL III AND BOB MIGLIARDI IPMS CANADA.

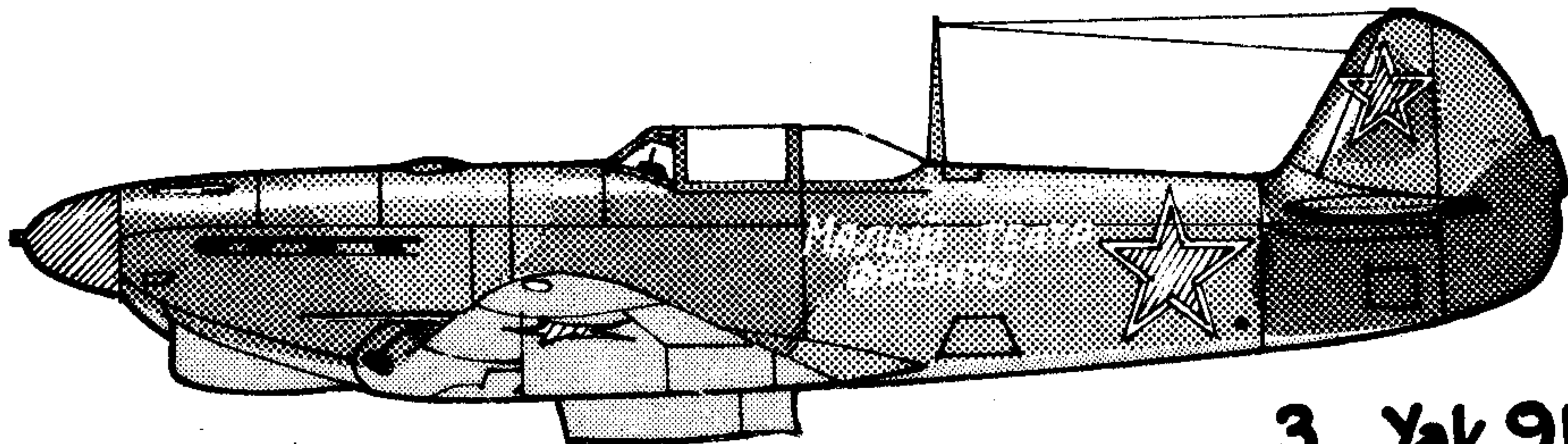
Robert M. Kilgus Apr '71.



1. Yak 1

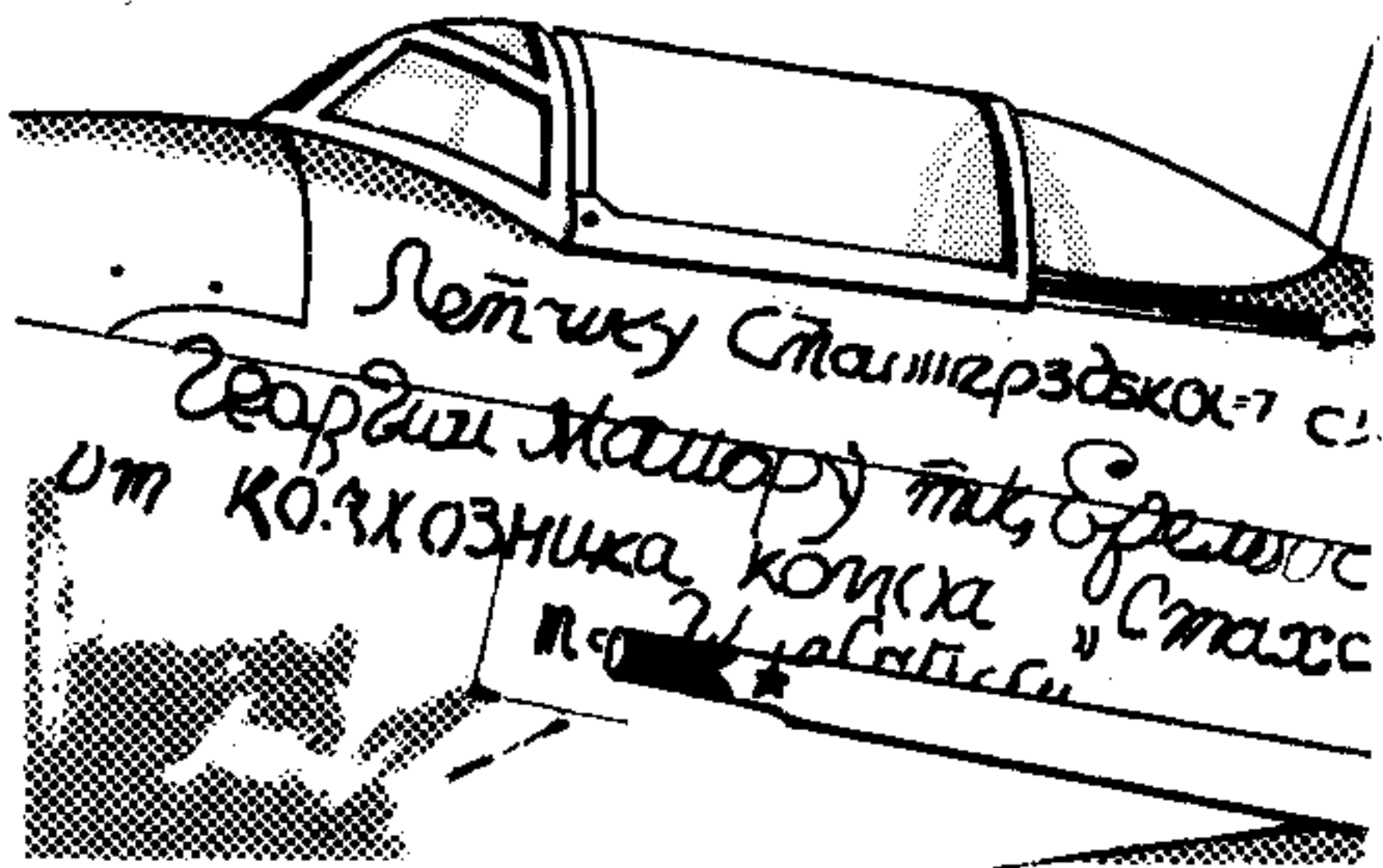


2. Yak 7A

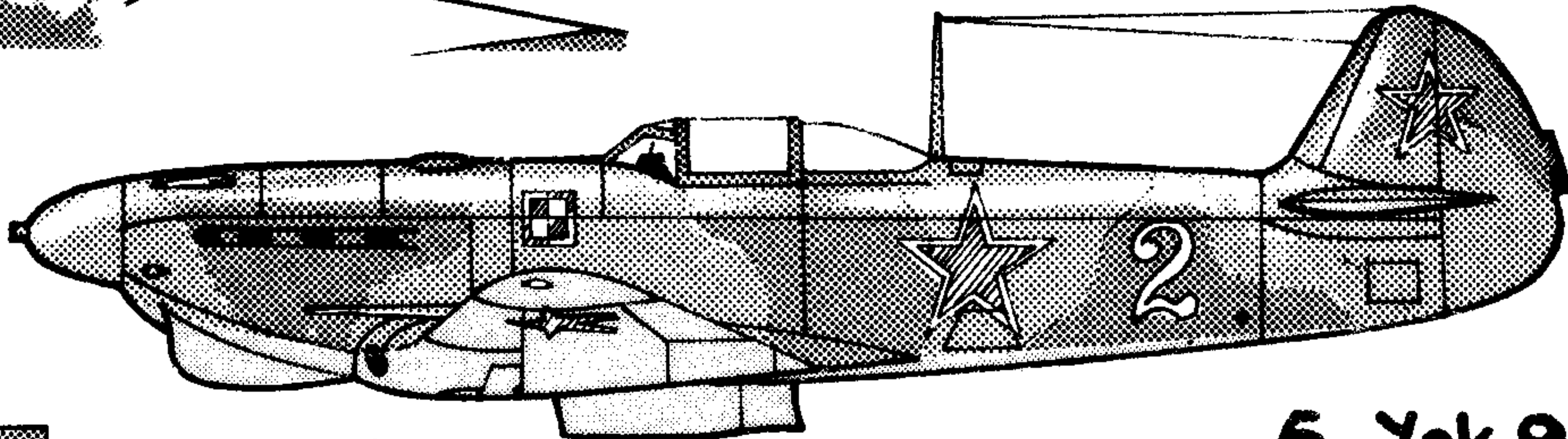


3. Yak 9D

МАЛЫЙ ТЕАТР
ФРОНТУ 3а.



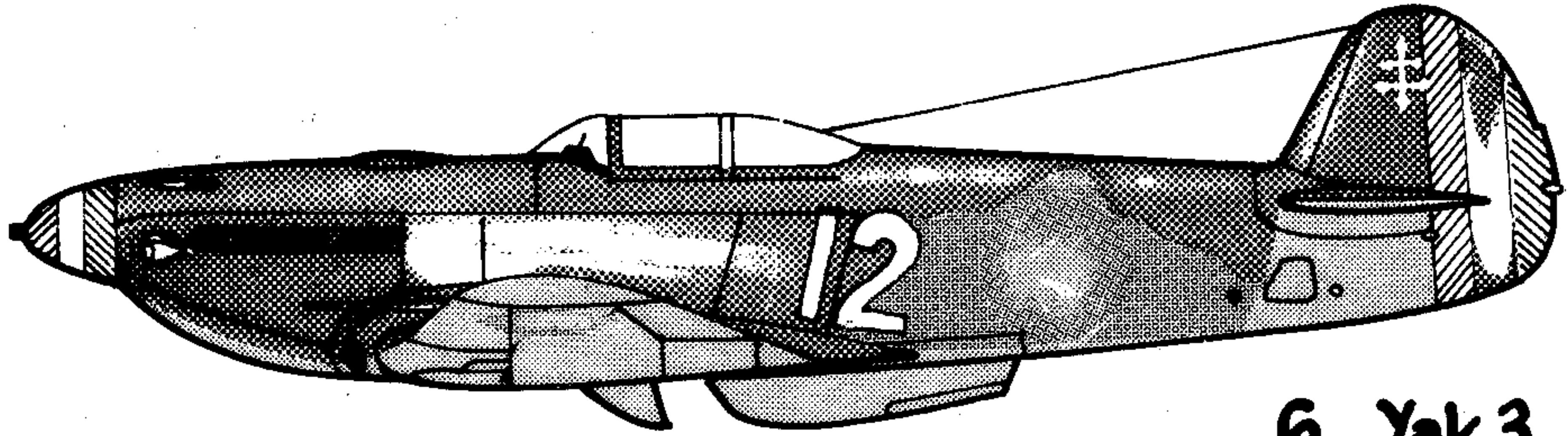
4. Yak 9D



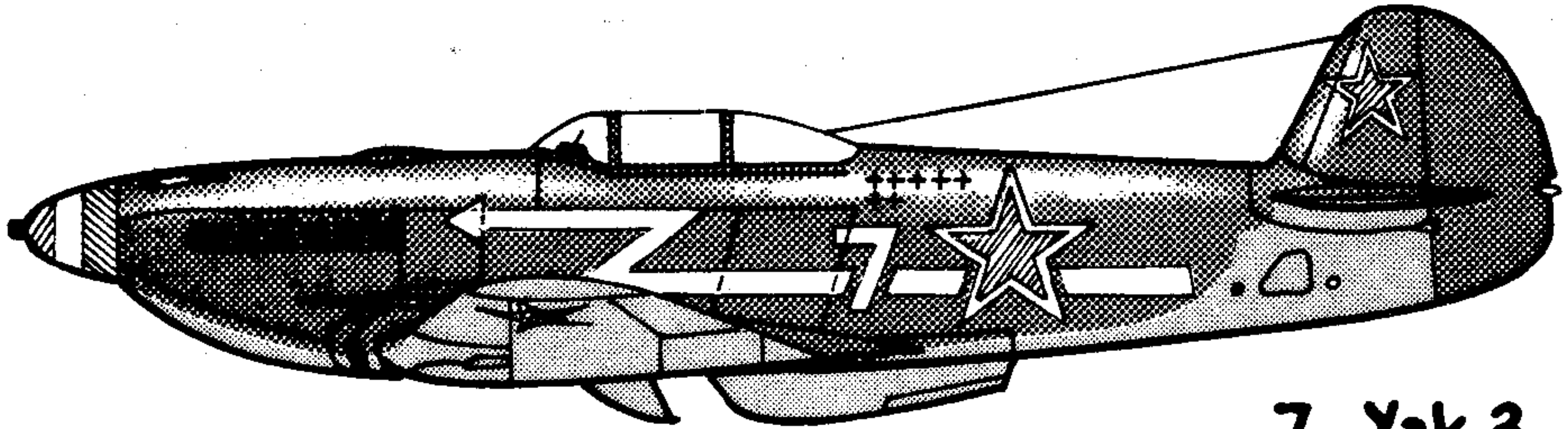
5. Yak 9D

-  DARK OLIVE GREEN.
-  DARK EARTH BROWN.
-  PALE BLUE-GREY.

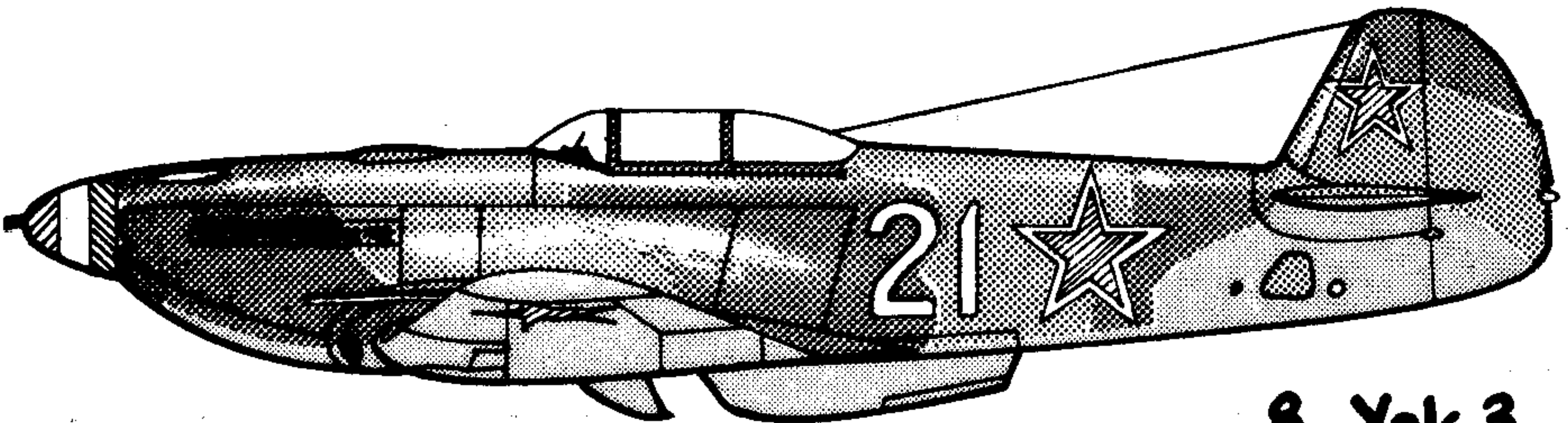
Robert M. Logan Apr 76



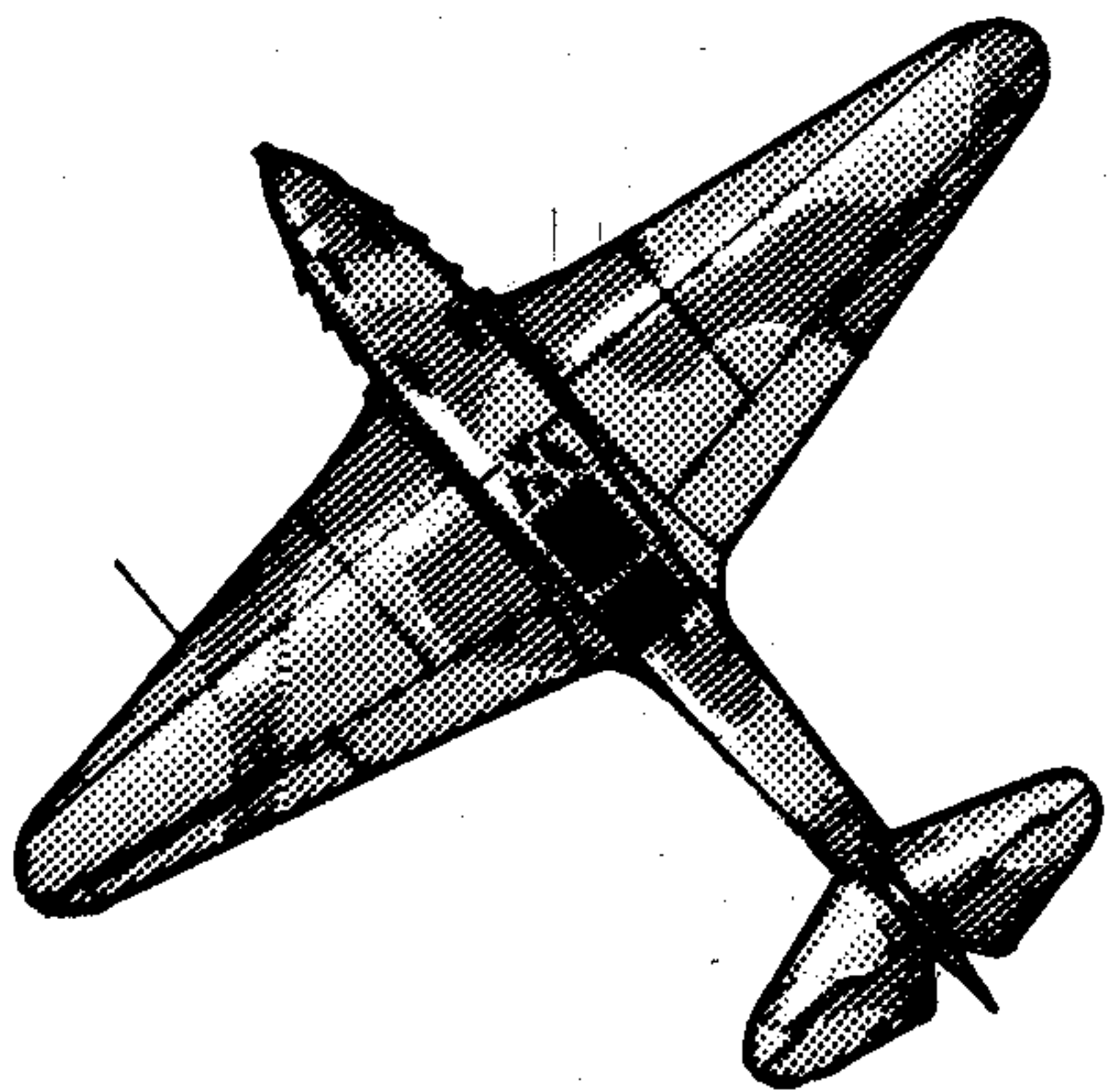
6. Yak 3



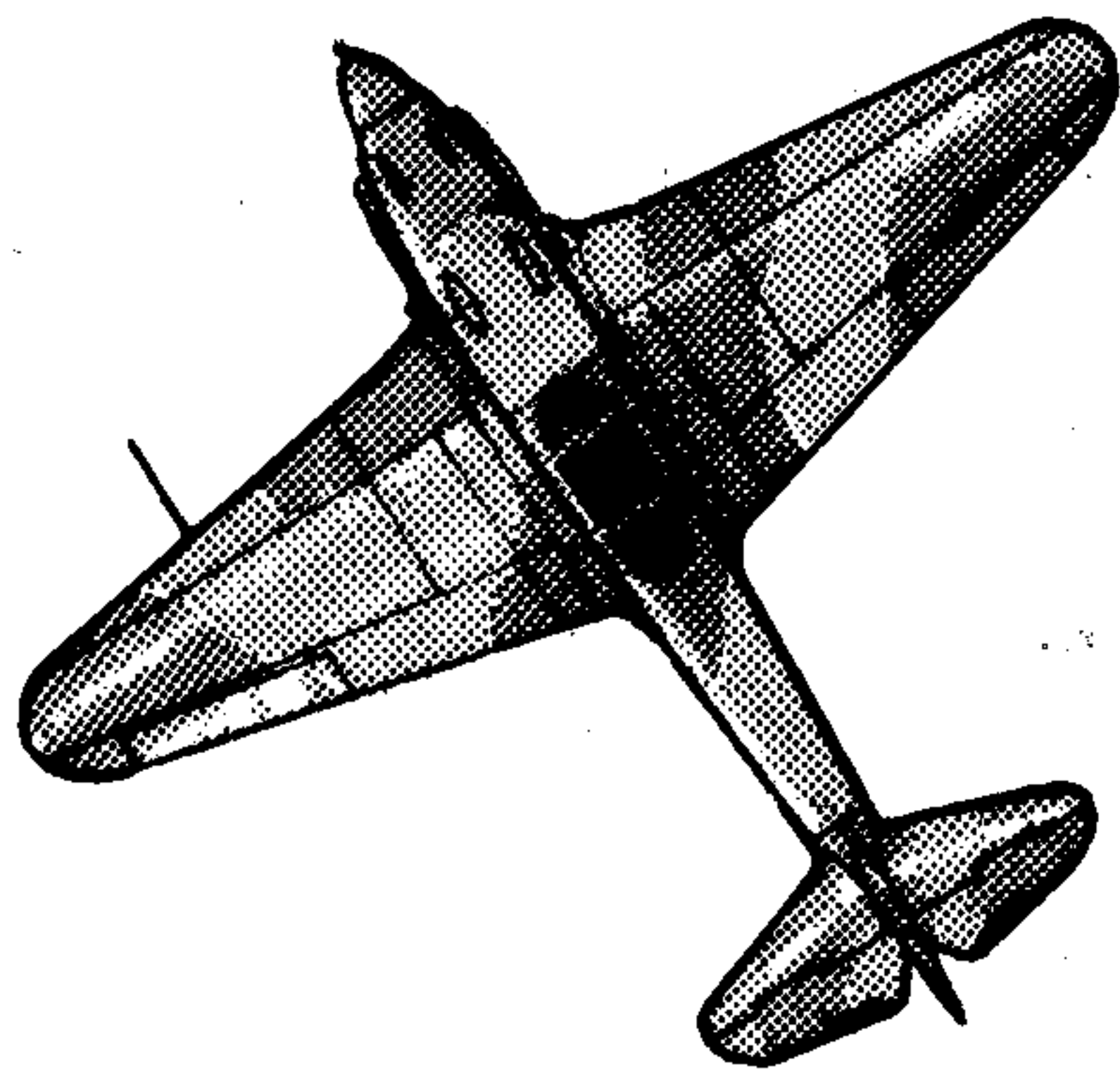
7. Yak 3




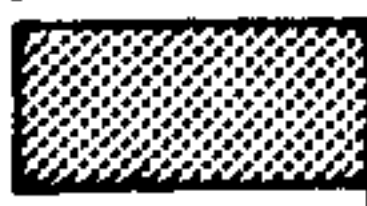

8. Yak 3



9. Yak 1,7,&9



10. Yak 3

-  DARK OLIVE GREEN.
-  DARK EARTH BROWN.
-  PALE BLUE-GREY.

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Fuselage. Set the canopy slightly further aft and raise its profile by introducing a frame underneath, rather than painting the lower frame on the transparency. The profile of the rear section was more angular and this can be corrected by filing and polishing. Reduce the angle of the fin leading edge and move the tail wheel and its doors forward. Move the rudder trim tab further up. File the underside of the ventral radiator shutter to a concave section.

Mainplanes. Increase the length of the ailerons inwards and move the trim tabs inwards at the same time.

Tail Plane. Scribe inset trim tabs on elevators.

Yak 3. As a design the Yak 3 stemmed from the Yak 1 in parallel with the Yak 9 and thus incorporates some of the earlier model's features. The fuselage length was essentially the same but the main difference lay in the much reduced wing span and repositioned oil cooler. From a modeller's point of view the changes are as follows:—

Fuselage. The canopy falls in the right place but needs building up with a frame underneath as for the Yak 9 and the windscreen frames require obliterating. The aerial mast is deleted and the single aerial wire enters the cockpit through the rear transparency. Remove the ventral coolant radiator and build a new larger one further aft. Reduce the angle of the fin leading edge and raise the rudder trim tab. Move the tail wheel and doors further forward. Cut away the nose mounted oil cooler and seal the opening. The new oil cooler intake is already there built into the port wing root, the starboard intake supplied the carburetter with air—both need enlarging—and two cooling air exhausts must be added under the fuselage between the new radiator and main wheels. The exhaust outlets will have to be scratch built to show six individual outlets each side and be provided with a top cover plate. (See general notes below.) Fitting for the nose armament as the Yak 9.

Main Planes. Cut away the wing tips at the raised panel line moulded on the kit and round off the reduced span. (The wing does not require filling as the moulding is thick at this point.) Fill in the ailerons and scribe new deleting the trim tabs. Fill in existing and cut new wheel wells as described for the Yak 1 but add the inner main wheel doors as for a Yak 9.

Tail Plane. Scribe elevator trim tabs.

General—All Versions

Clean up the surface detail, particularly the rivets around the nose and scribe new panel lines as appropriate. Where applicable the aerial mast and pitot head can be replaced with finer items; and the main wheel tyres are best discarded to be replaced with the sort having a smooth surface. A good close-up photograph of the main undercarriage can be seen on Page 7 of Profile No. 185. The wing root intakes had a vertical web visible just inside and this is clearly seen in the same photograph. Most versions of the Yak 9 and Yak 3 had a horizontal plate above the exhausts which can be depicted with a thin strip of plastic card.

COLOUR SCHEMES

Sketch 1—Yak 1

An early production example, with the curved outline rear view panels, flown by Lieutenant Lily Litvyak one of the famous women pilots flying with the V-V's. Camouflaged in Dark Olive Green and Dark Earth Brown with Pale Blue-Grey undersurfaces. The national markings were plain red stars on the fuselage, fin and underwing surfaces and the identity number 44 appeared in yellow open style numerals on the rear fuselage.

Sketch 2—Yak 7a

This example was forced down in Finland in February 1943 suffering only superficial damage in the process. As with the Yak 1 above the camouflage was Dark Olive Green and Dark Earth Brown with Pale Blue-Grey undersurfaces which swept up on the rear fuselage to meet the tailplane. Plain red stars on fuselage fin and under wing surfaces, with the white identity number 37 painted in elaborate style forward of the fuselage star.

Sketch 3—Yak 9D

A factory fresh example of a typical 1943 presentation aircraft. This is one of several subscribed for by Soviet artists and the inscription shown in detail in sketch 3a, painted in white cyrillic characters on both sides of the fuselage reads "the little theatre for the Front". The camouflage was Dark Olive Green and Dark Earth Brown with Pale Blue-Grey under surfaces. The national insignia were red with yellow outlines on fuselage and fin but plain red under wing. A splash of colour is provided by the red spinner and on the rudder by the red trim tab.

Credit for the details of this aircraft goes to Jaroslav Schmid I.P.M.S., Czechoslovakia.

Sketch 4—Yak 9D

This is copied from a photograph which appeared in Aircraft Recognition December, 1943 and shows a presentation aircraft in the winter scheme. This was white paint applied over the upper surface camouflage and, as can be seen, the original darker colours are showing through. The inscription is in black cyrillic script but its meaning is not clear. The pitot tube has a decoration near the tip in the form of a minute plain red star. Perhaps a reader can add further details to this unusual colour scheme?

Sketch 5—Yak 9D

An aircraft of the Polish 1st Fighter Regiment Warszawa 1944/45 camouflaged Dark Olive Green and Dark Earth Brown with Pale Blue-Grey undersurfaces. The fuselage and fin insignia were red with yellow outlines but had no outlines underwing. The identity number 2 was painted in white on the rear fuselage and immediately in front of the cockpit appeared miniature Polish markings in red and white checks. The rudder trim tab was painted red.

Acknowledgment for this colour scheme is given to the Czechoslovakian Magazine Letectvi + Kosmonautica No. 10, 1970.

Sketch 6—Yak 3

An aircraft of the famous French Groupe de Chasse GC3 "Normandie-Niemen"; evidently having undergone a re-paint after the unit's return to France at the close of the war. The upper surface camouflage is Dark Olive Green and the fuselage sides have lighter shades of green applied to blot out the previous insignia. A similar effect is seen on the Pale-Blue Grey of the under surfaces. The spinner and rudder are striped in the French tones of Red, White and Blue (Red forward) but the white on the rudder has peeled away on both sides to reveal the camouflage beneath. The white numeral 12 on the fuselage is lopsided and irregularly shaped but the white cross of Lorraine on the fin stands proudly erect. Personal decoration in the form of a black and white eye appeared in front of the exhaust stacks on each side. All of the old paintwork was dirty and faded.

Sketch 7—Yak 3

Another Normandie-Niemen machine, piloted by Robert Iribarne in 1945. Camouflaged Dark Olive-Green with Pale Blue-Grey undersurfaces. Fuselage and fin insignia were red with yellow outlines; underwing, red only. Fuselage arrow (emblem of the 1st Soviet Aerial Division) was white, interrupted at the individual number 7 also in white and at the fuselage star. The spinner has Red, White and Blue stripes (Red forward) in the French tones and above the identity number appear 7 plain black crosses to indicate the pilot's victories.

Acknowledgment for this colour scheme is given to the Camouflage Air Journal Vol. 3, No. 3.

Sketch 8—Yak 3

Believed to be a Normandie-Niemen aircraft 1944/45 this aircraft retained the Dark Olive Green and Dark Earth Brown camouflage with Pale Blue-Grey undersurfaces. The spinner is striped in the French tones of Red, White and Blue (Red forward), the identity number 21 is white, the fuselage and fin insignia are red with yellow outlines while underwing they carry no outlines. The trim tab on the rudder is red. The aircraft shows every sign of its use under harsh conditions and is far from immaculate.

Sketch 9—Yak 1, 7 and 9

Typical upper surface camouflage pattern in Dark Olive Green and Dark Earth Brown.

Sketch 10—Yak 3

Upper surface camouflage pattern. Practically all the Normandie-Niemen aircraft when camouflaged Dark Olive Green and Dark Earth Brown conformed to this pattern.

Additional Colour Notes

National insignia very rarely appeared on wing upper surfaces of Soviet aircraft. Propeller blades were invariably black without any coloured tips. Wheel wells and undercarriage members were dull natural metal. The cockpit interior was usually dull natural metal with matt black instrument consoles. The pilot's seat was sometimes Olive Green.

Humbrol have now issued a range of camouflage paints for Russian aircraft and these match exactly the shades originally used. The colour mixes below also match the original:

Dark Olive Green:	6 parts Humbrol R.A.F. Dark Green 2 parts Humbrol U.S.A.F. Olive Drab
Dark Earth Brown:	6 parts Humbrol R.A.F. Dark Earth plus a touch of Matt Red $\frac{1}{2}$ part Humbrol French A.F. Camouflage colour Chocolat plus the very slightest touch of Matt Yellow
Pale Blue-Grey:	1 part Humbrol Luftwaffe RLM 76 Hellgrau plus a slight touch of 65 Hellblau

All these colours add a very slight sheen—not a matt finish, nor a high gloss.

Useful references to the Yak fighters will be found among the following:

Flying Review, June 1958, November 1958, May 1964

Profile No. 185—Yak 9

Warplanes, Fighters Vol. 3 (Macdonald)

Famous Fighters Vol. 2 (Macdonald)

Japanese and Russian Aircraft of WWII (Ian Allan)

Vintage Model

NICHIMO. *Yakovlev Yak—9D. Scale 1/65.*

The Cover Comment feature and conversion drawings apply to variants of the famous Russian piston engined fighter and although modellers would perhaps base their conversions etc. on the AIRFIX kit of the Yak-9D which is to 1/72 scale, the other kit of the type, by NICHIMO of Japan (generally available at most specialist model shops such as Ernest Berwicks, BMW Models etc.) is to a rather strange choice of 1/65 scale.

Moulded in pale grey plastic this kit does tend to show its age *but* it is finely detailed and has provision for opening out the wing root air intakes with excellent wheel covers and oleo legs etc. The spinner shape is correct but the propeller blades should be replaced by new ones made from scratch plastic card. The wheels are slightly undersize and too thin in section. The rudder is a separate moulding and is moveable on the completed model. The one piece bottom wing moulding fits into the undersides of the fuselage with the top wings formed in two halves. These mouldings are exceptionally clean and an excellent fit. The fuselage and wing surface detail is finely scribed and the basic kit parts are well moulded and accurate in shape and section. The cockpit canopy is of good clarity and finely detailed, framing being an excellent fit.

Decals are minimal, being made up of Red/Yellow outline stars with the fuselage numerals 31 in white. The instruction sheet is in Japanese but assembly procedure is clearly shown in the assembly drawings. For accurate camouflage detail we refer readers to the Cover Comment feature on the Yak conversions.

ERRATA

December Magazine 1970:

Eugene Souberman (U.S.A.) has drawn attention to an error in the "Marking Time" feature on page 7.