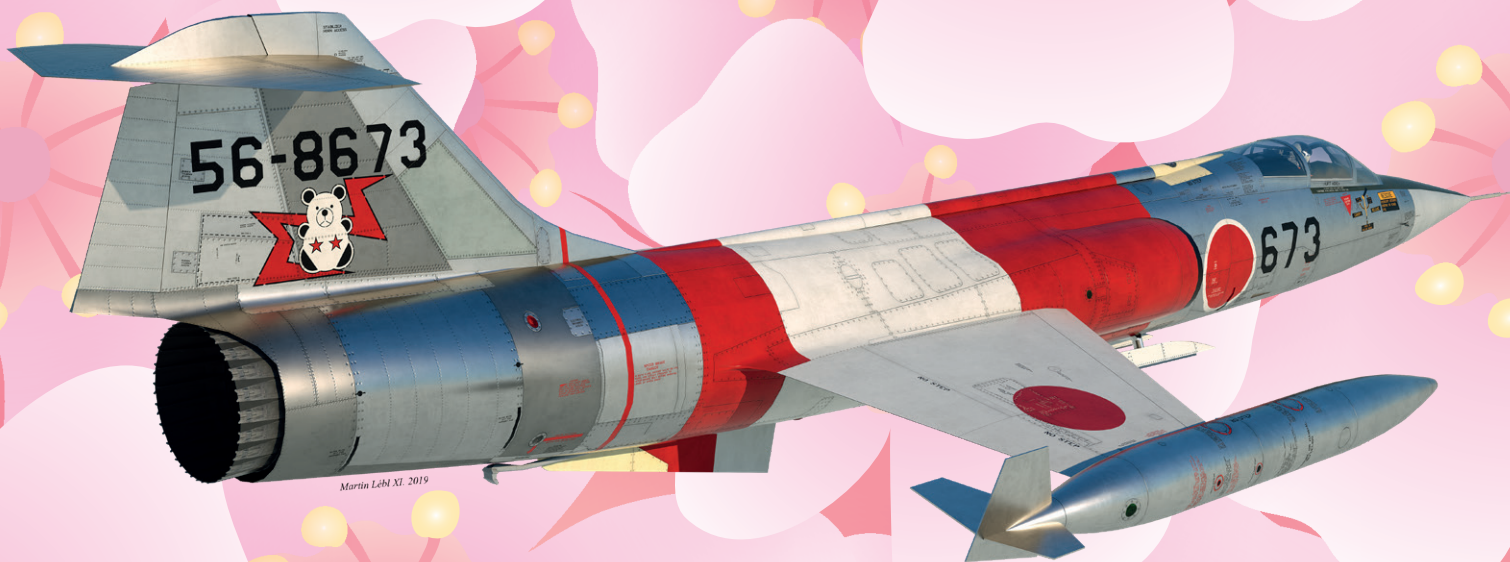


INFO **EDUARD**

Vol 19, January 2020

ISSUE 118



Martin Lehl XI. 2019

File

栄光

eduard

INFO EDUARD

ISSUE 118



© Eduard - Model Accessories, 2019

FREE FOR DOWNLOAD, FREE FOR DISTRIBUTION!

This material may only be used for personal use. No part of the text or graphic presentations can be used in another publication in any other media form or otherwise distributed without the prior written permission of Eduard - Model Accessories and authors involved.

Editorial and Graphics - Marketing department, Eduard - Model Accessories, Ltd.

JANUARY 2020

CONTENT

EDITORIAL ■ 4

KITS ■ 8

Eikó *Limited edition* 1/48
MiG-21PFM *ProfiPACK* 1/72
Fw 190A-8 *Weekend edition* 1/48
MiG-15bis *Super44* 1/144

HISTORY ■ 10

BRASSIN ■ 22

HISTORY ■ 29
Die Unordnung

PHOTO-ETCHED SETS ■ 46

BIGED ■ 52

RELEASE ■ 55
January 2020

BUILT ■ 56

MiG-21MFN 1/48
Bf 109G-10 Mtt Regensburg 1/48
OV-1D 1/48
MiG-21MF The Bunny Fighter 1/72

ON APPROACH ■ 62
February 2020

EDITORIAL

Dear friends, fellow Modellers, Ladies and Gentlemen,

Welcome to the new year and a new decade! Yes, we are entering the twenties, and here's hoping that they are very prosperous. The last twenties that went by are remembered quite fondly, although I don't really buy into this look back at them fully. But the aircraft that that decade produced were nice, and in honour of those twenties, we have prepared a nice aircraft from that era, the Kunkadlo, in 1:72nd scale. It's not a massive project; more of a technological demonstrator, really, on which we tried out some new methods of doing things. This was deemed most useful for further advancement, and this method seems much more productive, trying it out on an actual kit, than on some theoretical setup. And the kit serves this purpose well. Even the Kunkadlo will be a joy to put together for some, but for those that don't particularly care for it, please bear with us. I don't much care for the Porsche Panamera, but I don't go about advertising it, and if someone were to give me one, I would certainly not despise them for it.

In today's newsletter, I will, as tradition dictates, introduce you to our release schedule for this year. This year, I will take it by the quarter, with the disclaimer that in the first half of the year, the plan is pretty much watertight, but the second half, plans are subject to change, replacement and delay. But, most of you will understand that, and I am sure that you will find it in your hearts to forgive those inevitable little quirks.

January releases are on sale now, on our e-shop as well as at retailers, to whom we sent orders prior to Christmas. We are releasing a new ProfiPACK MiG-21PFM in 1:72nd scale. The design comes out of the MiG-21MF, with which it shares the sprues with details and weapons. The sprues that have the fuselage and wings on them, plus one with version-specific details, are new. I would say that even with this example, it can be seen how a kit, with the passage of time and the release of subsequent incarnations, tends to mature and become fine-tuned, and they eventually shed their label of 'lost opportunity' that is bestowed upon them with great regularity, as with the majority of

new kits, and they enter the realm of being good ol' reliable classics. We implemented several new design changes with the PFM, improved the fit, and the makeup of the wings, whereby we extended the separation between upper and lower surfaces closer to the tips. In the details, we made some modifications to the intake ring to sharpen its leading edge, and the shock cone tip is unquestioningly, I would say, sharp. If anyone amongst you has any doubt, try sitting on it...pointy side up, of course. The markings options are for striking and colourful aircraft, which, for this type hailing from the dreary and grey seventies, is bit of a small miracle. The more colourful of the options offered in the kit come from a time when the East was turning westwards, and everything looked a little brighter and more colourful. The description of the grey and dreary seventies can only really be applied to the Eastern Bloc, though. The same can't be said, for example, about the Starfighters from the same era in general, and about the Japanese Starfighters in particular. We have a kit covering that theme coming out, the Limited Edition Eiko. The basis of the kit are formed by Hasegawa's 1:48th scale Starfighter, and a part of the release is an inclusion of a publication that photographically documents the service of the F-104J in Japan. The photographs and texts come from Japanese spotters Isami Akijama and Eiko Nakashima. The marking options were inspired by these photographs, but we added another two aircraft for which we do not have the rights to their publication. There is a little added bonus in the form of a small etch that is consistent with the theme. It's doesn't serve a practical purpose, true, but it's a nice little piece nonetheless. The lineup of January kits is rounded out by a Weekend edition boxing of the Fw 190A-8 in 1:48th, and it represents the

version with the so-called 'universal wing'. This is the most widespread version of the Fw 190. In the 1:144th scale range, we are releasing a MiG-15bis in the bag packaging, and the marking options follow on the heels of the recently released 72nd scale kit.

Over the fall, we quickly sold out of kits that were still in the new release category. Two of them, the Royal Class P-51D and the ProfiPACK Bf 109G-6/AS, will go back into the available column through the second half of January. If you wanted one of these kits and missed out, you get a second chance, but, in the case of the Royal Class offer, it will be the last chance.

The later Bf 109Gs are enjoying a lot of success, to a level that I hadn't expected. It's really tough to make heads or tails out of all the possible versions of this airplane, and it doesn't help that they are so damn similar. I must admit, though, they have their own sort of charm. In February, we will release another one, the Erla Bf 109G-10. This version had the most requests for us to produce. It's also the version that externally differed the most from other Bf 109G-10s and the G-6/G-14/AS. These aircraft also sported some pretty nice schemes to choose from. This will also have its own BFC offer, representing aircraft with a later wing with the larger fairings on the upper wing surfaces. And you will no doubt notice the detailed article in this newsletter that details the development and differences of the versions of these later Bf 109Gs.

February will see the release of another older kit in the Limited Edition line, in the form of the Hanriot HD.1. It's a good kit, and has been out of production for quite a while now, and I am of the opinion that it's a waste to leave it gathering dust. The Hanriot will be released under the title 'Il Magnifico', and





that should be a dead giveaway that it is Italian themed, covering Hanriots used in the foothills of the Dolomite mountain range by the Italians over the latter half of the First World War. They are very striking aircraft, to be sure, and we are unlikely to be able to release anything more striking this year than these are. That's the Italians for you! In the Weekend lineup, we have a MiG-21MF Interceptor coming out, known to the Czechs as 'the Greys', in 1:72nd scale, and a P-51D in 1:144th, in the Super44 line. The Mustang is from the Platz moulds, and was also the admissions kit from last year's E-day. In February, we'll also see two re-releases, the Bf 109G-14 and the Spitfire Mk.VIII, both within the ProfiPACK range in 1:48th scale.

The Mustang makes a return in March. It will be in the form of the P-51D-10, and will be a mix of filleted types. The marking options will be composed of famous names from the 8th Army Air Force, and one each from the 9th AF, the 15th AF from Italy, and the 5th AF operating out of Iwo Jima. I believe that this will be very much liked. The markings options are all beautiful, and Overtrees will be available for this kit to make use of them. The basic national insignia will also be available. The Mustang will not be alone that will garner attention, as it will be joined by the Tornado GR.1. It follows in the footsteps of last year's Tornado F.3, and the basis of the kit is formed by Revell's plastic. It will be in 1:48th scale, and will cover the Tornado GR.1 in the RAF. It will be a Limited Edition release and will be available a week, maybe two, so don't delay if you want one. The Weekend line will have a Bf 109E-1 coming out in

1:48th scale, the MiG-21MF in the Super44 line, which will also be the theme of a ProfiPACK release in the form of the MiG-21MF Fighter Bomber in 1:72nd.

And now, on to the second quarter. For this time span, the lineup of re-releases is not yet known, while the new releases are more or less clear, and the risk of changes are, so far, low. In April, the main item will be the MiG-21PF ProfiPACK in 1:72nd scale, the twin to January's release of the PFM. The concept of this kit is compatible with that of the PFM, and again, will inherit details from the MF and PFM, while the fuselage and wings will be new. I never really like the PF, but I have been having a change of heart. I hope that you are coming to the same realization. If nothing else, it is an interesting machine!

April's Limited Edition will be in 1:48th, and will be dubbed DU DOCH NICHT! Those in the know will associate this title with the correct kit. It is a reference to a monumental event. It will include three full kits, an Albatros D.V., a Fokker Dr.I and a Fokker D.VII (OAW). It will include PE, Lozenge markings, and options for several aircraft. It will include a pilot figure, perhaps two, and a small badge. I will keep the rest to myself, for now, but you can probably figure the rest out for yourselves. There are two Weekend kits planned, the Tempest Mk.V Series 2 and the Bf 109G-10 Mtt. Regensburg, both in 1:48th. And one more item in the Super 44 line, the A-4E Skyhawk in 1:144th.

At the end of last year, we were planning a Royal Class boxing of the Fokker D.VII in 1:72nd. Given the combination of the effort required to also release the quarter scale P-51D Royal

Class around the same time that was precipitated by the health of one of our designers, we decided to delay the Fokker D.VII. As it is turning out, the delay will need to be a little longer, but for those waiting for this kit, don't despair...it is coming. It is looking like it will be out in the fall of this year, and I will add to this a little later. In any case, so as to not allow the Fokker to be neglected until then, another ProfiPACK version of the kit will be out in May, the Fokker D.VII (Alb.). The Limited Edition line will reach for another older kit, the Lysander in 1:48th, originally from Gavia. Remember Gavia? This will not undergo much in the way of experimentation, and it will be a combination of accessories and markings options that have been seen before. Even so, I think it still holds a certain attractiveness. In the Weekend lineup, we'll see a 1:72nd scale Spitfire Mk.VIII and a MiG-21bis in the 1:144th Super44 line.

You might be thinking up to know, 'nothing really special'. No big surprises. So, here's something with the ability to change your thinking. In May, we will be releasing a 1:32nd scale ProfiPACK Bf 108. It is not from our original moulds, these hail from a company named Foke, and they normally are seriously involved with the manufacture of industrial robots. This was originally a bit of a side venture for the firm, and they came to the conclusion that it wasn't their cup of tea, and so we were able to buy the Tajfun from them. The good news is that we can offer this kit in 1:32nd scale, but the bad news is that there is not much in the way that would point towards more 32nd scale releases from our company. That is, unless the Bf 108

suggests a big market for such kits, or someone doesn't offer to sell us such moulds in the future. And neither is out of the question.

June is invasion month, and we will take advantage with a 1:72nd scale B-26B/C Limited Edition using Hasegawa moulds, with everything else of our own making. Invasion stripes will also be carried by the Weekend Edition Tempest Mk.V Series 1 in 1:48th, while the adversary version on the theme will be provided by the ProfiPACK Fw 190A-6, another of the new-tooled Fw 190s in our catalog.

And that brings us into the second half of the year and puts us on some thinner ice, because the ice that comes out of optimistic plans developed over the preceding winter have a good chance of melting in the heat of summer. That preceding winter is now, and our plans for July include a 48th scale ProfiPACK Morane-Saulnier Type N, again making use of some older forms, and a 72nd scale L-29 that uses AMK moulds. That will also be a ProfiPACK kit. In the Weekend Edition lineup, we'll be seeing an F6F-3 Hellcat in 1:48th.

Another Mustang will be along in time for August and we will shift our focus onto Pacific P-51Ds with an emphasis on the VLR Mustang of the 5th Air Army, USAAF. This will be a colourful and attractive theme, and will premiere at the IPMS USA Nationals in San Marcos in Texas. At the same event, we are hoping to introduce our new Spitfire Mk.I in 1:48th. If we can make this in time, the release will echo last year's release of the P-51, in the shape of a very interesting Limited Edition initial release. The Weekend line will see a return to the aforementioned Bf 108 in 1:32nd.

For September, we want to release the Bf 110G-4 in 1:48th, as a ProfiPACK kit. This will not be a straight re-release, and we are planning on a bit of a deviation from the original kit. September is also when we want to release that delayed Fokker D.VII Royal Box kit in 1:72nd scale. September will be a significant month for us and we always take the lineup of kits for E-day very seriously and for obvious reasons, we steer the releases towards some emphasis on the home market. For that reason, we are prepping a 48th scale MiG-19 in the Limited Edition line, a 1:72nd scale L-29 Delfin in the Weekend Edition category, in the ProfiPACK range there should be an introduction to a 1:72nd scale Cmelak, and the ProfiPACK Spitfire Mk.I in 1:48th will see its official premiere.

There were Czechoslovak pilots who flew the Spitfire Mk.I, so it is also consistent with the national theme.

For November, we are planning on having released our photo reconnaissance version of the Mustang, the F-6D, again as a ProfiPACK kit in 1:48th, and a re-release of the MiG-15UTI in 1:72nd, or, more accurately, the UTI MiG-15. The Weekend Edition should grow by the addition of the Bf 109G-6/AS in 48th. But of course, the ice by the time November rolls around, gets really, really thin. This can precipitate a lot of changes to the current version of the plan, and the same, if not moreso, can be said for December. For the latter, so far we are anticipating on the release of the Royal Class edition of the Spitfire, and anything else is just too up in the air to go into much detail. For the moment, we have the Tempest Mk.II in 1:48th in the development stage, as is the case with a new effort surrounding the Sopwith Camel. I won't rule out releasing one of these this year still, but thinking realistically, I might place these through the first half of next year instead. In 2021, we will also be releasing the as yet unreleased versions of the Bf 109, and these will include the likes of the Bf 109K-4, the Bf 109G-12 in different sub variants and the S-199/CS-199. Also included will be a line of 48th scale Zlin trainers.

In terms of accessory items, you will note the expanded offer of new mask sets, and these include masks for some of the lesser known manufacturers, such as Wingsy's 1:48th scale Ki-51 Sonia and the W-3A Sokol in the same scale from the Polish company Answer. Into this category of lesser known types can also be added the T-4 in 1:72nd by Hobby Boss and the 1:48th scale Ar 68 from Roden. We decided that masks for such peripheral types that are able to attract some attention from modellers should be produced.

There is an interesting sortiment of photoetched sets coming out, first and foremost for the 1:48th scale B-17G from HKM, sets for the new ICM B-26B Invader and the AMK F-14D, as well as an enhancement set for the Eiko/F-104J. The ZOOM line includes items for the Fw 190A-8 (Eduard). In 1:72nd scale, you'll find sets covering new Airfix kits, the MiG-17 and the Buccaneer. Add to that sets for our own MiG-21PFM and two other points of interest, sets for the SBD Dauntless and the TBM/TBF Avenger from Hasegawa. We decided to redesign these sets and release them because, among other reasons, these older kits have been reboxed in

Poland. In 1:32nd scale, I would like to direct your attention to the sets for the He 111P from Revell, and in 1:35th we have prepared a set for the M4A3(76) from Meng, in 1:350th we have the first set for the USS Yorktown (CV-10) from Trumpeter. There are six new BigEds for January, two each among them for the F-104 from Kinetic and for Tamiya's P-38 in 1:48th.

These kits are also covered in the Brassin line in the form of new bronze landing gear legs for the P-38 and several sets of seats, wheels and two Look sets for the F-104. There are two other Looks, one for the P-47N in 1:32nd scale (Trumpeter) and one for the MiG-21bis in 1:48th (Eduard). We are continuing on with releases of sets for the P-51D with two sets of external tanks, and there are also wheels for the F-14D (AMK, 1:48th), the MiG-17 (Airfix, 1:72nd) and the Pe-2 (also 1:72nd, Zvezda). The weapons sets grow by the inclusion of the AIM-9X in 1:72nd. There is one new Big-Sin for January, for the P-51D, for, who else, the Eduard kit. And to be complete, I will note that there are also three new decal sheets available.

There will be more new photoetched sets for the HKM B-17G in 1:48th released in February, and very interesting, if only for its dimensions, will be the Look set for this kit. In 1:32nd scale, there will be a set for Revell's Ar 196A-3 and Fw 190F-8, in 1:35th we are getting ready to release a set for the Pz.38(t) Ausf. E/F from Tamiya. In 1:72nd scale, we have decided to make basic sets, photoetched and masks for the new Polish Yak-1b from Arma Hobby, and in the same scale, there is also a set for the PT-579/588 Torpedo Boat from Revell, and several Brassin sets, including wheels, for the Shackleton MR.3 from Revell and the Buccaneer from Airfix, and also two Brassin sets for our new, currently distributed MiG-21PFM. Furthermore, there are Brassin seats for the F-14D from AMK in 48th, two engines for the D.VII, which are two separate items, the Mercedes D.III for the Fokker D.VII(O-AW) and the BMW IIIa for the Fokker D.VIIF. Check out also the two new missile sets in 1:32nd, the AIM-9M/L Sidewinder (632141) and the AIM-7M Sparrow (632142). We have two new traditional Look sets for two different F-104Js in 48th, one is for the Hasegawa/Eduard kit and the other covers the Kinetic effort.

To write about new accessory items in any given January newsletter is always a task and a half. I never know quite what to write, and ultimately, describing what is planned for January and Febru-

ary is what I end up with. What sorts of subject matter will be covered in May, or, God forbid, October, I only have the slightest of ideas at best. That certainly does not mean that there is nothing going on in this field. On the contrary – development is constant, and new technological advancements are constantly being implemented. From time to time, this brings about a new product, like the Look sets in their day, and often it brings about some form of quiet change that makes an imprint on quality. Not many might notice the improvement. For example, this year, we made some innovations to the production of our metal landing gear struts. Not long ago, Zdenek Sebesta made note of this on the Nymburk chat room with the introduction of the P-38 legs. It's a similar situation with the decal sheets. This time last year, I was contemplating changes to the printing technology which implemented through the summer. By the time fall rolled around, modellers did, in fact, take note, and as it so often happens in this industry, the response was...let's just say it was embarrassing. But it now appears that the focus is turning to the possibilities that this offers up instead of the possible mistakes on them. But mistakes make things interesting. Incidentally, the new system not only works well, but also looks pretty

darn good, too. If you go ahead and hold another Novemberfest this year, regardless of the month we hold it in, the new printing room would generate what it takes to become a major topic of discussion. As I have said in the past, this might be a spring event. The final decision should come down around the end of January or the beginning of February, and we would certainly let you know as soon as we know.

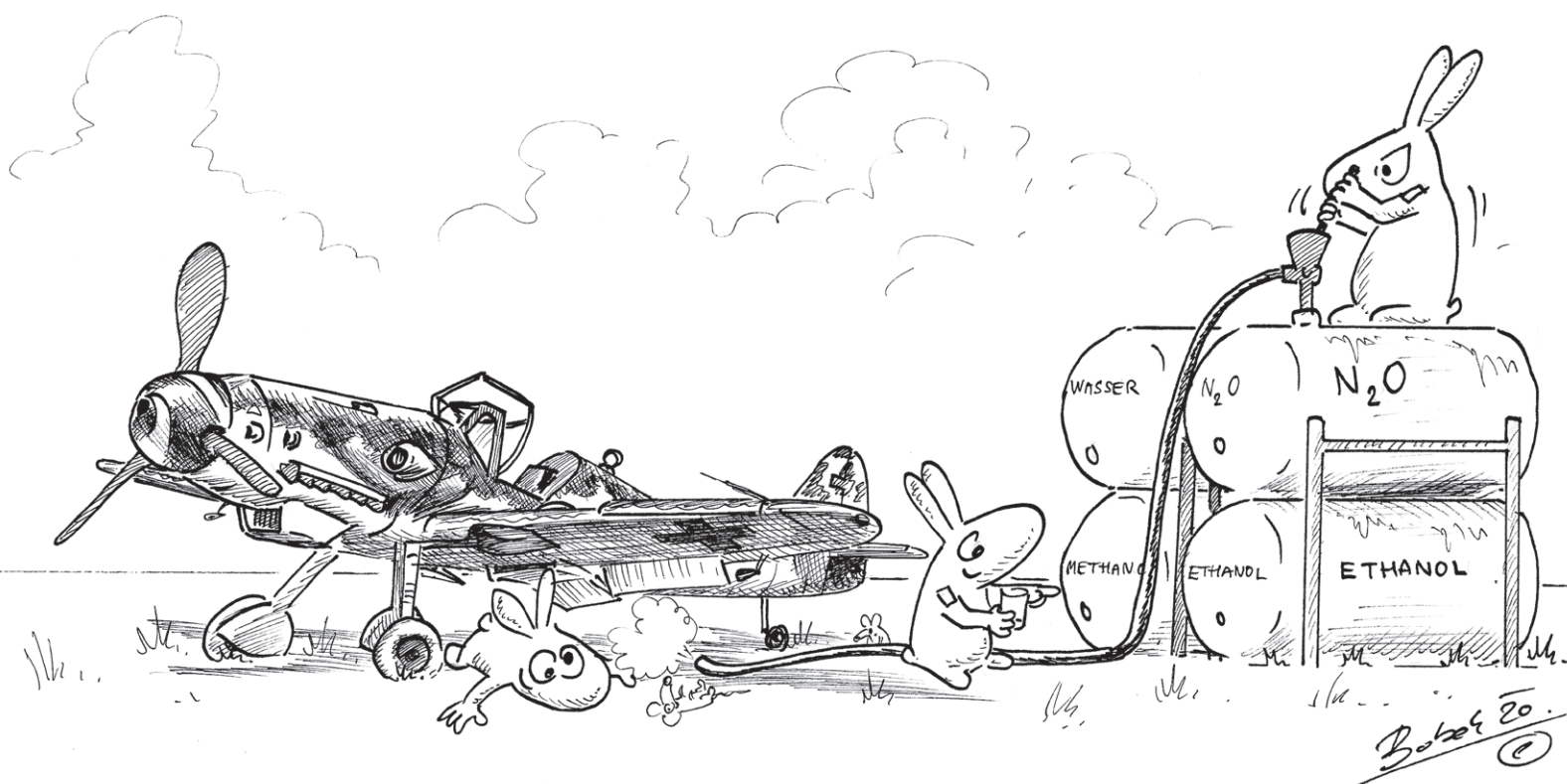
This year, we have nothing like the replacement of our printing technology planned. Nevertheless, some innovations and updates will find their way into things over the course of the year. For example, looking at the Brassin line, you'll notice two new sets designed for the Tempest Mk.V in 1:48th under the LookPlus label. The basis of these sets is the now traditional Look, but these will be widened by further inclusions, easily applicable to the model. In the case of the Tempest, this will mean the addition of exhausts and wheels. In other sets, the combination of parts might be different. Among the stovepipes, this could be the inclusion of an ejection seat. These sets will be officially launched at Nuremburg's Toy Fair in January and February, and will also be a subject matter for our now traditional company press conference. This will take place on January 31st, 2020 in the

Stockholm Hall, second floor. The new LookPlus sets, new kits and even new decal sheets will be covered by our visit to Nuremburg, where you'll find us in our usual location in Hall 7.

Besides Nuremburg, you'll find us at the events that you have become accustomed to finding us. The only question mark is Telford. I am not sure in what mode we would operate there. I wrote about that last year, but this year, Brexit goes into effect and it will have a bearing on our participation. As is evident, some processes take up more time than others, and it doesn't have to just have an impact on kit production at Eduard. Other than that, we will be everywhere, at Prosek, Moson, Nymburk (which will again be at Lyse), in San Marcos, Texas, in Plzen and in Bratislava. And, of course, let's not forget E-day, in Lyse. E-day, for the first time, will be held in two exhibition halls, which will, at the very least, be an interesting experience. Our friends with the SMCzR have big plans for this year's Czech Nationals, and so I am thinking that this year's E-day will be the event of the year.

Happy Modelling!

Vladimir Sulc



Eikō

栄光

1/48

F-104J in JASDF service



1/48, Cat. No. 11130

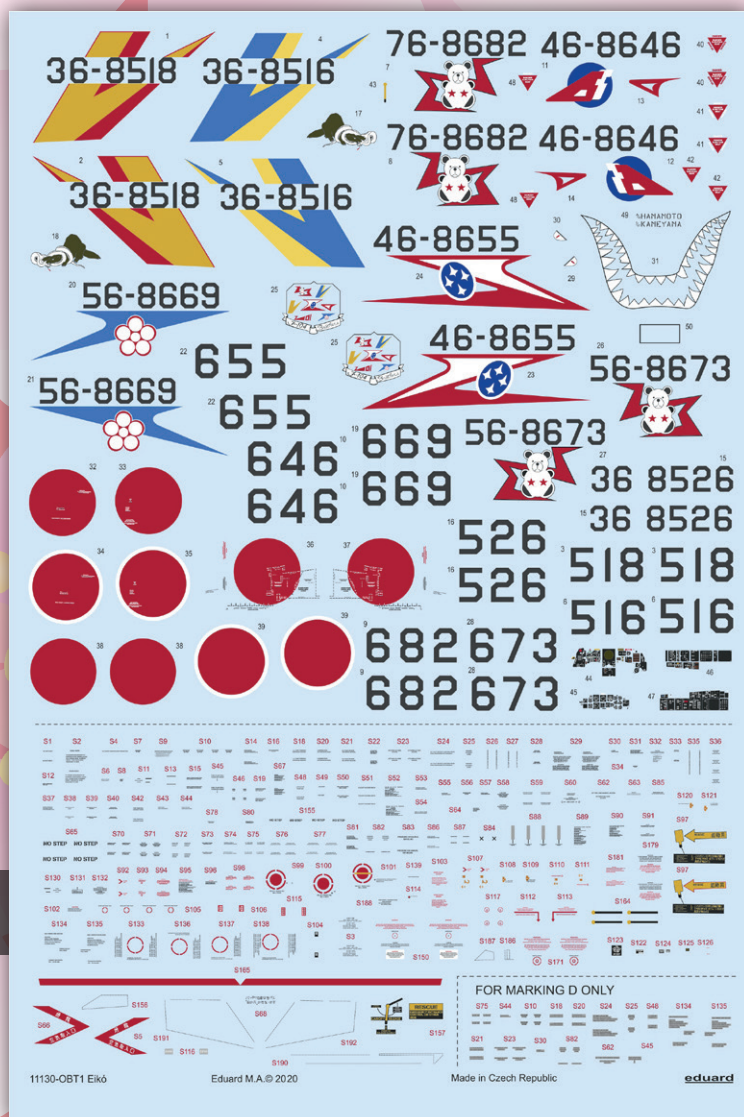
- Hasegawa plastic parts
- Photo-etched set
- Painting mask
- 8 marking options
- Brassin: seat
- Extra: a pictorial book on F-104J in Japanese service (English text)

Product Page



RECOMMENDED:

- 481002 Eikō upgrade set 1/48 (PE-Set)
- 648175 F-104 exhaust nozzle late 1/48 (Brassin)
- 648181 F-104 undercarriage wheels late 1/48 (Brassin)
- 648234 F-104 pylons 1/48 (Brassin)
- 644034 F-104J Löök (Brassin) 02/2020 release



s/n 36-8518, 202nd Tactical Fighter Squadron, Komatsu, Japan, March 1982



s/n 76-8682, 203rd Tactical Fighter Squadron, Komatsu, Japan, June 1982



s/n 36-8516, 204th Tactical Fighter Squadron, Komatsu, Japan, March 1982



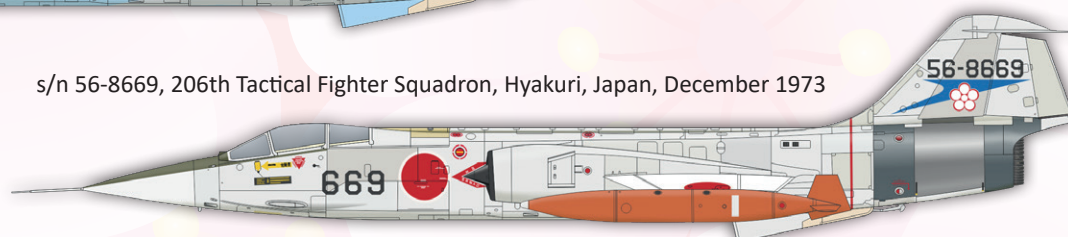
s/n 46-8646, 205th Tactical Fighter Squadron, Komatsu, Japan, October 1979



s/n 36-8526, 205th Tactical Fighter Squadron, Komatsu, Japan, November 1980



s/n 56-8669, 206th Tactical Fighter Squadron, Hyakuri, Japan, December 1973



s/n 46-8655, 207th Tactical Fighter Squadron, Komatsu, Japan, November 1984



s/n 56-8673, 203rd Tactical Fighter Squadron, Chitose, Japan, October 1979





An Interview with an F-104J Pilot

Colonel Naoyuki Masuda

Text: Isami Akiyama

Naoyuki Masuda served as the eighth commander of the 204th Tactical Fighter Squadron of the 5th Air Wing, located at Nyūtabaru Air Base from August 8th, 1976 to March 16th, 1978. During the last flight of the F-104J on February 7th, 1985, conducted by the 204th Tactical Fighter Squadron on that day, he was already the 5th Air Wing CO, and was lucky enough to fly the lead ship in the formation. As a result, he feels a strong bond to the aircraft, dubbed 'One-Oh-four'.

Akiyama: What was your intro to the F-104?

Masuda: While I was studying at the Military Academy in 1958, the F-104 was chosen as the successor to the F-86. The title page of the yearbook depicted an F-104, and it impressed me to the point where I promised myself a ride in it. Having completed my F-86F training at Matsushima Air Base (7th Tactical Fighter Squadron, 4th Air Wing), I had logged over 1,000 flight hours, qualifying me to convert onto the F-104 in 1966. My dream of flying the F-104 came true. After completion of conversion training, my assignments did not meet my hopes, and I had to put the thought of flying my favorite Chitose on the back burner. I still recall the moment when my CO came to me and proclaimed, after I had made the decision in favour of Nyūtabaru, that he had accommodated my request! To top it off, just as I had completed training myself, I was given the responsibility of conversion training at the 204th Tactical Fighter Squadron. The following spring, I married my fiancée, who had waited for me a long time, and so my new life at the 204th Tactical Fighter Squadron began.

Akiyama: What was your first impression of the 'one-oh-four', impression of your first solo, and your impression in hind-sight?

Masuda: The excitement of the first flight in the F-104 can't be described. The first time I strapped in, I climbed at an angle at which it was almost impossible to steer, in full afterburner, and broke through the sound barrier. My first solo in an F-104J (aircraft no. 642) was August 1st, 1966, but left no special impression on me. A solo in the T-34 was more emotional. The One-oh-four was quite a pilot's airplane, but once a mistake was made, she'd go inverted on you and you lose control. Some pilots claim that at high G's, you lose speed quickly, followed by control. However, with skilful flap

management and afterburner control, problems could be avoided.

Akiyama: Take-off and landing speeds appear high. How was it in reality?

Masuda: As far as take-off was concerned, it was necessary to confirm the compatibility of the instrument readings and the actual flight regime, but the airplane took off and climbed naturally. During landing, the speed had to be 160 knots, and was done with some power and at a high AoA, so the landing speed was higher than Shinkansen's maximum. There were no problems with landing, as long as the pilot watched his speed relative to airplane loading. It was necessary to master certain piloting skills, such as during cross-winds, but once I took off, I would either land or crash, so I took it all seriously. (Laughter).

Akiyama: As far as air gunnery was concerned, were there any difficulties? How did this compare to the F-86F?

Masuda: Shooting in both types was radar controlled, but as long as you maintained your Gs, you would hit the target. The F-104 was more accurate, because it featured automatic fire correction. The F-86F was armed with six machine guns, so there were differences stemming from the types of weapons used. Firing at a ground target was easy because your target wasn't moving.

Akiyama: Any recollections regarding gunnery training?

Masuda: As you know, the 204th Tactical Fighter Squadron was dedicated to training, including actual combat training, but actual training time was limited, so there were few opportunities for air gunnery; from a week to maybe two or three months? Gunnery took the form of our towing one or two targets once a day. The period during which I had command of the unit seems to have been successful. For example, we recorded higher than 50% hit rates in air gunnery against towed targets. On February 8th, 1977, the success rate of Aircraft No. 553 was 69% (out of a hundred rounds), on April 11th, Aircraft No. 704 achieved 58%, and April 14th No. 573, 55%. Gunnery qualification was valid for a year, and required, I believe, three hits out of five consecutive rounds fired, with the minimum being three time achievement of 17%, followed by 25%. Pilots who hit a success rate of 37% were considered experts... Without these stats, you could not command a Quick Reaction Alert unit. Besides all this, on July 13th, 1977, I attained a score of 90% in ground target firing, in Aircraft No. 673.

Akiyama: Did you undertake any live missile firing?

Masuda: In my time, we used AIM-9s, and once they were launched, it was up to fate. The target tow pilots prayed that the missile hit the target, and not them.

Akiyama: And now, a question regarding ACM (Air Combat Maneuvering)...with respect to the 104's high wing loading. It is said that the JASDF used them in the dogfighting role for their capabilities...

Masuda: Dogfighting was an enjoyable experience that followed air gunnery. The roll rate is important in air combat. They can give you an advantage, if executed properly and at the right time. Of course, you have to keep a constant eye on your opponent and judge the situational awareness of your own aircraft, to take advantage of its smaller size and visibility. Flap deployment



carried with it limitations. The maximum speed of their deployment was 350 knots. It was necessary to learn how to use them effectively.

Akiyama: What are your recollections regarding Quick Reaction Alert scrambles?

Masuda: I first conducted a Quick Response scramble on the night of June 20th, 1967 (between 0100h to 0230h), but at the time of takeoff, we did not know the identity of the target. I flew Aircraft No. 562. That night, there was no moon, and I was subconsciously trying to make out the scenery around me. There was little time for sentiment, and the target, which appeared to be a Soviet aircraft, was headed directly for an island in the Sea of Japan. Distance of 80, 60, 40 nautical miles... he was approaching. Was I spotted? What were his intentions? What was he planning? 'Under no circumstance will I allow you to penetrate my air space!' At a distance of about twenty nautical miles, the target changed course, and there was no intercept that day. Another incident occurred during the Cold War. We identified two Soviet Tu-95 Bears that overflew an American carrier sailing through Tsushima Strait from the East China Sea to the Sea of Japan. At the time, there were many American aircraft in the air that had taken off from the carrier. One of these approached me, and the pilot radioed me 'to leave the airspace around the carrier to us!'. This aircraft carried four missiles under the wings, while the JASDF scramble machines only relied on their cannon and carried no missiles. I felt humiliated. On that occasion, I flew Aircraft No. 557. Later, missiles were placed at the disposal of QRA scramble aircraft. Besides that, we also identified an Il-38 (with Aircraft No. 573).

Akiyama: Have you got any experience with other F-104 versions, or with Dissimilar Air Combat Training with USAF aircraft?

Masuda: I recall no experience involving DACT with the

F-104. However, when the USAF gave me a ride in an F-16 at Misawa Air Base during mock combat with an Active Reserves F-5, I had the urge to teach the pilot something about rolling. We flew too long in afterburner, and were running low on fuel, ending our mission. Back then, I experienced the highest Gs of my life, 9G.

Akiyama: Tell me please about your time as 204th Tactical Fighter Squadron CO.

Masuda: When I go through my notes from the period that I commanded the 204th Tactical Fighter Squadron (from 1976), the main principle was 'accept your responsibilities within the team, and to that end, develop your personal growth and improve your capabilities. Increase your knowledge'. Later, we added one more: 'Strengthen the spirit, and the ability to win'. It was the same as forming a soccer team. One for all, and all for one. An individual by himself, cannot succeed. An individual who hones his own skills will contribute significantly to the quality of his team. He can prove himself worthy, when the time comes. When you excel in training, but are not up to real life situations, you are useless. Soccer is a game of points, but a war must be won. About a year after I became the CO, I allowed my pilots to fly without restrictions. I wanted them to push the aircraft they were strapped into to their limits. For example, I wanted them to fly with four drop tanks, or long distances with no specific task. I let each of them try out particular scenarios. I put on a high altitude suit and took off without anything hanging off the plane. I hit Mach 2, and climbed to the highest possible altitude, reaching 78,000 feet. The manual states that at that height, the engine can suddenly stall, but no such thing occurred. It was a lot of fun. According to my log book, this was probably in Aircraft No. 698.

Akiyama: What are your memories regarding parades at the Nyūtabaru Air Base?

Masuda: This is another recollection from the period



when I commanded the 204th Tactical Fighter Squadron. We felt that such formation flying displays did not begin to demonstrate the results of our daily training efforts. So, we pleaded with our superiors to allow us to show what the F-104 could do. First, we let the 204th Tactical Fighter Squadron chief instructor demonstrate a four ship formation maneuver and the Flight Group Commander and head of training some solo high G maneuvers, among other display items in a clean aircraft. The following year, I was tasked with that solo flight. In a normal high G maneuver, the airspeed tends to bleed off, but the F-104 featured outstanding performance at low level and even at 6.5Gs, with dropped flaps, at 450 knots and minimal afterburner, you could maneuver with sufficient reserves. The airspace over Nyūtaba-

ru had a 7,000 foot ceiling, but all you needed for maneuvering with reserve was 6,500, even in a vertical climb. It seemed like other air bases began to demonstrate these fighter maneuvers, and nowadays I hear from people reminiscing that the 104s from Nyūtabaru are legendary. We could afford to set the trend, because 204th Tactical Fighter Squadron personnel were the cream of the crop.

Akiyama: How was your last flight in the F-104?

Masuda: My last flight took place on February 7th, 1985 in Aircraft No. 692. I was in command of the 5th Air Wing and after we transitioned to the F-15J, I logged a little over 100 hours. In the F-104J, I logged some 1701.6 hours and in the F-104DJ, 600.6 hours.

Naoyuki Masuda

Born: Fukuoka, March, 1937.

Four semesters at the National Defense Academy
After serving as an F-86F pilot with the 7th Tactical Fighter Squadron, 4th Air Wing, he transitioned on to the F-104 with the 204th Tactical Fighter Squadron, 5th Air Wing.

Headquarters, inspector of Western Air Defense Force
Commander of 204th Tactical Fighter Squadron
Operations Section of Headquarters Air Defense Command
Chief, Operations Section of Headquarters Northern Air Defense Force
Chief, Defense Plan and Operations Section
Commander of 5th Air Wing, Flight Group
Commander of Tactical Fighter Training Group

Total Flight Hours: 5407.5

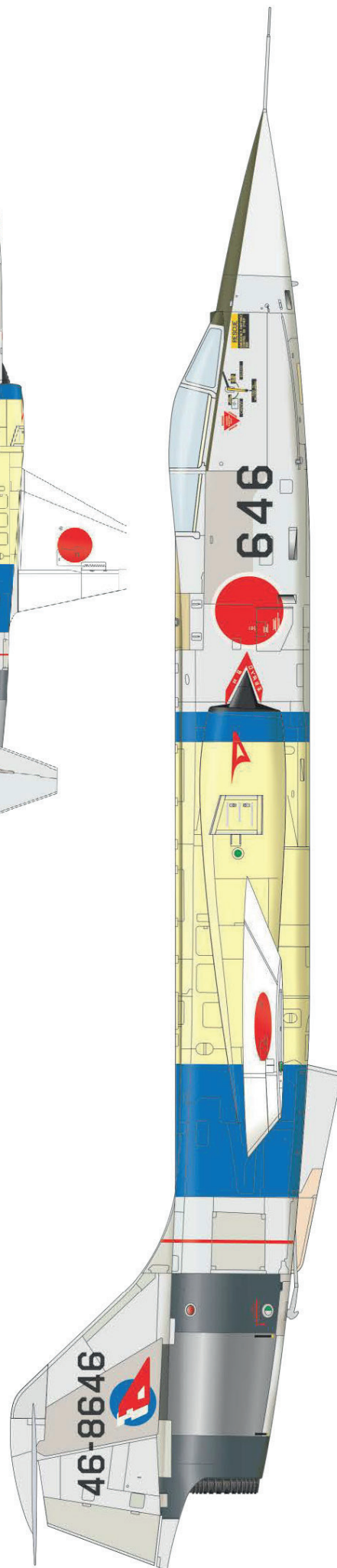
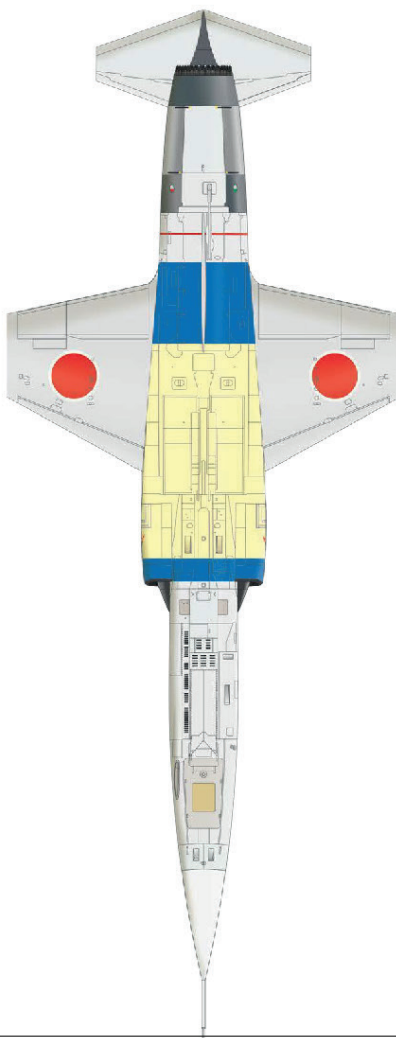
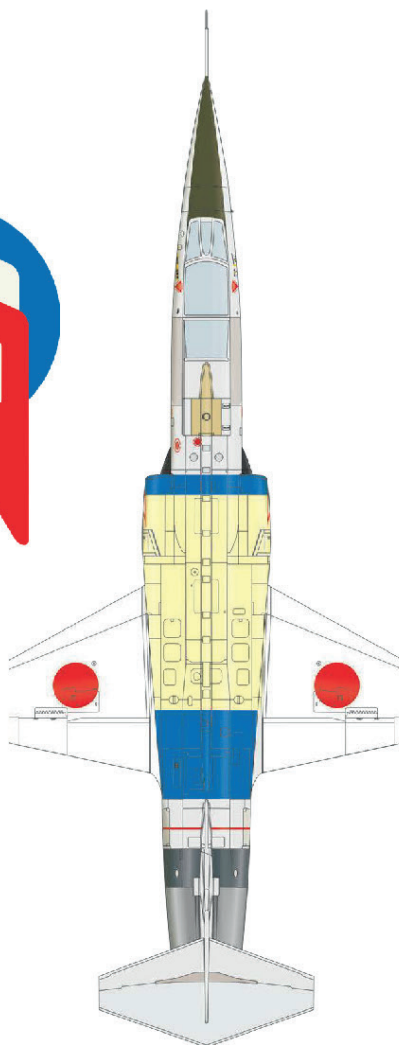
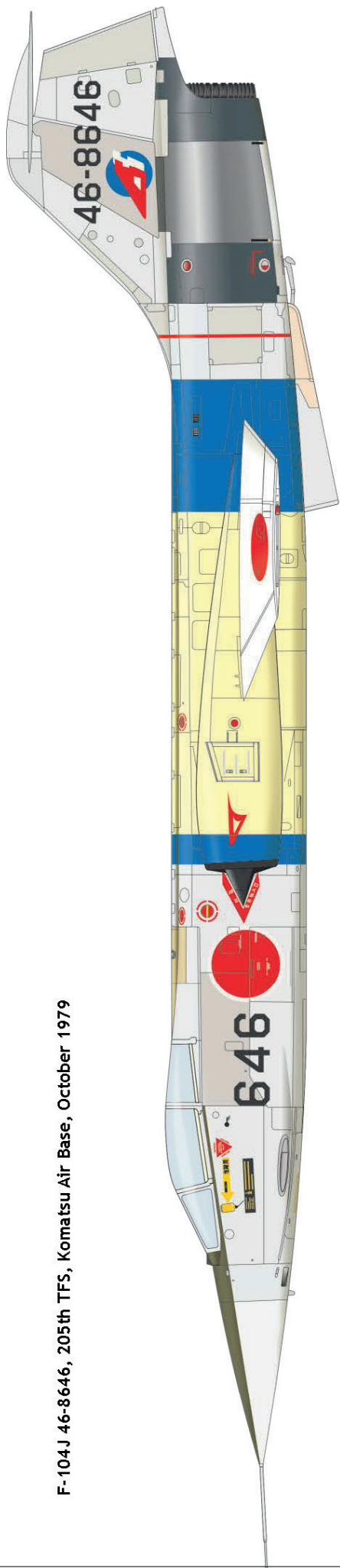
Hours per Aircraft Type:

T-34.....	116.9
T-6.....	124.1
T-33.....	1549.1
F-86F.....	581.4
F-104DJ.....	600.6
F-104J.....	1701.6
F-15J.....	84.7
F-15DJ (Front Seat)....	51.5
F-15DJ (Rear Seat)....	42.3
T-2.....	555.3

Retired in March, 1992 with the rank of Colonel.



F-104J 46-8646, 205th TFS, Komatsu Air Base, October 1979

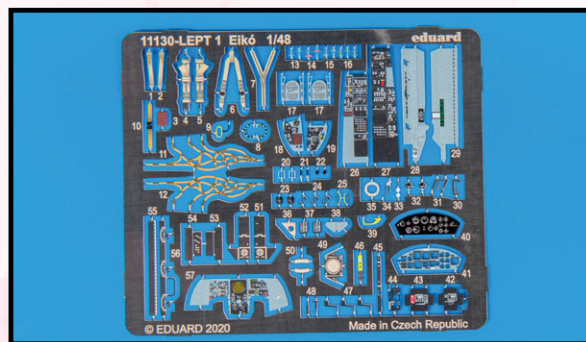


OVERTREES

EKO

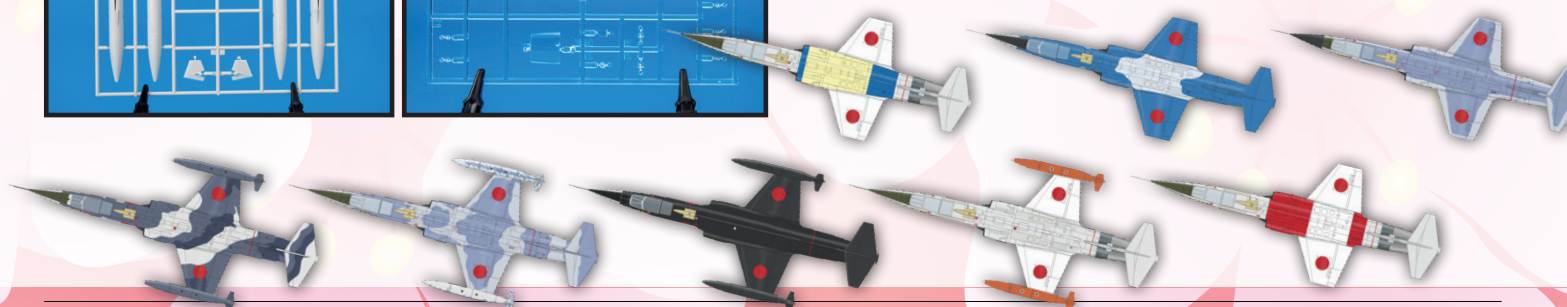
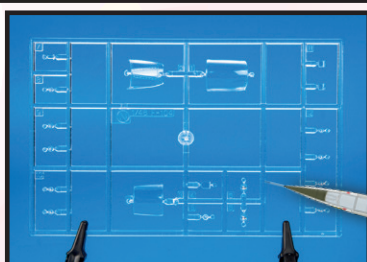
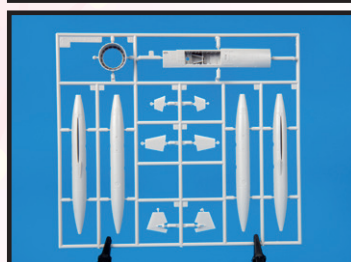
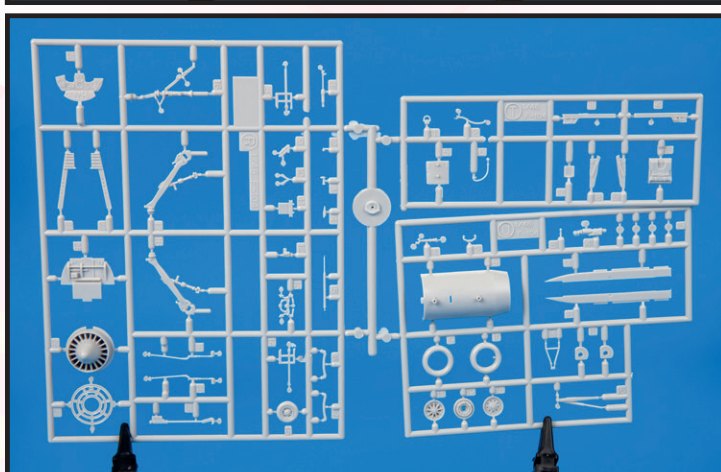
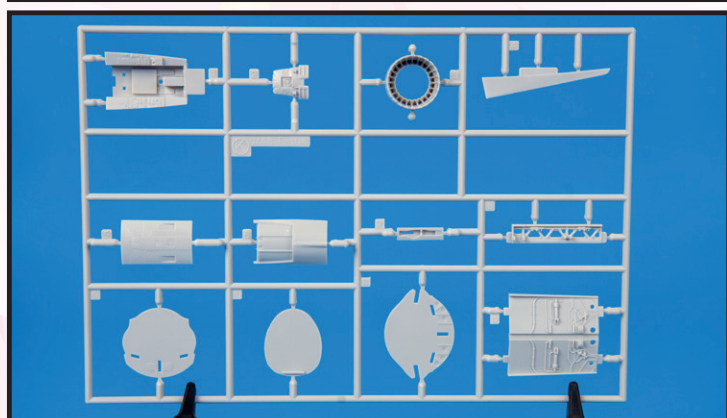
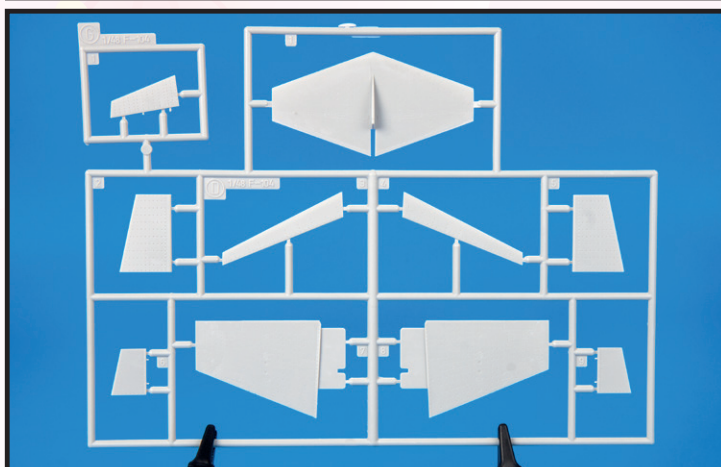
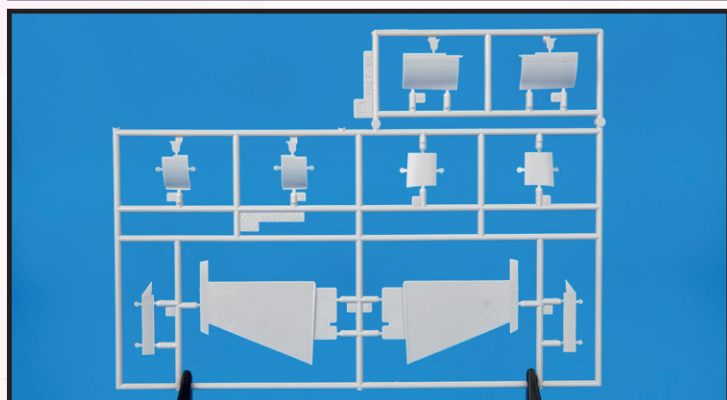
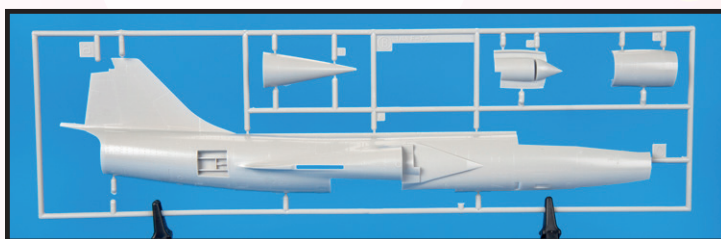
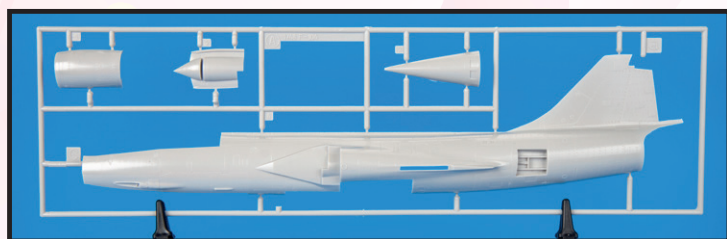
CAT. NO. 11130X

Product Page



CAT. NO. 11130-LEPT OVERLEPT

Product Page

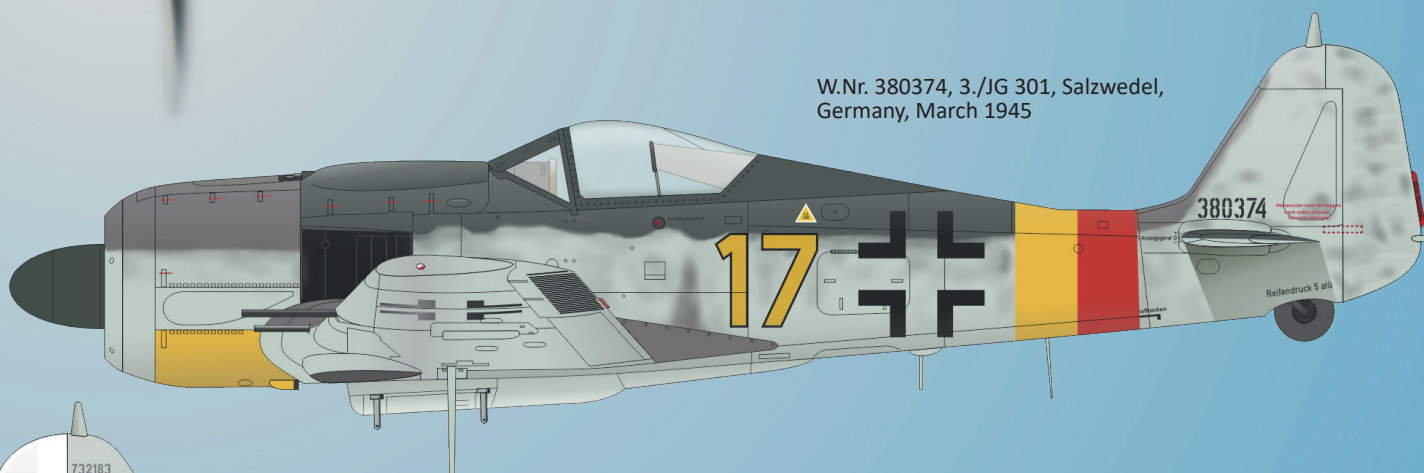


Fw 190A-8

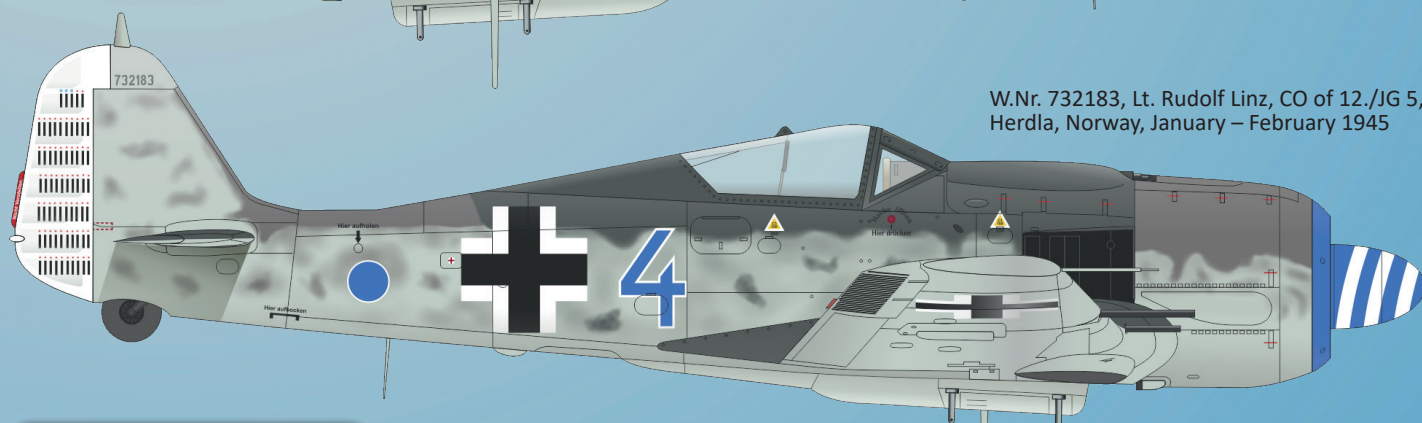
1/48, Cat. No. 84122



W.Nr. 380374, 3./JG 301, Salzwedel, Germany, March 1945



W.Nr. 732183, Lt. Rudolf Linz, CO of 12./JG 5, Herdla, Norway, January – February 1945

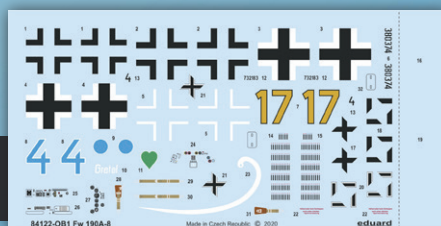


[Product Page](#)

- 2 marking options
- Eduard plastic parts

RECOMMENDED:

- 48992 Fw 190A-8 1/48 (Fotolept)
- 48993 Fw 190A-8 landing flaps 1/48 (Fotolept)
- FE863 Fw 190A seatbelts STEEL 1/48 (Fotolept)
- 644015 Fw 190A-8 Look 1/48 (Brassin)
- 648356 Fw 190A wingroot gun bays 1/48 (Brassin)
- 648366 Fw 190A propeller 1/48 (Brassin)
- 648373 Fw 190A Pitot tubes early 1/48 (Brassin)
- 648381 Fw 190A exhaust stacks 1/48 (Brassin)



- 648461 Fw 190A-8 engine 1/48 (Brassin)
- 648462 Fw 190A-8 fuselage guns 1/48 (Brassin)
- 648463 Fw 190A-8 cockpit 1/48 (Brassin)
- 648464 Fw 190A-8 engine & fuselage guns 1/48 (Brassin)
- 648476 Fw 190A-8 undercarriage legs BRONZE 1/48 (Brassin)
- 648483 WGr.21 for Fw 190A 1/48 (Brassin)
- EX578 Fw 190A TFace 1/48 (maska)

MiG-21PFM

1/72

ProfiPACK
edition



1/72, Cat. No. 70144

- Eduard plastic parts
- Photo-etched set
- Painting mask
- 5 marking options

Product Page

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

7909 7909

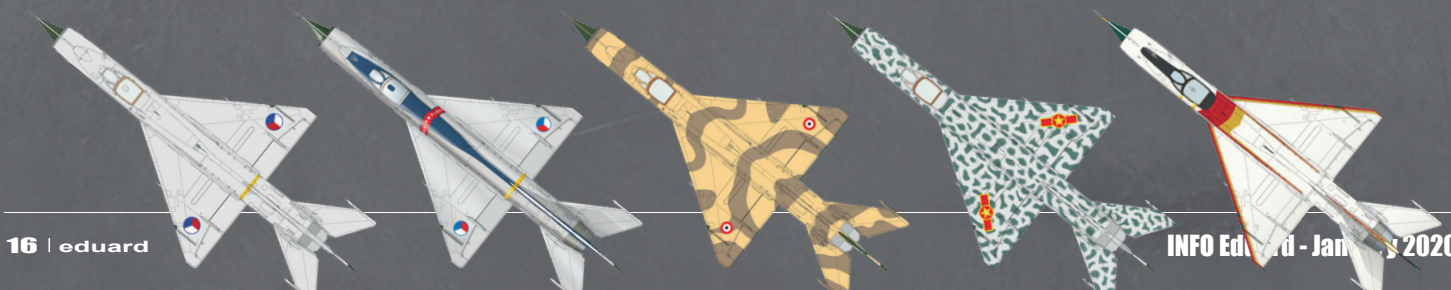
5015 5015

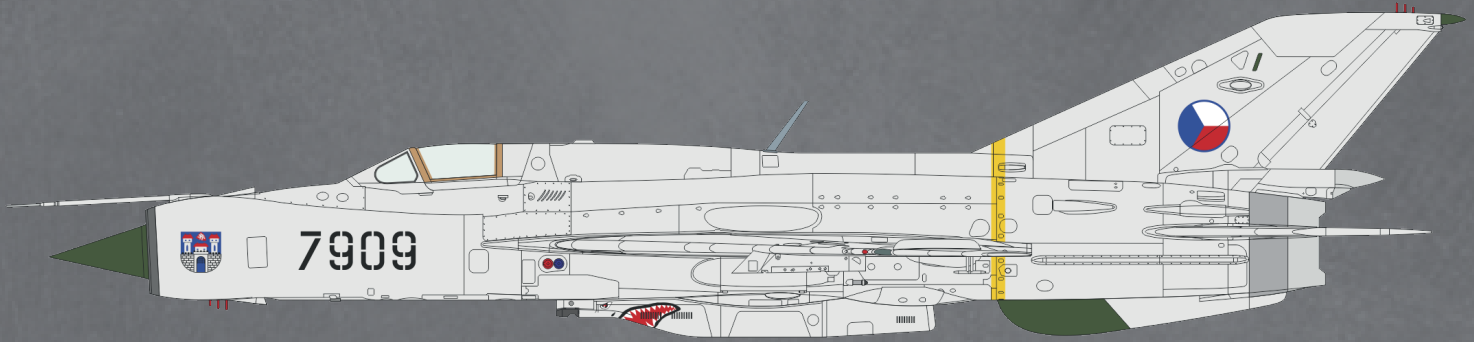
22-02 22-02

70144-OBT1 MiG-21PFM

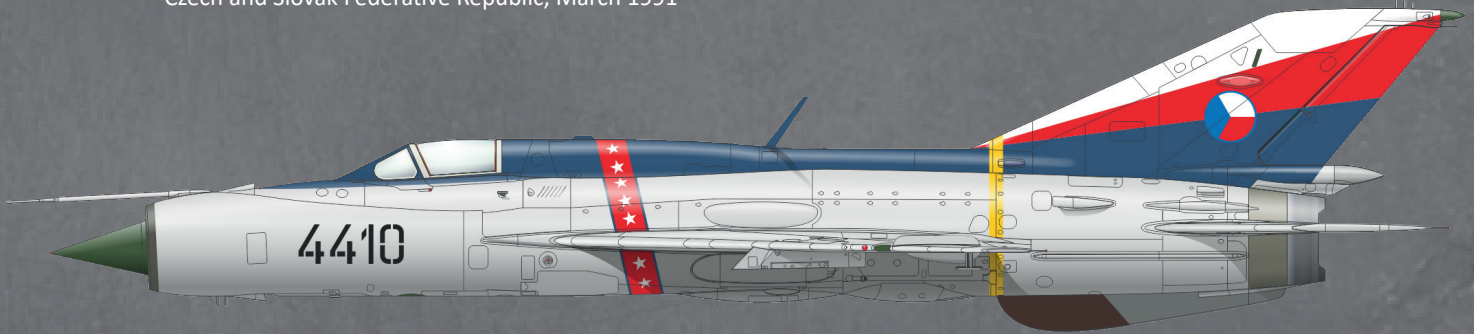
Made in Czech Republic © 2020

eduard

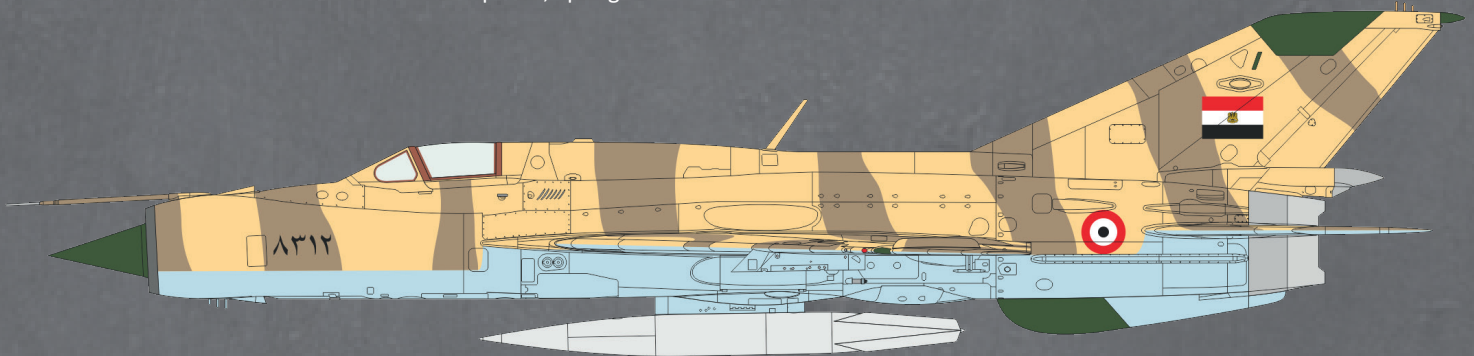




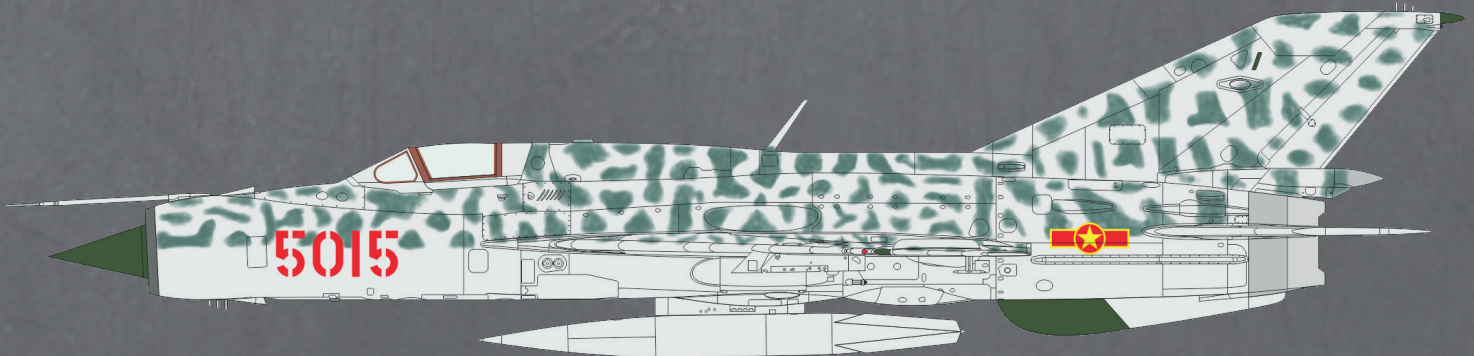
11th Fighter Regiment, Czechoslovak Air Force, Žatec air base,
Czech and Slovak Federative Republic, March 1991



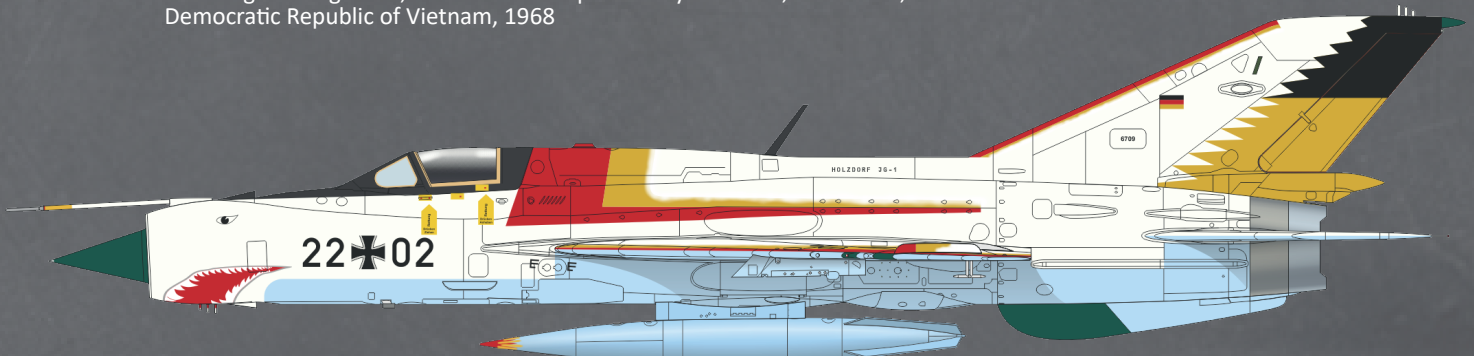
11th Fighter Regiment, Czechoslovak Air Force, Žatec air base,
Czech and Slovak Federative Republic, Spring 1990



Egyptian Air Force, Inshas airbase, Arab Republic of Egypt, early 80's



921st Fighter Regiment, Vietnamese People's Army Air Force, Noi Bai AB,
Democratic Republic of Vietnam, 1968



Jagdfliegergeschwader 1, Holzdorf / Drewitz air base, Germany, 1990 – 1991

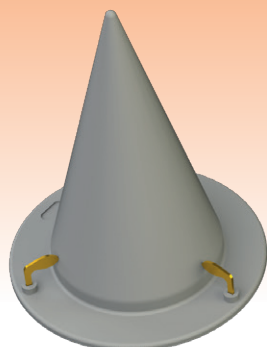
Recommended for MiG-21PFM:

72695 MiG-21PFM upgrade set 1/72 (PE-Set)

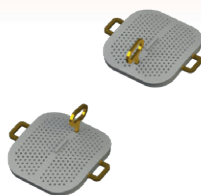
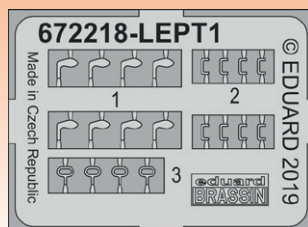
672218 MiG-21 F.O.D 1/72 (Brassin)

672231 MiG-21PFM wheels 1/72 (Brassin) 02/2020 release

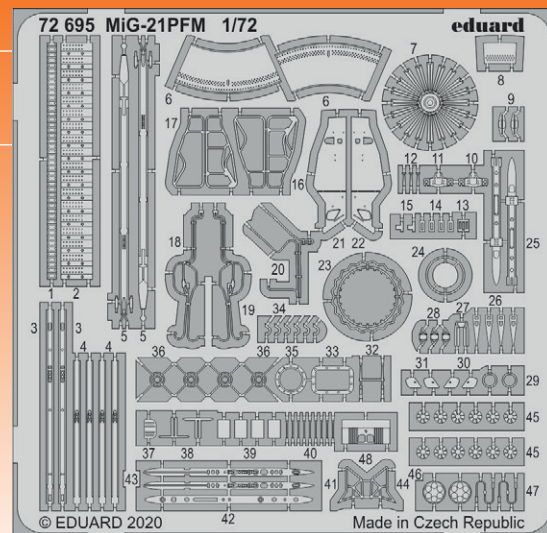
672232 MiG-21PF/PFM exhaust nozzle 1/72 (Brassin) 02/2020 release



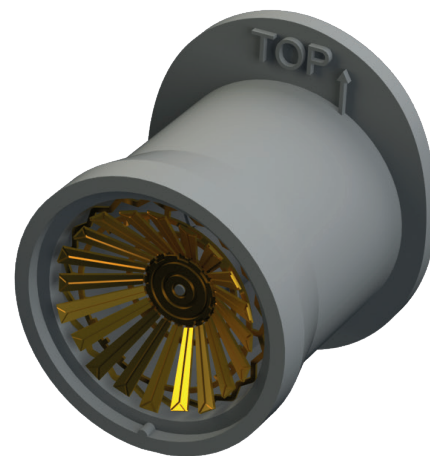
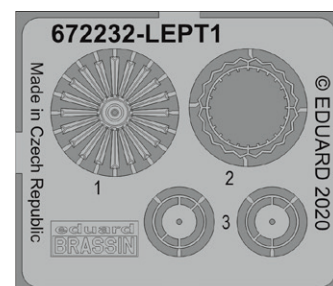
Cat. No. 672218



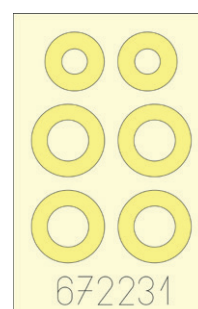
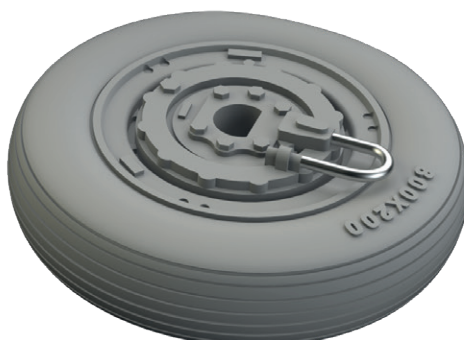
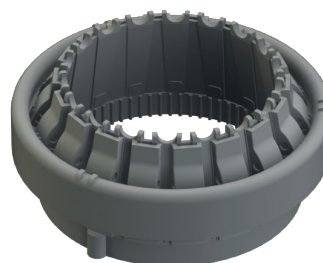
Cat. No. 672232



Cat. No. 72695



Cat. No. 672231

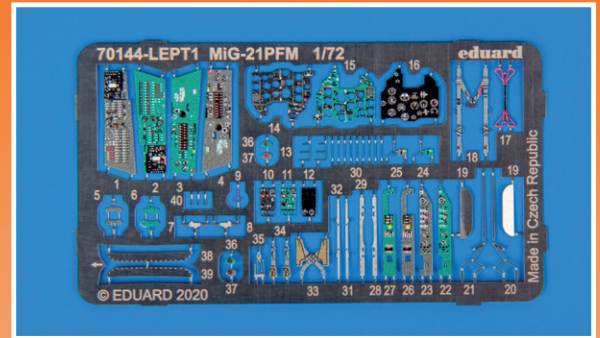
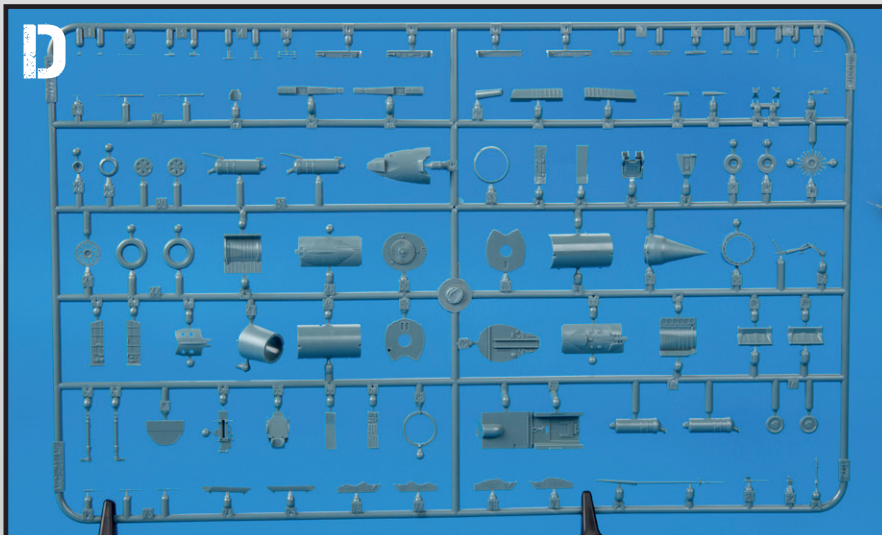
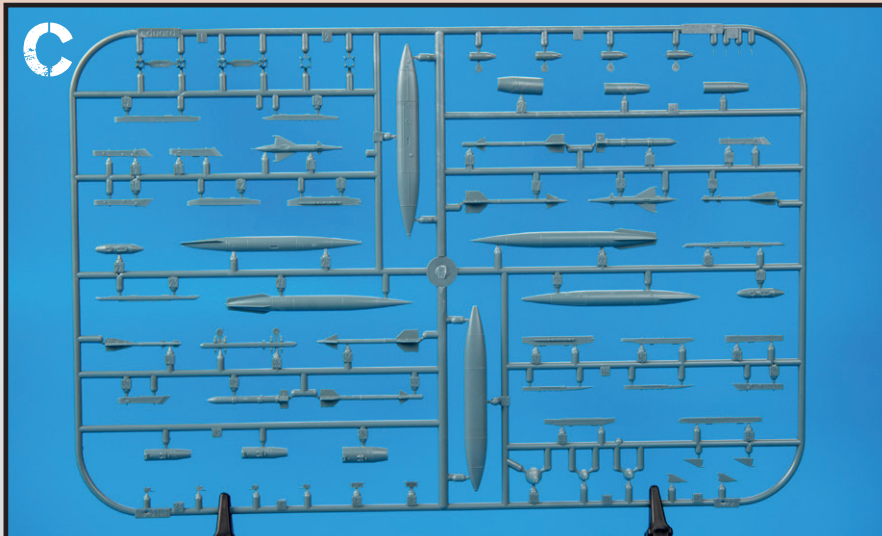
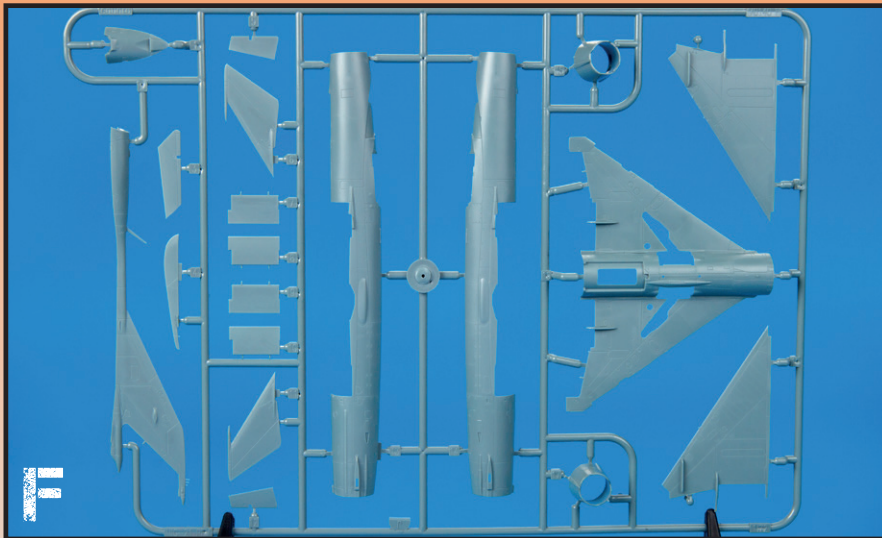


OVERTREES

MIG-21PFM

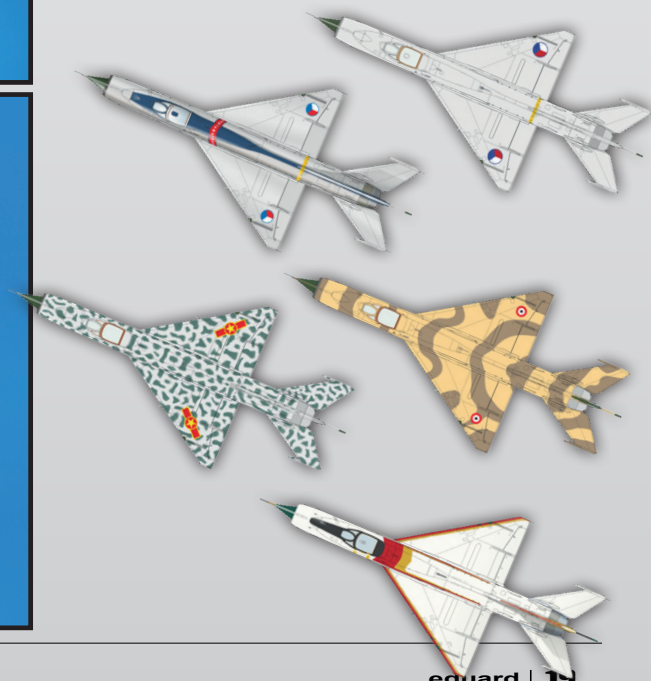
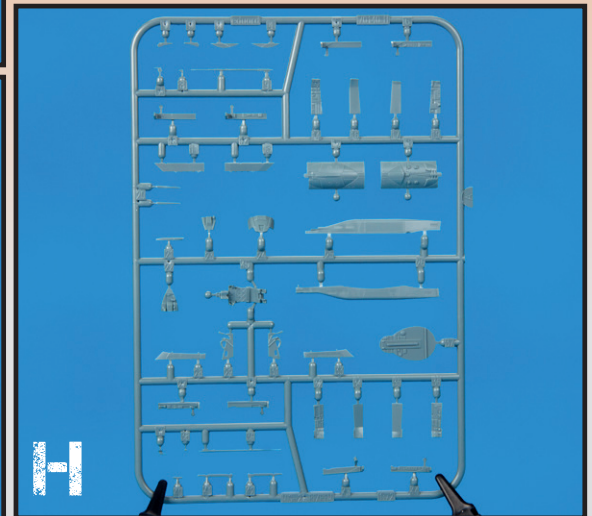
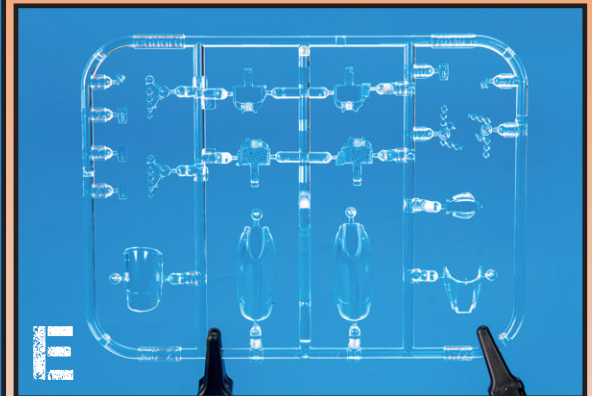
CAT. NO. 70144X

Product Page



CAT. NO. 70144-LEPT OVERLEPT

Product Page



MiG-15bis

SUPER44



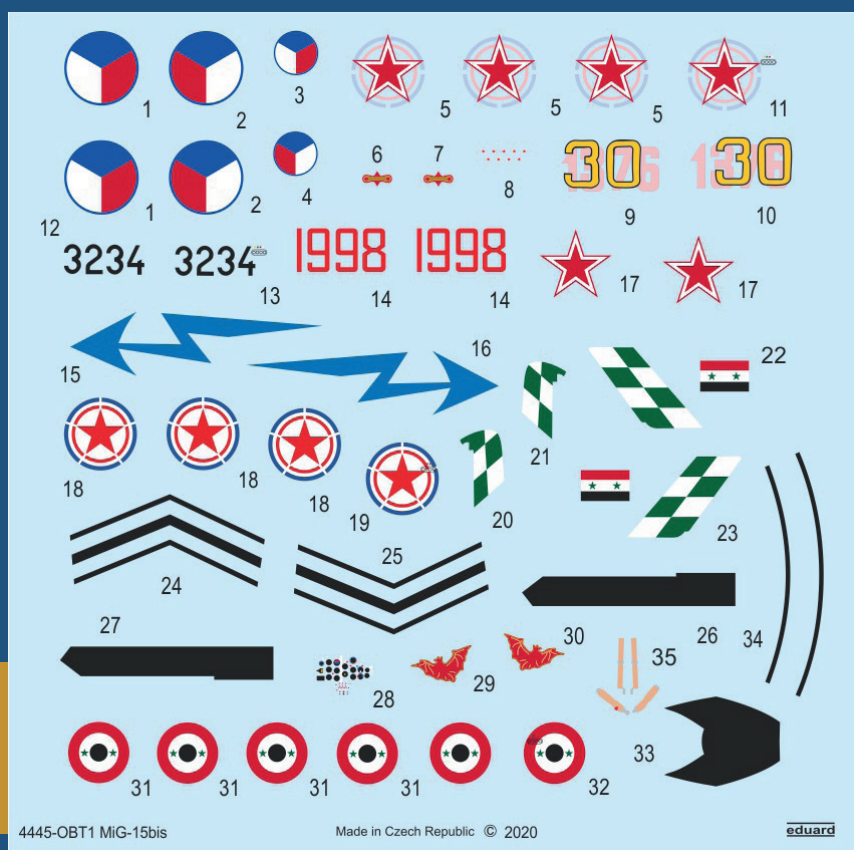
1/144, Cat. No. 4445

- plastic parts Eduard
- painting mask
- 4 marking options


[Product Page](#)

RECOMMENDED:

144007 MiG-15 1/144 (fotolept)

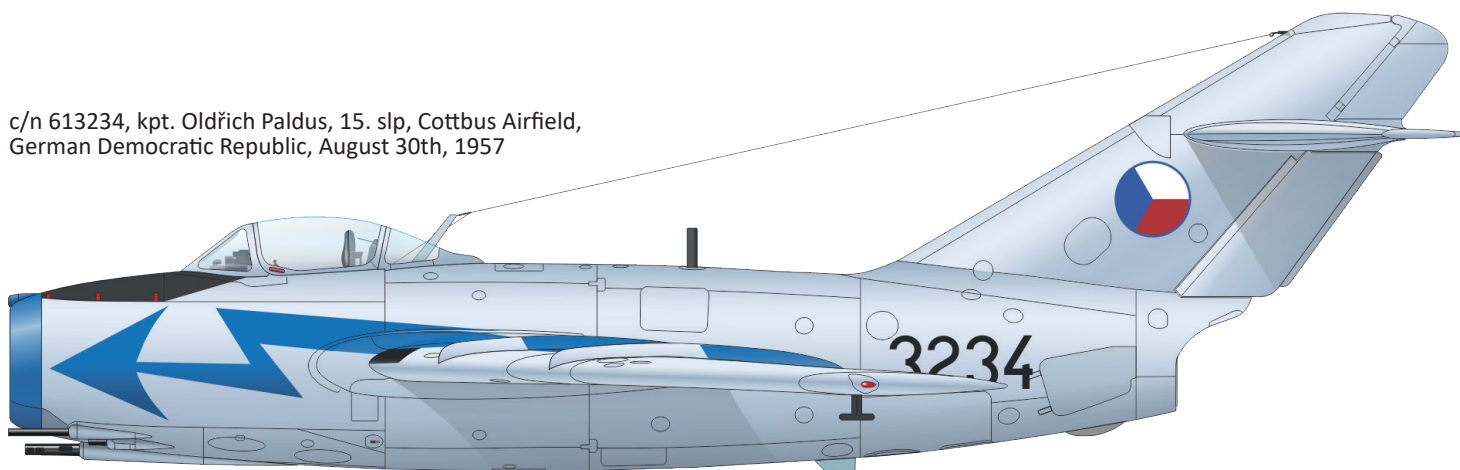


4445-OBT1 MiG-15bis

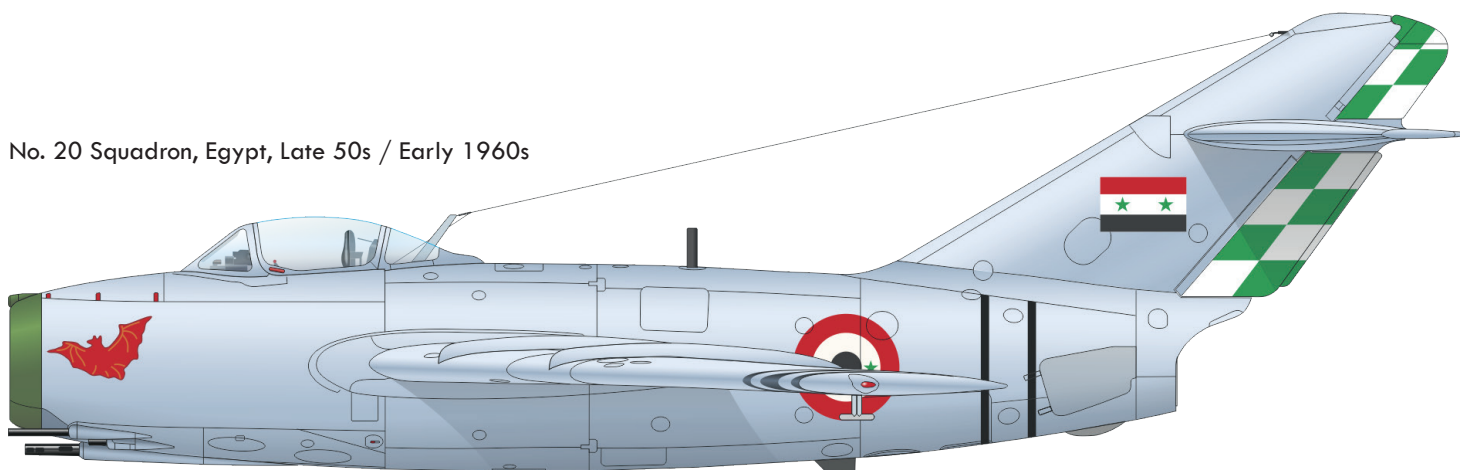
Made in Czech Republic © 2020

eduard

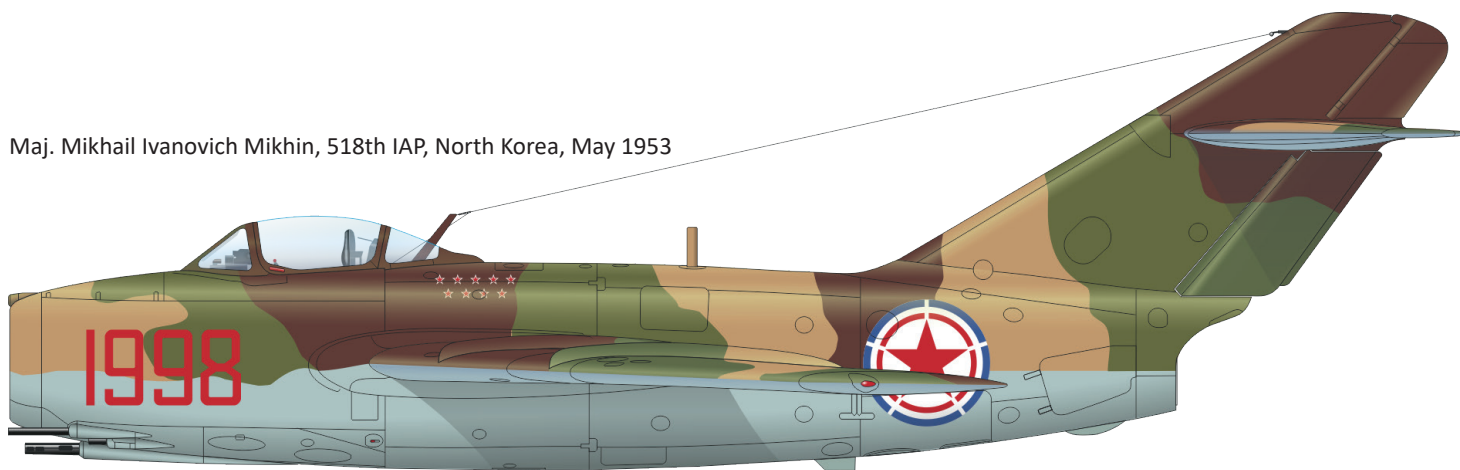
c/n 613234, kpt. Oldřich Paldus, 15. slp, Cottbus Airfield,
German Democratic Republic, August 30th, 1957



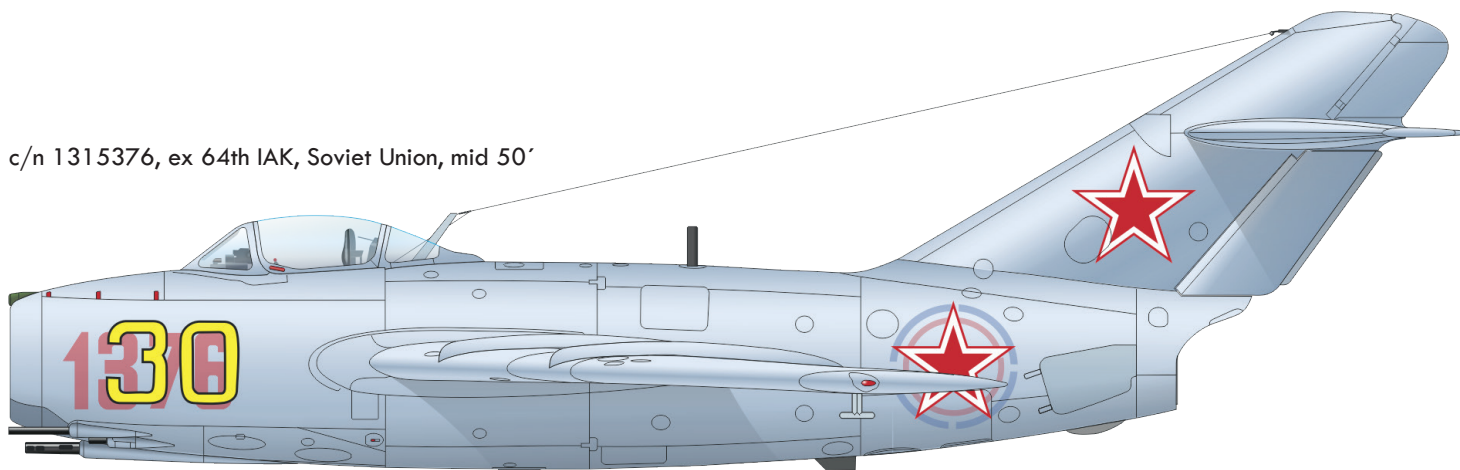
No. 20 Squadron, Egypt, Late 50s / Early 1960s



Maj. Mikhail Ivanovich Mikhin, 518th IAP, North Korea, May 1953



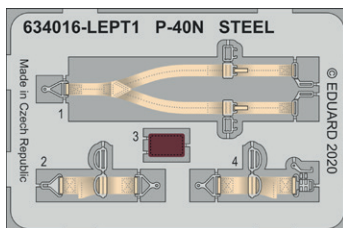
c/n 1315376, ex 64th IAK, Soviet Union, mid 50'



Löök

634016

P-40N **Löök** 1/32 Trumpeter



Löök set - Brassin pre-painted dashboard and STEEL seatbelts for P-40N in 1/32 scale. Easy to assemble, replaces plastic parts. Recommended kit: Trumpeter

Set contains:

- resin: 2 parts,
- decals: no,
- photo-etched details: yes, pre-painted,
- painting mask: no.

[Product Page](#)



644032

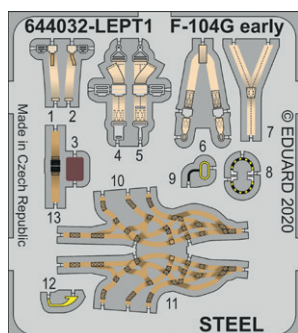
F-104G early **Löök** 1/48 Kinetic

Löök set - Brassin pre-painted dashboard and STEEL seatbelts for F-104G in 1/48 scale. Easy to assemble, replaces plastic parts. Recommended kit: Kinetic

Set contains:

- resin: 1 part,
- decals: no,
- photo-etched details: yes, pre-painted,
- painting mask: no.

[Product Page](#)



644033 MiG-21bis **LööK** 1/48 Eduard

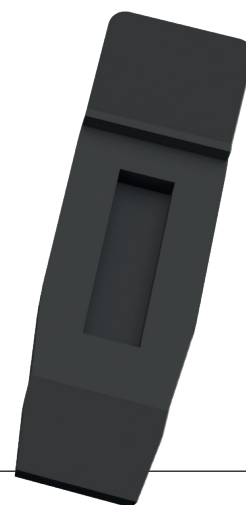
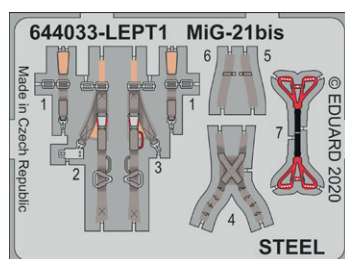


LööK set - Brassin pre-painted dashboard and STEEL seatbelts for MiG-21bis in 1/48 scale. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

- resin: 1 part,
- decals: no,
- photo-etched details: yes, pre-painted,
- painting mask: no.

[Product Page](#)



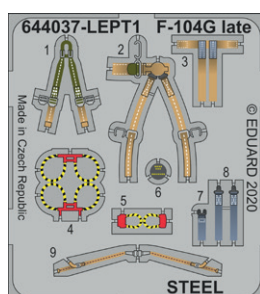
644037 F-104G late **LööK** 1/48 Kinetic

LööK set - Brassin pre-painted dashboard and STEEL seatbelts for F-104G in 1/48 scale. Easy to assemble, replaces plastic parts. Recommended kit: Kinetic

Set contains:

- resin: 1 part,
- decals: no,
- photo-etched details: yes, pre-painted,
- painting mask: no.

[Product Page](#)



648521

P-38F/G undercarriage legs BRONZE

1/48 Tamiya

Brassin set - the undercarriage legs for P-38F/G in 1/48 scale. Made of bronze, replaces plastic parts. Recommended kit: Tamiya

Set contains:

- resin: 1 part,
- decals: no,
- photo-etched details: no,
- painting mask: no,
- bronze: 3 parts.

[Product Page](#)


648523

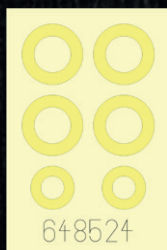
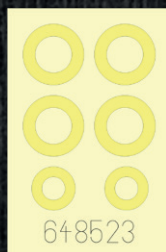
F-104 wheels early

1/48 Kinetic

Brassin set - the undercarriage wheels for F-104G in 1/48 scale. The set consists of main wheels and a nosewheel. Easy to build, replaces plastic parts. Recommended kit: Kinetic

Set contains:

- resin: 5 parts,
- decals: no,
- photo-etched details: no,
- painting mask: yes.

[Product Page](#)


648524

F-104 wheels late

1/48 Kinetic

Brassin set - the undercarriage wheels for F-104G in 1/48 scale. The set consists of main wheels and a nosewheel. Easy to build, replaces plastic parts. Recommended kit: Kinetic

Set contains:

- resin: 6 parts,
- decals: no,
- photo-etched details: no,
- painting mask: yes.

[Product Page](#)

648525

F-104 C2 ejection seat

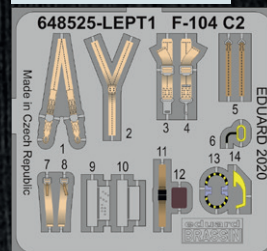
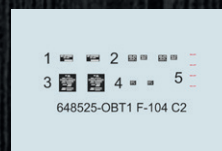
1/48 Kinetic

Brassin set - the C2 type ejection seat for F-104G in 1/48 scale.
Replaces plastic parts.
Recommended kit: Kinetic

Set contains:

- resin: 4 parts,
- decals: yes,
- photo-etched details: yes,
pre-painted,
- painting mask: no.

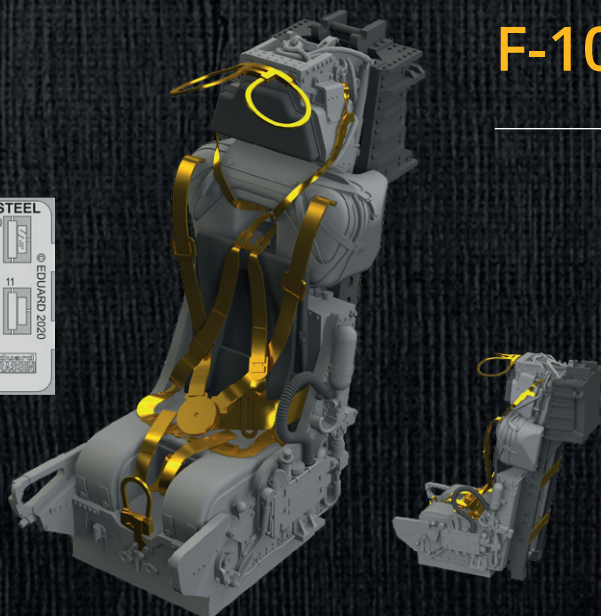
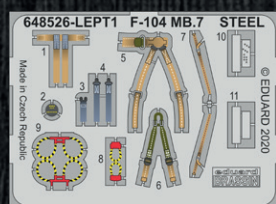
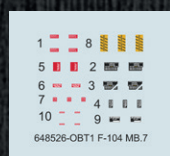
Product Page



648526

F-104 MB.7 ejection seat

1/48 Kinetic



Brassin set - the MB.7 type ejection seat for F-104G in 1/48 scale.
Replaces plastic parts.
Recommended kit: Kinetic

Set contains:

- resin: 5 parts,
- decals: yes,
- photo-etched details: yes,
pre-painted,
- painting mask: no.

Product Page

648530

F-14D wheels

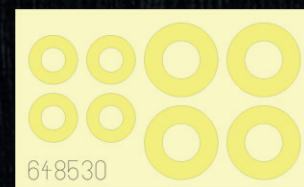
1/48 AMK

Brassin set - the undercarriage wheels for F-14D in 1/48 scale. The set consists of main wheels and nosewheels.
Easy to build, replaces plastic parts.
Recommended kit: AMK

Set contains:

- resin: 6 parts,
- decals: no,
- photo-etched details: no,
- painting mask: yes.

Product Page



648531 P-51D 110gal fuel tank 1/48 Eduard

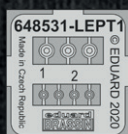
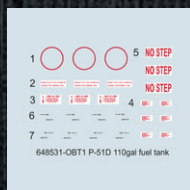
Brassin set - the drop fuel tanks for P-51D in 1/48 scale. Easy to build, replaces plastic parts. The set consists of 2 fuel tanks.

Recommended kit: Eduard

Set contains:

- resin: 6 parts,
- decals: yes,
- photo-etched details: no,
- painting mask: no.

[Product Page](#)



648532 P-51D 165gal fuel tank 1/48 Eduard

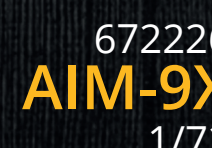
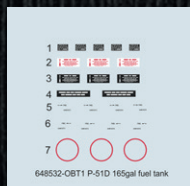
Brassin set - the drop fuel tanks for P-51D in 1/48 scale. Easy to build, replaces plastic parts. The set consists of 2 fuel tanks.

Recommended kit: Eduard

Set contains:

- resin: 6 parts,
- decals: yes,
- photo-etched details: no,
- painting mask: no.

[Product Page](#)



672226 AIM-9X 1/72

Brassin set - the US AIM-9X missiles in 1/72 scale. The set consists of 4 missiles.

Set contains:

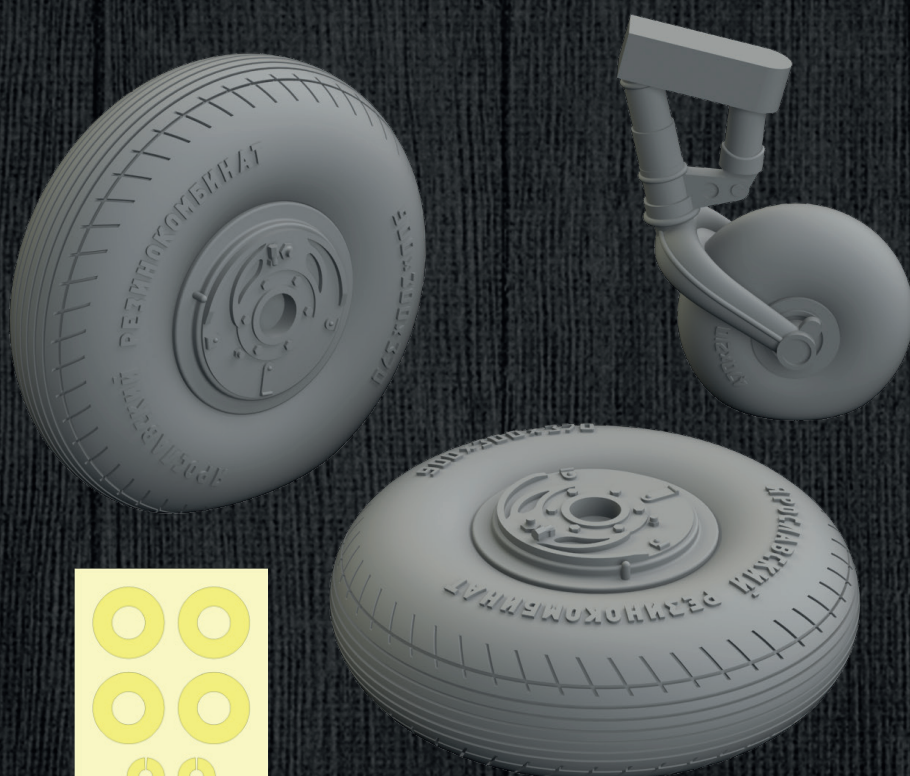
- resin: 12 parts,
- decals: yes,
- photo-etched details: yes,
- painting mask: no.

[Product Page](#)

672227

Pe-2 wheels

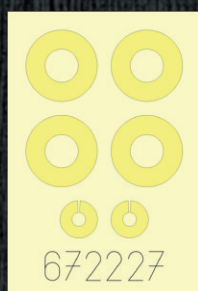
1/72 Zvezda



Brassin set - the undercarriage wheels for Pe-2 in 1/72 scale. The set consists of main wheels and a tailwheel. Easy to build, replaces plastic parts. Recommended kit: Zvezda

Set contains:

- resin: 3 parts,
- decals: no,
- photo-etched details: no,
- painting mask: yes.

[Product Page](#)


672228

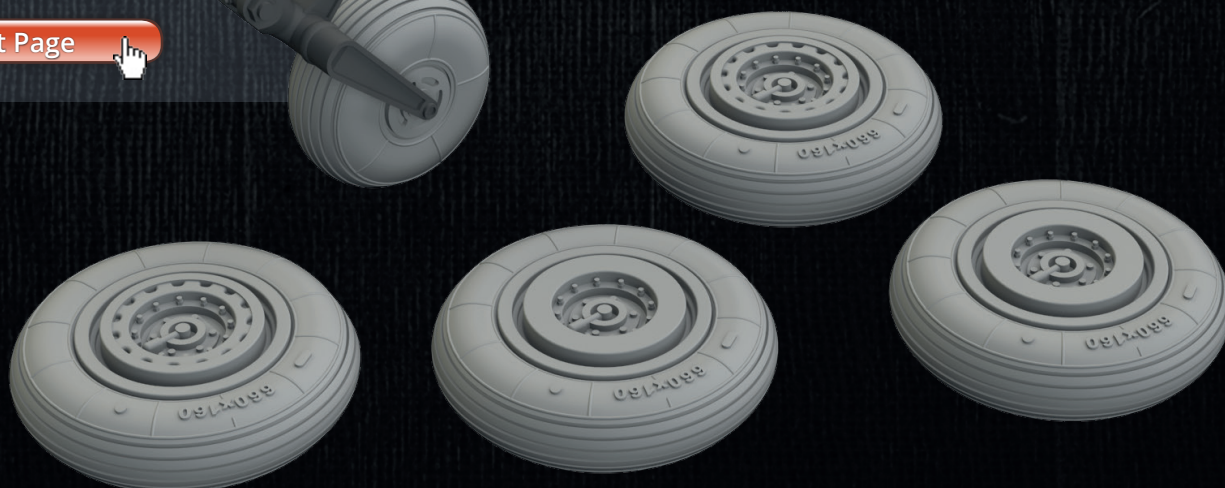
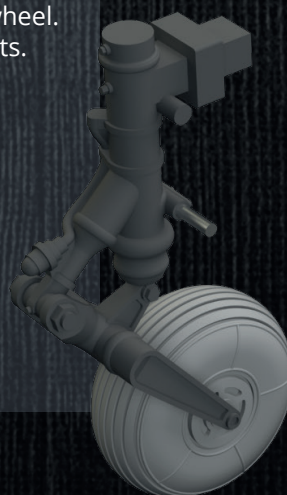
MiG-17 wheels

1/72 Airfix

Brassin set - the undercarriage wheels for MiG-17 in 1/72 scale. The set consists of main wheels and a nosewheel. Easy to build, replaces plastic parts. Recommended kit: Airfix

Set contains:

- resin: 6 parts,
- decals: no,
- photo-etched details: no,
- painting mask: yes.

[Product Page](#)


SIN64865

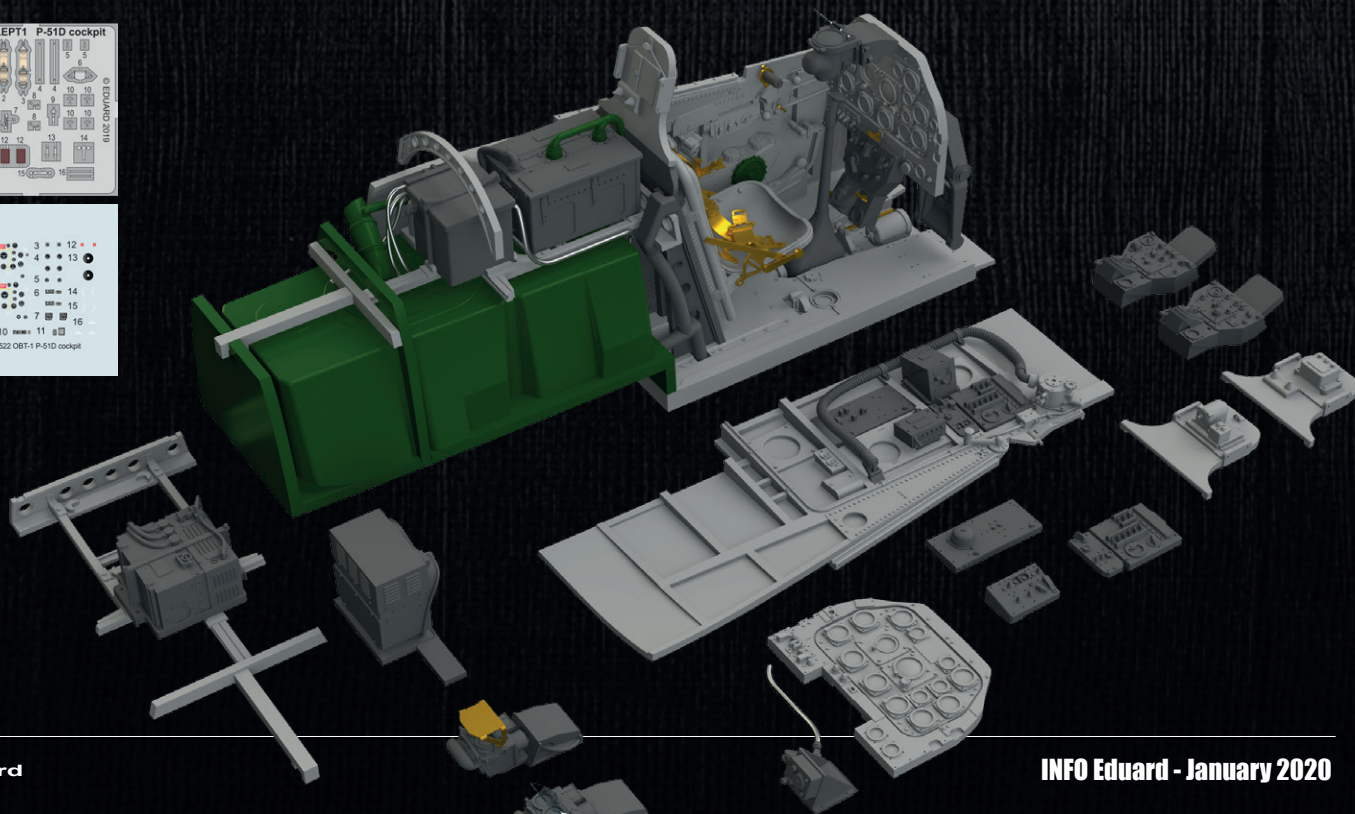
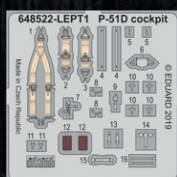
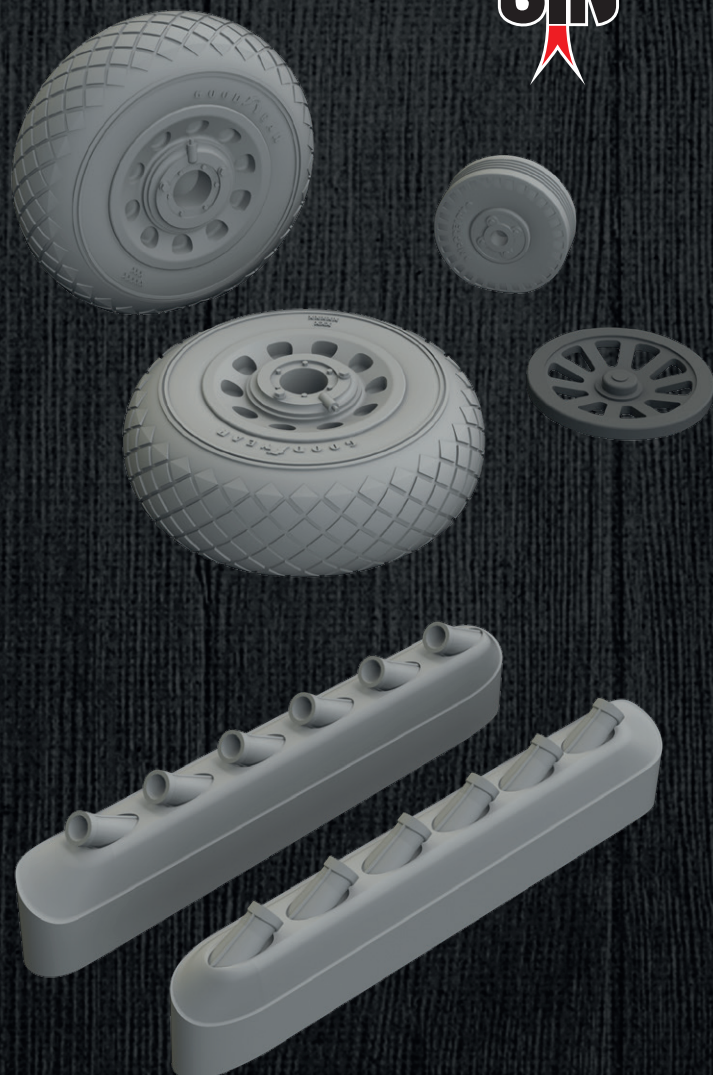
P-51D ESSENTIAL

1/48 Eduard

Collection of 4 sets for P-51D (subversions P-51D-10+)
in 1/48 scale by Eduard.

- cockpit,
- exhaust stacks,
- undercarriage wheels,
- undercarriage legs BRONZE.

All sets included in this BIG SIN are available separately,
but with every BIG SIN set you save up to 30%.

[Product Page](#)




Die Unordnung

Bf 109G Late Versions

Bf 109G-6/AS, Bf 109G-14/AS, Bf 109G-10

Vladimír Šulc

The development of these late versions of the Bf 109G, manufactured in a series of related and therefore similar versions, was the German aviation industry's response to a requirement to quickly supply Luftwaffe units with high performance fighters to combat the Allied bombing offensive of the spring of 1944. The appearance of the P-51B and D Mustang with the 8th and 15th American Air Forces showed that the need to offset the increasing obsolescence of German fighters was becoming critical. The anticipated replacement of the then standard Messerschmitt Bf 109G-6/G-14 with the Bf 109K, powered by the DB 605D, was not yet possible in the spring of 1944 due to the protracted development of the airframe and engine alike. The design element of Messerschmitt in Regensburg found an interim solution by installing the DB 605AS into the Bf 109G-6, and this modification made use of items that were already designed and were construction ready, intended to be used in the engine installation in the Bf 109K.

Simply put, the DB 605AS and DB 605D were created by installing the larger supercharger from the DB 603 in the DB 605A. The performance of these superchargers was around 25% greater than

the ones installed in the DB 605A. The first developmental version of the DB 605 outfitted with the larger supercharger was the DB 605AS, originally designated as the DB 605A (Sonder). The intended fuel for these engines was the B4 with an octane rating of 87. The first DB 605AS engines were available at the beginning of 1944. As spring became summer in 1944, the DB 605ASM appeared, which burned C3 fuel with a 96 octane rating. Other versions of the AS engine were developed (ASCM, ASMO, ASB, ASC) utilizing various combinations of B4 and C3 fuels, and different GM-1 nitrous oxide boost systems and variations of the MW50 injection system. The GM-1 and MW50 systems could, in some cases, be installed simultaneously, but their simultaneous engagement was forbidden (and practically impossible). The use of the various combinations of engines led to aircraft being equipped with different radiators, oil tanks, and supercharger intakes. The DB 605AS powered the Bf 109G-6/AS and the Bf 109G-14/AS, and a lesser number of Bf 109G-10s.



Bf 109G-10 Mtt W.Nr. 130297

Bf 109G-6/AS

(Production Blocks 16xxxx/165xxxx + 166xxxx converted from the Bf 109G-6 at Erla in Antwerp, Conversions of 20xxxx, 230xxx and 440/441xxx Series by WNF, 18xxxx/164xxx by Mtt. Reg., and 412/413xxx by Erla.)

The first Bf 109G version powered by the DB 605AS was the Bf 109G-6/AS. Production began in the spring of 1944 and was undertaken at several facilities. These aircraft were produced as new-builds at Messerschmitt in Regensburg (226 units) and also, to a large extent, as conversions from standard Bf 109G-6s built in different series at different factories. Besides a modified engine cowl and fuselage mounted weapons (Type 100, known informally to Luftwaffe personnel as the 'Horse's Ass'), an updated and lightened canopy (Erlahaube), a larger diameter VDM 9-12159 propeller (same as the later G-10 and K-4) and a tall fin and rudder, the original design of the Bf 109G-6 was left intact. They were equipped with a standard FO.870 radiator used in the G-6, the bottom section of the cowling was smooth without the two small fairings covering the oil pump, and the oil tank was also the same as on the G-6. The difference from the later G-10 came in the oil filler cap on the left side of the nose immediately above the small air intake which was in the same location as on the Bf 109G-6. In the G-10, the cover over the cap was placed higher due to the increase in size of the oil tank. The supercharger intake also remained the same as compared to the G-6, which was smaller than the later G-10. So that things weren't all that simple, some airframes of later production, or during refurbishment, received the larger diameter supercharger intakes and larger FO.987 oil cooler that appeared on the Bf 109G-10. The oil coolers of these aircraft, produced by Erla, had the Erla specific FO.987 cover developed for the later Bf 109G-10. It wasn't as deep as the same oil cooler mounted in the G-10 at Mtt. Regensburg and WNF. The cockpit canopy with a simplified Erlahaube frame was of the older type with sharp rear corners of the opening portion, new-build versions being equipped with a short antenna mast behind the cockpit. Some of the G-6 conversions had the mast mounted on the canopy frame. There were also versions without a mast altogether. The tailwheel strut was short and was with or without a dust cover, and the fairings above the wheel wells were as they were on the G-6. All aircraft were equipped with a FuG 25 IFF system with a small blade antenna on the bottom of the second fuselage section. The part of these aircraft that were designated Bf 109G-6/AS/y were equipped with a FuG 16ZY homing system, the whip antenna for which was located under the wing below the fuselage. Most aircraft had fuselage mounted MG 151/20 cannon. In the Bf 109G-6/AS, the MW50 methanol water injection system installation was not yet a standardized feature, and would have been recognizable by a box shaped fairing located in the rear cockpit wall. Of course, that doesn't mean that the MW50 system was not installed in the Bf 109G-6/AS. Some aircraft were so equipped. A number was also equipped with the GM-1 nitrous oxide boost system, providing a better high altitude performance compared to aircraft equipped with MW50. Installation of both systems was possible. Bf 109G-6/AS aircraft equipped with MW50 were designated Bf 109G-6/MW50/AS or Bf 109G-6/U3/AS, and later redesignated as Bf 109G-14/AS.

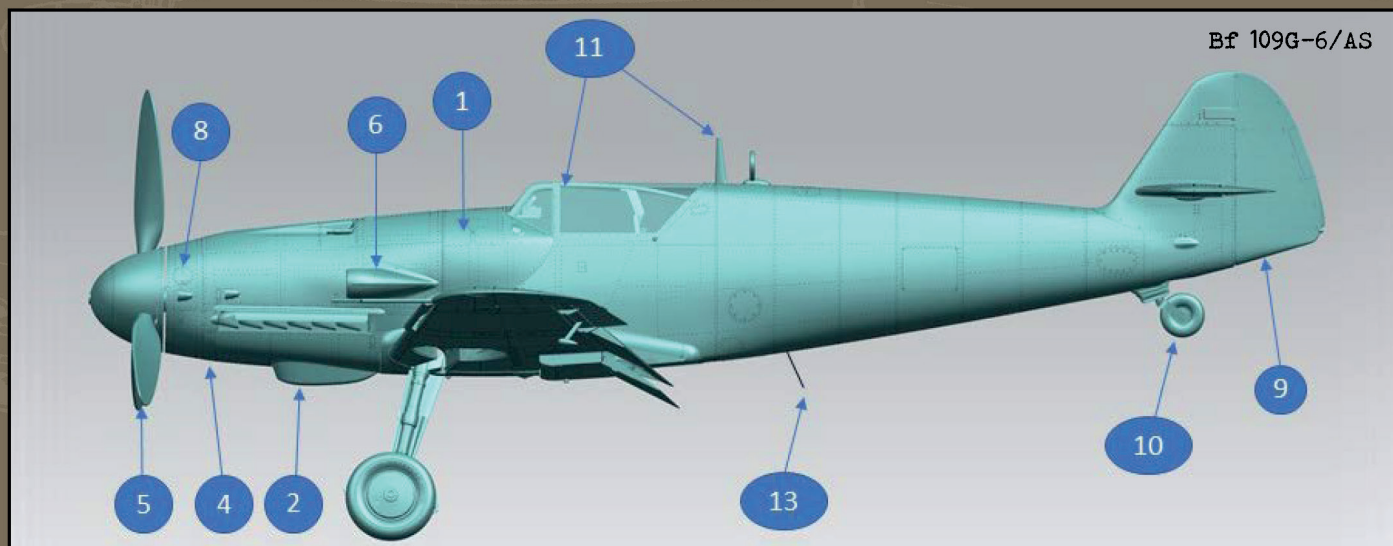
In all, 686 Bf 109G-6/AS airframes were produced, 226 of which were new build aircraft manufactured by Messerschmitt A.G. Regensburg in 165xxx, 166xxx, 780xxx and 782xxx production blocks. Another 460 aircraft were converted from original Bf 109G-6 airframes at Erla in Antwerp, Mi-Metall in Erfurt, Blohm & Voss in

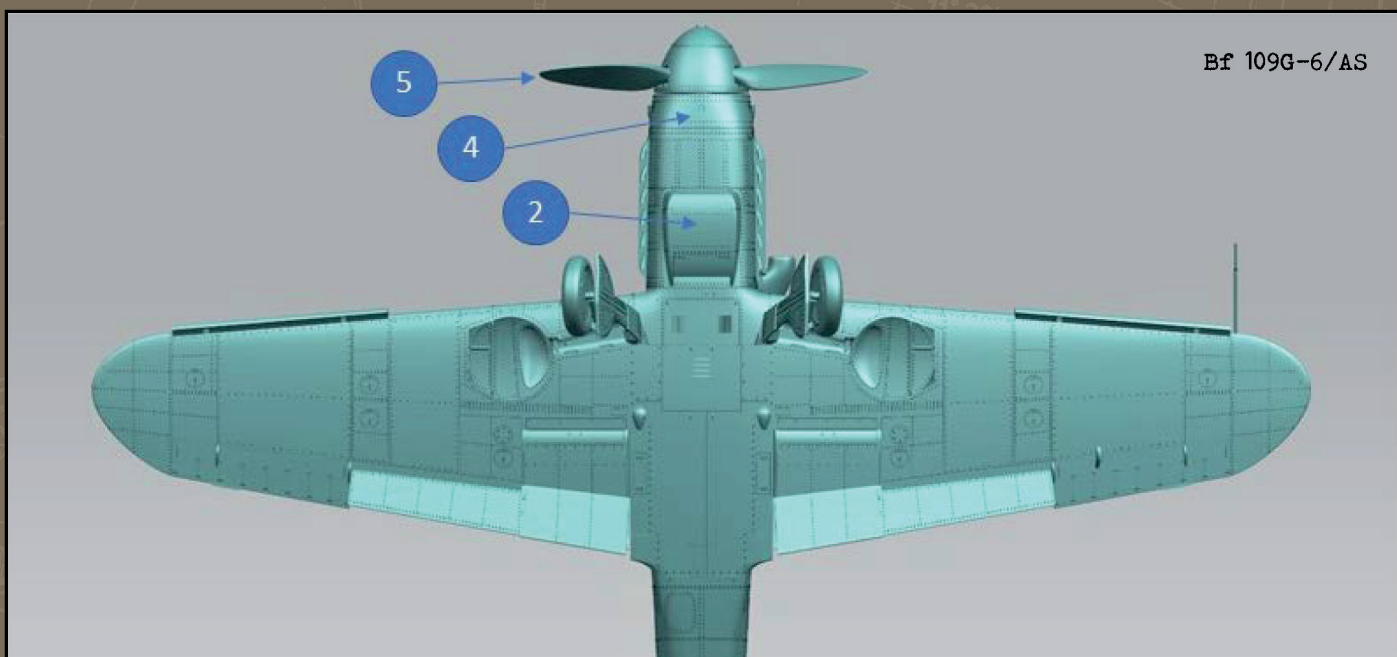
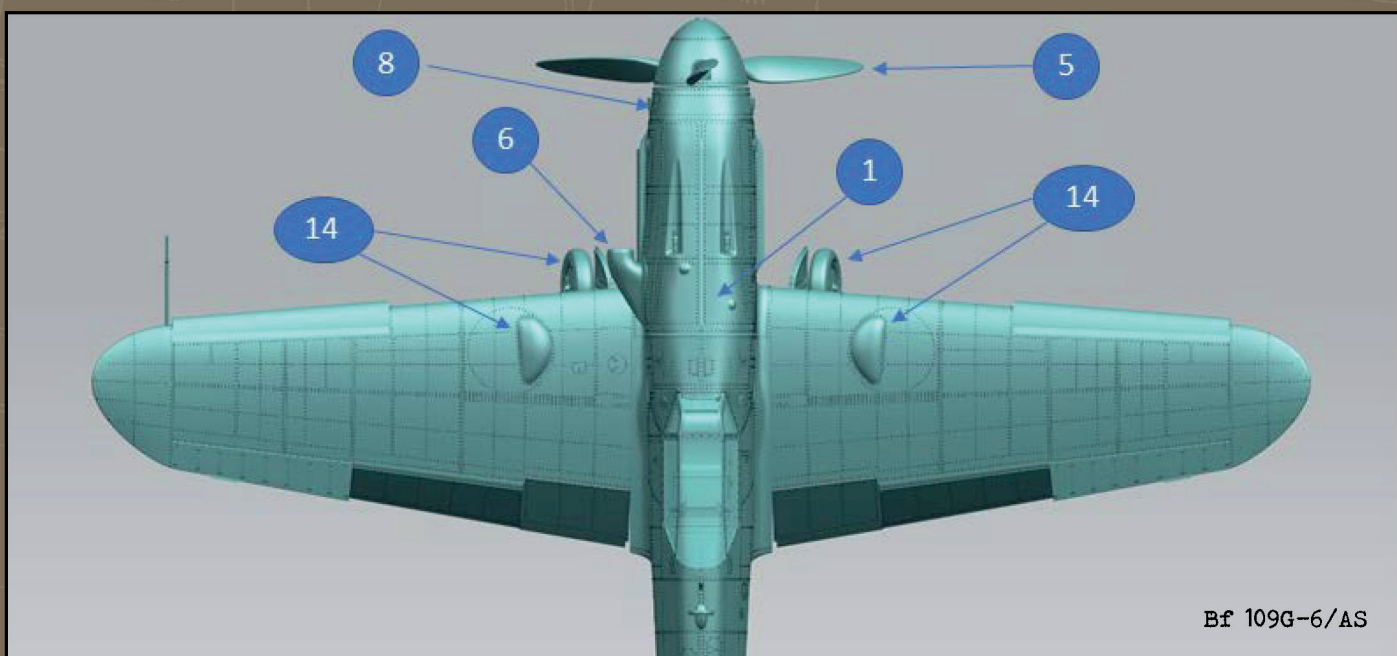
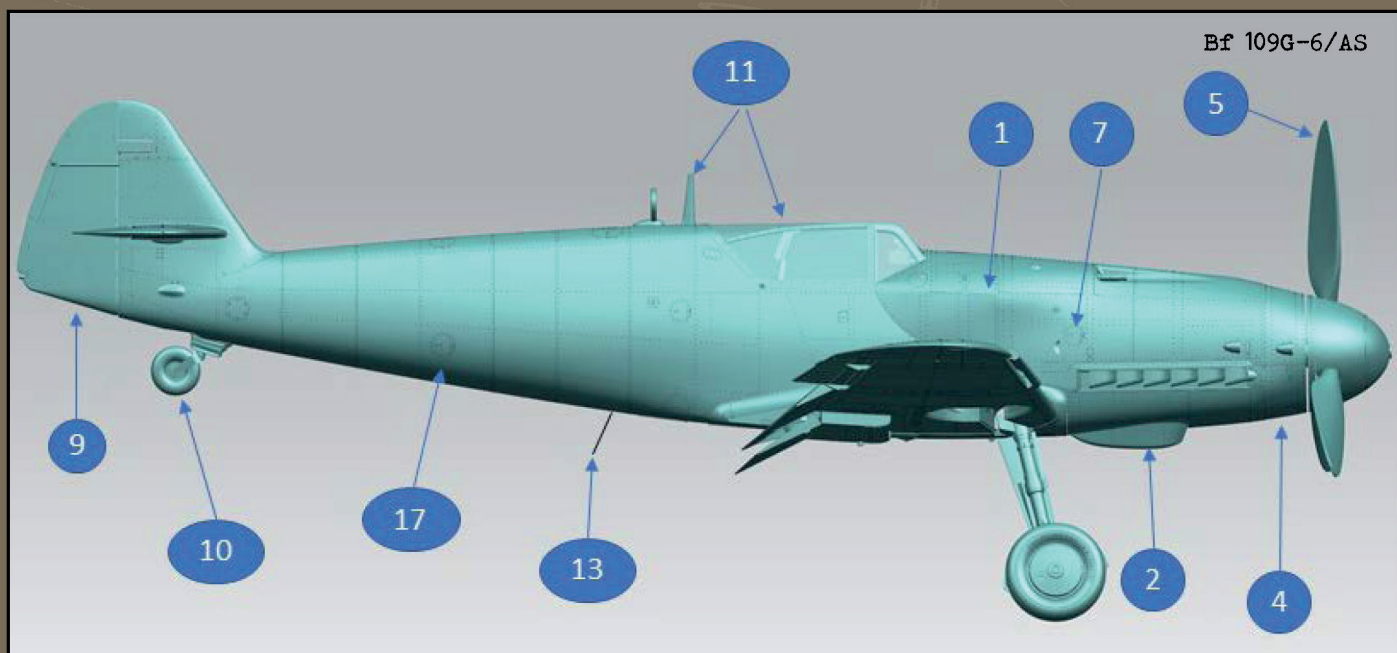
Hamburg, WNF in Vienna, and also at Messerschmitt in Regensburg. There was also an unspecified number of converted Bf 109G-5 frames, and these were designated Bf 109G-5/AS.

The first aircraft were delivered to units in April and May, 1944 (III./JG1, I./JG3, I./JG5, II./JG11), and these were followed by I./NJGr.10, II./JG27, I./JG1 and III./JG300 in June and July, 1944.

The following is a breakdown of the general features of the Bf 109G-6/AS:

1. Wide engine cowl side panels with riveted semielliptical aerodynamic fairings to fuselage.
2. Radiator under the engine as on standard G-6, Type FO.870.
3. The use of the larger FO.987 radiator is also recorded, with an Erla cover as on the G-10 Erla built in the 15xxxx and 49xxxx blocks.
4. Lower engine cowling minus bulge below the oil tank.
5. Older aircraft with VDM 9-12087 propeller (as on standard G-6), later versions with larger VDM 9-12159 propeller with wider paddle blades (as on the G-10).
6. Smaller supercharger intake on the left side of the cowling, as on standard G-6, although some aircraft (later production or overhauled/repaired aircraft) were given the larger intake (as on the G-10).
7. Access cover to supercharger clutch oil pump on the right side of the engine cowl was in a lower position.
8. Oil filler cap cover on the left side of the nose in lower position.
9. Tall tail, Type 1.
10. Short tailwheel (usually).
11. Cockpit canopy with sharp inside corners at the rear and with a small antenna mast on the fuselage behind the cockpit. Aircraft converted from standard G-6s had the mast on the canopy frame and a number of these were without a mast altogether.
12. The G-6/AS/y had a whip antenna associated with the FuG 16zy system below the fuselage (below the wing)
13. Small blade antenna for the FuG 25a IFF system below the fuselage behind the wing trailing edge.
14. Wing fairings over the wheel wells were of the small type, as on the G-6, with corresponding wheels.
15. Some Bf 109G-5s were converted to the G-5/AS, serial numbers 110xxx. They were the same as the G-6/AS, but carried a special tank below the fuselage (associated with the GM-1?)
16. Most aircraft carried fuselage MG 151/20 cannons.
17. Cover located in the fifth fuselage segment only appeared on aircraft with MK 108 30mm cannons mounted in the fuselage (Bf 109G-6/AS/U4 converted from G-6/U4 built at WNF)





Bf 109G-14/AS

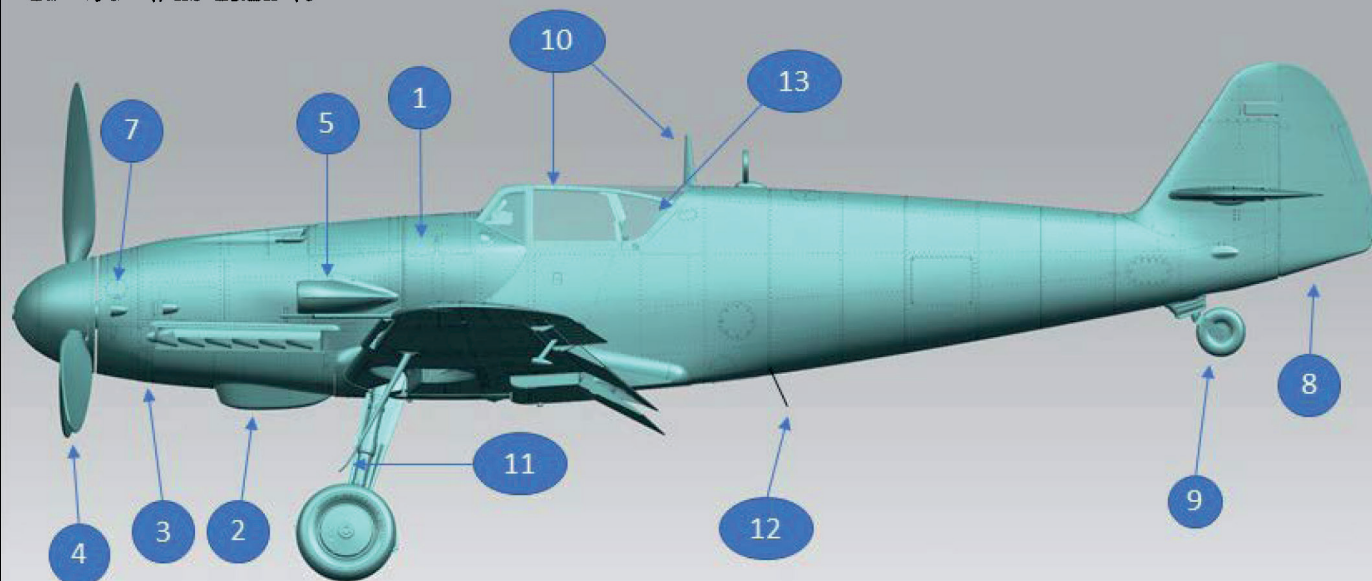
The main difference between the Bf 109G-14/AS and the Bf 109G-6/AS was the standard installation of the MW50 methanol-water injection system, or at least of the features needed for its installation, as evidenced by a boxlike fairing on the rear cockpit wall. This covered the battery (or autopilot, depending on version), and the Morane antenna of the FuG 16zy system below the left wing leading edge. Also standard was the FuG 25a. Aircraft hailing from the 46xxxx and 41xxxx production series from Erla in Leipzig originally had the small air intake to the supercharger and smaller FO.987 radiator as with the Bf 109G-6. These also lacked the bumps covering the pumps below the nose. A fair number of aircraft within the 46xxxx series had the larger FO.987 radiator, but with the Erla-specific cover, which physically is not as deep as the cover over the same radiator produced by Messerschmitt and WNF. The lower engine cowl of these versions corresponds to the G-10 from the 49xxxx and 15xxxx series from Erla. Aircraft from series 78xxxx coming from Messerschmitt Regensburg had, aside from some initial production examples, the larger supercharger intake and FO.987 radiator (as with the G-10), and, for the first time, the two characteristic bulges under the oil pump appeared. The auxiliary oil tank remained the small variety with the filler neck located in the lower position immediately above the left intake pocket. The fin was of the tall type, and aircraft of later production at Mtt. Regensburg received rudders with a straight bottom edge and three trim tabs. The newer type Erla cockpit canopy had a rounded rear corner and a short antenna mast located on the canopy framing. The propeller was a VDM 9-12159 with wide blades. Some later aircraft received larger 660 x 190mm wheels, and with them large, elongated fairings on the upper surface of the wing. The tailwheel on the Erla aircraft (46xxxx) was short, and long on the Mtt. Regensburg version. The fill access cover to the supercharger clutch oil pump on the right side of the engine cowl was in a lower position, above the cowl fastener. Most, if not all, aircraft had fuselage mounted MG 151/20 cannons. Between the summer of 1944 and October of the same year, around 1,000 Bf 109G-14/AS aircraft were produced at Erla and Messerschmitt.

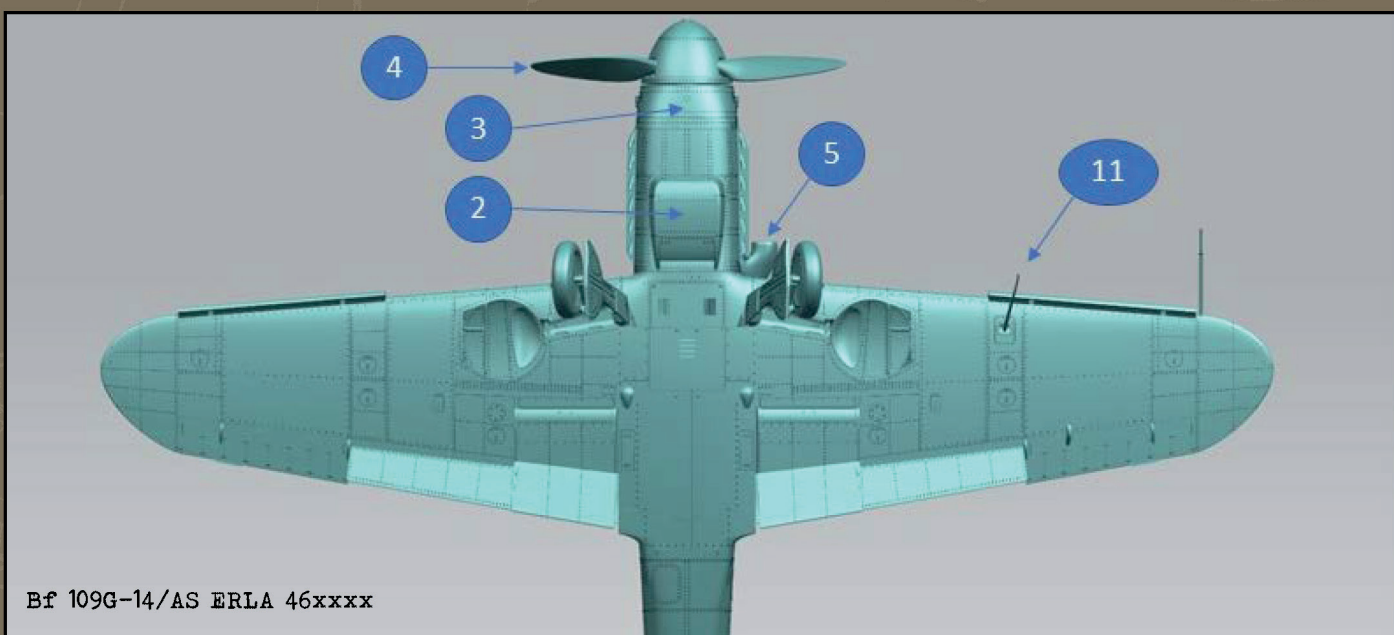
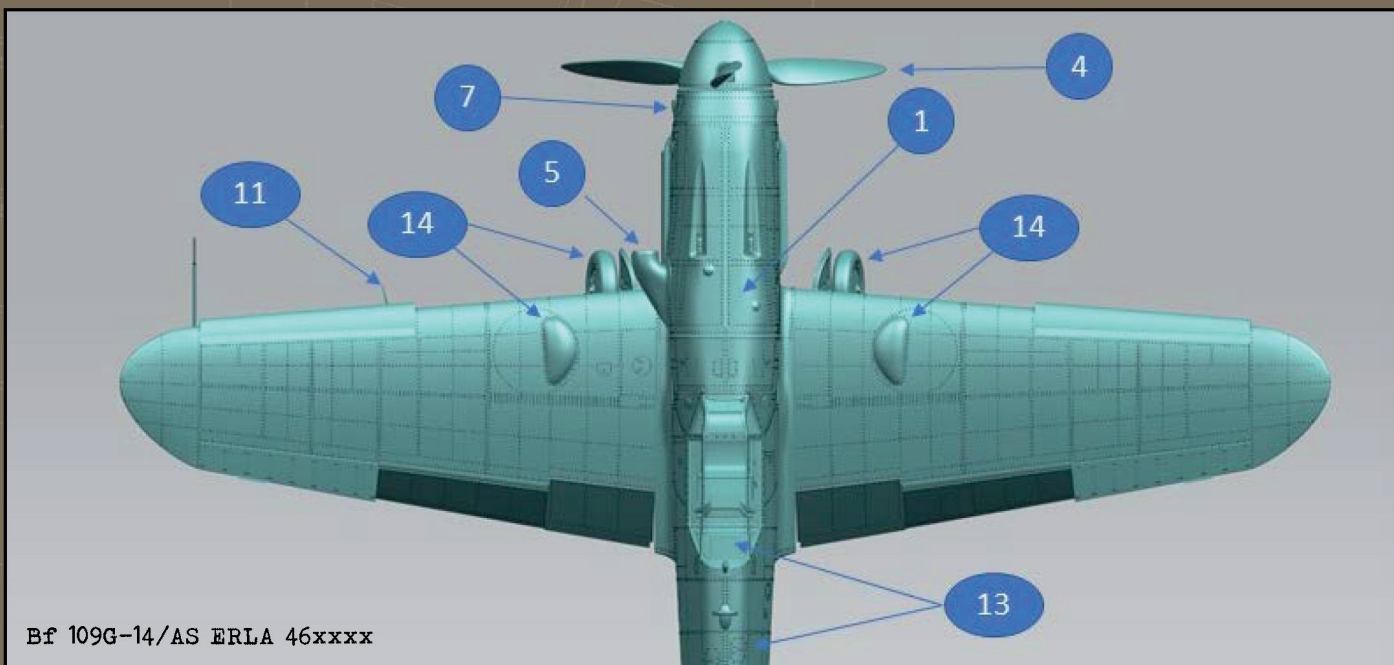
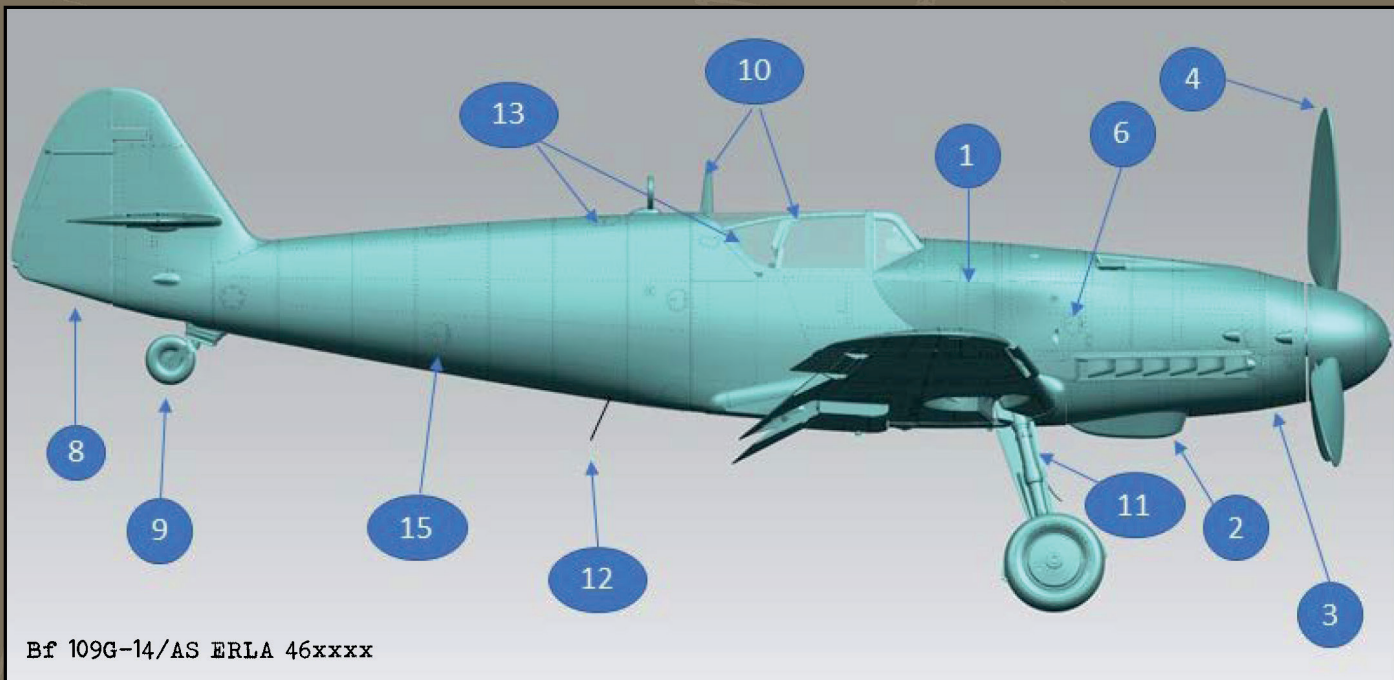
Bf 109G-14/AS ERLA

(Block 46xxxx/part of Block 41xxxx)

1. Wide engine cowl side panels with riveted semielliptical aerodynamic fairings to fuselage.
2. Radiator under the engine as on standard G-6, Type FO.870, though some aircraft received the larger FO.987 unit with the same covering, as on the Erla G-10 from the 15xxxx and 49xxxx production blocks.
3. Lower engine cowling minus bulge below the oil tank.
4. VDM 9-12159 propeller with wider paddle blades.
5. Supercharger air intake on the left side of the cowl as on standard G-6, although some aircraft were given the larger intake as on the G-10.
6. Access cover to supercharger clutch oil pump on the right side of the engine cowl was in a lower position.
7. Oil filler cap cover on the left side of the nose in lower position.
8. Tall tail, Type 1.
9. Short tailwheel (usually).
10. Cockpit canopy with rounded inside corners at the rear and with a small antenna mast on the canopy frame.
11. A whip antenna associated with the FuG 16zy system was located under the left wing (protruding from a glass panel), as with the G-10.
12. Small blade antenna for the FuG 25a IFF system below the fuselage behind the wing trailing edge.
13. MW50 water-methanol injection system and its associated equipment - a box fairing on the rear wall of the cockpit behind the headrest, and an access panel on the right side of the spine behind the cockpit.
14. Wing fairings over the wheel wells were of the small type, as on the G-6, with corresponding wheels.
15. Most aircraft were armed with fuselage mounted MG 151/20 cannons. The cover located in the fifth fuselage segment only appeared on aircraft with MK 108 30mm cannons mounted in the fuselage.

Bf 109G-14/AS ERLA 46xxxx





Bf 109G-14/AS Mtt. Regensburg

(Block 78xxxx)

1. Wide engine cowl side panels with riveted semielliptical aerodynamic fairings to fuselage.
2. Radiator under the engine was the larger FO.987 as on the G-10.
3. Lower cowlings with bulges below oil tank.
4. VDM 9-12159 propeller with wider paddle blades as on the G-10.
5. Supercharger air intake on the left side of the cowling was of the larger type, as on the G-10.
6. Access cover to supercharger clutch oil pump on the right side of the engine cowl was in a lower position.
7. Oil filler cap cover on the left side of the nose in lower position.
8. Small wheel well fairing on the upper wing as on the G-6, with corresponding wheels.
9. Taller tail Type 6 or Type 9 (later aircraft).

10. Usually, a long tailwheel. Short tailwheel has been documented in later production blocks.

11. Cockpit canopy with rounded inside corners at the rear and with a small antenna mast on the fuselage behind the cockpit (although there were examples with canopies having sharp corners and the antenna mast on the canopy frame).

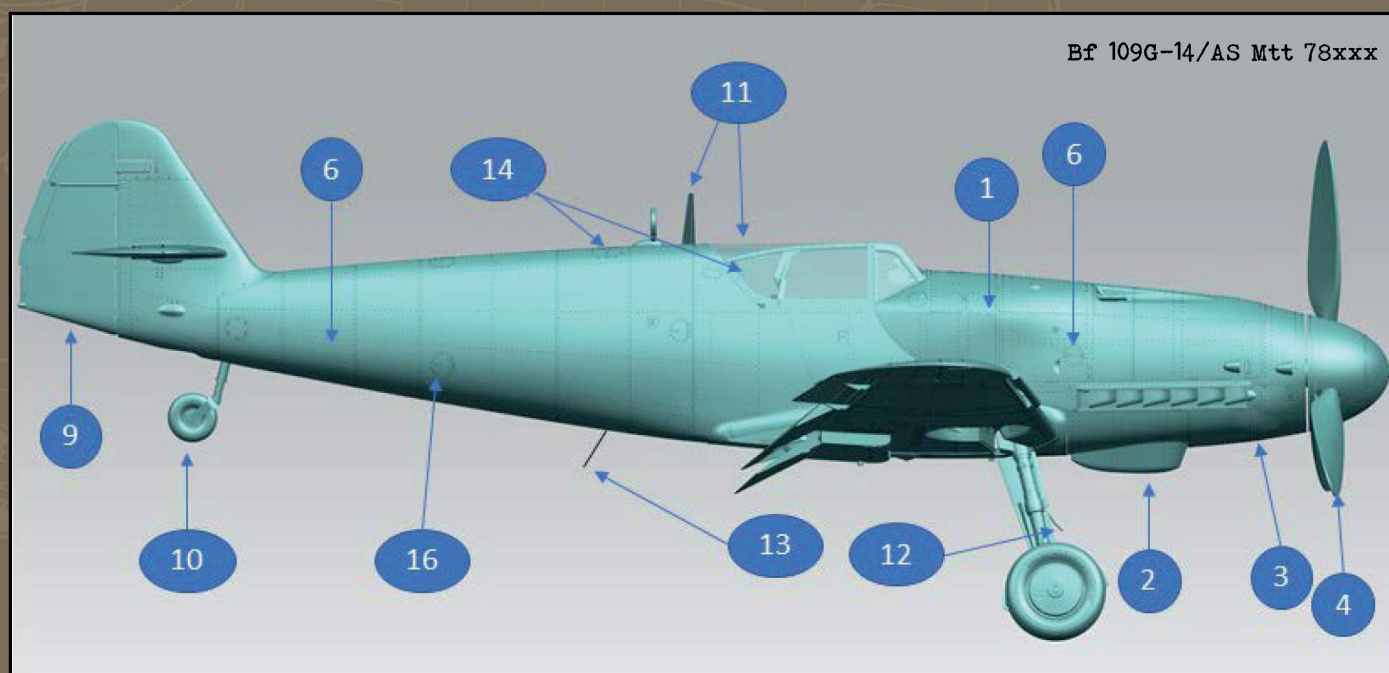
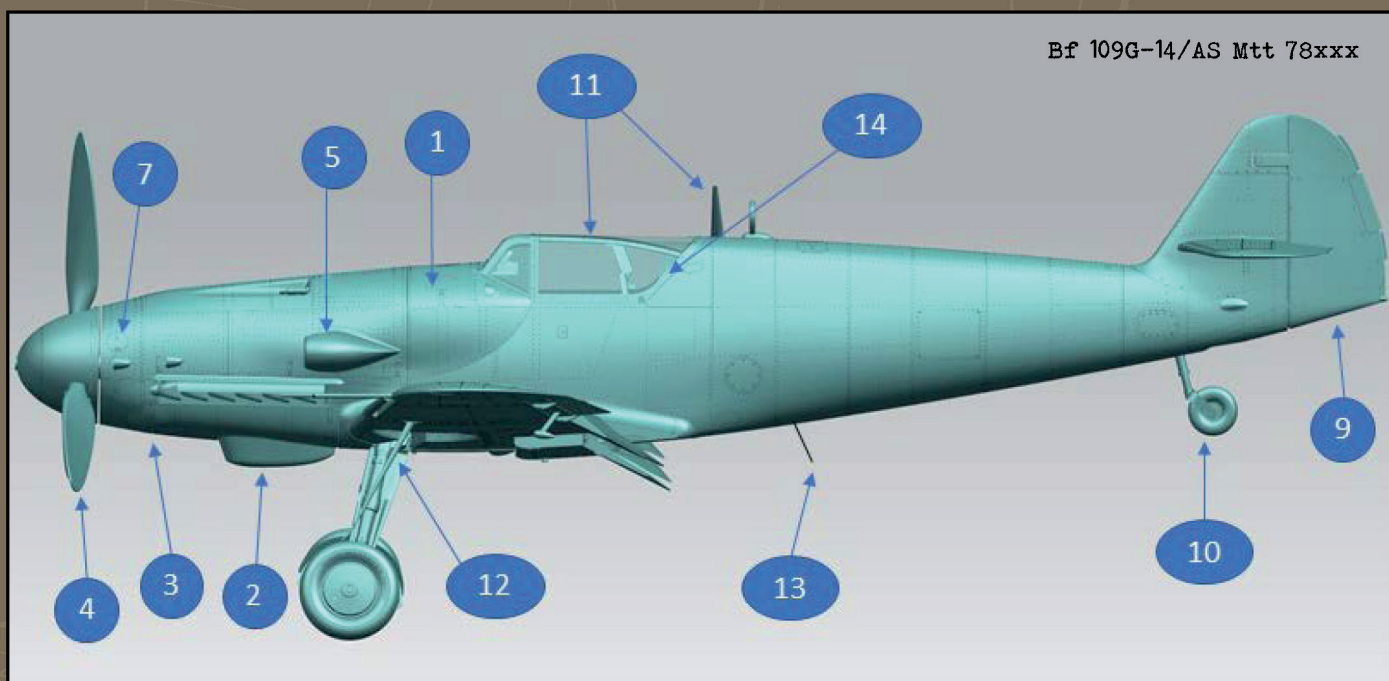
12. A whip antenna associated with the FuG 16zy system was located under the left wing (protruding from a glass panel), as with the G-10.

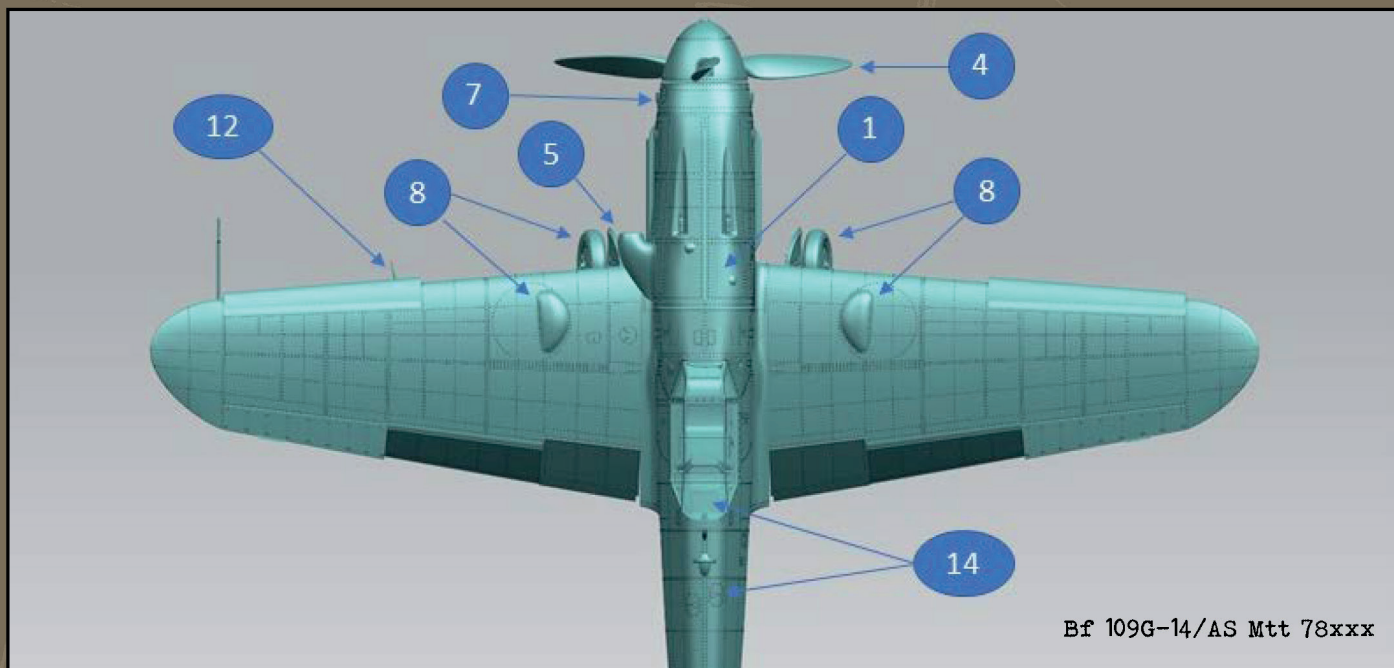
13. Small blade antenna for the FuG 25a IFF system below the fuselage behind the wing trailing edge.

14. MW50 water-methanol injection system and its associated equipment - a box fairing on the rear wall of the cockpit behind the headrest, and an access panel on the right side of the spine behind the cockpit.

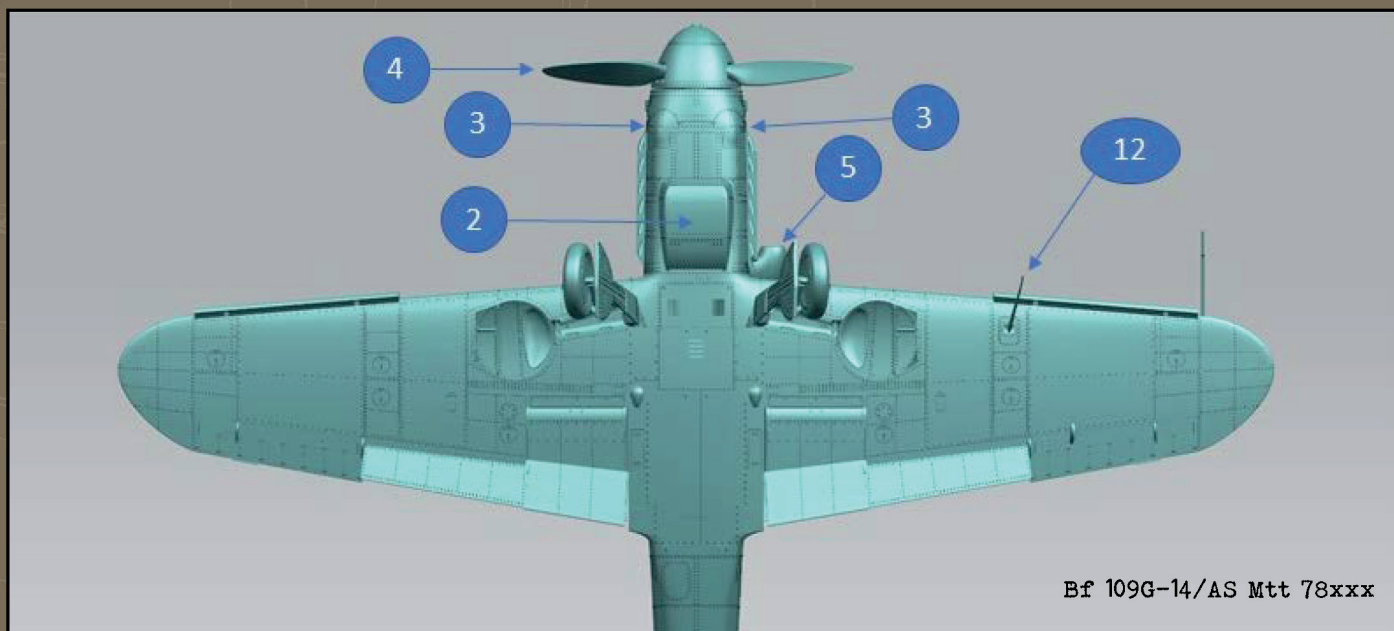
15. A number of late 78xxxx series aircraft received a DB 605D engine.

16. Most aircraft were armed with fuselage mounted MG 151/20 cannons. The cover located in the fifth fuselage segment only appeared on aircraft with MK 108 30mm cannons mounted in the fuselage.





Bf 109G-14/AS Mtt 78xxx



Bf 109G-14/AS Mtt 78xxx

Bf 109G-10

In the summer of 1944, deliveries began of the DB 605D, in development since 1942, with an automatic barometric supercharger rpm control system, dictated by altitude. After the initial DB 605DM and DMO were produced, these engines were delivered in two main versions. The DB 605DB was used with B4 fuel in conjunction with the MW50 methanol water injection system, and the DB 605DC, burning 96 octane C3 fuel, without the MW50 system installed. Nevertheless, the DB 605DC had the MW50 vents installed, enabling the conversion of the DB 605DC to the DB 605DB and vice versa. The DB 605D were installed exclusively with the larger FO.987 oil cooler, a larger, 54 litre oil tank, and larger supercharger air intake.

Production of the Bf 109G-10 powered by various models of the DB 605D, replaced the Bf 109G-6/AS and G-14/AS in the fall of 1944. A common feature of all Bf 109G-10s, besides the aforementioned installation of some version of the DB 605D and the associated wider engine cowl ('Horse's Ass'), was the installation of the larger FO.987 oil cooler instead of the original FO.870 in the G-6/G-14, larger ALF 907C wing radiators instead of the original ALF 750Bs, larger supercharger air intakes and VDM 9-12159 propeller. Also common features were the simplified Erlahaube canopy and tall fin. The Bf 109G-10 was manufactured at three facilities: Erla Leipzig, Messerschmitt Regensburg and Wiener ne-

ustadter Flugzeugwerke. The G-10 was to be an interim aircraft, pending the production of the modernized Bf 109K, also powered by the DB 605D. In reality, the first G-10s did not begin to arrive from Erla Leipzig at their intended units until October, 1944, essentially at the same time as the first Bf 109K-4s.

It should be noted that the genesis of the G-10 was different with each of these three facilities producing it, and each tackled production within its own means. This makes for basically three sub variants of the G-10. The first to go into production was the Erla G-10, which was entrusted the responsibility of producing the Bf 109G-10 as a quick, temporary replacement for the delayed Bf 109K-4 project. Production at Erla began in September, 1944, and 1709 aircraft were delivered in two production blocks. Messerschmitt Regensburg produced around 120 DB 605Ds for the Bf 109G-14/AS between November and December. This was to catch up to the production of Bf 109G-14/AS aircraft with the DB 605D, while it is interesting to note that a number of the aircraft with the DB 605D remained designated as the Bf 109G-14/AS. Mtt. Regensburg then focused on producing the Bf 109K-4. In December, 1944, production began of the Bf 109G-10/U4 at WNF Diana. Production of these aircraft came out of the mating of the DB 605D with the Bf 109G-14/U4 airframe with the DB 605A, and became somewhat of a peculiarity, differing from the approach taken by Erla.

The likely reason for initiating production of their own version of the Bf 109G-10 instead of the Regensburg K-4s, at the time already in production, was the anticipated problems with start-up of Bf 109K-4 manufacture under conditions brought about by Allied bombings of the WNF facility. There were issues with implementing all the necessary changes required for the start-up of the new version, and with the co-ordination of the supply chain from the various suppliers that would be involved. To understand this decision, it needs to be taken into account that, of all the firms involved in Bf 109 manufacture, the WNF plant was under the greatest pressure from Allied bombings and was the closest to the front. Production at WNF accounted for just shy of 800 aircraft, and in all, there were some 2600 Bf 109G-10s made.

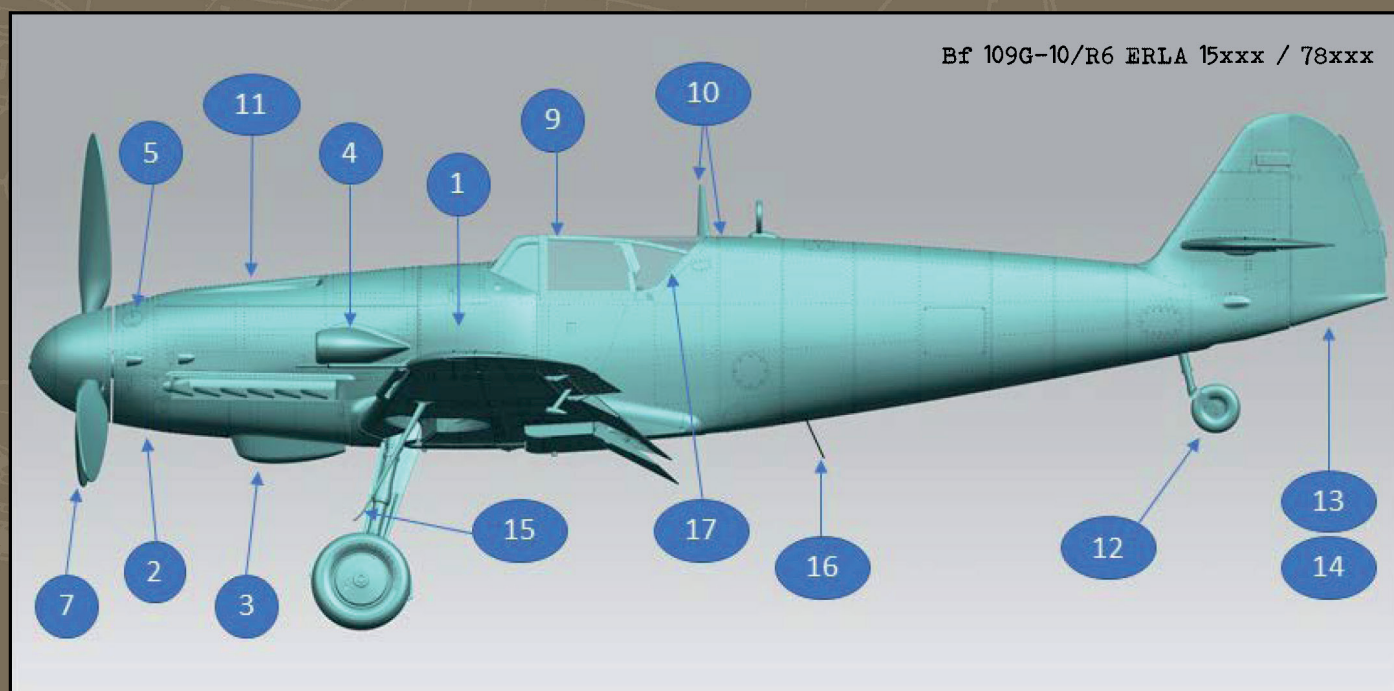
Bf 109G-10/R6 ERLA

(15xxxx and 49xxxx Production Blocks)

Erla Leipzig was entrusted with making preparations for the change of manufacture from the Bf 109G-6 to the G-10 as an interim solution to the delay in Bf 109K-4 production at Mtt. Regensburg. The new Bf 109G-10 from Erla differed from the G-6/AS and G-14/AS visually in the aerodynamic bulging of an engine cowl panel (Type 110) on the left side. This was missing the standard (for the other versions of the G-10, G-14/As and G-6/AS) wide cowling riveted to the rest of the fuselage. The oil cooler was of the FO.987 larger type, with the specific Erla cover which was not as deep as the other variations with this radiator. Visually, the size of this unit lay between the standard G-6 with an FO.870 cooler and the G-10 with the FO.987 produced at WNF/Diana. Aerodynamically, the entire bottom of the engine cowl was clean, with no bulges under the oil pumps in the nose, characteristic for the G-10s produced at Mtt. Regensburg and WNF. Typical for Erla was also the upper engine cowl with longer gun troughs. Production began with Production Block 49xxxx in September, 1944, and was followed by Block 15xxxx. A large number of these aircraft, if not all outright, were equipped with the PKS 12 Autopilot and designated Bf 109G-10/R6. The first aircraft began to reach Luftwaffe units in the second half of October. Just to complicate things a little bit, approximately the first fifty G-10s coming out of Erla Leipzig were powered by the DB 605ASM. In older references, these aircraft were referred to as G-10/AS, but current research denies this designation. In all, there were 1709 Bf 109G-10s produced in 49xxxx and 15xxxx Production Blocks.

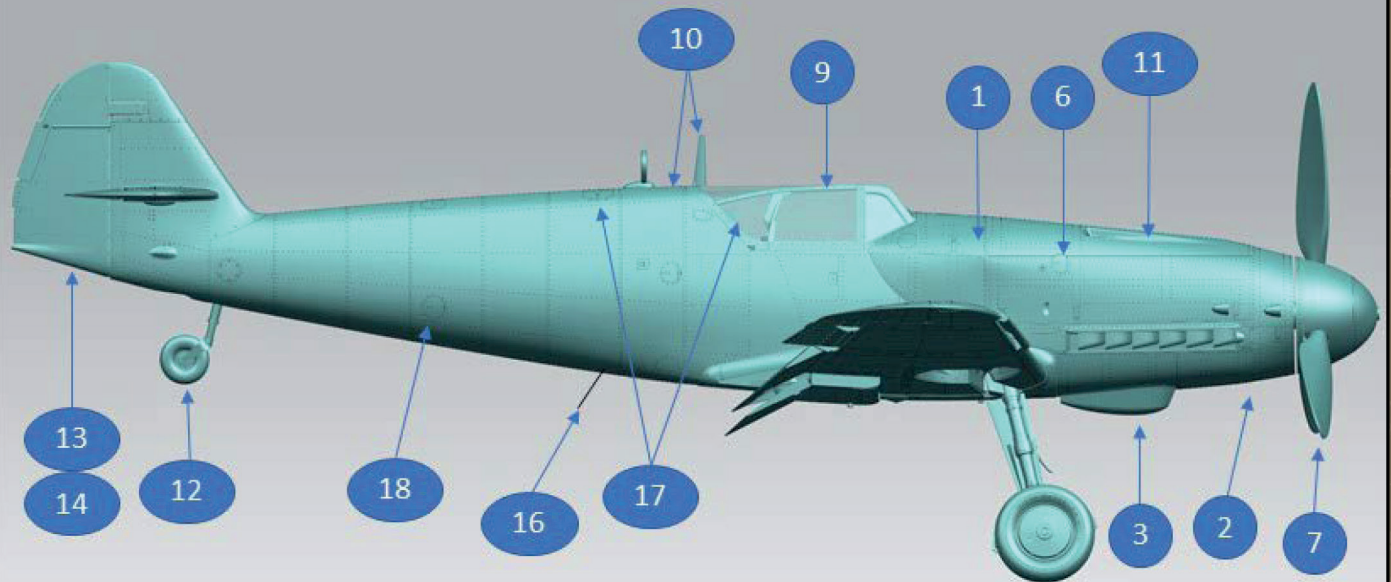
The identifying features of this version are:

1. Engine cowl - left side wide cowl without the elliptical bulged structure; right side with elliptical aerodynamic feathering to the fuselage.
2. Bottom of engine cowl without bulges below the oil tank, but with a wider front section than seen on the standard G-6 and G-10 from Mtt. Regensburg and WNF.
3. Radiator under the engine was the larger FO.987 with a specific covering.
4. Large supercharger intake on the left side of the cowl.
5. Oil tank filler cap access placed higher up on the left side of the nose.
6. Access cover to supercharger clutch oil pump on the right side of the engine cowl was in a higher position (extending to the gun trough panel).
7. VDM 9-12159 propeller with wide blades.
8. Small wheel well fairing on the upper wing as on the G-6, with corresponding wheels. Could also have larger wheels with larger fairings (usually on aircraft in the 15xxxx Production Block).
9. Cockpit canopy with rounded inside corners at the rear.
10. Small antenna mast on the canopy frame on 49xxxx aircraft, without a mast on 15xxxx aircraft.
11. Longer gun troughs for the fuselage guns and a specific form of skinning around them.
12. Long tailwheel.
13. Type 1 tail (could have had an additional trim tab on the upper trailing edge) or Type 6 (later machines) in the 49xxxx range.
14. Type 6 or 9 tail in the 15xxxx range.
15. A whip antenna associated with the FuG 16zy system was located under the left wing.
16. Small blade antenna for the FuG 25a IFF system below the fuselage behind the wing trailing edge.
17. MW50 water-methanol injection system and its associated equipment - a box fairing on the rear wall of the cockpit behind the headrest (with, in this case, the PKS 12 Autopilot unit below it), and an access panel on the right side of the spine behind the cockpit.
18. Most aircraft were armed with fuselage mounted MG 151/20 cannons. The cover located in the fifth fuselage segment only appeared on aircraft with MK 108 30mm cannons mounted in the fuselage.

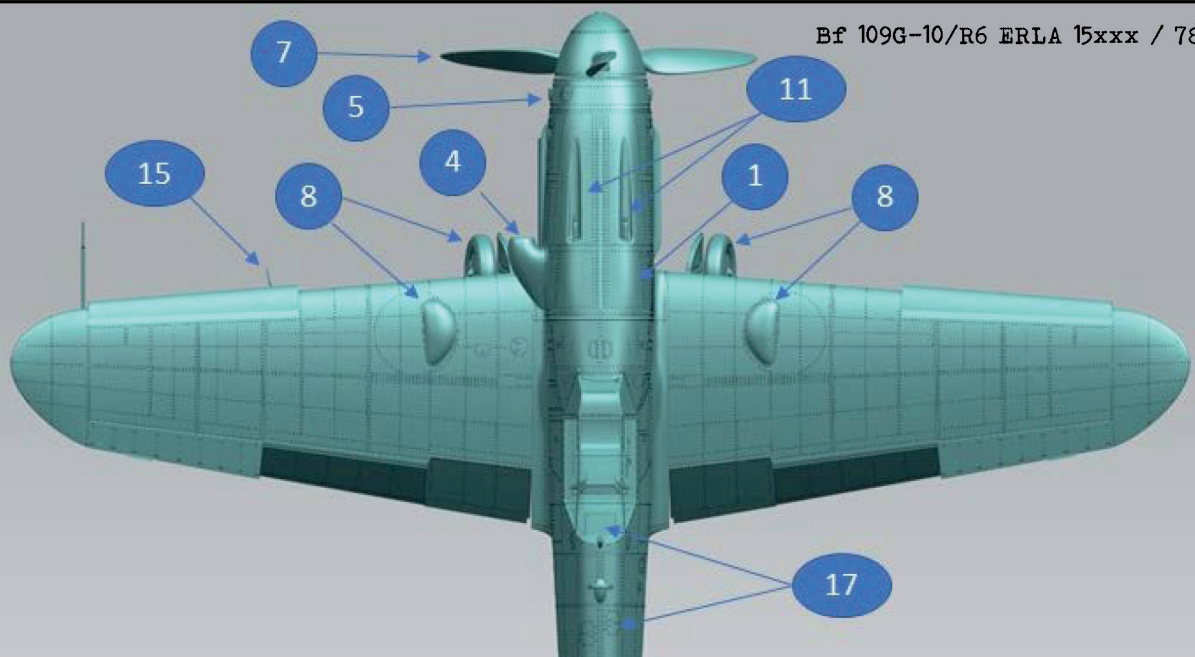


Bf 109G-10/R6 ERLA 15xxxx / 78xxx

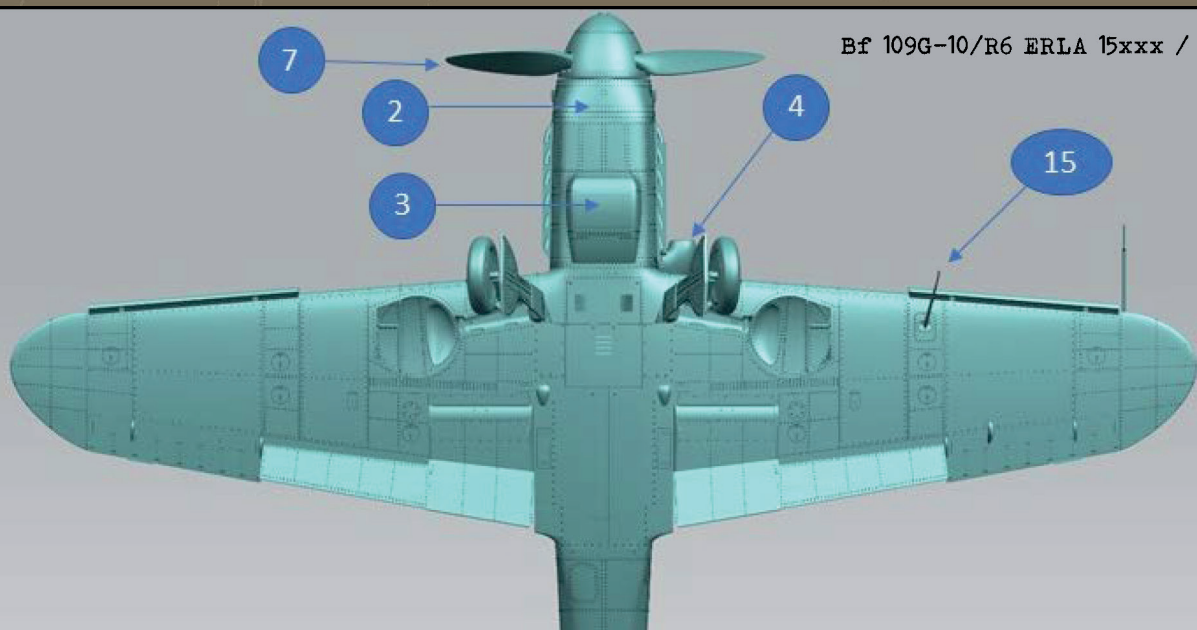
Bf 109G-10/R6 ERLA 15xxx / 78xxx



Bf 109G-10/R6 ERLA 15xxx / 78xxx



Bf 109G-10/R6 ERLA 15xxx / 78xxx



Bf 109G-10 Mtt. Regensburg

(Production Block 13xxxx)

The Messerschmitt mother plant in Regensburg produced 120 (some sources state 123) Bf 109G-10s through November and December, 1944, the bulk of which were converted from Bf 109G-14/AS by installing a DB 605D. The last three pieces were delivered in January, 1945. This aircraft were externally virtually identical to later G-14/AS aircraft coming out of Mtt. Regensburg (78xxxx Production Block), and differed only in small details.

General identifying features of this version were:

1. Wide engine cowl side panels with riveted semielliptical aerodynamic fairings to fuselage.
2. Radiator under the engine was the larger FO.987.
3. Lower cowling with bulges below oil tank.
4. Larger supercharger intake on the left side of the cowling.
5. Oil filler cap cover on the left side of the nose in higher position.
6. Access cover to supercharger clutch oil pump on the right side

of the engine cowl was in a higher position. The original lower position was patched over.

7. Wide blade propeller as on the G-10 (VDM 9-12159)

8. Tall tail Type 6.

9. Cockpit canopy with rounded inside corners at the rear and without an antenna mast on the fuselage behind the cockpit, with the antenna lead going directly into the fuselage (or could also be attached to a small mast on the canopy frame).

10. Long tailwheel.

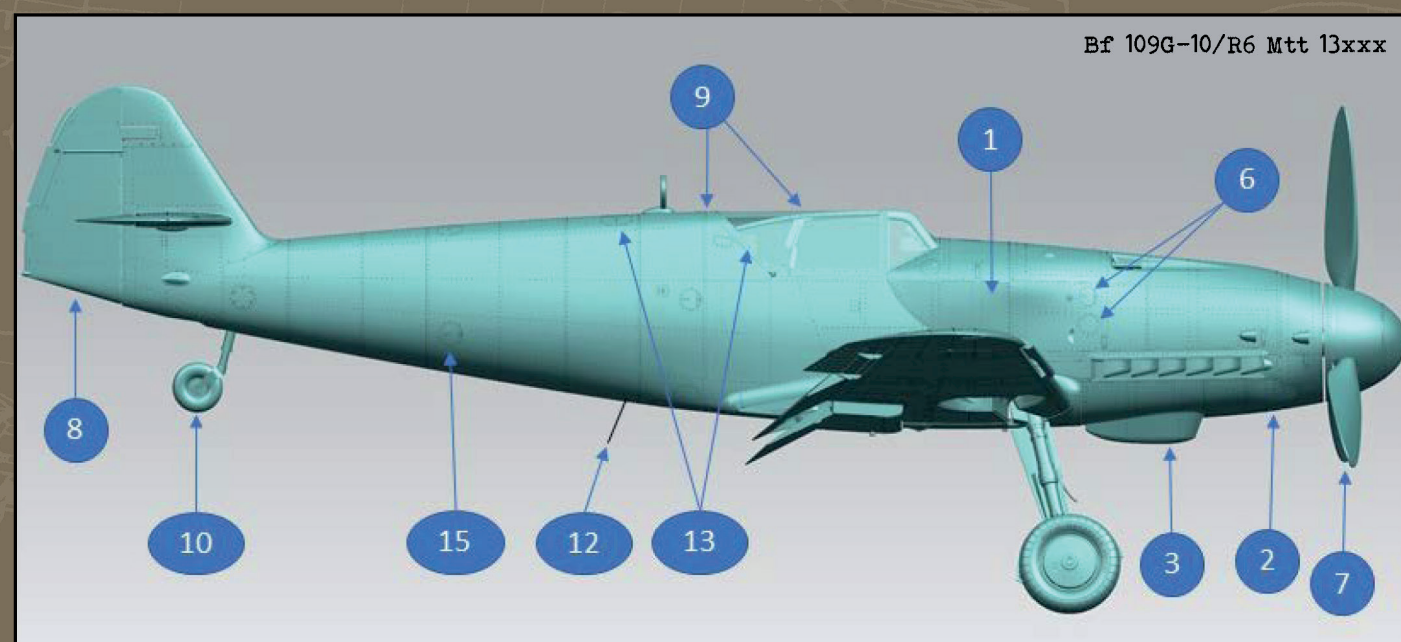
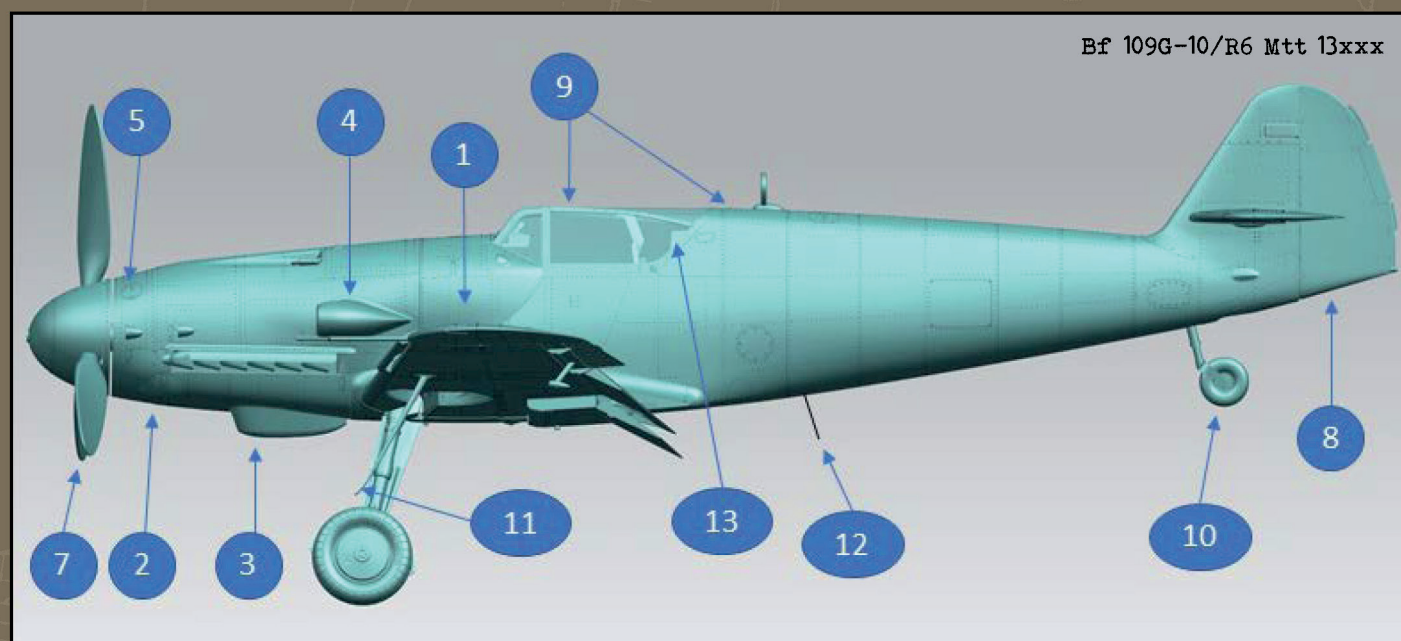
11. A whip antenna associated with the FuG 16zy system was located under the left wing

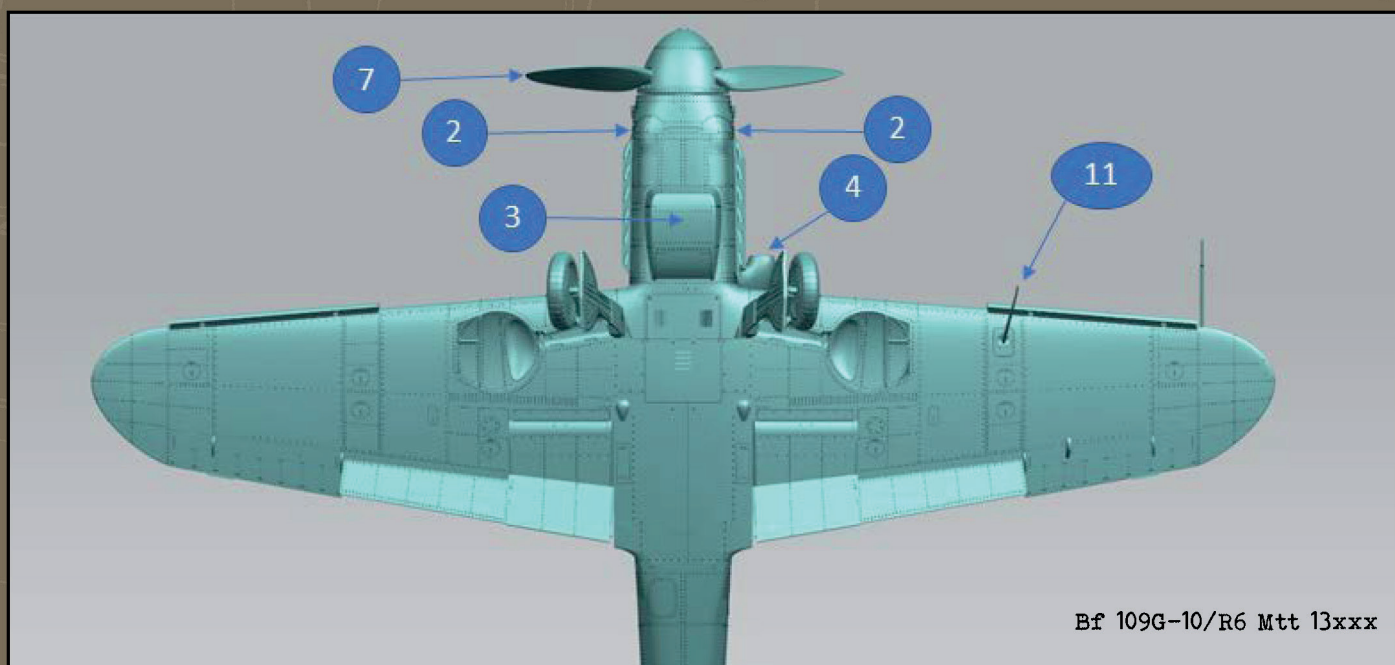
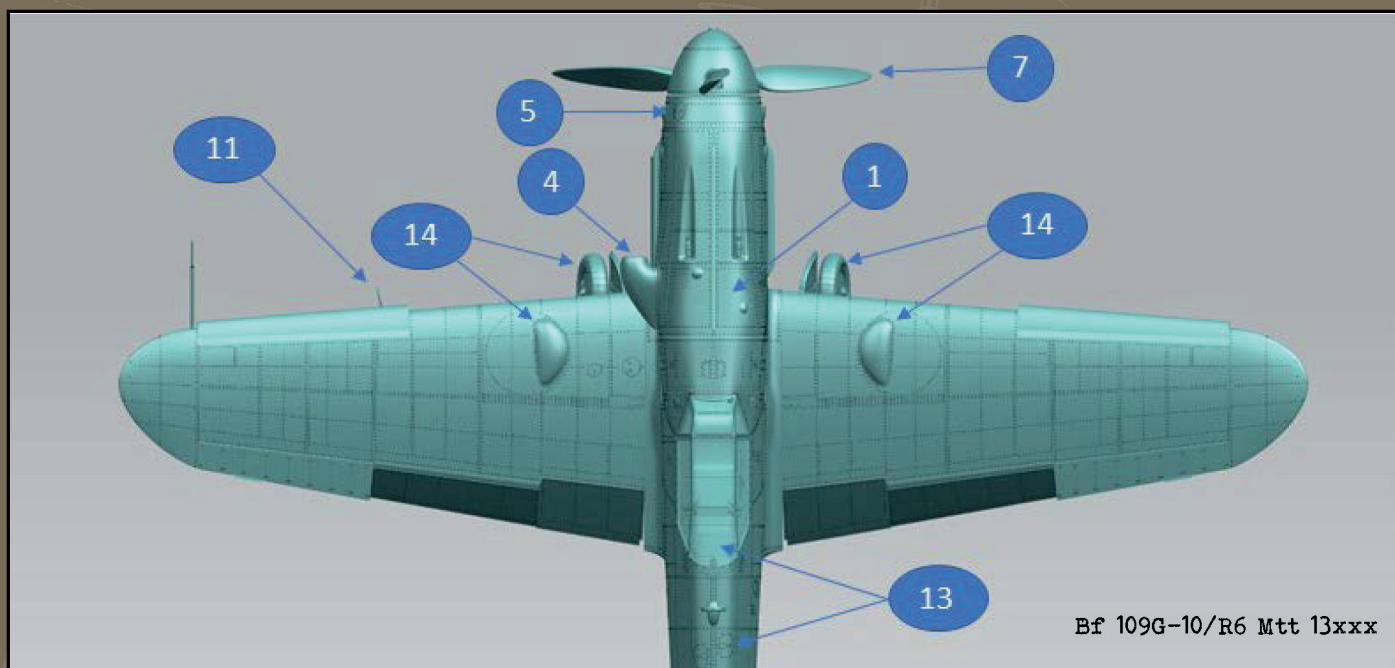
12. Small blade antenna for the FuG 25a IFF system below the fuselage behind the wing trailing edge.

13. MW50 water-methanol injection system and its associated equipment - a box fairing on the rear wall of the cockpit behind the headrest, and an access panel on the right side of the spine behind the cockpit.

14. Small fairing covering the wheel wells on the upper surface of the wings, as on the G-6, with corresponding wheels.

15. Fuselage mounted MG 151/20 cannons. The cover located in the fifth fuselage segment only appeared on aircraft with MK 108 30mm cannons mounted in the fuselage





Bf 109G-10/U4 (WNF/Diana)

(61xxxx and 77xxxx Production Blocks)

Bf 109G-10/U4 coming out of the production facility at Wiener Neustädter Flugzeugwerke came about as a modification to the Bf 109G-14/U4 made by WNF, powered by a DB 605A and armed with fuselage mounted MK 108 30mm cannon. For this modification, experience gained by Messerschmitt in the production of the Bf 109G-14/AS was used, from which the G-10/U4 differed only in some minor details: standard installation of the MK 108s and their associated access to the compressed air bottles in the fifth fuselage segment on the right side and the shorter tailwheel. The installation of the fuselage mounted cannon allowed for the alternate mounting of MG 151/20 weapons. The Bf 109G-10/U4 received, likely due to the higher weight of the aircraft, larger wheels measuring 660 x 190mm and the long, elongated (rectangular) upper wing fairings over the wheel wells. The shorter tailwheel was probably due to an effort to simplify the supply chain from sub-contractors. Because the production plant in Vienna was essentially destroyed along with the city proper by Allied bombings begun in the summer of 1943, Bf 109G-10/U4 production was limited to dispersed sub-contractor facilities and isolated plants. One of the isolated plants was Diana, constructed in three railroad tunnels

that were a part of the line between Bmo and Havlickub Brod in Moravia. Final assembly and verification flights were made at Prague-Letnany. Production continued from December, 1944 to March, 1945. This variant also formed the basis of the postwar Czechoslovak Avia S-99/C-10. The final production tally of the type remains unknown, but it is unlikely that it exceeded 800 units.

The general identification features of this version are:

1. Wide engine cowl side panels with riveted semielliptical aerodynamic fairings to fuselage.
2. Radiator under the engine was the larger FO.987.
3. Lower cowl with bulges below oil tank.
4. Larger supercharger intake on the left side of the cowl.
5. Oil filler cap cover on the left side of the nose in higher position.

6. Access cover to supercharger clutch oil pump on the right side of the engine cowl was in a higher position. The original lower position was patched over (on some aircraft).

7. Wide blade propeller as on the G-10 (VDM 9-12159)

8. Tall tail Type 1 or 9 (later aircraft).

9. Cockpit canopy with rounded inside corners at the rear and without an antenna mast on the fuselage behind the cockpit, with the antenna lead going directly into the fuselage (or could also be attached to a small mast on the canopy frame as was the case with the postwar Czechoslovak C-10/S-99).

10. Short tailwheel.

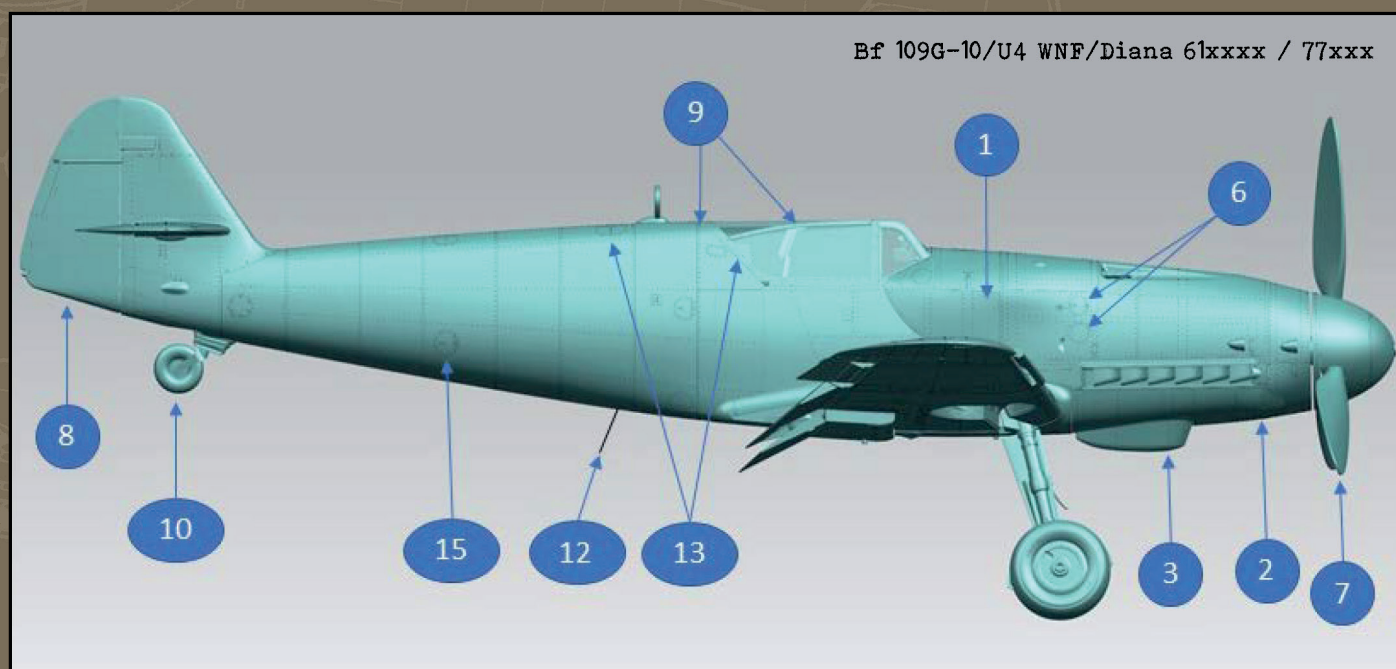
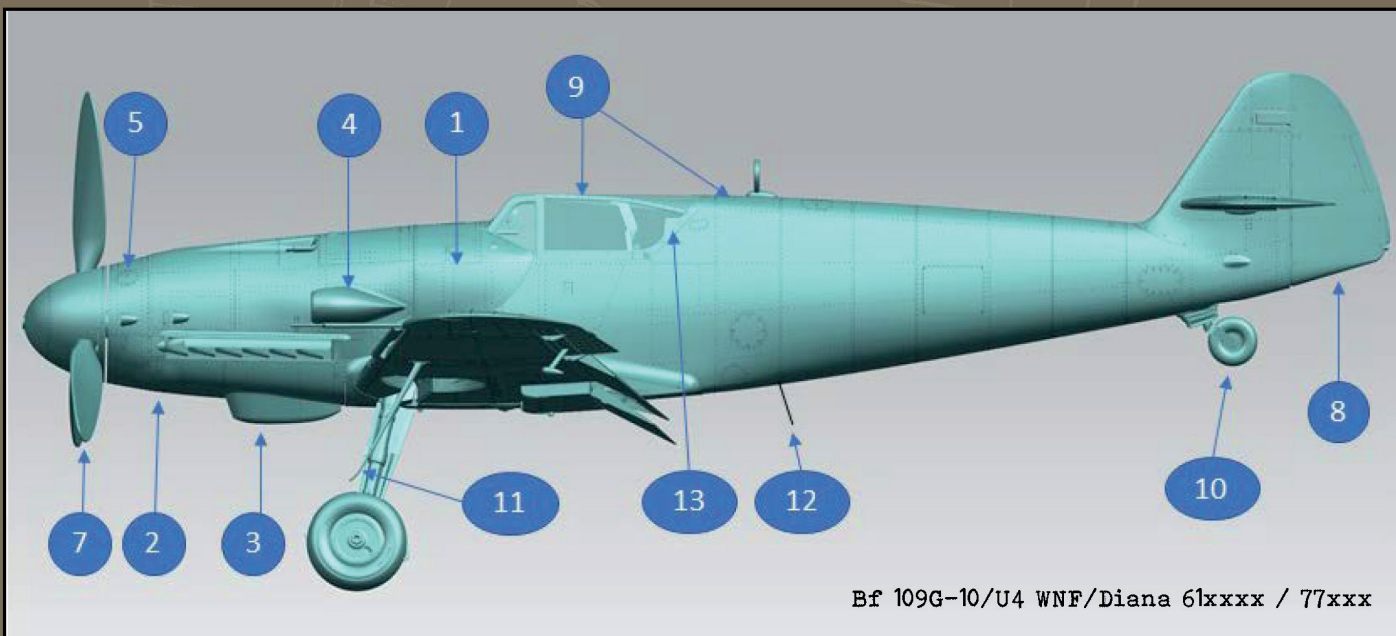
11. A whip antenna associated with the FuG 16zy system was located under the left wing.

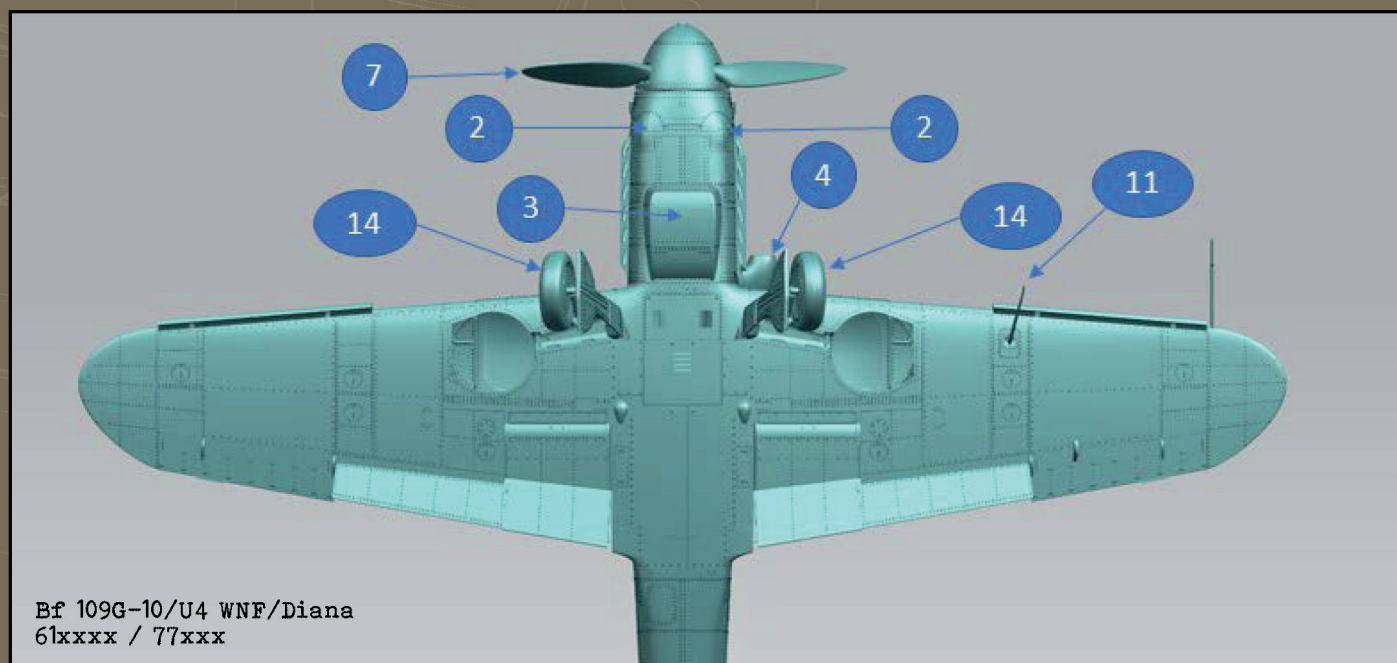
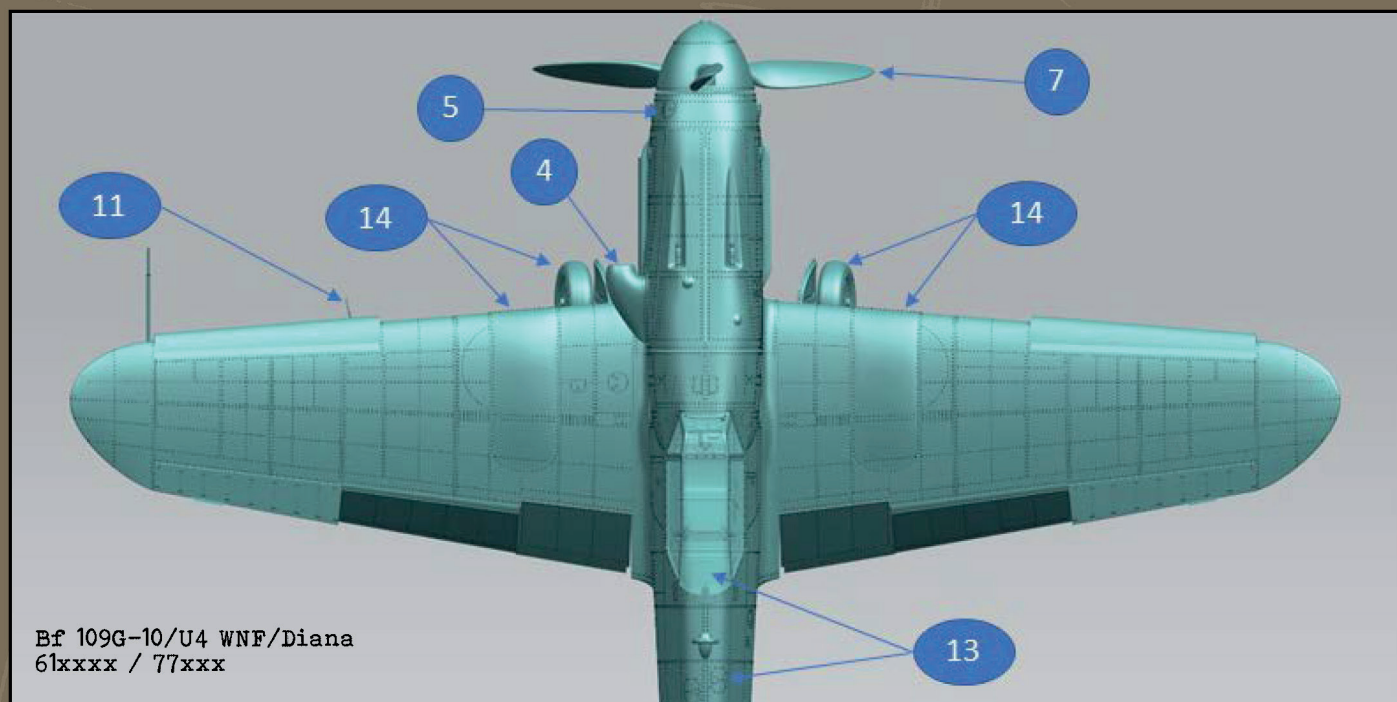
12. Small blade antenna for the FuG 25a IFF system below the fuselage behind the wing trailing edge.

13. MW50 water-methanol injection system and its associated equipment - a box fairing on the rear wall of the cockpit behind the headrest, and an access panel on the right side of the spine behind the cockpit.

14. Fairings covering the wheel wells were of the large variety and had the corresponding 660 x 190mm wheels.

15. All aircraft were built as U4 mods, with 30mm MK 108 cannons and associated equipment: a large cannon cover below the instrument panel in the cockpit and an access hatch to compressed air bottles in the fifth fuselage segment on the right side. Some aircraft were armed with MG 151/20 cannons.





CONCLUSIONS

It's all pretty complex, isn't it? It appears to all be a mixed bag of almost 'non-German' chaos. It's one thing to get a handle on the features differentiating individual versions, but it's another thing altogether grasping where they came from and why there were simultaneously so many versions of essentially one type. Where was that German attempt at type unification, simplification? Add to that that the mention above of the Bf 109K-4 was only peripheral and mention of other simultaneously produced fighters for the Luftwaffe was ignored altogether. Even the grasping of the specifications of individual versions is no simple matter. It's not only that without knowing the serial number, the Bf 109G-14/As and the Bf 109G-10 are practically indistinguishable from one another, but we also run into that little pearl that is the Erla Bf 109G-10 with a DB 605AS, which, following the logic of designating the Bf 109G-6/AS and G-14/AS, means that this should be a Bf 109G-10/AS, and we now know that this designation did not exist. On the other hand, we have the Bf 109G-14/AS produced at Regensburg with the DB 605D, which should've made these the Bf 109G-10. But, as it would appear, in this story there are no definitive truths. The whole thing begins to acquire some form of perspective, as long as you bear in mind the conditions under which

the development and production of these machines took place.

The aforementioned Allied bombing campaign had a dramatic impact on the overall situation that Germany found itself in. The German war effort was increasingly crippled as the bombings intensified. Despite a marked decrease in the intensity of the attacks in June and July, when the Allied air forces operating from the British Isles focused their efforts on supporting the Normandy landings and the push into southern France, German industry was succumbing to increasing pressure. As mentioned earlier, the Vienna and WNF firms were virtually wiped off the face of the earth by the American 15th Air Force in mid 1944. As time went on, Luftwaffe fighter units were pulling on an ever decreasing length of rope. The Allied air superiority manifested itself in every aspect of life over German occupied Europe through 1944. Added to the overall devastation, there were supply and logistical problems, thanks to which the situation worsened from month to month, even week to week, and in some cases, literally day to day. In the second half of the year, there was a dramatic decline in the situation on all fronts, leading to rapid Allied advances on the Western Front and in Italy, and even more so in terms of both

military and civilian losses following Red Army offences on the Eastern Front. Germany lost vast areas with significant industrial and economic potential. After the Red Army attack on Eastern Prussia, and the subsequent push into Poland, there was a massive exodus of migrants into Silesia in the winter of 1945. This was the quite literally apocalyptic scenario that accompanied the development and production of the above mentioned aircraft.

The progress, weather under conditions of perceived or actual chaos, of the designating of the later versions of the Bf 109G, is, in my opinion, as follows: It began with the delays in the development of the Bf 109K, and, by extension, the DB 605D powerplant. When it became clear that there would be serious delays in the supply of the Bf 109K, interim solutions were sought. These were entrusted to Erla, which was responsible for the mating of the DB 605D with the Bf 109G-14 airframe, and was making preparations for production. But, because the DB 605D was not yet in production by the spring of 1944, Messerschmitt in Regensburg prepared an interim solution involving the installation of the available DB 605/AS into the Bf 109G-6, which was put into practice at Messerschmitt in the production of new aircraft, while at Erla and other manufacturing and repair facilities, the installation of the DB 605/AS was installed in Bf 109G-6 and G-14 airframes during overhauls and repairs. This is why the majority of G-6/AS aircraft built by Erla came out of Antwerp, which was not a manufacturing plant, but rather one that performed overhauls and major repairs of Bf 109s. After the supply of DB 605Ds began to flow, production of the Bf 109G-10 at Erla was started up on the basis of the planned modifications. Fifty Bf 109G-10s with the DB 605AS engine was likely the result of a delay in the DB 605D supply, making the alternative use of the remaining DB 605AS engines a good solution. The need for new aircraft was absolutely critical, and German industry was able to improvise. The probability that a company would be somehow reprimanded by not adhering to prescribed requirements along the lines of the amount of carbon dioxide in the exhaust gases was low, especially compared to the likelihood of a serious reprimand coming down hard on the director of a plant that failed to adhere to production quotas of new aircraft. At Regensburg, the assembly line was still not producing any Bf 109Ks, but rather was churning out the G-14/AS. At the moment when the DB 605D became available, its installation into partially produced G-14/AS airframes was implemented. Apparently, these were suffering from a lack of DB 605AS engines, so the DB 605Ds were installed to keep the production line going. This required only small modifications. Aircraft from this initial run were not even redesignated as the G-10, and the G-14/AS and the G-10 from Regensburg were essentially identical items that differed only in the location of two access panels. And to top it off, one of them, on the right side of the engine cowl, had a duplicate access hatch in the new location for the DB 605D with a patch over the original location for the DB 605AS. At Regensburg, though, only partially assembled airframes were used, and the production line was readied for manufacturing the Bf 109K-4, and after, this production was begun once the DB 605Ds began to arrive. That's why the 120 G-10s were produced at Regensburg. On the other hand, when Mtt. Regensburg was producing the Bf 109K-4, Erla continued to build the G-10, and production of the K-4 had not yet been implemented. It wasn't ready until the spring of 1945, and only a few examples of the Bf 109K-4 of the 57xxx production Block were produced.

A similar situation existed at WNF. This heavily bombing affected plant made do by maintaining production in a number of dispersed areas and facilities, one of which was Diana, constructed in railway tunnels, as mentioned earlier. Other local facilities were also utilized. Given the situation that the plant found itself in in the winter of 1944/1945, it was logical that it would not complicate things further by implementing production of the Bf 109K-4, and took the path of least resistance by installing the new engines into existing airframes, a practice already proven at Regensburg. Production of the Bf 109G-10/U4 then smoothly transitioned out of the established manufacture of the Bf 109G-14/U4, which ran virtually to the end of the war, March, 1945. In April, the Red Army occupied Vienna and pushed into southern Moravia, and approached Olomouc from the north. The shifting front eliminated the bases that were needed to complete and perform verification flights on delivered aircraft. The last of these bases was Prague-Letnany, as yet untouched by the shifting front, but was eliminated by a blockade of Prague airfields by fighters of the 8thAF.

Does this make any more sense now? It does to me. Implementing

the situation-dictated solutions was not, without any doubt, a simple affair, and it wasn't perfect, as the case generally is when it comes down to improvisation. But the solutions were functional, and they provided combat units of the Luftwaffe with high performance aircraft that were capable of competing. Despite the fact that Bf 109G-10 performance had fallen behind that of the Mustang, they represented an availability of equipment that ensured the functionality of Defense of the Reich and frontal units alike, such as JG 52. Against Soviet aircraft, the Bf 109G-10 was still quite good. This comparison could be made in the immediate postwar years by Czechoslovak pilots, who had at their disposal 21 Bf 109G-10/U4s under the designation Avia S-99/C-10 for several years.

I am hopeful that this article will serve modelers well while deciding on which Eduard kit is best for the Bf 109G versions described herein. And should they already have said kit, they can confirm the various design and production features of each version and compare it to what they actually have in their possession.

And with that, I wish you, dear Modellers, an interesting build with some understanding of the subject matter!

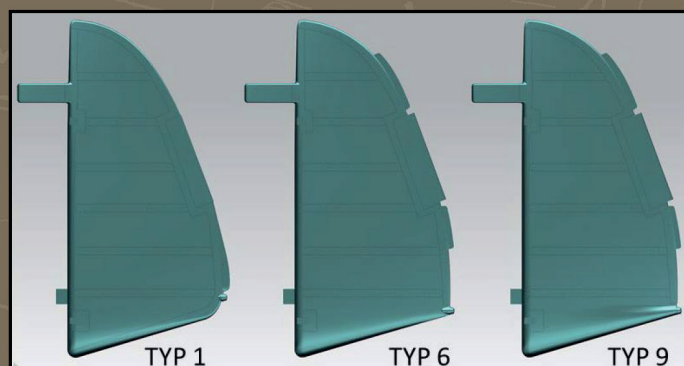
APPENDIX: THE RUDDERS

In the descriptions of the individual versions, there is often mention made of the various types of tails. These numbers are Eduard interim designations, and in the article, they describe the following types of rudders:

Type 1: the first type of production rudder. It was made of a metal framework, covered with fabric. There was also a wooden version, often with an additional trim tab in the upper section (Type 2)

Type 6: A deeper rudder of wooden construction, covered in fabric, with three trim tabs and a straight bottom edge.

Type 9: Similar to Type 6, with a deeper middle trim tab and a more pronounced position light fairing.



APPENDIX : THE BOOST SYSTEMS

The above texts widely mention the GM-1 and MW50 systems. Of course, I assume that all of you will know what these items were, what each system was used for and how they worked. Despite that, I would like to return to these features and give a brief description of their function and use. Without this mention, I feel that this article would lack a little something.

The GM-1 (for which Goerring Mischung 1 and Ha-ha Geraet were slang terms) system was one that injected nitrous oxide into the engine pistons. With the DB 605AS engine, its use was permitted at an altitude of 10,000m and climbing, and from 10,500m in level flight. In the DB 605A, use was permitted in a climb from 8,000m. The GM-1 system could be used for between 11 and 22 minutes, depending on the time of year, outside temperature and time since filling the system.

For increasing engine performance at low and medium altitudes up to 6,000m, a methanol-water supercharger intake injection system was used in the form of MW50 (methanol/water 50:50, as the designation suggests mixing equal parts of metha-

nol and water, plus 0.5% Schutzol 39, an anti-corrosion additive). There variations on the MW50 theme, designated by the mixture: MW30 (methanol/water at 70:30), EW50 (ethanol/water 50:50) and EW30 (ethanol/water 70:30). The MW50 system was able to increase engine performance by 20 to 25%, depending on altitude and other relevant conditions. It's use was permitted to a maximum of twice for ten minutes during a single flight (other sources differ on these values, such as a maximum length of time of use of 5 minutes). At altitudes over 6,000m, the effectiveness of the system fell off dramatically, and is said that it only provided a 4% increase in performance above 6,000m.

The differences in the GM-1 and MW50 systems did not include, as is sometimes claimed, a lower usefulness or obsolescence of the GM-1 compared to the MW50. In practical terms, there was no replacement of one by the other. Each was technically different and was intended for use under different conditions, although both worked on the principle of internal cooling of the engine combustion chambers. The MW50 worked by lowering the temperature by injecting water into the supercharger, and so also the volume of compressed air on entering it, which allowed an increase in air (oxygen) content of the fuel/air mix that was injected into the cylinders. The system was, of course, dependant on the local air pressure to begin with, and at higher altitudes, the

effectiveness dropped off simply because in thin air, there was less oxygen. With the GM-1 system, nitrous oxide was injected into the cylinders, which, under high temperatures, broke down into nitrogen and oxygen. The nitrogen lowered the temperature of the mix and its volume in the cylinder, which, in turn, allowed a higher amount of the gas, and the oxygen supported combustion. As a result, the GM-1 system was not dependant on the outside air pressure, and that's why it was intended for use at higher altitudes (the minimum permitted altitude for its use in the DB 605D was 10,000m). The more widespread use of the MW50 system and its basically standard installation in the Bf 109G-14, G-14/AS and G-10 was dictated by the tactical conditions that prevailed over the European battlegrounds, where most air combat took place at low and middle altitudes, below or up to 6,000m. The GM-1 system was utilized for specific tasks at high altitudes, during reconnaissance flights and fighters.

Installation of the GM-1 in the Bf 109 was indicated by the suffix U2, and with the MW50, by U3. That means that the, for example, Bf 109G-6/AS/U2 was a Bf 109G-6 airframe powered by the DB 605AS and carried the GM-1 system. Both systems were used not only in connection with the DB 605, but with other types of German engines as well, such as the BMW 801.

Sources:

MESSERSCHMITT Bf 109 F, G, & K Series, An Illustrated Study. Jochen Prien & Peter Rodeike, Schiffer Military History, 1995

Bf 109 Late versions Camouflage & markings. Krzysztof W. Wolowski. Mushroom model publications, 2010

Messerschmitt Bf 109G-10/U4 Production & operational service. Aleš Janda, Tomáš Poruba. JaPo.

Die Jagdfliegerverbände der Deutschen Luftwaffe 1934 bis 1945, Teil 13/IV, Einsatz in der Reichsverteidigung und im Westen 1.1. bis 31.12.1944. Jochen Prien, Gerhard Stemmer, Winfried Bock. Buchverlag Rogge GmbH, 2018

MESSERSCHMITT BF 109 JA SAKSAN SOTATALOUS. Keski-Suomen Ilmailumuseon julkaisu 8. Hannu Valtonen. Gummerus Kirjapaino Oy, 1999.

ERLAWERK VII ANTWERPEN-MORTSEL 1940-44. Jean Dillen. Uitgeverij De Krijger.

Bf 109G-6/AS

ProfiPACK
edition



1/48 scale

eduard

Bf 109G-10 Mtt Regensburg

ProfiPACK
edition



1/48 scale

eduard

Bf 109G-10 WNF/Diana

ProfiPACK
edition



1/48 scale

eduard

Bf 109G-10

Mtt Regensburg



Camo C

built by 82119
Matthias Becker

W. Nr. 130297, Fw. Horst Petzschler, 10./ JG 51, Bulltofta, Sweden, May 1945

Horst Petzschler was born in Berlin on September 1st, 1921 and joined the Luftwaffe on April 1st, 1941. After undergoing fighter pilot training, he was assigned to JG 51 on August 23rd, 1943, and it was there he would gain his first three kills. On April 13th, 1944, he was transferred to 2./JG3 which was a component of the Defence of the Reich structure, but by June 1944, he would return to JG 51 on the Eastern Front. On May 4th, 1945, 10./ JG51 was relocated to Schleswig-Holstein from eastern Prussia. Horst Petzschler did not reach that location due to a navigation error and landed at Bulltofta in Sweden, where he was interned and in January 1946, the Swedes handed him over to the Soviets. He was released from captivity on September 22nd, 1949. On his return, he worked for the Berlin Police Department and in 1953, he emigrated to Canada and then the United States, where he worked in the aviation industry. He retired in 1988. Over the course of the Second World War, he downed 26 enemy aircraft. The number 0297 is brush painted ahead of the tail plane, the last four digits of the serial number. Not all sections of the bottoms of the wings were painted in RLM76, but for reasons of short supplies were left in natural metal.



USS CV-10 Yorktown AA guns 1/350 Trumpeter

USS CV-10 Yorktown 1/350 Trumpeter (53247)



MiG-17

1/72 Airfix

MiG-17 1/72 Airfix (73695)
MiG-17 1/72 Airfix (SS695) (Zoom)
MiG-17 1/72 Airfix (CX557) (Mask)



Ar 68E

1/48 Roden

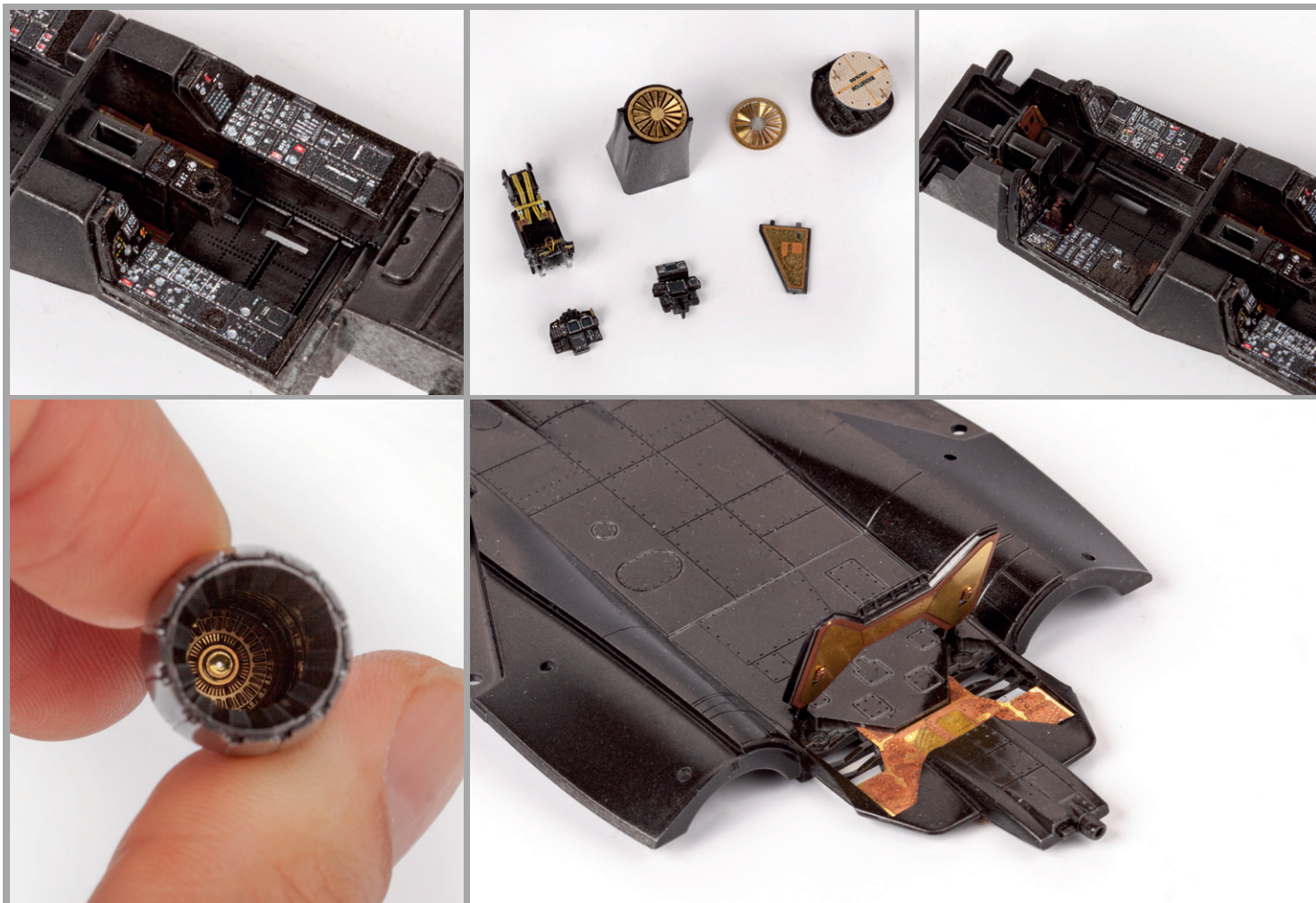
Ar 68E 1/48 Roden (FE1060)(Zoom)
Ar 68E 1/48 Roden (EX676) (Mask)



F-14D

1/72 GWH

F-14D 1/72 GWH (73693)
F-14D 1/72 GWH (SS693) (Zoom)
F-14D 1/72 GWH (CX555) (Mask)



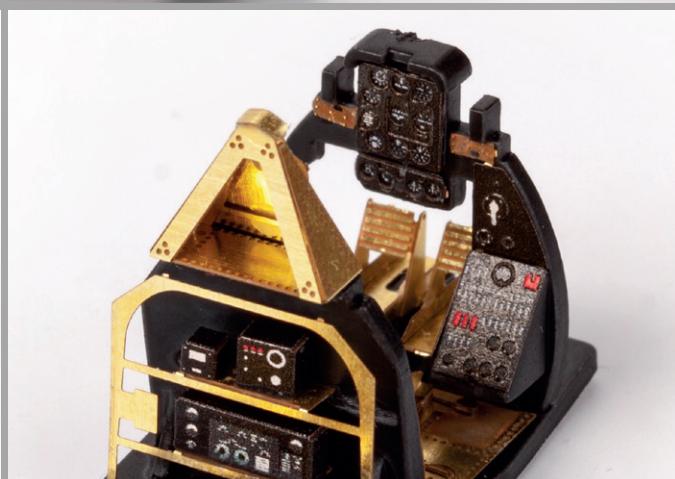
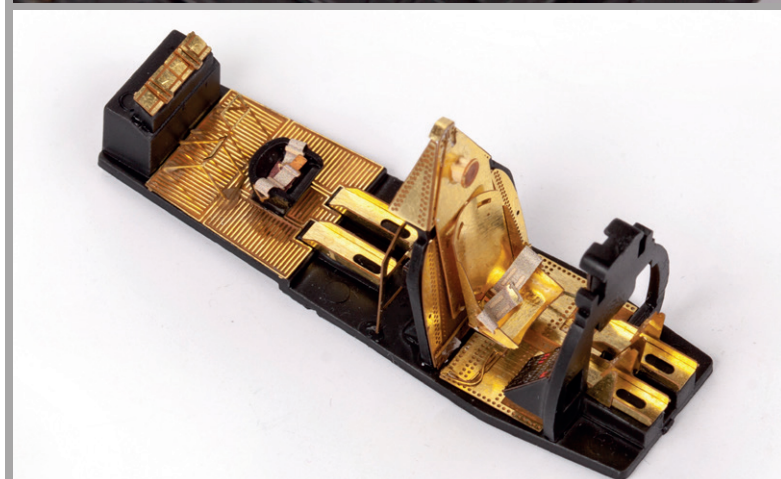
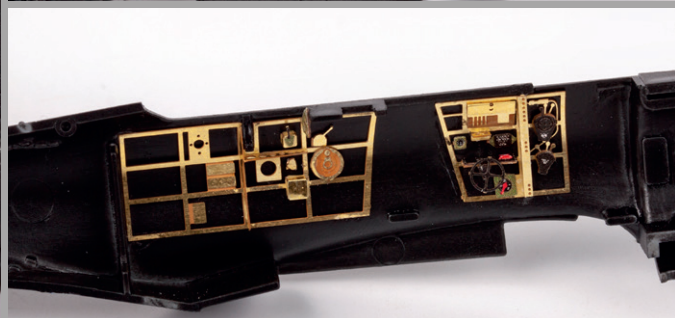
TBF/TBM Avenger 1/72 Hasegawa

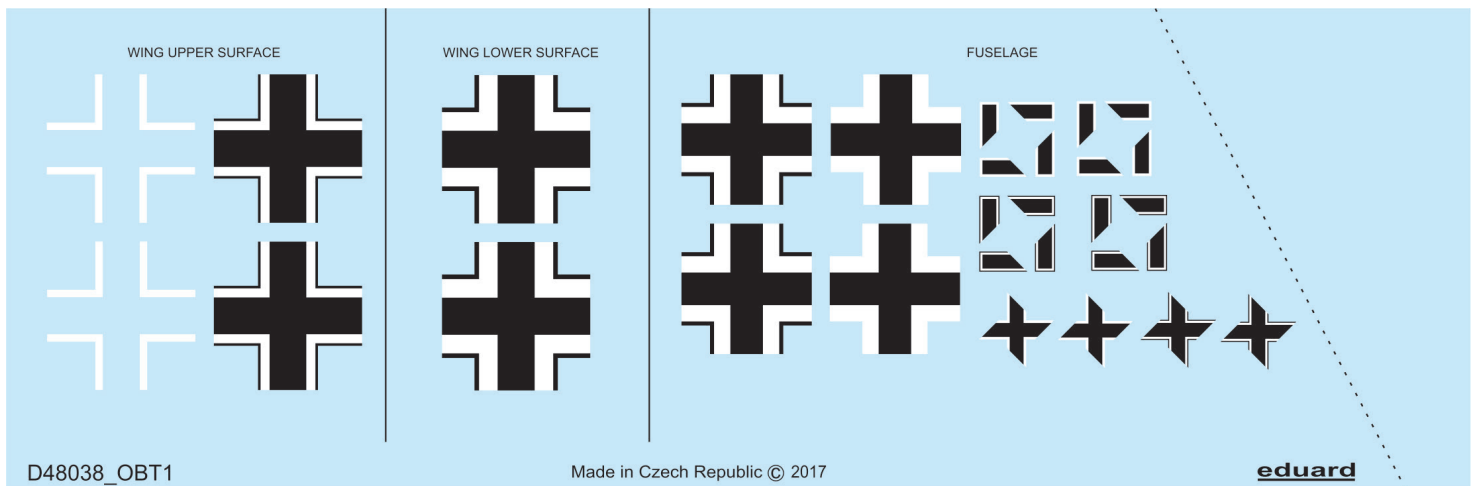
TBF/TBM Avenger landing flaps 1/72 Hasegawa (72696)
TBF/TBM Avenger 1/72 Hasegawa (73696)
TBF/TBM Avenger 1/72 Hasegawa (SS696) (Zoom)



SBD Dauntless 1/72 Hasegawa (73697)
SBD Dauntless 1/72 Hasegawa (SS697) (Zoom)

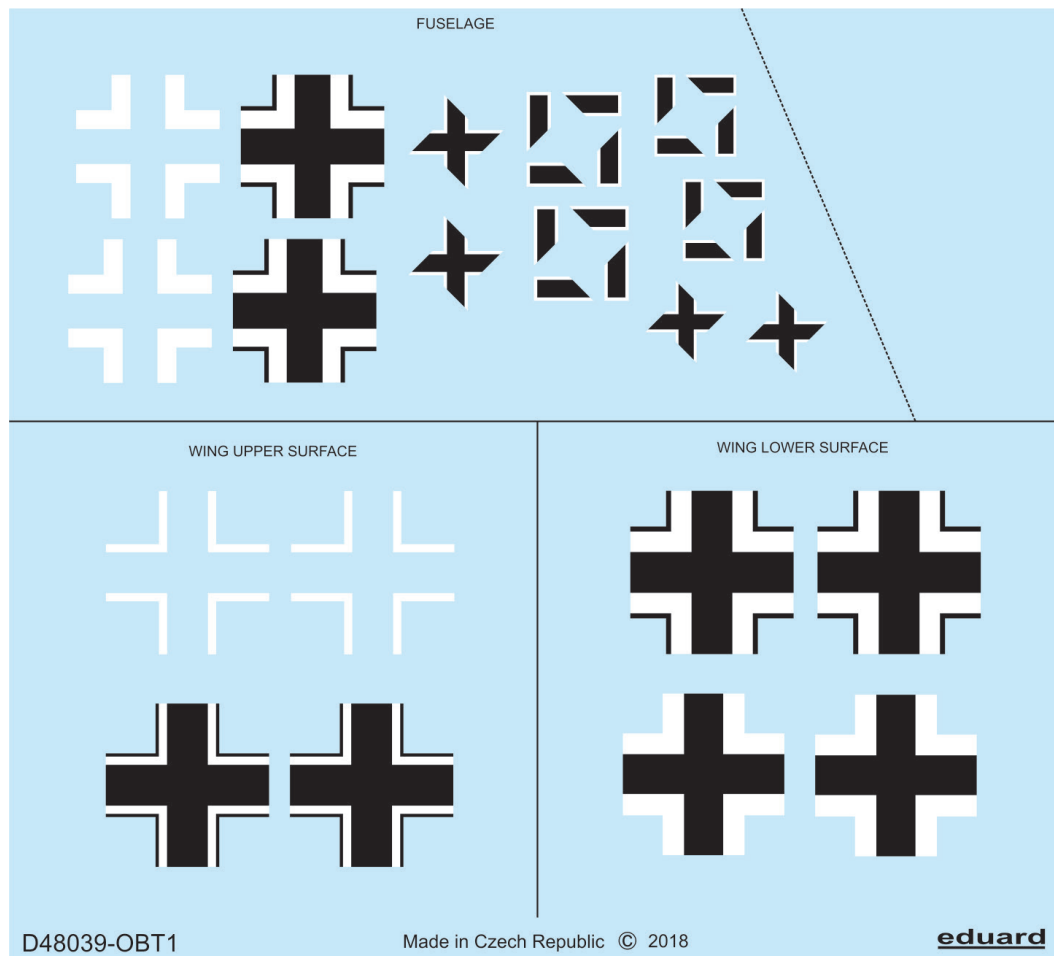
SBD Dauntless 1/72 Hasegawa





Cat. No. D48038
Fw 190A-4
national insignia
 1/48 Eduard

Product Page

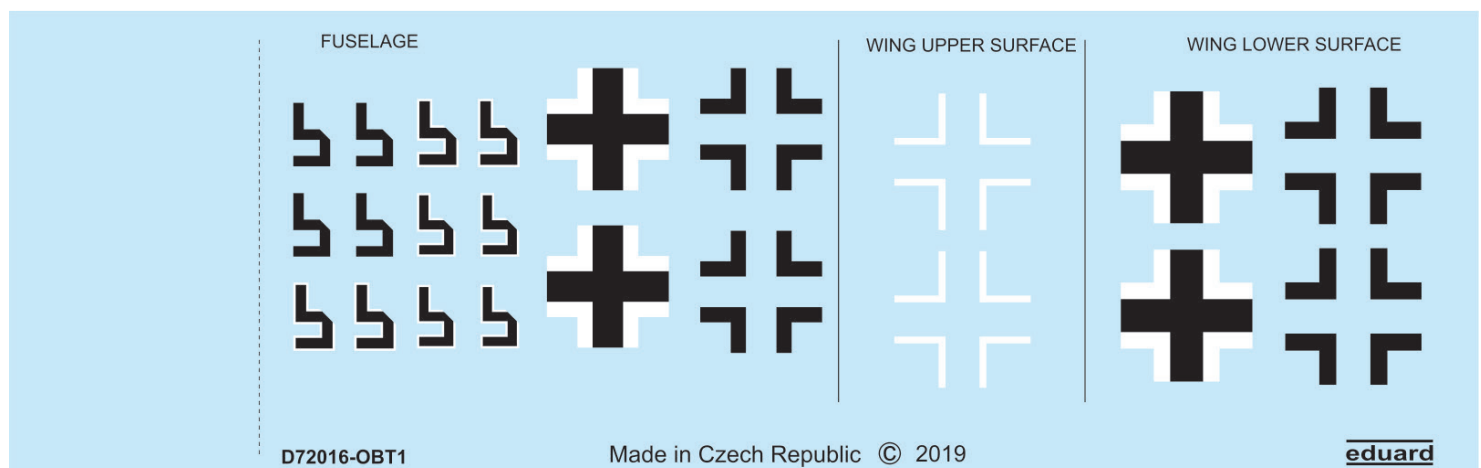


Cat. No. D48039
Fw 190A-5 national insignia
 1/48 Eduard

Product Page

Cat. No. D72016
FW 190A-8 national insignia
 1/48 Eduard

Product Page



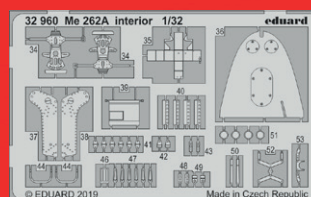
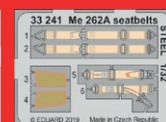
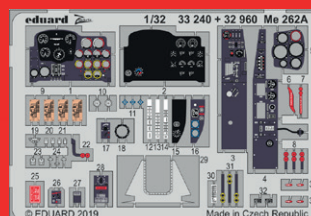
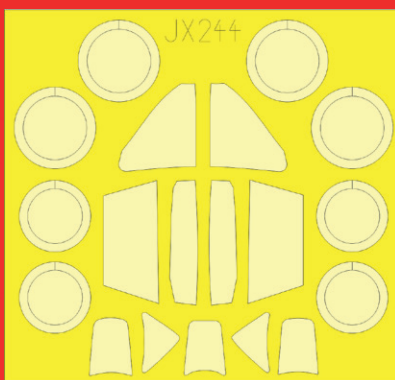
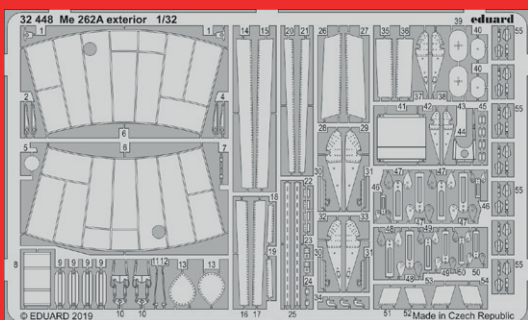
All sets included in this BIG ED are available separately, but with every BIG ED set you save up to 30%.

BIG ED

BIG33110 Me 262A 1/32 Revell

[Product Page](#)

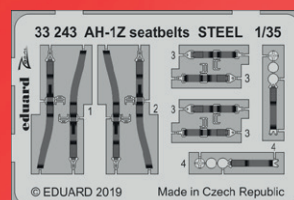
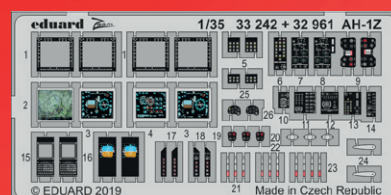
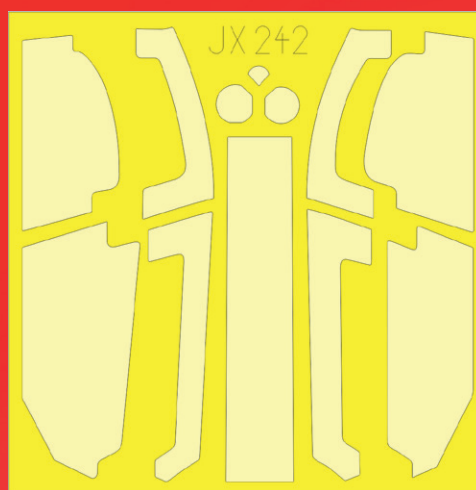
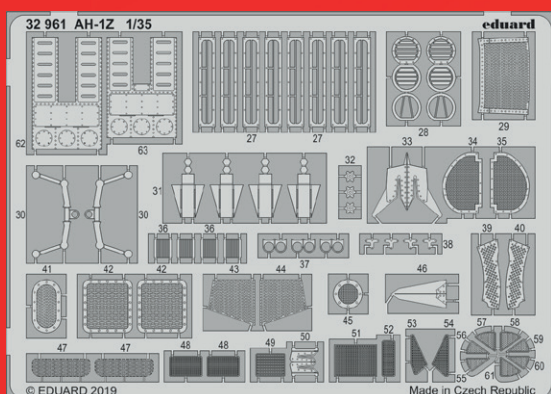
- 32448 Me 262A exterior 1/32
- 32960 Me 262A interior 1/32
- 33241 Me 262A seatbelts STEEL 1/32
- JX244 Me 262A 1/32



BIG33111 AH-1Z 1/35 Academy

[Product Page](#)

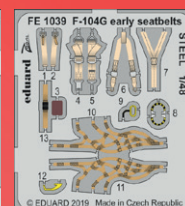
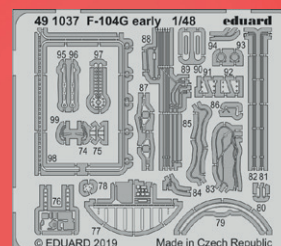
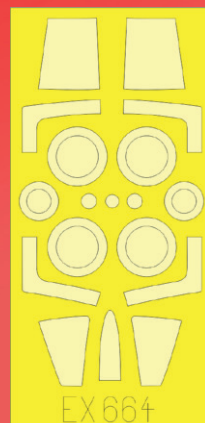
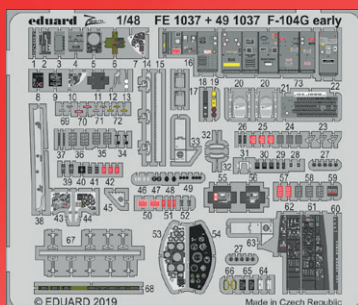
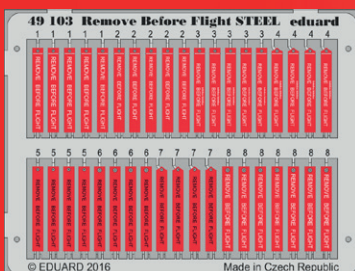
- 32961 AH-1Z 1/35
- 33243 AH-1Z seatbelts STEEL 1/35
- JX242 AH-1Z 1/35



BIG49237 F-104G early 1/48 Kinetic

[Product Page](#)

- 49103 Remove Before Flight STEEL
- 491037 F-104G early 1/48
- FE1039 F-104G early seatbelts STEEL 1/48
- EX664 F-104G 1/48



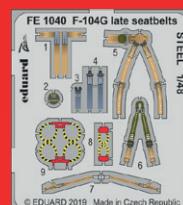
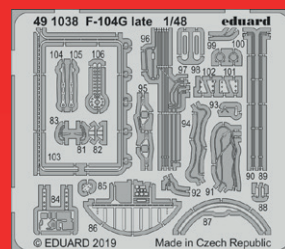
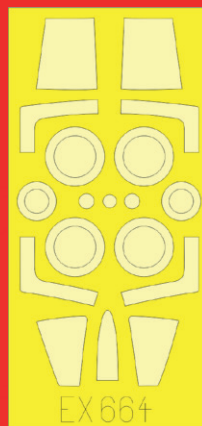
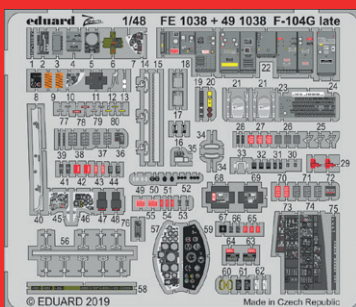
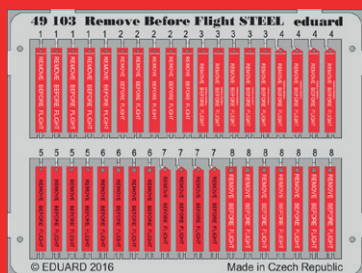
All sets included in this BIG ED are available separately,
but with every BIG ED set you save up to 30%.

BIG ED

BIG49238 F-104G late 1/48 Kinetic

Product Page

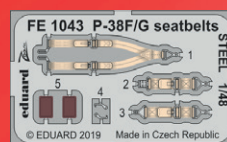
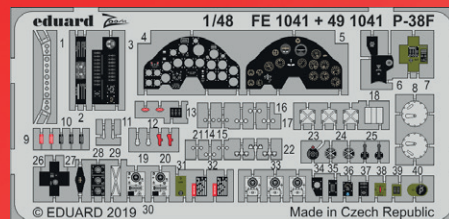
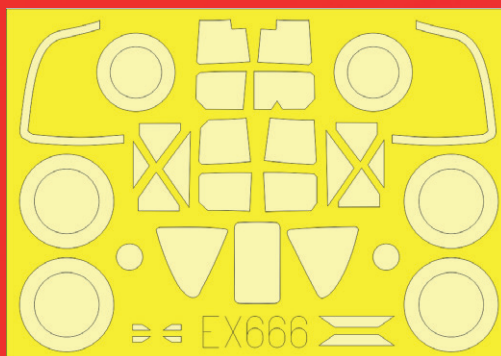
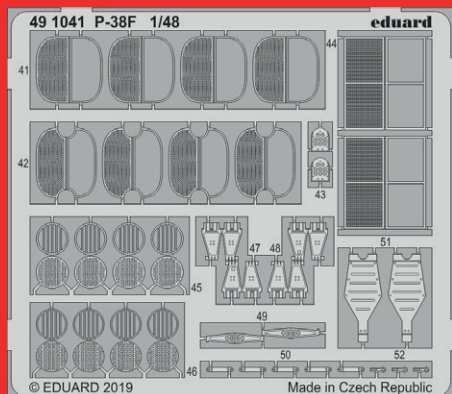
49103 Remove Before Flight STEEL
491038 F-104G late 1/48
FE1040 F-104G late seatbelts STEEL 1/48
EX664 F-104G 1/48



BIG49239 P-38F 1/48 Tamiya

Product Page

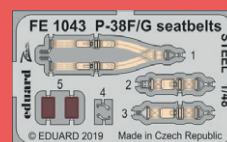
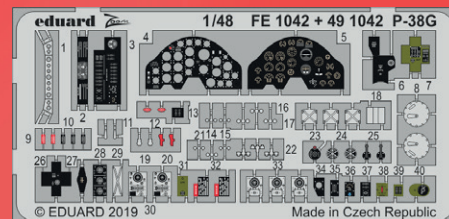
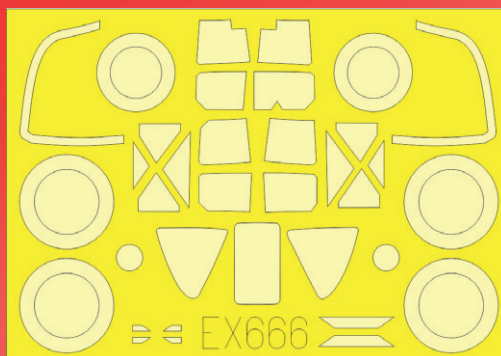
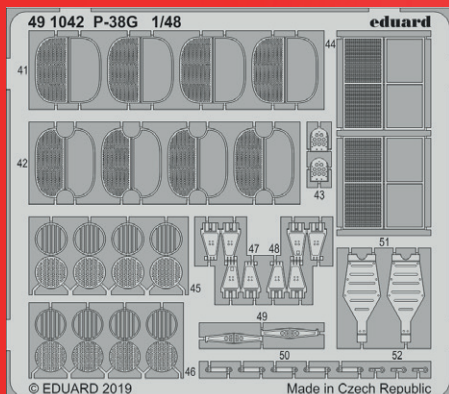
491041 P-38F 1/48
FE1043 P-38F/G seatbelts STEEL 1/48
EX666 P-38F/G 1/48



BIG49240 P-38G 1/48 Tamiya

Product Page

491042 P-38G 1/48
FE1043 P-38F/G seatbelts STEEL 1/48
EX666 P-38F/G 1/48

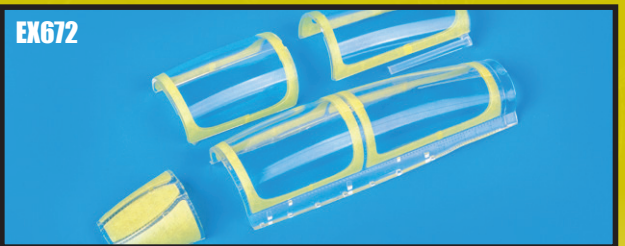


EDUARD MASK

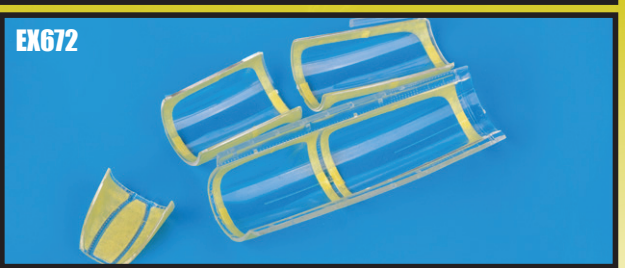
IT FITS!

EX672 F-14D 1/48 AMK
 EX673 F-14D TFace 1/48 AMK
 EX674 B-26B-50 Invader 1/48 ICM
 EX675 Ki-51 Sonia 1/48 Dora Wings
 EX676 Ar 68E 1/48 Roden
 EX677 Fw 190A-8 Weekend 1/48 Eduard
 EX678 B-17G 1/48 HKM
 EX679 W-3A Sokol 1/48 Answer
 CX555 F-14D 1/72 Great Wall Hobby
 CX556 Buccaneer S.2C 1/72 Airfix
 CX557 MiG-17 1/72 Airfix
 CX558 Ki-51 Sonia 1/72 Clear Prop
 CX559 T-4 1/72 Hobby Boss

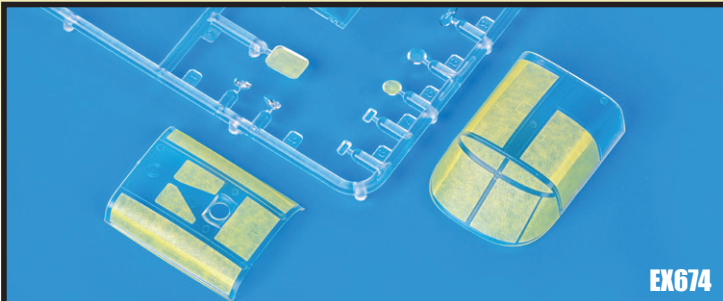
EX672



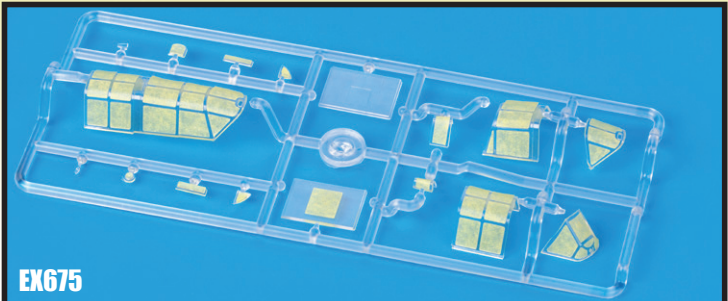
EX672



EX674



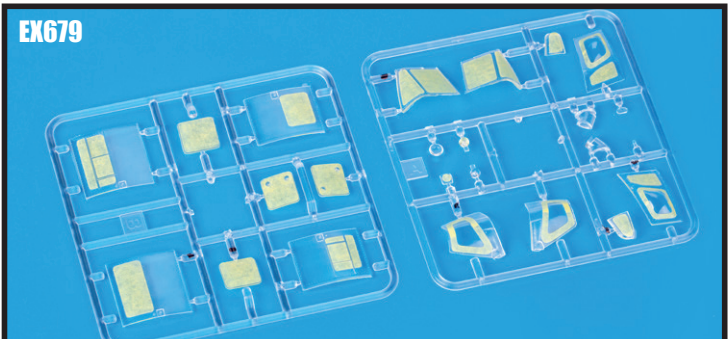
EX675



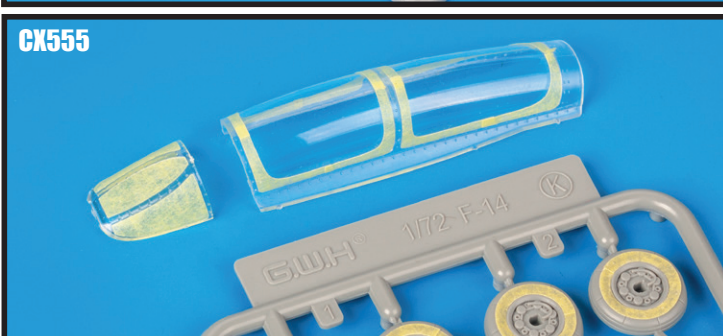
EX678



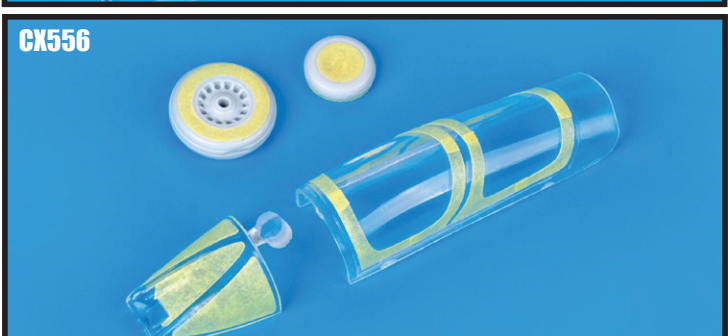
EX679



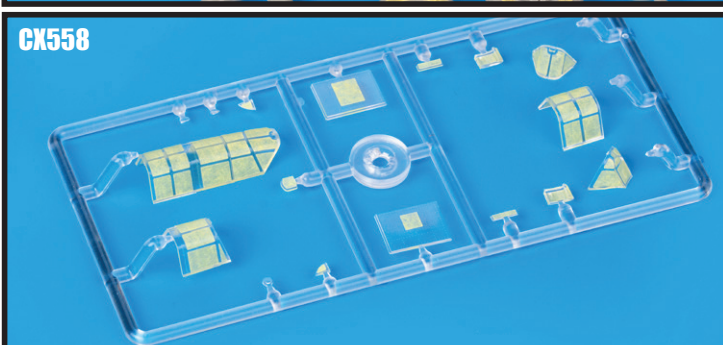
CX555



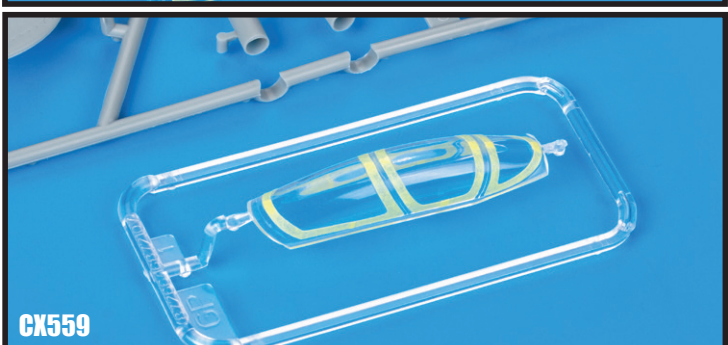
CX556



CX558



CX559



January 2020

January releases

KITS

11130	Eikó	1/48	Limited edition
70144	MiG-21 PFM	1/72	ProfiPACK
84122	Fw 190A-4	1/48	Weekend edition
4445	MiG-15bis	1/144	Super44

PE-SETS

53247	USS CV-10 Yorktown AA guns	1/350	Trumpeter
32936	He 111P-1	1/32	Revell
36431	M4A3 (76) W	1/35	Meng
481002	Eiko upgrade set	1/48	Eduard
481003	B-26B-50 Invader undercarriage & exterior	1/48	ICM
491053	F-14D	1/48	AMK
491055	B-26B-50 Invader	1/48	ICM
491057	B-17G cockpit	1/48	HKM
491058	B-17G radio compartment	1/48	HKM
72695	MiG-21 PFM	1/72	Eduard
72696	TBF/TBM-1 Avenger landing flaps	1/72	Hasegawa
73693	F-14D	1/72	Great Wall Hobby
73694	Buccaneer S.2C	1/72	Airfix
73695	MiG-17	1/72	Airfix
73696	TBF/TBM-1 Avenger	1/72	Hasegawa
73697	SBD Dauntless	1/72	Hasegawa

ZOOMS

33246	He 111P-1	1/32	Revell
FE1053	F-14D	1/48	AMK
FE1054	F-14D seatbelts STEEL	1/48	AMK
FE1055	B-26B-50 Invader	1/48	ICM
FE1056	B-26B-50 seatbelts STEEL Invader	1/48	ICM
FE1057	B-17G	1/48	HKM
FE1058	B-17G seatbelts STEEL	1/48	HKM
FE1059	Fw 190A-8 Weekend	1/48	Eduard
FE1060	Ar 68E	1/48	Roden
SS693	F-14D	1/72	Great Wall Hobby
SS694	Buccaneer S.2C	1/72	Airfix
SS695	MiG-17	1/72	Airfix
SS696	TBF/TBM-1 Avenger	1/72	Hasegawa
SS697	SBD Dauntless	1/72	Hasegawa

MASKS

EX672	F-14D	1/48	AMK
EX673	F-14D TFace	1/48	AMK
EX674	B-26B-50 Invader	1/48	ICM
EX675	Ki-51 Sonia	1/48	Dora Wings
EX676	Ar 68E	1/48	Roden
EX677	Fw 190A-8 Weekend	1/48	Eduard
EX678	B-17G	1/48	HKM
EX679	W-3A Sokol	1/48	Answer
CX555	F-14D	1/72	Great Wall Hobby
CX556	Buccaneer S.2C	1/72	Airfix
CX557	MiG-17	1/72	Airfix
CX558	Ki-51 Sonia	1/72	Clear Prop
CX559	T-4	1/72	Hobby Boss

BIGED

BIG33110	Me 262A	1/32	Revell
BIG33111	AH-1Z	1/35	Academy
BIG49237	F-104G early	1/48	Kinetic
BIG49238	F-104G late	1/48	Kinetic
BIG49239	P-38F	1/48	Tamiya
BIG49240	P-38G	1/48	Tamiya

BRASSIN

634016	P-40N LööK	1/32	Trumpeter
644032	F-104G LööK early	1/32	Kinetic
644033	MiG-21bis LööK	1/48	Eduard
644037	F-104G LööK late	1/48	Kinetic
648521	P-38F/G undercarriage legs BRONZE	1/48	Tamiya
648523	F-104 wheels early	1/48	Kinetic
648524	F-104 wheels late	1/48	Kinetic
648525	F-104 C2 ejection seat	1/48	Kinetic
648526	F-104 MB.7 ejection seat	1/48	Kinetic
648530	F-14D wheels	1/48	AMK
648531	P-51D 110gal fuel tank	1/48	Eduard
648532	P-51D 165gal fuel tank	1/48	Eduard
672226	AIM-9X	1/72	
672227	Pe-2 wheels	1/72	Zvezda
672228	MiG-17 wheels	1/72	Airfix

BIGSIN

SIN64863	MiG-23BN	1/48	Eduard
SIN64864	P-51D-5 ESSENTIAL	1/48	Eduard

DECALS

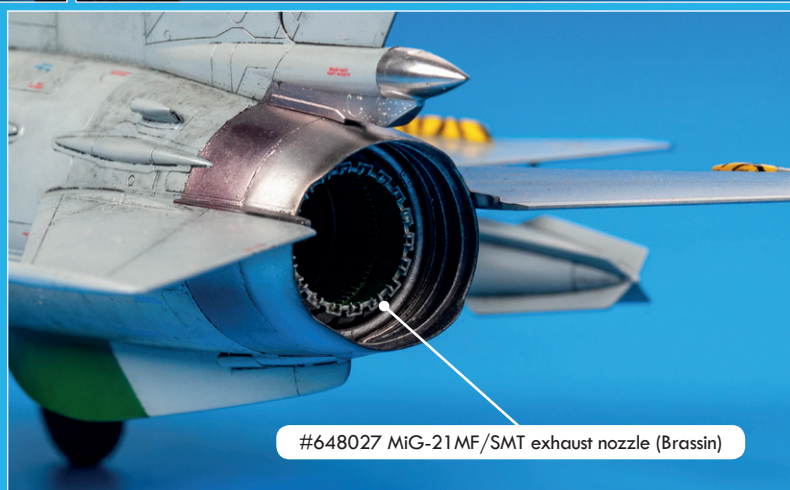
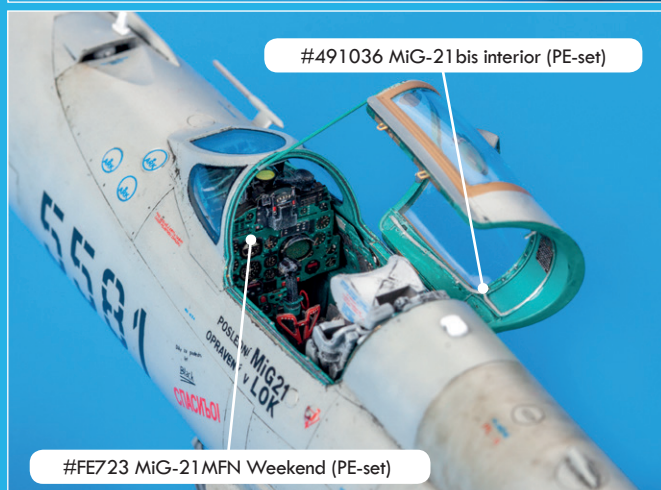
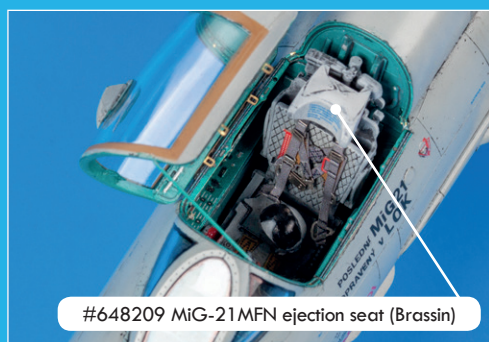
D48038	Fw 190A-4 national insignia	1/48	Eduard
D48039	Fw 190A-5 national insignia	1/48	Eduard
D72016	Fw 190A-8 national insignia	1/72	Eduard

MiG-21MFN

1/48

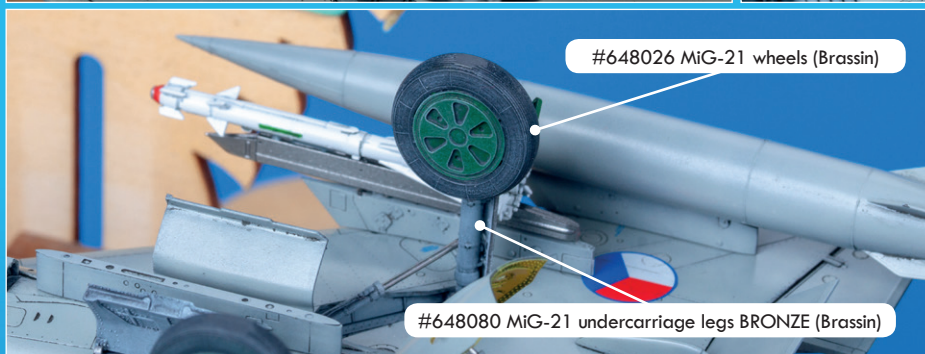
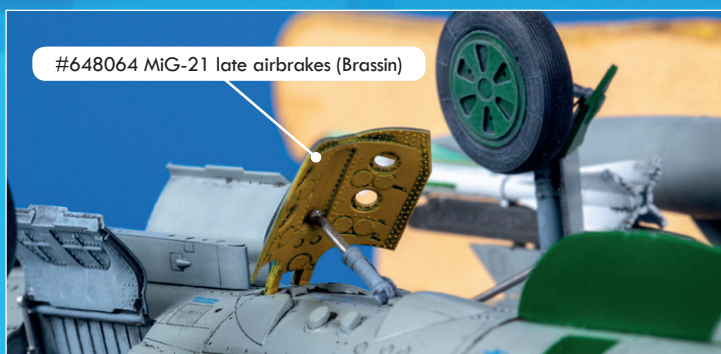
Camo B
Cat. No. 84128

built by Jan Novotný



MiG-21MFN, 211th Squadron, Czech Air Force, Caslav air base, July 12, 2005

This MiG was manufactured as MiG-21MF c/n 96005581 by Gorky factory on August 1, 1975. From August 17, 1975 was flown by 1st Fighter Regiment in Ceske Budějovice. In May, 1989 was overhanded to 8th Fighter Regiment and found its home in Brno. The 8th FR was disbanded on May 1, 1991 and the new operator of this aircraft became 82nd Independent Fighter Squadron based in Mosnov air base. In August 1993 the aircraft was put of the service and stored at Line airfield. It returned to the service in 2000 when Letecke opravny Kbely upgraded it to the MFn standard. The new operator was 41st Squadron in Caslav air base (known under new designation as 211th Squadron). The tiger colors were painted during International Koksijde Airshow in June, 2000. This aircraft took part in the last flight mission of Czech MiG-21s on July 12, 2005. During this occasion the cyrilics „Spasibo“ (thanks) appeared on the nose and rudder.

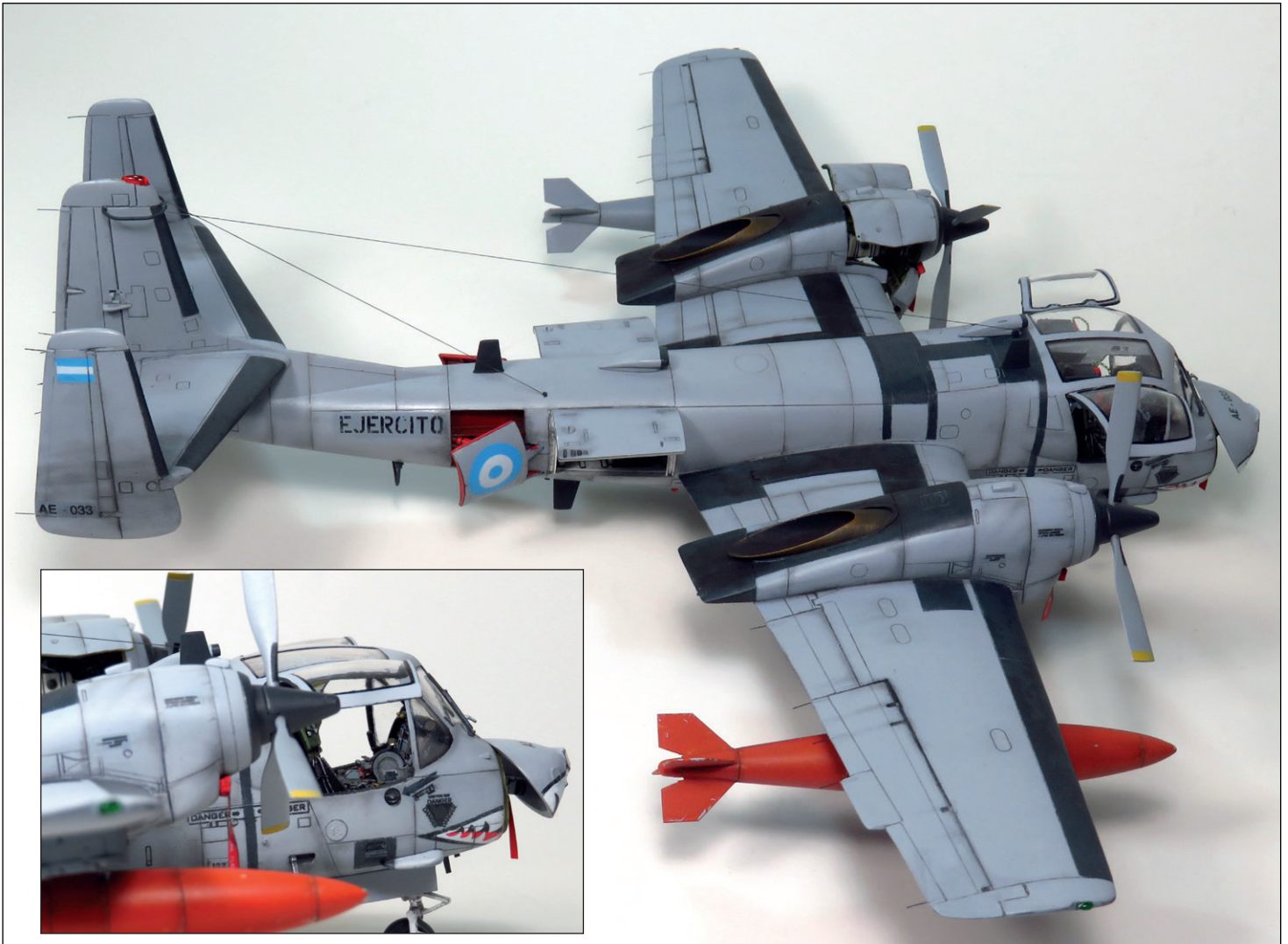
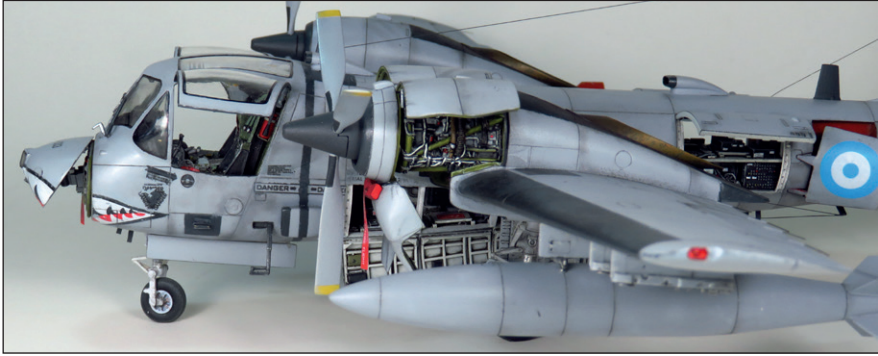

[Product Page](#)


OV-1D

Roden 1/48

built by Ugur Kenel

BIGED set Cat. No. BIG4864 used.[Product Page](#)

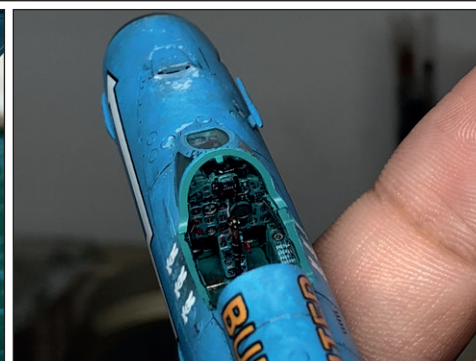
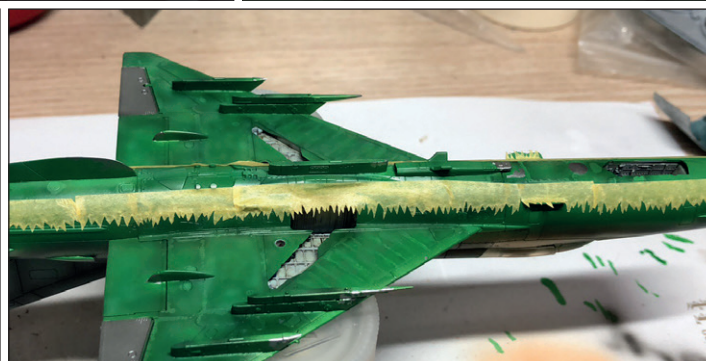
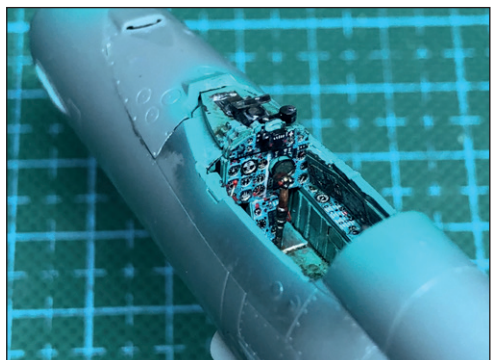


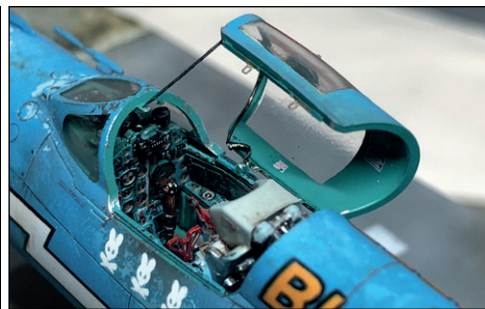
MiG-21MF THE BUNNY FIGHTER

1/72



built by Nan Zhang

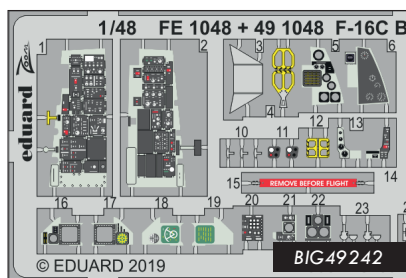




MiG-21BFC, Lt. C. Bunnyfield, 1st Squadron, Carrot Flight, Central Africa, July 2011



BRASSIN



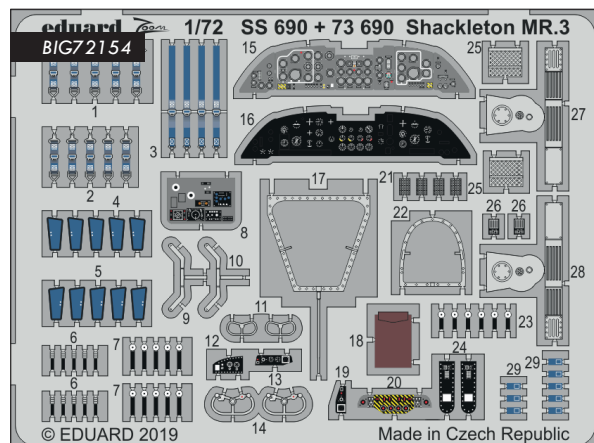
BIGED (February)

BIG5353 HMS Cornwall 1/350 Trumpeter
 BIG33112 P-40N part I 1/32 Trumpeter
 BIG49241 F-104J 1/48 Kinetic
 BIG49242 F-16C Block 25 1/48 Tamiya
 BIG72153 B-25C/D 1/72 Airfix
 BIG72154 Shackleton MR.3 1/72 Revell

BRASSIN (February)



632141 AIM-9M/L Sidewinder 1/32
 632142 AIM-7M Sparrow 1/32
 632143 P-40N wheels 1/32 Trumpeter
 644034 F-104J LööK 1/48 Eduard/Hasegawa
 644035 F-104J LööK 1/48 Kinetic
 644036 B-17G LööK 1/48 HKM
 648535 F-14D ejection seats 1/48 AMK
 648541 Mirage IIIC wheels 1/48 Eduard
 672223 Fokker D.VII (OAW) engine/Mercedes D.III 1/72 Eduard
 672224 Fokker D.VIIF engine/BMW IIIa 1/72 Eduard
 672229 Buccaneer S.2C wheels 1/72 Airfix
 672230 Shackleton MR.3 wheels 1/72 Revell
 672231 MiG-21PFM wheels 1/72 Eduard
 672232 MiG-21PF/PFM exhaust nozzle 1/72 Eduard



LööKPlus (February)

644038 Tempest Mk.V w/ early wheels LööKPlus 1/48 Eduard
 644039 Tempest Mk.V w/ late wheels LööKPlus 1/48 Eduard

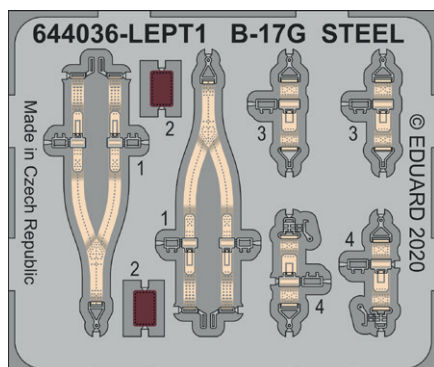
644034 F-104J LööK 1/48 Eduard/Hasegawa



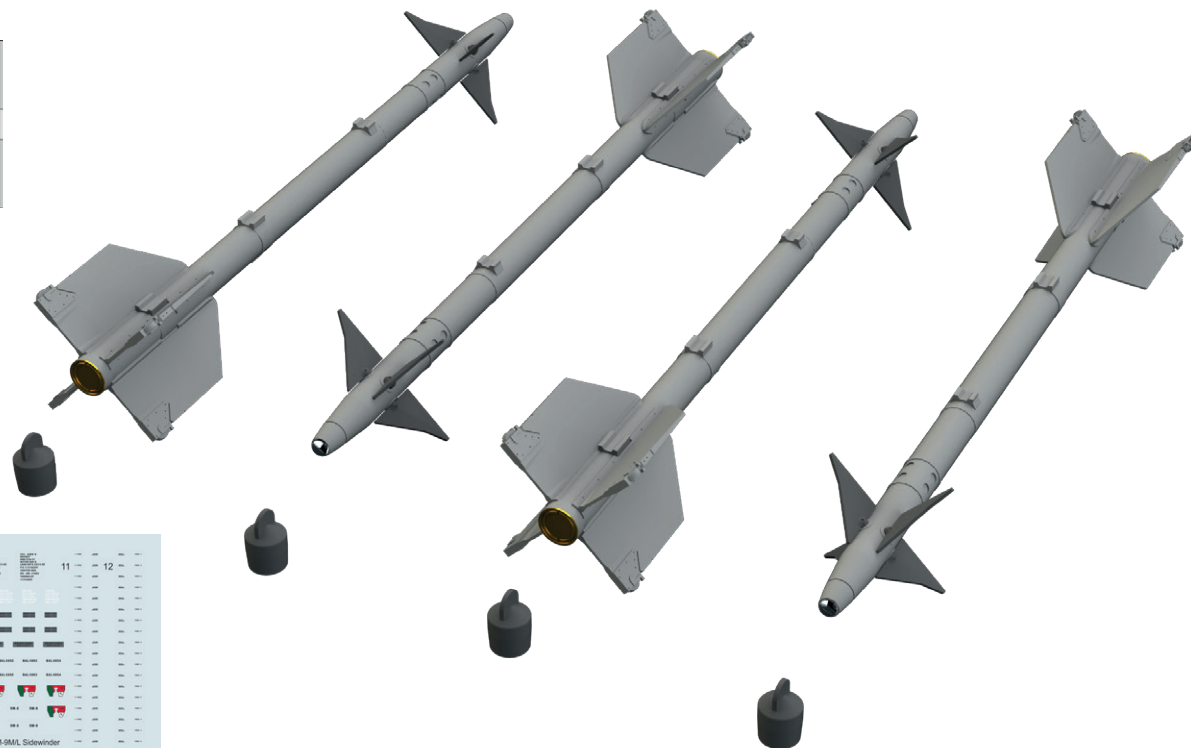
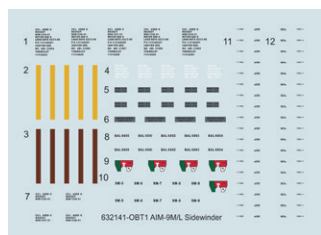
644035 F-104J LööK 1/48 Kinetic



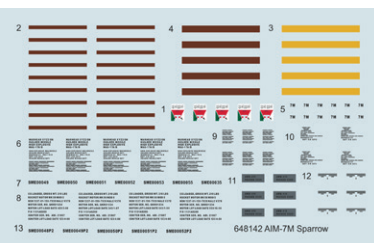
644036 B-17G LööK 1/48 HKM



632141 AIM-9M/L Sidewinder 1/32

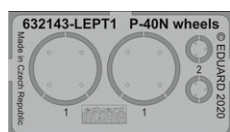
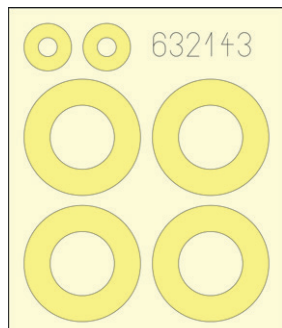


632142 AIM-7M Sparrow 1/32

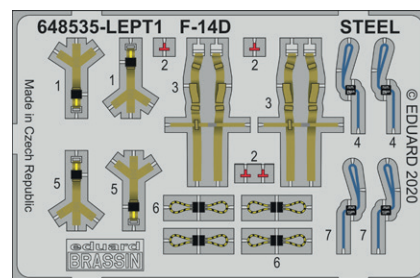


BRASSIN

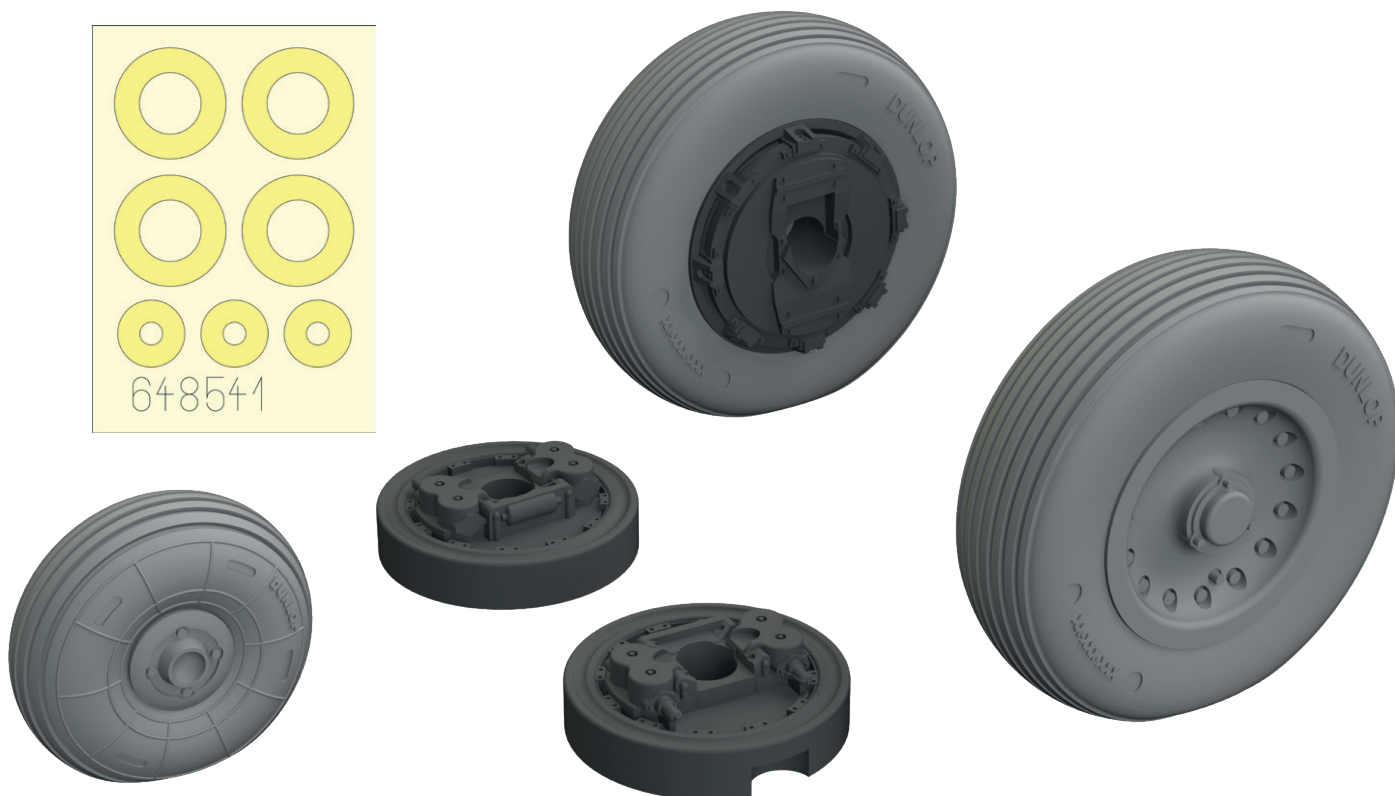
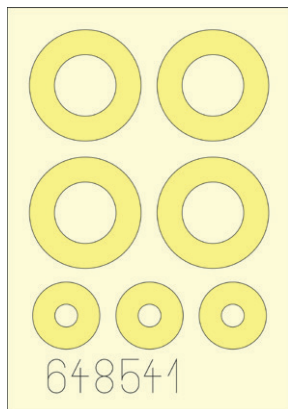
632143 P-40N wheels 1/32 Trumpeter



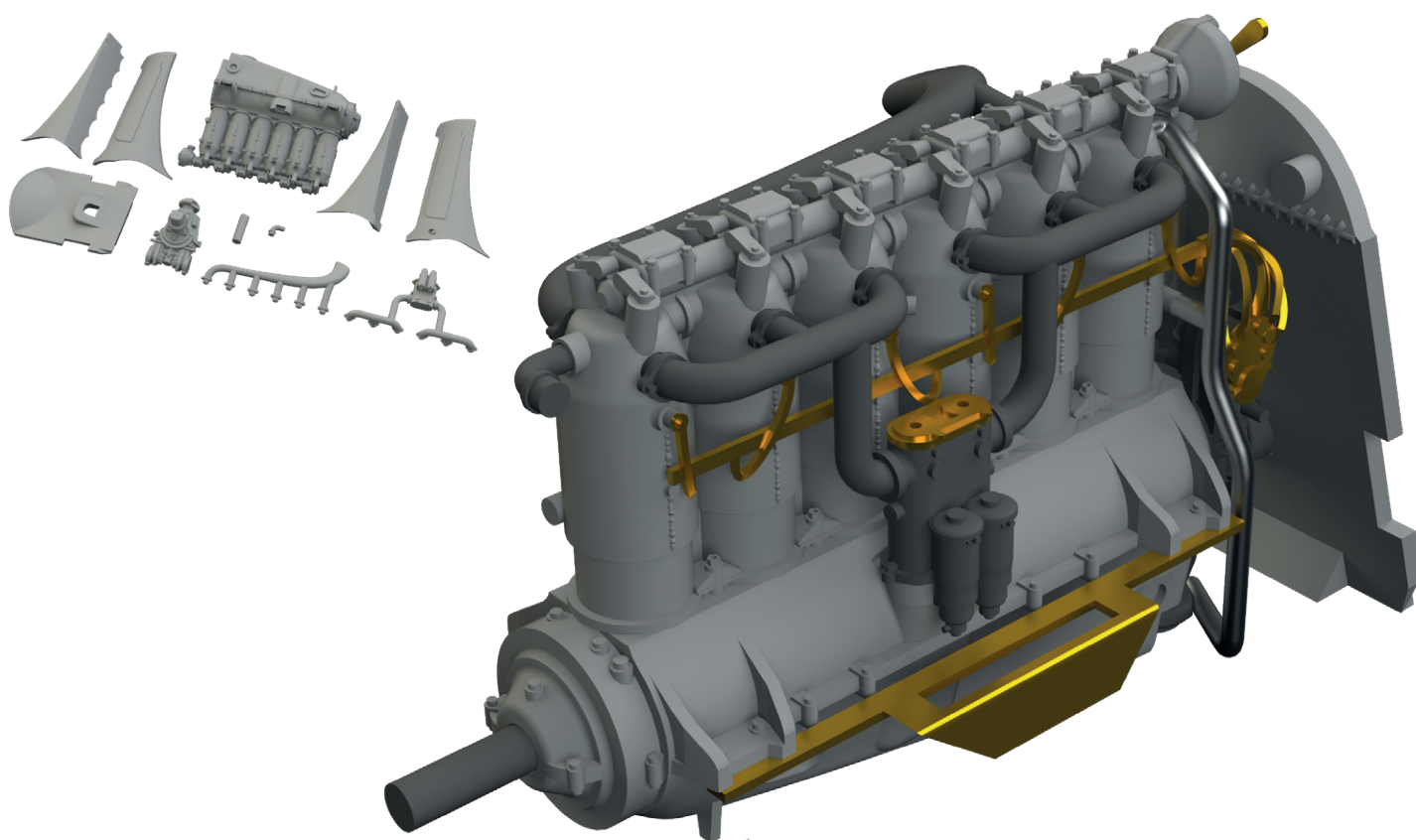
648535 F-14D ejection seats 1/48 AMK



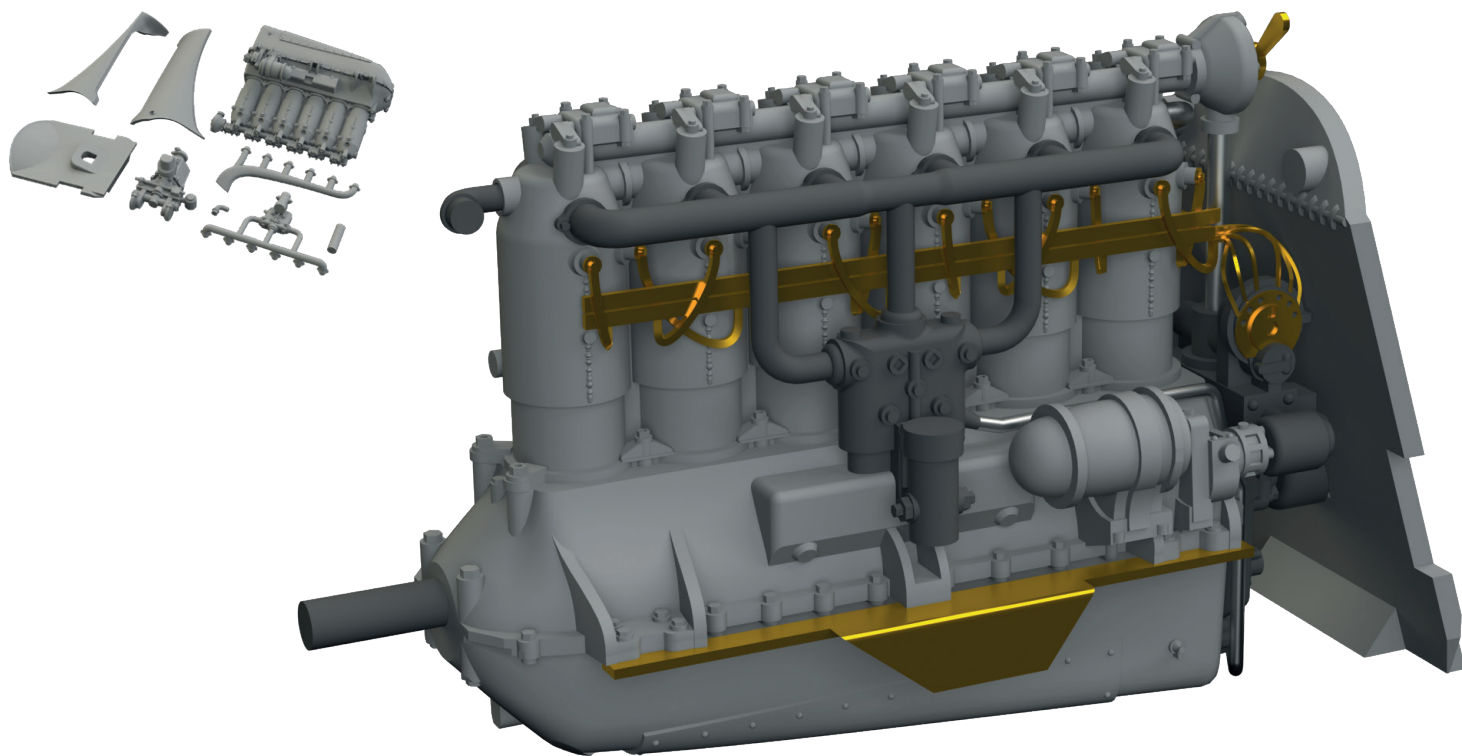
648541 Mirage IIIC wheels 1/48 Eduard



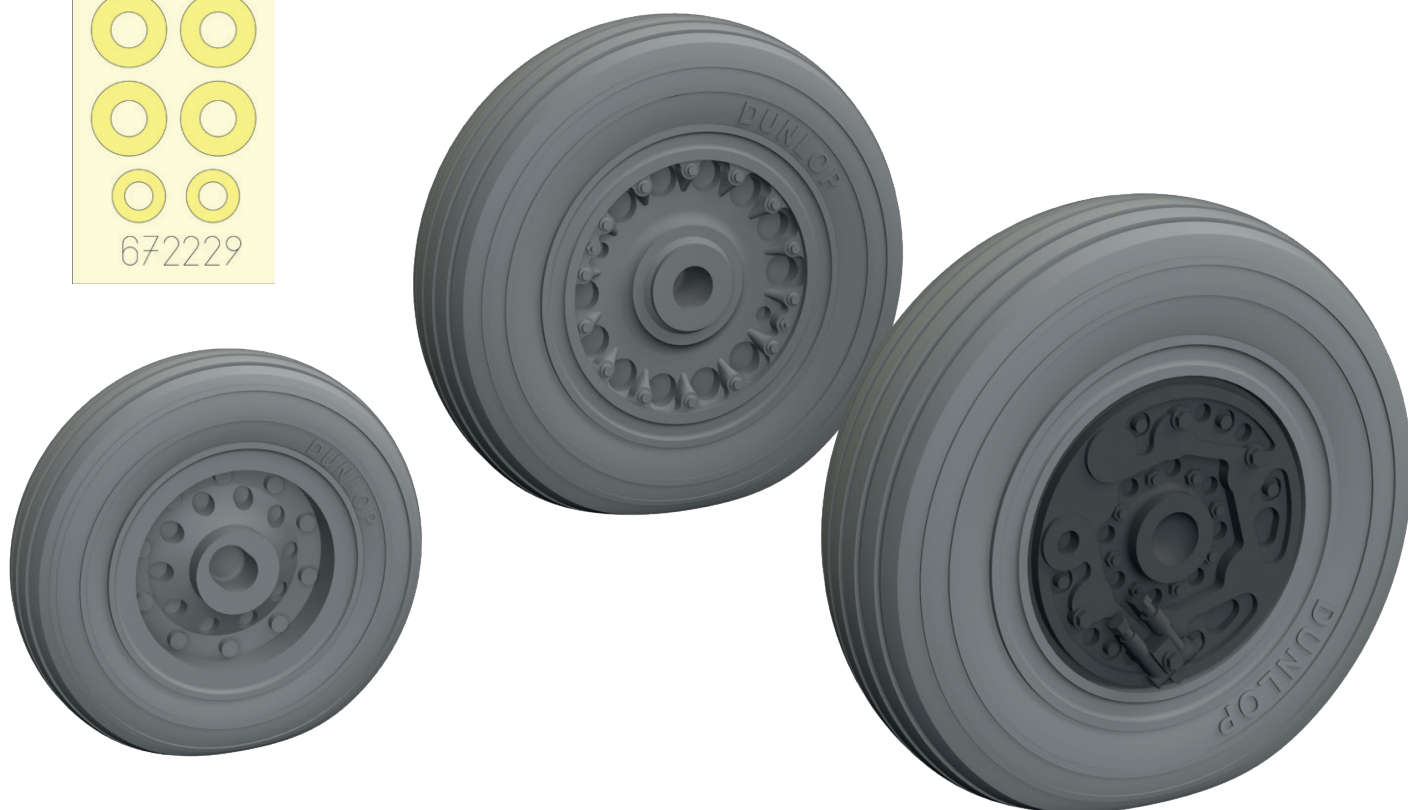
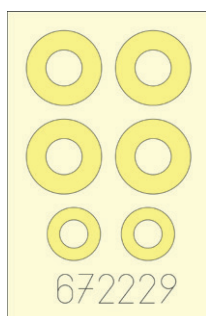
672223 Fokker D.VII (OAW) engine/Mercedes D.III 1/72 Eduard



672224 Fokker D.VIIF engine/BMW IIIa 1/72 Eduard



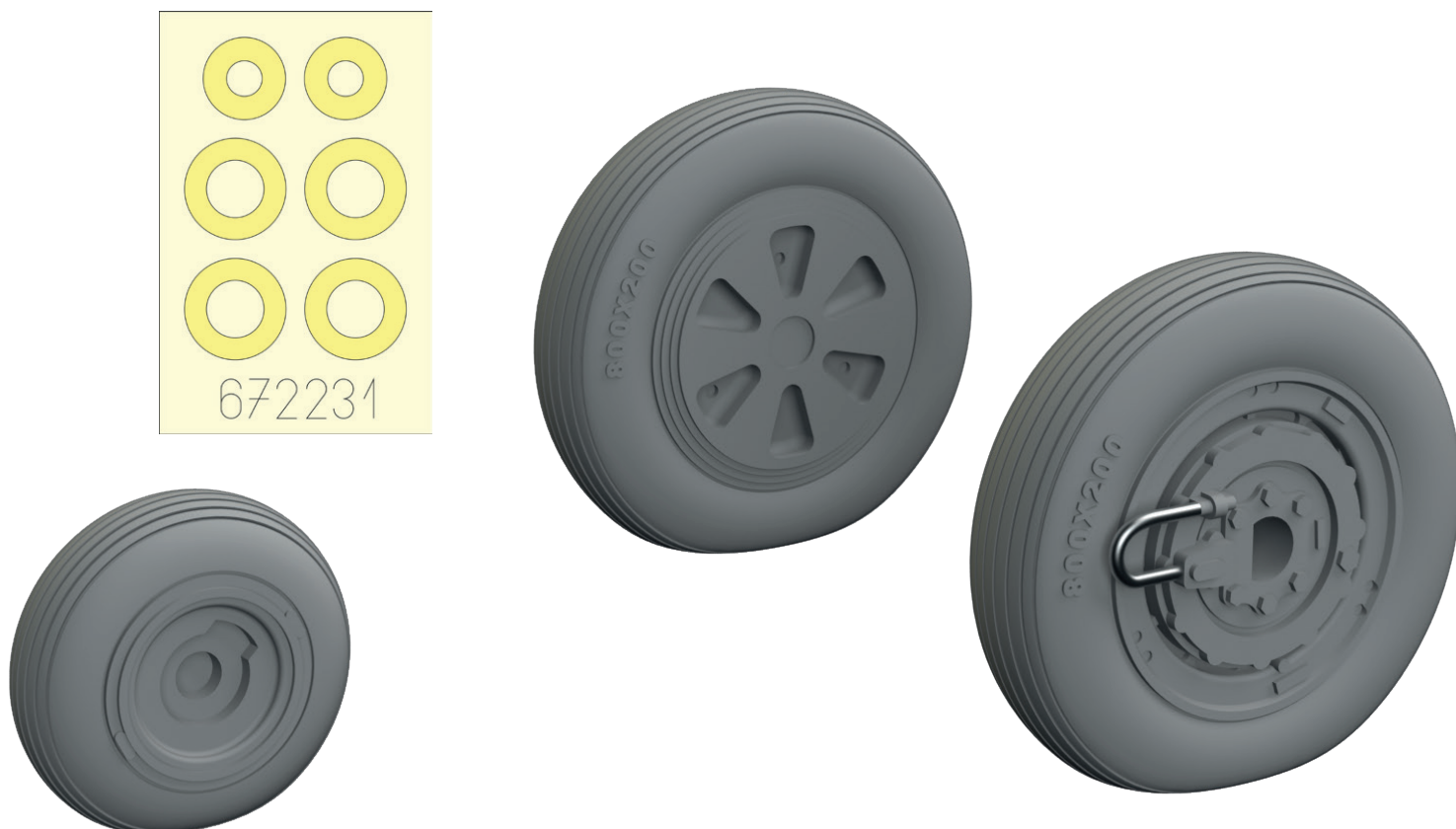
672229 Buccaneer S.2C wheels 1/72 Airfix



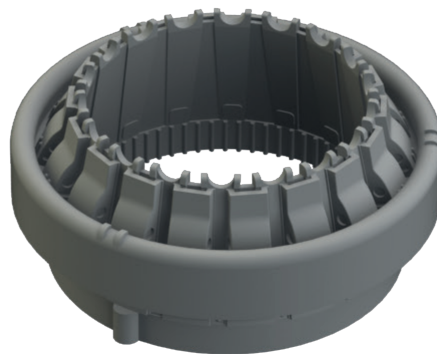
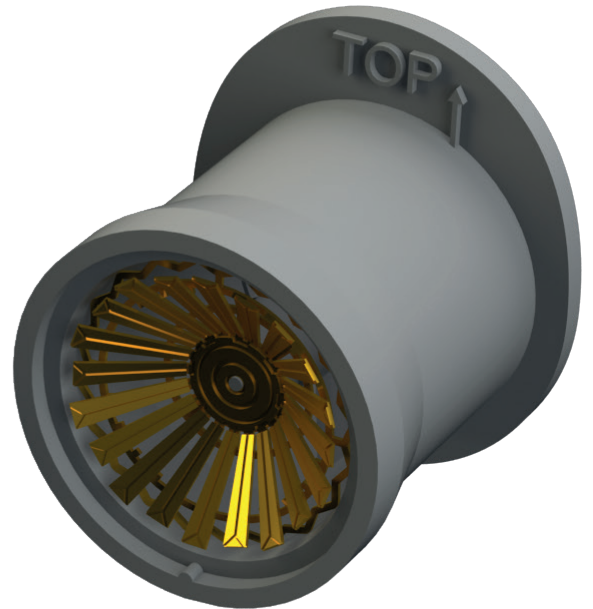
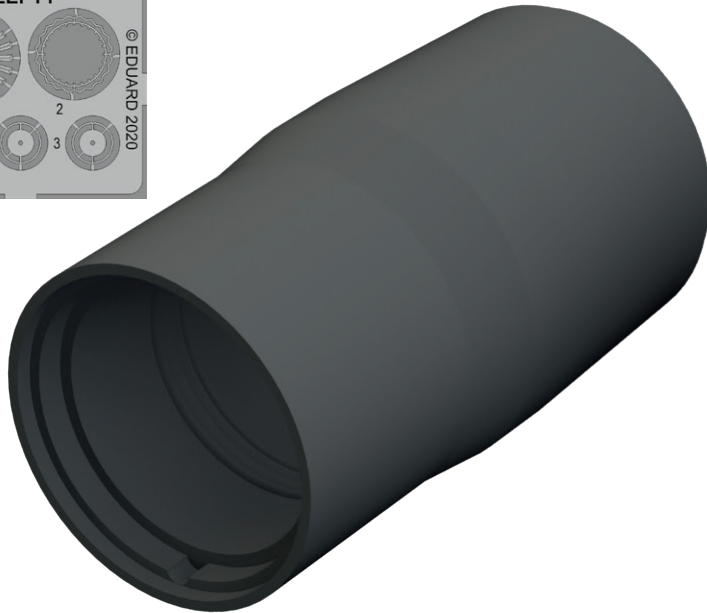
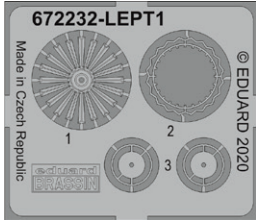
672230 Shackleton MR.3 wheels 1/72 Revell



672231 MiG-21PFM wheels 1/72 Eduard



672232 MiG-21PF/PFM exhaust nozzle 1/72 Eduard

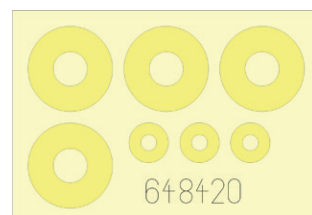
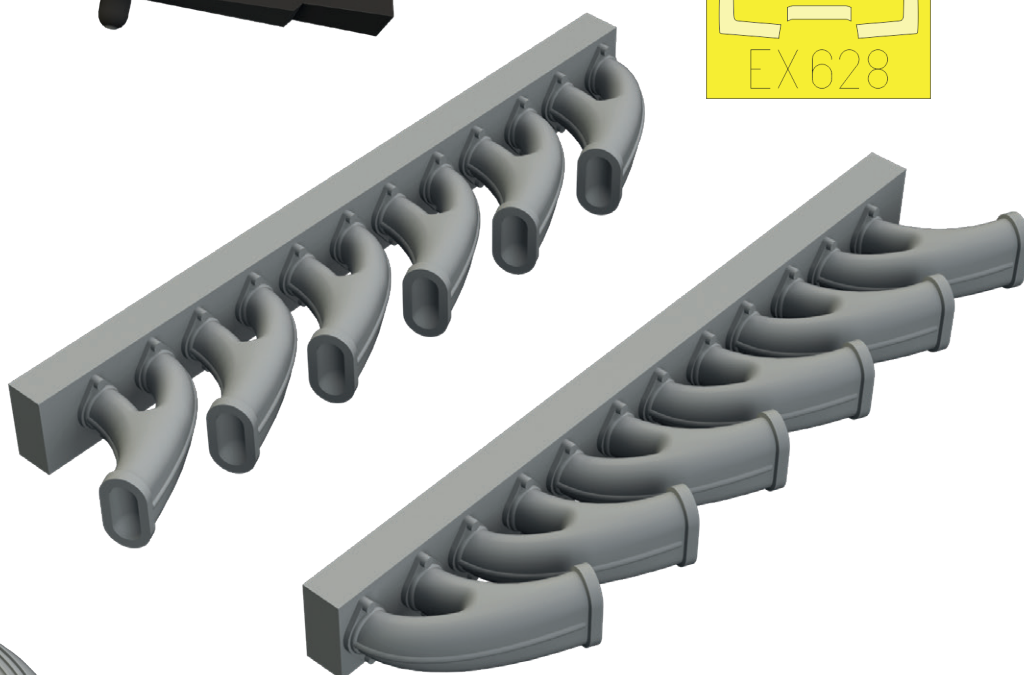
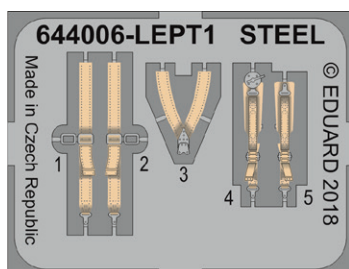
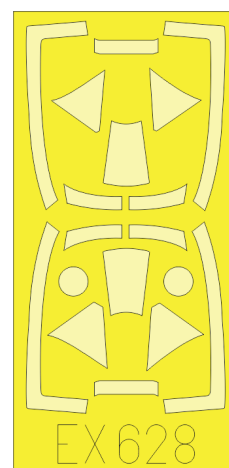


644038 Tempest Mk.V w/ early wheels LööKPlus 1/48 Eduard

Collection of 4 sets for Tempest Mk.V
in 1/48 scale by Eduard.

- LööK set (pre-painted Brassin dashboard & Steelbelts),
- TFace painting mask,
- early style undercarriage wheels,
- exhaust stacks.

LööKt

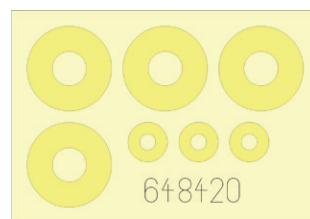
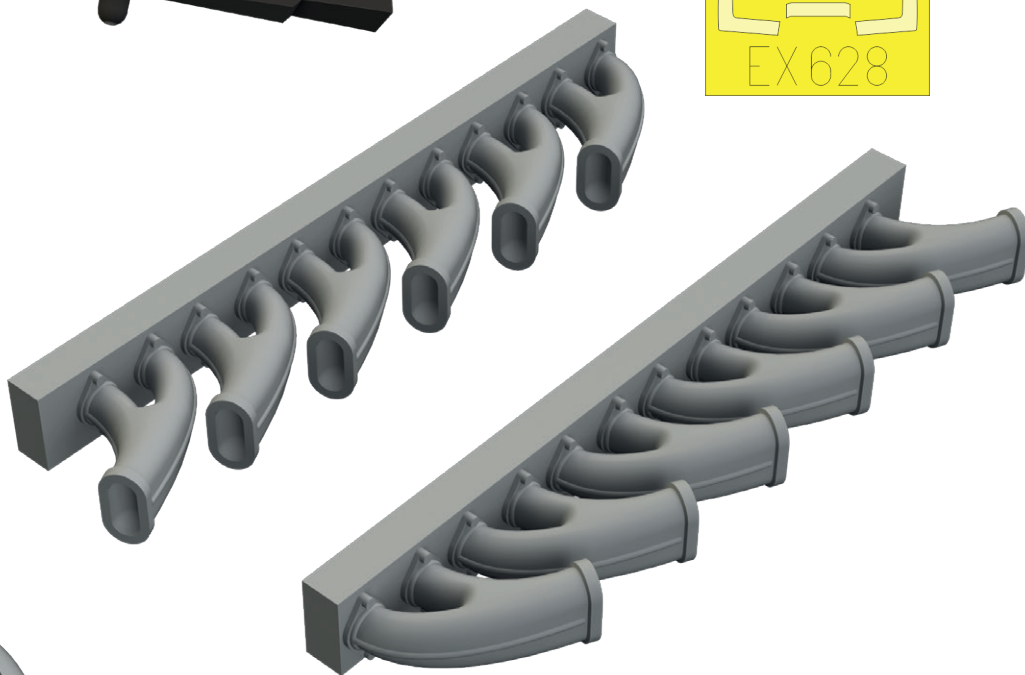
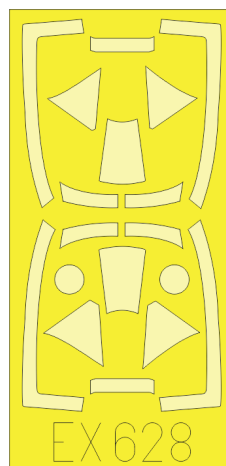
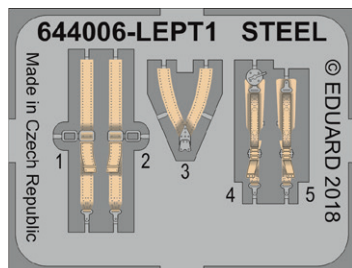


644039 Tempest Mk.V w/ late wheels LööKPlus 1/48 Eduard

Collection of 4 sets for Tempest Mk.V in 1/48 scale by Eduard.

- LööK set (pre-painted Brassin dashboard & Steelbelts),
- TFace painting mask,
- late style undercarriage wheels,
- exhaust stacks.

LööKt



PE-SETS and MASKS

PE-SETS

53248	PT-579/588	1/72	Revell
32964	Ar 196A-3	1/32	Revell
32965	Fw 190F-8	1/32	Revell
36432	US Army 1/4 ton utility truck w/ trailer	1/35	Takom
36433	Panzerkampfwagen 38(t) Ausf.E/F	1/35	Tamiya
481004	B-26B Invader bomb bay	1/48	ICM
481005	B-17G engines	1/48	HKM
481006	Bf 109G-10 Erla	1/48	Eduard
491061	B-17G nose interior	1/48	HKM
491062	B-17G waist section	1/48	HKM
491063	F4F-3	1/48	Hobby Boss
73699	Yak-1b	1/72	Arma Hobby

ZOOMS

33247	Ar 196A-3	1/32	Revell
33248	Ar 196A-3 seatbelts STEEL	1/32	Revell
33249	Fw 190F-8	1/32	Revell
FE1063	F4F-3	1/48	Hobby Boss
FE1064	F4F-3 seatbelts STEEL	1/48	Hobby Boss
FE1065	F6F-5 seatbelts STEEL	1/48	Eduard
SS699	Yak-1b	1/72	Arma Hobby
SS700	MiG-21MF interceptor Weekend	1/72	Eduard
SS701	MiG-21MF fighter-bomber Weekend	1/72	Eduard

MASKS

JX248	HH-60G	1/35	Kitty Hawk
JX249	HH-60G TFace	1/35	Kitty Hawk
EX680	UH-1N	1/48	Kitty Hawk
EX681	UH-1N TFace	1/48	Kitty Hawk
EX682	F6F-3 Weekend	1/48	Eduard
EX683	Bf 109C	1/48	Modelsvit
EX684	Re.2005	1/48	Sword
CX560	Yak-1b	1/72	Arma Hobby
XT218	Panzerkampfwagen 38(t) Ausf.E/F	1/35	Tamiya

DECALS

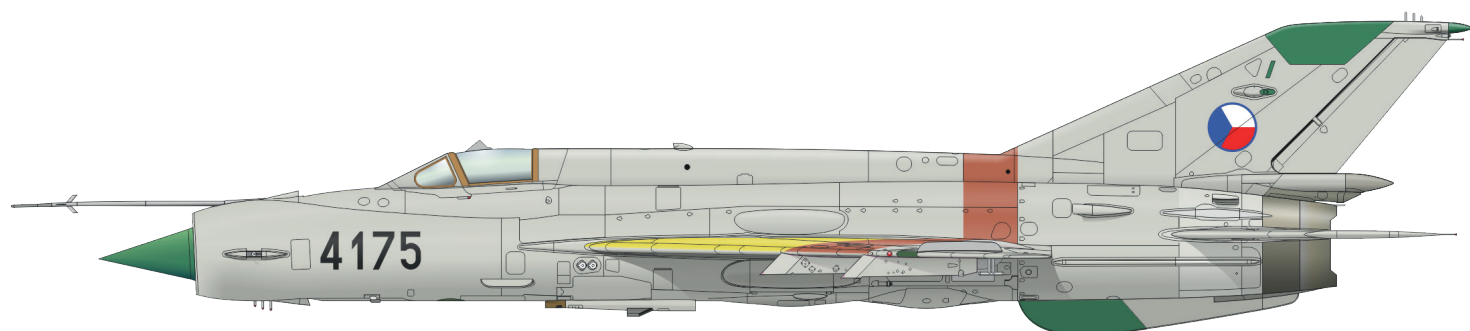
D48040	Fw 190A-2 national insignia	1/48	Eduard
D48041	Fw 190A-3 national insignia	1/48	Eduard
D48042	Bf 109G-10 Erla national insignia	1/48	Eduard

MiG-21MF Interceptor

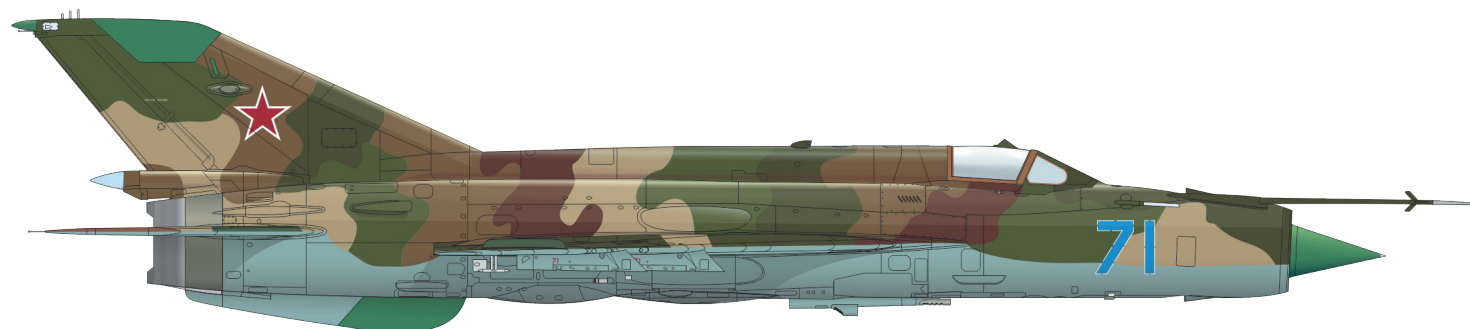
WEEKEND
edition

Kat. č. 7453

1/72



No. 4175, 1st Fighter Regiment, České Budějovice, Czechoslovakia, 1979



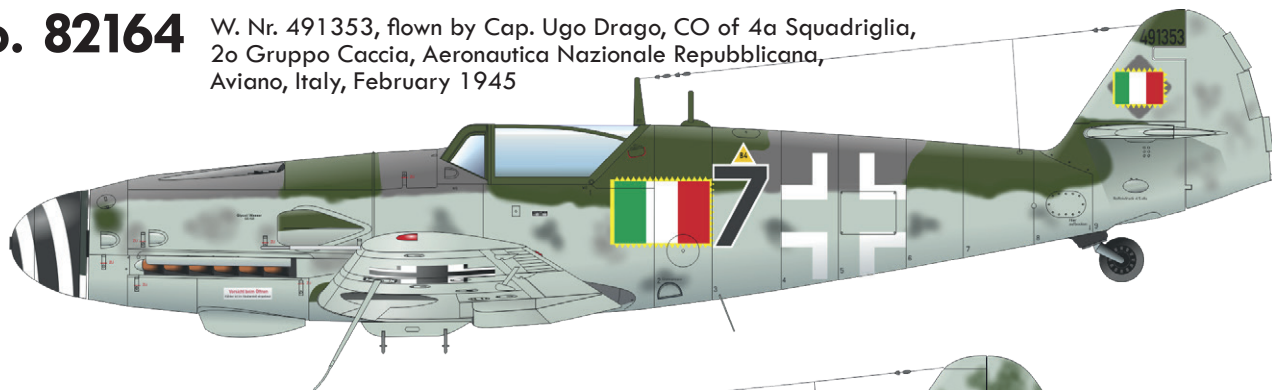
No. 71, 116. CBP (116th Combat Training Center), Privolzhsky, Soviet Union, May 1990

Bf 109G-10 Erla

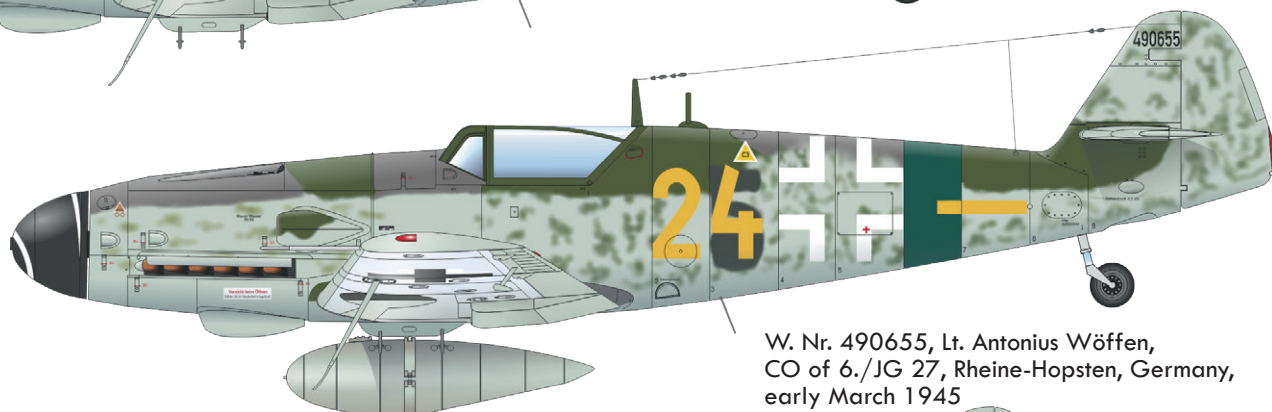
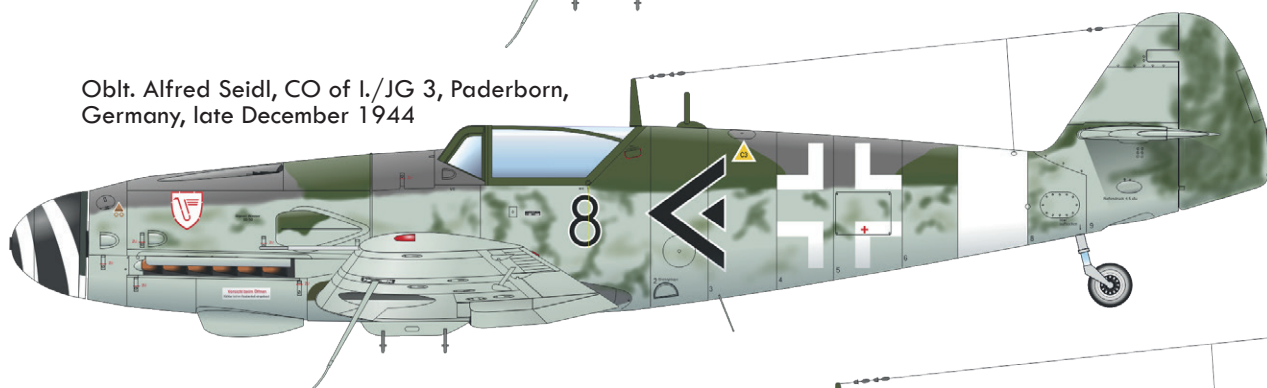
ProfiPACK
edition

Cat. No. 82164
1/48

W. Nr. 491353, flown by Cap. Ugo Drago, CO of 4a Squadriglia,
2o Gruppo Caccia, Aeronautica Nazionale Repubblicana,
Aviano, Italy, February 1945

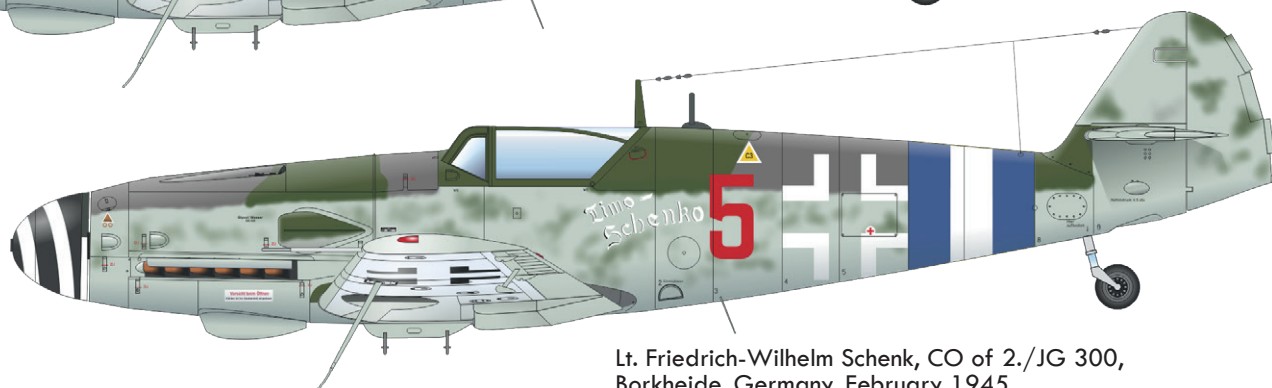
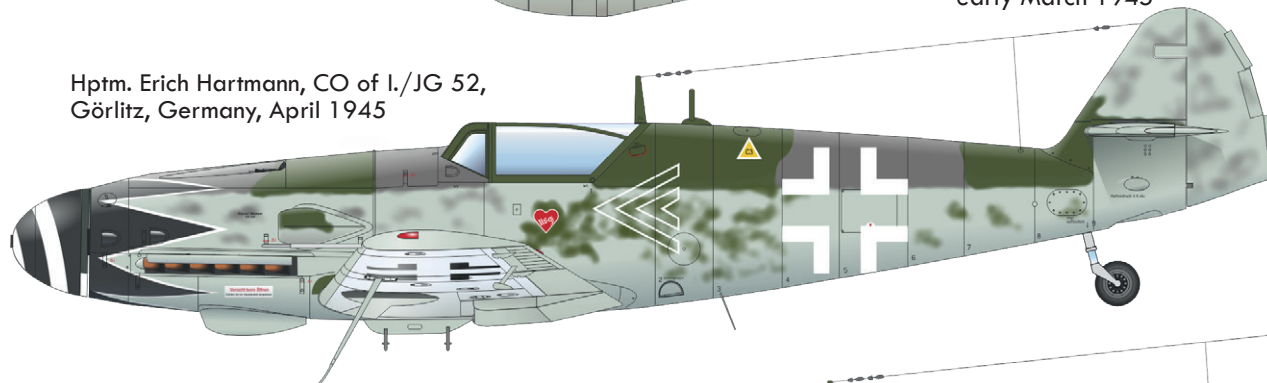


Oblt. Alfred Seidl, CO of I./JG 3, Paderborn,
Germany, late December 1944



W. Nr. 490655, Lt. Antonius Wöffen,
CO of 6./JG 27, Rheine-Hopsten, Germany,
early March 1945

Hptm. Erich Hartmann, CO of I./JG 52,
Görlitz, Germany, April 1945



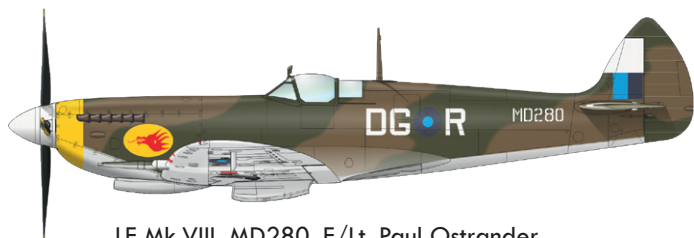
Lt. Friedrich-Wilhelm Schenk, CO of 2./JG 300,
Borkheide, Germany, February 1945

Spitfire Mk.VIII re-release

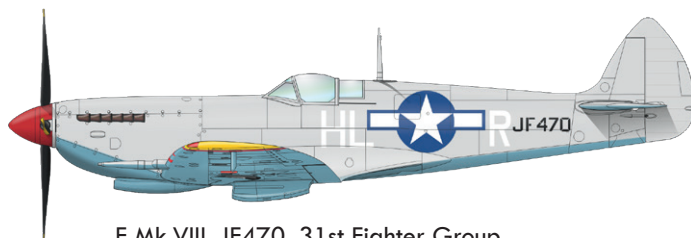
ProfiPACK
edition

Cat. No. 8284

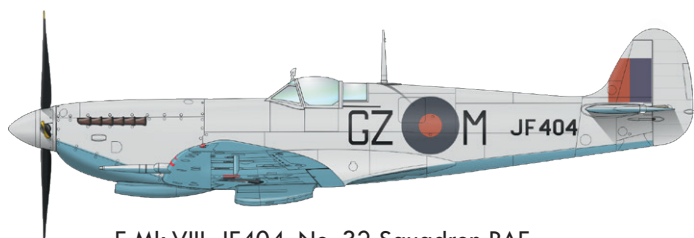
1/48



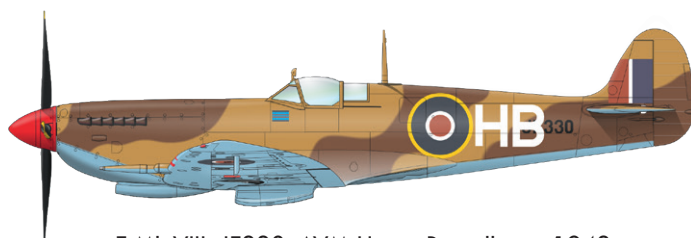
LF Mk.VIII, MD280, F/Lt. Paul Ostrander,
No. 155 Squadron RAF, Burma, 1945



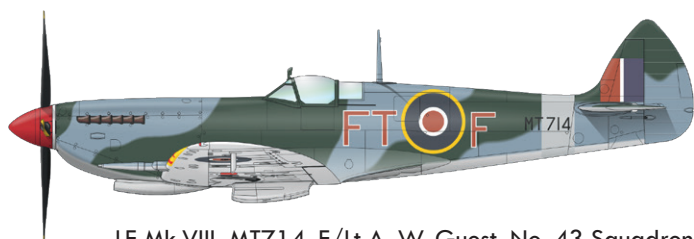
F Mk.VIII, JF470, 31st Fighter Group,
308th Fighter Squadron, Fano Air Base,
Italy, 1944 – 1945



F Mk.VIII, JF404, No. 32 Squadron RAF,
Foggia Air Base, Italy, Early 1944



F Mk.VIII, JF330, AVM Harry Broadhurst, 1943



LF Mk.VIII, MT714, F/Lt A. W. Guest, No. 43 Squadron
RAF, Ramatuelle Air Field, France, August, 1944



HF Mk.VIII, W/C Robert Gibbes, CO of No. 80 Fighter
Wing, Dutch East Indies, 1945

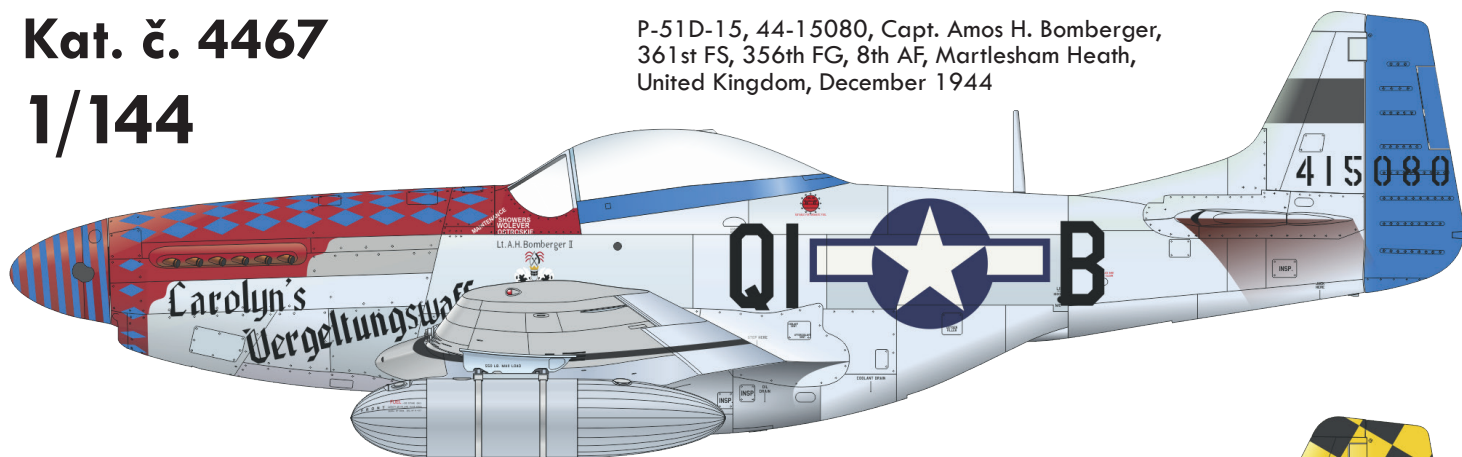
P-51D

SUPER44

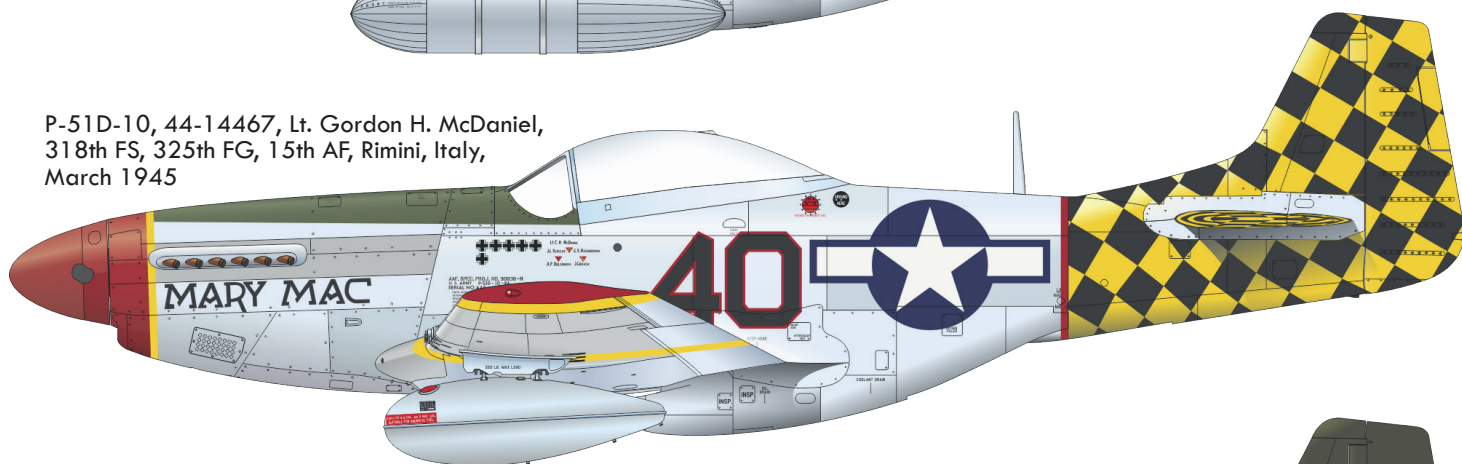
Kat. č. 4467

1/144

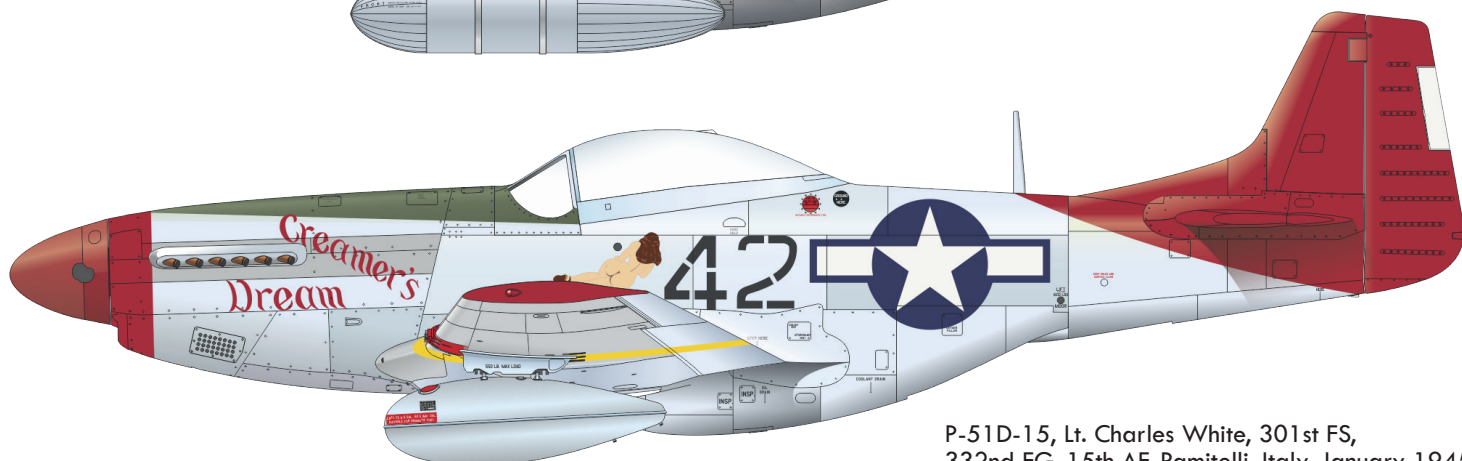
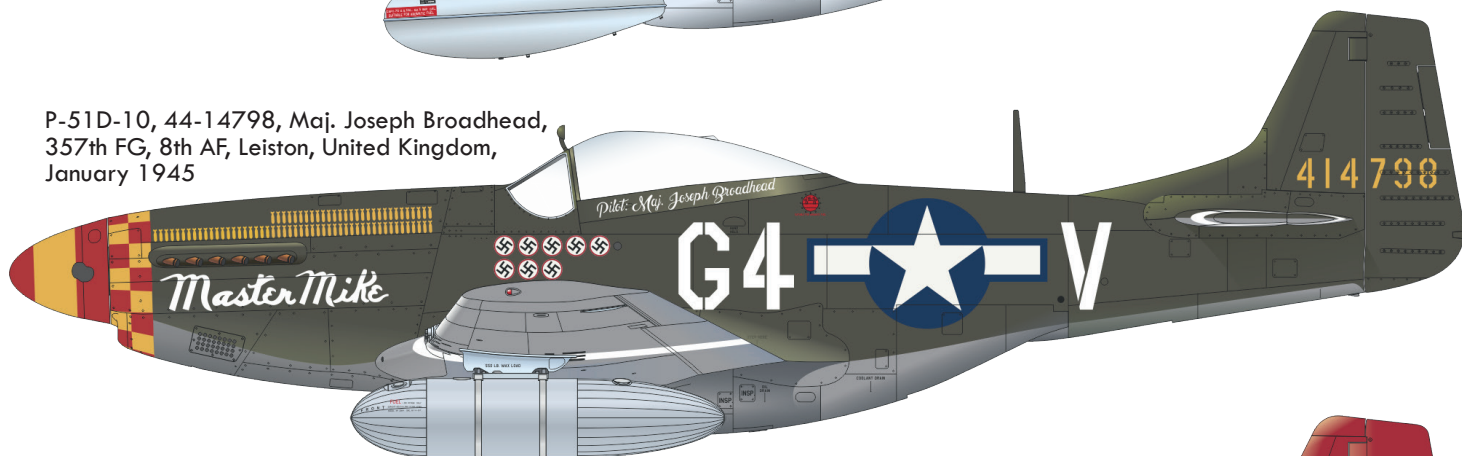
P-51D-15, 44-15080, Capt. Amos H. Bomberger,
361st FS, 356th FG, 8th AF, Martlesham Heath,
United Kingdom, December 1944



P-51D-10, 44-14467, Lt. Gordon H. McDaniel,
318th FS, 325th FG, 15th AF, Rimini, Italy,
March 1945



P-51D-10, 44-14798, Maj. Joseph Broadhead,
357th FG, 8th AF, Leiston, United Kingdom,
January 1945



P-51D-15, Lt. Charles White, 301st FS,
332nd FG, 15th AF, Ramitelli, Italy, January 1945

Il Magnifico HD.I in Italian service

eduard
LIMITED EDITION

Cat. No. 11139
1/48



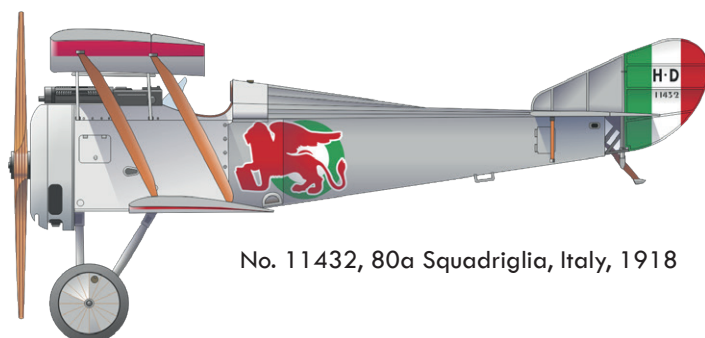
85a Squadriglia, Albania, late 1918



Tenente Mario Fucini, 78a Squadriglia,
Italy, Autumn 1918



No. 562, Tenente Antonio Bogliolo,
81a Squadriglia, Italy, 1918



No. 11432, 80a Squadriglia, Italy, 1918



No. 6254, Sottotenente Gorgio Michetti,
76a Squadriglia, Casoni, Italy, 1918



78a Squadriglia, Italy, 1918

MISSION MODELS

PREMIUM HOBBY PAINTS, PRIMERS & ADDITIVES



ZKUSTE
BARVIT
JINAK



WWW.MISSIONMODELSUS.COM
WWW.EDUARD.COM