

INFO | Eduard

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



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EDITORIAL

Dear friends,

We launched the new August arrivals on our webstore on Friday, 31 July. As usual, we announced the launch on Facebook and Instagram. As usual, we received a barrage of hate comments on these platforms, asking why we keep releasing the same things over and over again.

I really do love this favorite reaction to practically every new release we announce, and I mean that from the bottom of my heart. In case you haven't read or heard anything similar before, it goes something like this: „How about doing something new? Why yet another P-40?“ The question changes slightly depending on the release. For example, when we released the P-40K, people asked, „When's the P-40F coming?“, only for the same objection to be raised when the P-40F was announced: „Why not do something new? Why another P-40?“ followed by „And when's the P-40B coming?“ There are countless variations on this theme. My favourite is: „A 1/48 P-40B? Where's the 1/72 Su-7?“ I'd love to kill for that one, and I'd enjoy committing the murder so much that not even Quentin Tarantino would be ashamed of it.

I understand that our release schedule may initially give the impression that we are constantly releasing the same types of aircraft kits. However, if someone takes a closer look, they'll realise that the kits actually differ from one another, even if they are of the same type of aircraft. For example, the Bf 109 F-4 and the Bf 109 K-4 are not the same aircraft. While they may sound similar — both aircraft were manufactured by Messerschmitt and are based on the same design — they are not identical. There was a time when it didn't matter. In the 1970s, for example, nobody bothered with the difference between the P-40E and the P-40K, or the Bf 109 F-4 and the Bf 109 G-2. In fact, the difference between the F-4 and the K-4 was even discussed back then — even if the differences would have been obvious to everyone. Today, we live in a different era. We have almost unlimited access to information, and this shapes what we do. It's no longer enough to produce two basic kits of the main variants of a given type — the P-40E and P-40N, for example — and keep re-releasing them in the same two boxes. This isn't feasible for two reasons. One is the aforementioned level of knowledge in society and the ability to share it. This gives rise to customers' expectations of manufacturers. As customers are now familiar with these variants, they expect us to provide them. The days when modellers either ignored the differences between variants or resolved them themselves are long gone. Today, perfection and thorough resolution of variant differences are required of kit manufacturers. Of course, not every manufacturer complies with their customers' wishes. Many do

not, for various reasons. Some have been releasing a single box for 50 years and believe that this is the right way to do things. Others are reluctant because it involves a lot of work, with no guarantee that all versions will sell. However, we believe that our customers are serious about this and genuinely want the different versions of these famous aircraft types. Our sales figures prove this belief to be correct. So, when we release the P-40K, it's a valid question if someone asks us when the P-40F will be released. I don't yet know exactly when we'll release the P-40F, but we're tentatively planning for the second half of next year. We will release it because that's how we work: we release entire development series of aircraft. These are often extensive: the Spitfire and Bf 109 families comprise dozens of versions of these aircraft, so it's a project that takes years. It's important to accept that this approach is geared towards customers who are building comprehensive development series and are therefore on the same wavelength as us.

I understand that there is another group of modellers who have different objectives. To them, it may seem as though we are constantly releasing the same thing. However, I'm sure you'll understand that we have to choose one approach over the other. We cannot cater to both schools of thought. Therefore, I would ask the representatives of the opposing group to be tolerant and to have a sense of perspective. If you don't want the Spitfire Mk.XIV to be Eduard's twenty-fifth Spitfire, simply ignore it and leave it to those who do. I would also ask those who do want it to be patient. I realise that it's been 13 years since Eduard released its first Spitfire, and this one won't be released until sometime next year. But it really can't be done any faster. Firstly, we are not physically or technically capable of doing so, and secondly, even if we were, releasing all the Spitfire variants within three or four years would make it monotonous and wouldn't hold the interest of even the most die-hard Spitfire enthusiast.

Nevertheless, in the first eight months of this year, we have released model kits of thirteen different aircraft types in 1/48 scale, six in 1/72 scale, one in 1/32 scale and one in 1/144 scale across various product lines. I count several versions of the Bf 109 as a single type. If anyone finds this formulaic, I would be grateful if they could explain why. As for our August range, the 1/72 scale Bf 109 F-4 is the only kit of this type that we sell — we do not stock any others. Similarly, the other new release, the P-40K, is the only P-40K kit available from us. You won't find any alternatives in shops either. Put simply, no other manufacturer in the world produces or offers any other 1/48 scale P-40K kit. The 1/32 scale P-51B kit is the only kit of this type in our range and is being released for the first time. It really is a brand-



new product — we've never released anything like it before.

The second reaction, mentioned in the introduction, „P-40B 1/48? And where's the Su-7, 1/72?“, highlights a slightly different issue. It's quite logical that modellers would want aircraft kits that they like, and which are either missing from the market, or whose kits are really old and have long since been surpassed both technically and in term of design.

It makes sense that modellers would want these. However, from our perspective, some of these requests are, at first glance, somewhat uneconomical, whilst others are downright crazy. For example, in response to the August release of the Wilde Sau Episode 3, one modeller asked why, instead of more Focke-Wulfs, we didn't produce twin-engine Bf 109s. He was probably referring to the Bf 109 Z. There are, of course, brave companies that will fulfil such requests for model-makers. We, however, are generally not among them. I, for one, would never dare to make moulds for the Walrus in 1/48 scale. I'd be willing to buy 3,000 sets of moulded parts from someone who dared to make the moulds, and I'm sure we'd sell them. In fact, I reckon we'd even sell 5,000 of them. But making the moulds for that is in a different league altogether, and I wouldn't dare attempt it. I'd be afraid we wouldn't survive such a bold move. You know what they say: the graveyards are full of heroes.

The second reason is technological. We have achieved a high standard in the production of our kits. We simply cannot compromise on the quality of our work. However, we can re-release something old from our catalogue that doesn't meet today's standards as a reissue or in the Heavy Retro range, and that's fine. Our customers will understand that, at least those who follow us. However, if something like that falls into the hands of someone who doesn't follow us and isn't aware of our practices, it could be disastrous. We're left with a disappointed customer who bought the aeroplane kit they wanted, saw that it was published by Eduard — a reputable company — but were disappointed when they opened the box. We also lose a potential customer. The same

applies to the cover art. When we announced the Catalina, the initial reactions weren't particularly positive. These modellers didn't consider that there hasn't been a 1/48-scale Catalina kit available for years, and that you can only buy one on eBay for a considerable amount of money. They simply asked why we were releasing an old, broken-up kit instead of making a new one to our standard.

That's the crux of the matter. Our standard is expensive, and we cannot compromise on it. Therefore, we must consider very carefully which projects to invest in, in order to ensure a return on investment. Neither the Walrus nor the Catalina qualify as such projects. You might say, „What nonsense is this?“ You might object: „But you've just released a Catalina kit – a re-release of a 20-year-old kit – and sold all of it in no time. The Catalina didn't even stay on your online shop for a week. So why wouldn't you sell your own Catalina, which would surely be much nicer?“ The answer lies in the model's sales potential. We sold 3,300 of those repackaged Catalinas and they really did sell quickly. We could easily have sold more – perhaps even 5,000 or 8,000 units. We could release an older version of the Catalina – the PBY-5, which has no landing gear – and we probably will. That could add another 3,000 units to the total. Another option would be to release a super-limited edition Catalina that spotted the Bismarck in 1941, thereby ensuring its destruction a few hours later. This could be part of a dual combo pack containing a 1:700 scale Bismarck kit, for example. It would certainly be a unique item, and it would generate significant interest, perhaps even more than I dare hope for. That would add a further 1,500 kits sold. And that's about it. We're creative, but we've already reached our sales ceiling here. To recoup the investment in the moulds for our own Catalina, produced in our own style, we would need to sell at least three times as many. I very much fear – indeed, I'm certain – that we won't be able to do that.

In a way, it's an economic trap that we've set for ourselves. But any company can fall into it. You might argue that there are companies that produce aeroplane models that I say can't turn a profit and therefore shouldn't be manufactured because the sales volume would not be enough to recoup the initial investment. However, I am writing about our own situation. Perhaps those companies manage it better and sell enough units to make such production profitable. Or maybe they save on the development and manufacture of moulds. That's possible. It might be enough simply not to rivet the surface. Or they might not produce so many alternative parts. Maybe they manage to save money while still selling at a higher price than us. I don't really think so, though; our experience suggests that we won't sell more or make more money if we raise our prices. But who knows? Maybe they can do it in Poland. As is well known, we in the Czech Republic are a bit slow off the mark and haven't quite got the hang of it yet.

Of course, we're trying to solve this tricky problem and do something about it. For instance, we have

developed the Hybrid project. We see this as a way to reduce the initial production preparation costs, primarily by reducing the investment required for new moulds. At the same time, combining traditional moulding with the production of component assemblies via direct 3D printing enables us to improve quality, particularly with regard to internal details, to an unprecedented degree. In other words, we can achieve a quality that would otherwise require a model-maker to invest in supplementary etched, cast or 3D-printed sets. Not to mention the investment of hours of model-making work.

After conducting market research and launching the 1/48-scale S-199 and 1/72-scale Enstrom 470 kits, we embarked on our first three full-scale projects for the 1/32-scale Hybrid series of model kits. The first of these is the P-51B Mustang. Production of this first kit began in early June, incorporating both traditional moulded parts and 3D-printed components. In order to produce the 3D parts for the Mustang, we purchased 15 new printers, set up a new workshop, and assembled a core team for 3D printing. The original production estimate for this kit was an initial run of 2,000 units. This was based on feedback from modellers and retailers at the time. However, following the kit's launch at E-Day in late June, orders quickly rose to 5,000 units. At that point, we found ourselves in the same position as North American, the manufacturer of real Mustangs, back in 1943. At North American, production of the airframes was already underway, although they were still missing engines as Packard was having difficulty getting production up and running. If you're interested in this, you can read about it in the book included with our kit. By the end of June, we had produced and packaged 500 kits, some of which were already in the hands of customers who had bought them on E-Day. We also had plastic mouldings – we had a further 5,000 sets of these in stock – but we were short of 3D-printed parts. To resolve this situation and meet demand, we quickly purchased an additional 20 3D printers. This brings our total to 51, which is more than four times the number we had when we started producing the first 1/48-scale S-199 Hybrids. However, machines alone aren't enough – people are also needed for production. We hired temporary staff and, during July, increased production of the Mustang parts to a 24/7 schedule, meaning continuous operation across three shifts, seven days a week. Given the current situation on the Czech labour market, I consider this to be nothing short of a minor miracle. As of today, we have fulfilled all pre-sale orders for end customers. We have fully produced and sold out the first batch of the 932011 P-51B Royal Hybrid 1/32 scale model kit. Production of the second and final batch of this Royal Edition began at the start of August. We still need to dispatch orders to some retailers, who should receive their kits by the end of this week. What we don't know is how many orders we'll receive from modellers once sales of the August new releases begin and from the IPMS USA National Convention 2026 Afterparty, which started

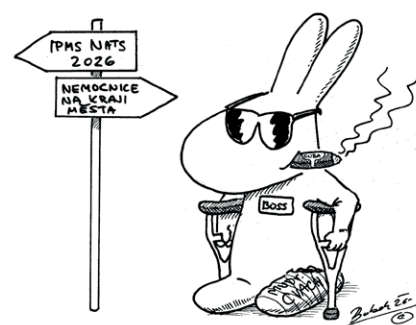
yesterday. We'll also be receiving more orders from retailers. Some have not yet ordered this Royal Edition 1/32 Mustang, while those who have will, in many cases, be replenishing their stocks by mid-August. Therefore, it is highly likely that this kit will sell out completely by the end of September at the latest, but probably sooner. There will not be a third edition. However, the 1/32 scale P-51B Mustang will not disappear from our catalog. In October, the sold-out Royal Hybrid series kit will be replaced in our range by the new 1/32 scale P-51B Mustang Birdcage kit, which will be released as part of the standard Eduard Hybrid range. This new version will differ from the current one in that it will not include the book, pilot figure or landing gear bays plugs. As the name suggests, it will also have slightly fewer 3D-printed parts, featuring just one cockpit version and one seat version. In January 2027, it will be joined by the P-51B Mustang Malcolm Hood. Later in the year, we will release two further kits: the P-51B Mustang CBI and the Mustang Mk.III.

If anyone wants to criticise us again for only ever releasing Mustangs, well, OK, it may seem that way. However, I hope it won't be the same modellers who are currently criticising us for not including any British or Far Eastern Mustangs in our range of colour schemes. One gentleman gave us a rather vulgar telling-off, saying that we constantly include aircraft from an insignificant European theatre of war in our kits while ignoring those from the more interesting Far Eastern theatre. He added that if we plan to release the P-40N and P-51B from the CBI in the limited-edition „Sharks and Stallions“ box, we're taking advantage of modellers because we've already released many kits with those boring European markings that they bought, and now this. We have a somewhat different view on the significance of the various theatres of World War II. As for me, I'd rather not comment on „taking advantage“.

As you might have guessed, I'm writing this editorial on a plane once again, as has become my habit in July over the last few years. So, I'm sending you greetings from flight KL611, which is travelling from Amsterdam to Chicago. On Monday, when this issue of Info will be published, we'll be heading to Fort Wayne in Indiana, where we're looking forward to seeing our friends from the United States, Canada, Argentina, Brazil and Peru – in short, our friends from North and South America!

Happy modeling!

Vladimír Šulc



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Nachtjagd Over the Eastern Front

Now Available!

The Air War Publications team is very pleased to announce the release of our latest book, *Nachtjagd Over The Eastern Front* by Sven Carlsen, Morten Jessen and Adam Thompson.

This hardcover book is 316 pages, complemented by 242 photographs, including many never-before-published images. There are also 19 wartime illustrations, 12 aircraft profiles by Claes Sundin, and 22 of Morten's excellent maps. The text is bolstered by the inclusion of numerous first-hand accounts from men involved in the events described. There is plenty of interesting material for scale modelers and Luftwaffe researchers alike.

The renowned Nachtjagd historian and researcher, Theo Boiten, had the following to say about the book: *"I received a copy of the book and I can say that the team of authors have succeeded in writing THE benchmark book on the history of the Ostfront Nachtjagd, I am hugely impressed and have sent Morten my warm congratulations on this achievement. It is much more comprehensive than I was able to do in the Nachtjagd Combat Archive series. I wish it every success and hope it will find a wide readers audience!"*

The story of Luftwaffe night fighter airmen and their operations on the Eastern Front is one that defies the traditional stereotype of the Germans as well-organised and meticulous planners. Instead, it emphasises their successful improvisation in the face of unanticipated problems and a very tough Soviet opponent.

Luftwaffe night fighter units on the Eastern Front were forced to cover thousands of kilometres of frontline and rear areas with a limited number of aircraft and crews. Despite the many challenges they faced, the Luftwaffe personnel engaged in these operations persevered, and several pilots rose to prominence, claiming the same degree of success as their Western comrades-in-arms.

The book can be ordered from our website:

<https://airwarpublications.com/product/nachtjagd-over-the-eastern-front/>

Air War
Publications



Mr. Color GGX

Josef Blažek



New Mr. Color GGX colors.

The Japanese company GSI Creos, under its Mr. Hobby brand, has launched a new product in the field of lacquer paints, which bears the trade name Mr. Color GGX. Let's first classify the new product in the product line and explain its differences in terms of composition and packaging. As the name suggests, this is a new product in the Mr. Color product line. In other words, these are basically well-known synthetic lacquer paints (so-called lacquers), which are at the absolute top of quality in the modeling community when it comes to the properties of paints applied with an air brush. They are known for their quick drying, superb coverage, smooth surface without soaking in and around relief details, and for their high resistance to manual damage and resistance to damage from various weathering products. On the other hand, occasional criticism from some modelers is directed at their stronger odor, which complicates work especially for people who have health restrictions or practice their hobby in shared or small spaces, where the stronger odor from the paints can bother those around them. The new line of paints basically retains the known positive properties and takes them one level further.

The first improvement is the increased amount of pigment, which is positively reflected in better color coverage. Mr. Color GGX paints focus on basic shades and are currently only available in black, white and clear coats in glossy and matte finishes. The packaging is also different, which is significantly larger compared to regular Mr. Hobby production and the paints are only available in a 60 ml version, which is significantly more compared to the largest GX so far offered in 18 ml jars and even 6x more compared to classic Mr. Color paints, which are sold in 10 ml bottles. The durability of the paint is therefore considerable and will probably last for many years for the average modeler, which, given the properties of GSI lacquer paints, does not pose any problem and there is no risk of irreversible drying of the paints and similar problems. In relation to the package size, I also find the economic side of the matter positive, since the price of the new paint per ml is many times cheaper compared to the regular Mr. Color paint. Another point that needs to be mentioned is the reduced odor of solvents in the paint, which is the manufacturer's response to increasingly strict environmental and legislative requirements,

but at the same time, as already mentioned, with not only no loss in quality, but an actual increase in it. Now let's introduce the individual items of the new line in more detail.

GGX THINNERS

The manufacturer has also prepared its own thinners for the new Mr. Color GGX line of paints. The first is Mr. Color GGX Thinner





and the second is Mr. Color GGX Rapid Thinner. Both thinners are available in 400 ml containers and will therefore last a long time. Interestingly, in addition to the difference in drying speed, as the name suggests, we can also achieve different degrees of glossy or matte surfaces when using the same paint but with a different thinner. During testing, I observed a faster drying time when using Rapid Thinner, but it should be noted that even with the basic thinner for GGX, drying does not take significantly longer and is not fundamentally different from regular Mr. Color (C series) or Mr. Color GX paints. In the case of Rapid Thinner, I recommend a higher dilution of the paint to avoid an excessively rough surface after spraying. It is also worth mentioning that the special thinners for GGX are designed to maximize the properties of the new line of paints, but the paints also work without problems with classic Mr. Hobby thinners, such as Mr. Color Thinner or Mr. Color Leveling Thinner. Conversely, paints from the Mr. Color or Mr. Color GX series can also be thinned with new thinners, such as Mr. Color GGX Thinner and Mr. Color GGX Rapid Thinner. The odor of thinners intended for GGX is noticeably less than that of thinners for paints from the Mr. Color series, which is an undeniable advantage for a large number of modelers, and can thus help reduce odor not only when working with new GGX paints, but as mentioned, when diluting existing paints, Mr. Color and Mr. Color GX will help reduce odor due to compatibility and during their application.

GGX PAINTS

As I mentioned at the beginning of this article, the new Mr. Color GGX line is currently focused on basic shades and only black and white are available. I decided to test the properties of the colors on test pieces and compare them with the previous products from Mr. Hobby.

Black usually covers very well in all variants of Mr. Hobby paints, but even here we can find a noticeably better coverage, which creates a deep black surface. In this respect, the color differs from other black paints from Mr. Hobby and its competitors, because the depth of the black tone here is truly unique. White paint, on the other hand, is a big issue for many modelers, because many white paints do not cover sufficiently and force modelers to apply a larger amount of product, which negatively impacts the sharpness of surface details, and especially in areas where painted areas are masked with tape, a visible step is created between the white paint and the surrounding spray, which is a problem that is difficult to repair. In the case of Mr. Color GGX, the situation changes noticeably for the better. In the case of the white paint, the coverage is extra high in the first coat and we can achieve a white surface even in a thin application. Such coverage is appreciated, for example, in areas such as spraying markings using masks, where contrasting camouflage is painted under individual characters. Another good example is the typical spirals often applied to propeller spinners of many Luftwaffe aircraft from the Second World War, where we can easily

achieve perfect coverage in the first coat and without the risk of the aforementioned visible 'steps' between adjacent colors.

GGX VARNISHES

Painting has always been a topic of much discussion in plastic modeling. Nowadays, we can find a large number of gloss clear coats on the market that create a glossy surface suitable as a base for decals and as a surface protector during weathering procedures. So far, I have been very satisfied with, for example, the Mr. Color GX112 Gloss varnish, which has always worked perfectly for me. When testing the new gloss clear from the GGX series, I must say that its gloss is a step forward in terms of quality, even with a thin layer. During my testing, I tried to subject the varnish to many weathering products to verify its resistance to damage, and I did not notice any higher sensitivity compared to the previous paints from the Mr. Color series. On the contrary, the surface seems extremely durable to me. Matte varnishes are an even bigger topic in the modeling community. The typical problems of most matte varnishes on the market are their inability to create a truly matte surface and they only dull the

Mr. Color GGX LG 113



Mr. Color GGX LG 112

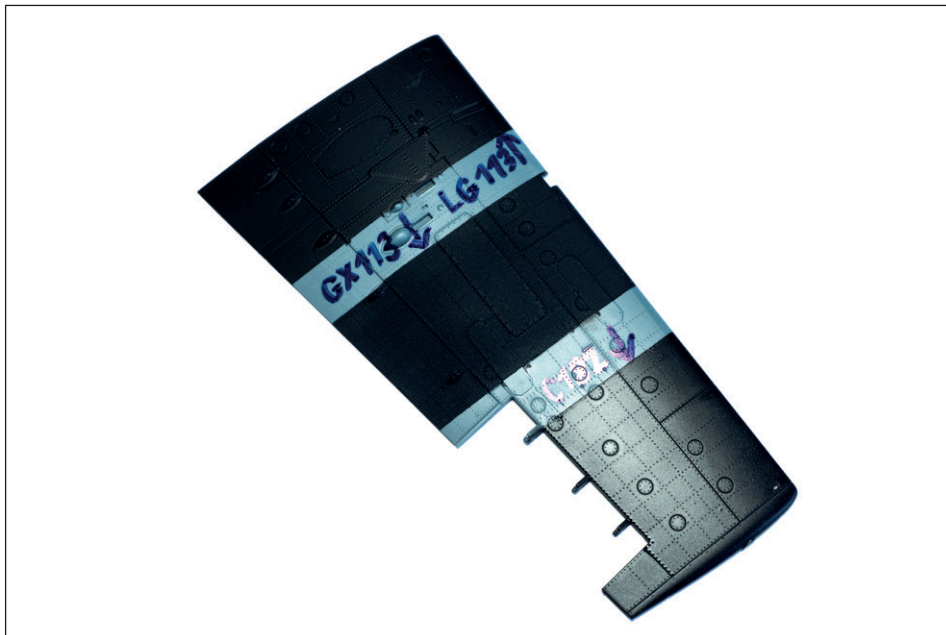


Mr. Color GGX LG1

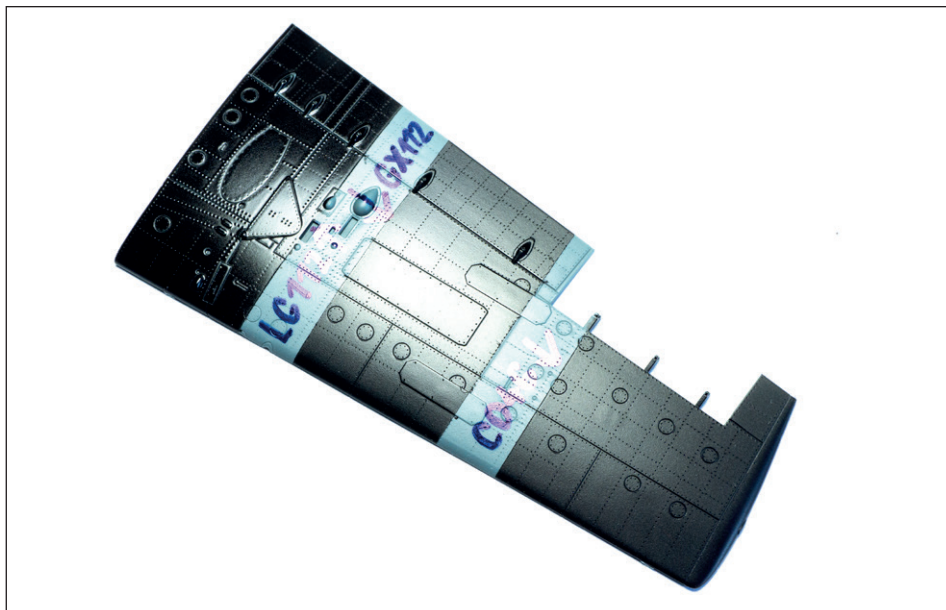


Mr. Color GGX LG2





As a guinea pig for testing various Mr. Color flat clear coats, I used a base in the form of black paint, which I then sprayed with gloss varnish to a mirror finish. This base served as a contrasting surface for creating a flat surface. I mixed all flat varnishes in the test sample (C182, GX113 and LG113) in the same ratio to make the test objective and applied them in one continuous layer. Each clear coat could be diluted in individual ratios and applied in a different number of layers and then better results would be achieved, but the goal of my test was a direct and objective comparison under the same conditions without favoring individual products. The photo is taken under direct light without a softbox to make the result more visible. After curing, we can see that the flat varnish C182 does not create a matte surface as strongly in the first layer as the other two. On the contrary, GX113 produces flat very strongly, but leaves a rougher surface with traces of 'graying' and slightly changes the shade of the base. Conversely, the new varnish LG113 creates a perfectly deep flat finish without changing the base shades and came out best among the test subjects.



The test of the gloss varnishes (C046, GX112 and LG112) had similar results to the test of the flat ones, with the exception that none of the gloss coats visibly changed the shades of the base colors. In conclusion, it can be said that the difference is mainly in the intensity of creating a gloss finish with one layer, which, especially in the case of Mr. Color GGX LG112, saves a lot of time and eliminates the need to apply multiple layers to achieve the desired gloss finish.

existing surface of the model with a result that we would describe as semi-matte. To the contrary, the matte varnish, which creates a very satisfactory flat finish, have another and fundamental problem, which is the matting component in the paint causing a visible 'graying' of the surface, and therefore a change in the shades of camouflage, to which we can add the loss of our weathering efforts,

if they were applied before spraying with matte clear coat. Here, in the best sense of the word, the matte varnish Mr. Color GGX LG113 took my breath away. First, it perfectly dulls the surface in the first layer, but at the same time does not create a rough surface with the above-described effect of changing the shades of the model. The result is a velvety matte surface without changes in shades. For this

test, I deliberately applied a flat clear coat onto a black surface, where the typical problems of matte varnishes are most evident. In general, I would recommend diluting the varnishes with a higher ratio in favor of the thinner. When adjusting my air brush pressure, a ratio of 5:1 worked for me. Thanks to the extreme coverage of the new Mr. Colors Color GGX, we will achieve the described results without the risks associated with diluting the varnish too little. For a deep flat surface, I recommend diluting the matt varnish Mr. Color GGX LG113 with Mr. Color GGX Rapid Thinner, which itself helps to create a flat surface. If we want to slightly reduce the hard flat surface, I would recommend Mr. Color GGX Thinner, which helps to create a gloss to semi-gloss surface and in combination with the flat clear may be a better choice for many modelers. A similar logic applies to the Mr. Color GGX LG112, gloss varnish where we can optimize the degree of gloss for the individual needs of each modeler by using different thinners. The last point that is worth mentioning is the protective UV properties of GGX varnishes, which we were able to notice for the first time in the GX varnish series. Both mentioned varnishes contain special chemical additives that act as a filter against ultraviolet light, which is intended to stop or significantly slow down the aging and degradation of the model's surface over time. In the case of applying the varnish over decals, they will not turn yellow even after decades, which is also true in the case of repainting clear parts, since some manufacturers use plastic for clear parts that have a nasty habit of severe yellowing over time. Another example concerns vacuformed canopies. The UV filter also protects the colors of the model that are prone to losing saturation over time, such as red or yellow. When applying Mr. Color varnishes with a UV filter, we are sure that the result of our work will be stable for decades and will not change under the influence of light.

GGX COMPATIBILITY

As already mentioned, the new GGX series colors are not a separate chapter in the development of Mr. Color paints, but are its next evolutionary step, which has a positive impact on their compatibility. For the sake of order, let's summarize the possibilities of use. Mr. Color GGX colors are designed so that they can be combined without any problems with classic Mr. Color (C series) and Mr. Color GX paints. A different situation occurs with the Aqueous Hobby Color (H series) and Acrysion (N series) lines. These colors utilize a different chemical base (water-soluble acrylics and emulsions). If we try to mix Mr. Color GGX color with Aqueous or Acrysion color, a chemical

reaction will occur, during which the color will coagulate and form lumps, which negates any possibility of its use. When applied to already dried surfaces, the GGX series behaves like a typical lacquer color, as we know when using Mr. Color and Mr. Color GX paints. The ideal base for GGX series paints are all types of primers, such as Mr. Surfacer 1000, 1200, 1500. GGX paint adheres perfectly to these matured bases, does not tear anywhere and creates an extremely durable surface. We can also apply Aqueous Hobby Color (H) or Acrycion (N) paints without any problems to an already hardened layer of GGX paints, since these water-based paints do not damage the base varnish in any way. On the contrary, if we proceed by applying GGX paints to a hardened surface of Aqueous Hobby Color (H) or Acrycion (N) paints, I recommend proceeding very

carefully, since lacquer paints contain strong solvents and can easily damage the lower, less durable acrylic layer and cause it significant harm. The solution for such a combination is to apply several thin layers to a thoroughly cured surface of water-based paints and avoid pooling or applying thicker layers. This procedure will achieve rapid evaporation of the thinner after spraying, which will prevent the base layer from reacting.

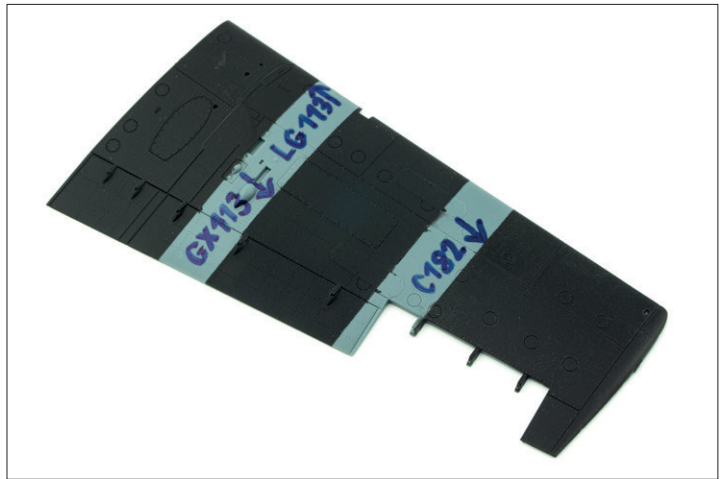
CONCLUSIONS

The new Mr. Color GGX paint range is a clear step forward. If I skip the benefits such as the price per ml of paint and the reduced odor, I see the biggest advantage primarily in their high coverage properties. My personal favorite is the perfectly covering white Mr. Color GGX LG001 and the matte

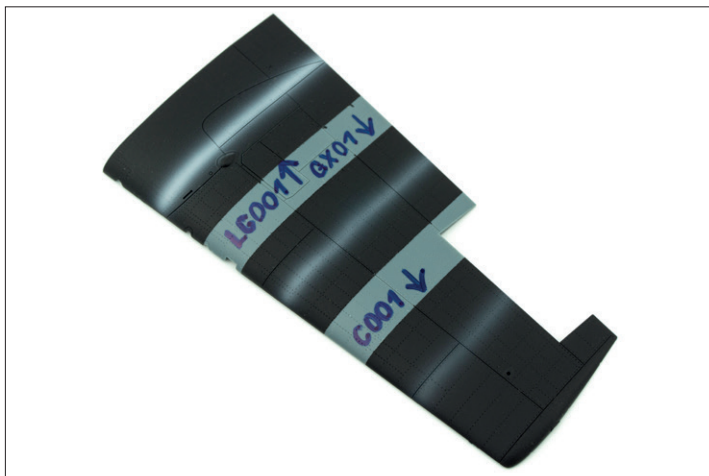
varnish Mr. Color GGX LG113. At the same time, I recommend using both thinners intended for GGX paints, as they visibly affect the results of use in various combinations and are also usable for Mr. Color (C series) and Mr. Color GX paints, which I personally see as a crucial point in their flexibility of use.



The test of gloss coats photographed in a softbox optically reduces the differences between the individual varnishes. This proves that the test results cannot be divided into good varnish vs. bad varnish, but under extreme lighting in the previous shots, the differences in the results, which are less noticeable in indirect light, can be seen better.



The test results of flat varnishes photographed in a softbox are, similarly to the gloss versions, less obvious, but compared to them, we can objectively say that the resulting differences in surface quality are greater between the flat finishes and the difference between Mr. Color LG113 compared to other Mr. Color varnishes is visibly greater in a positive sense.



I performed the white paint coverage test on a black matte base. I again diluted the individual test colors (C001, GX01 and LG001) in the same ratio as in the case of the varnishes and made a line on the surface with one stroke for an objective representation. The results show a higher amount of pigment in Mr. Color LG001 compared to Mr. Color GX01 and especially C001. We can objectively say that the coverage of Mr. Color LG001 White is a level further than the aforementioned colors.



I prepared the same test for the black paint as for the white (LG002, GX02 and C002). Again, the coverage of the Mr. Color GGX LG002 Black under the same conditions was visibly higher.

Aero L-39, L-59, L-139 & L-139 Albatros

This latest Warpaint title covers the Aero L-39 *Albatros*, a Czech-designed jet trainer and light attack aircraft developed by Aero Vodochody during the 1960s as a successor to the L-29 *Delfin*. It first flew in 1968 and entered service in 1972, becoming the standard jet trainer for Warsaw Pact nations. With over 2,900 units built, the L-39 became one of the most widely used jet trainers globally, praised for its reliability, ease of maintenance, and versatility. Building on this legacy, the L-159 ALCA (Advanced Light Combat Aircraft) was introduced in the late 1990s, developed to replace aging Soviet-era fighters in the Czech Air Force, first flying in 1997 and entering service in 2000. This authoritative and highly relevant title includes all the regular Warpaint features with historical text and images, a full breakdown of the aircraft's widespread global service, and artwork and scale drawings by Petr Kolmann.



Warpaint Special No.7

£25.00

Curtiss SB2C Helldiver

The Curtiss SB2C Helldiver was one of those aircraft that was either loved or hated- there was no middle ground. Forged in a hurry for the forthcoming war the Helldiver was designed in a hurry, built by mostly by under skilled personnel while being bombarded by the customer with their extra changes and demands. Even under this pressure Curtiss managed to produce a prototype that flew, even though it would soon reveal strength and build problems. This is what prototypes are for, however, the first production model, the Dash-1, was beset by many problems that saw one carrier captain demanding that the Helldivers be removed and the off loaded Douglas Dauntless dive bombers be reinstated. From the SB2C-3 onwards, after undergoing a full modification programme, a competent combat aircraft would emerge. Used throughout 1944/45 the Helldiver squadrons, now operating from the fast carriers, took the war to the Japanese all the way to Tokyo. Post 1945 the Helldiver would stay on active service until replaced by the Douglas AD-1 Skyraider. Overseas usage would see later build models being operated by France, Greece, Italy, Portugal and Thailand. The Royal Navy also formed a single squadron that would never deploy on active service. Undergoing flight testing in Britain, Eric 'Winkle' Brown would declare that the Helldiver was the worst aircraft he had ever flown. Written by Kev Darling with artwork and scale drawings by Sam Pearson.



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Two Towers

Petr Uzsák

At the outset, I would like to apologise to readers for the misleading title, which may suggest a connection with the work of the famous J. R. R. Tolkien, when in fact the opposite is true. This text will not draw on the realm of fantasy, as it focuses on specific historical facts of naval warfare.

Greece's submarine force is not particularly well known to the general public, but its history includes several remarkable episodes. Few people know, for example, that as early as 1912 the Greek submarine Delfin attacked the Ottoman light cruiser Macidiye, albeit unsuccessfully. Nevertheless, it was the first underwater torpedo attack in military history.

Today, two preserved conning towers of Greek submarines can be seen in Athens—which explains the title. The first comes from the pre-WWI vessel Y-2 Papanikolis and is held in the collection of the Piraeus Maritime Museum. The second artefact mentioned is the conning tower of the submarine Y/B S118 Okeanos. It stands in Flisvos Park in the Palaio Faliro district and represents the post-WWI German school of submarine design.

Y 2 PAPANIKOLIS

In the mid-1920s, the Greek monarchy ordered the construction of two submarines in France, its first submarine order since the end of the Great War (now known as the First World War). As noted, the order comprised two vessels. We will focus on the one designated

Y 2 Papanikolis, whose sister ship was designated Y1 Katsonis.

Construction of the submarine Papanikolis began at the Chantiers de la Loire shipyard in Nantes in 1925. It was a conventional diesel-electric design of the Schneider-Laubeuf type. It was not an entirely new project, but a design derived from the French Circé class. The boat was completed in 1927 and was accepted and commissioned by the Hellenic Navy in December of that year. To be precise, this took place at 2:45 p.m. on Wednesday, 21 December 1927, in the port of Toulon. The very next day, the crew conducted an acceptance trial that included a practice torpedo launch and a test firing of the deck gun. Its first commanding officer was Commander (Cdr) Panagiotis Vandoros.

Two days later, on the afternoon of 24 December 1927, the boat weighed anchor and departed Toulon for Greece. It arrived five days later, on the afternoon of 29 December, where it received a ceremonial welcome. It then moored at its assigned berth, Buoy No. 8 at Salamina Naval Base. The boat's mission was coastal defence, as it had not

been designed for extended ocean-going deployments. Its range was 3,500 nautical miles (approximately 6,500 km), which was nevertheless entirely adequate for Mediterranean conditions.

Its principal technical specifications were as follows: length 62.5 m; beam 5.3 m; draught 3.6 m; full displacement 605 tonnes surfaced and 787 tonnes submerged. Propulsion was provided by diesel engines with a combined output of 970 kW and electric motors rated at 750 kW. Driving two propellers, they could give the boat a speed of 14 knots on the surface (25 km/h) and 9 knots submerged (16 km/h). The armament comprised two internal bow torpedo tubes of 533 mm calibre, two external bow torpedo tubes of the same calibre, two external stern torpedo tubes also of 533 mm calibre, and a 100 mm deck gun. The crew consisted of six officers and 39 petty officers and sailors.

After acceptance by the navy, the vessel and its crew carried out routine peacetime duties involving training, maintenance and visits to various Greek towns and islands. In 1929, for example, the submarine visited the islands of



*Loading a torpedo aboard the Greek submarine Xifias in Toulon, France. It was a sister ship of the submarine Delfin, mentioned in the article.
Photo: Galica*

Dimitrios Papanikolis was a hero of the Greek national liberation struggle and War of Independence, and later an admiral and politician. He lived from 1790 to 1855 and came from the island of Psara in the Aegean Sea. He became famous for his fight against the Ottoman Empire and his innovative naval tactics. A Hellenic Navy submarine is still named after him today, namely a Type 214 boat.



Photo: National Historical Museum of Greece

Corfu and Lefkada as well as the port of Patras. The following year it returned to Lefkada and Corfu and also visited Ithaca (made famous by the Homeric hero Odysseus) and Zakynthos.

Everything changed in the autumn of 1939, by which time independent Poland had been destroyed and the Soviet Union had just attacked Finland. It was becoming clear that peace in Europe was over, and the crew of Papanikolis also began preparing for war. It should be stressed that the Greek submarine force was not in the best condition, primarily because of financial constraints and their impact on equipment maintenance. But that was soon to change.

The Greco-Italian War broke out on 28 October 1940. At that time, the submarine was commanded by Lieutenant Commander (LtCdr, equivalent to a major in the army) Miltiadis Iatridis, and its task was to operate in the Ionian Sea. During this war, Papanikolis completed a total of five war patrols and sank two Italian vessels.

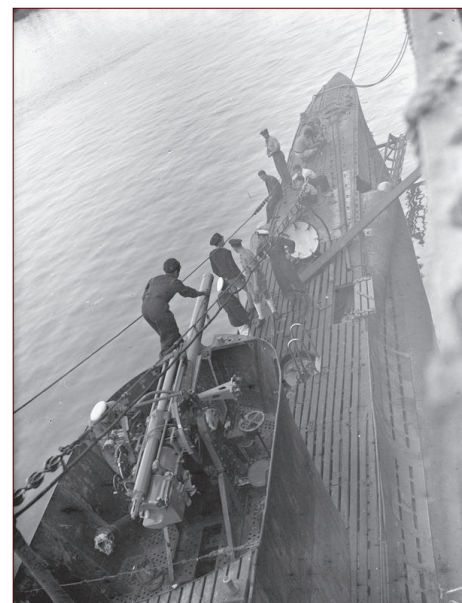
After Nazi Germany invaded the Kingdom of Greece and occupied the Greek mainland, the submarine's crew managed to sail to Alexandria in Egypt. There it became part of the British 1st Submarine Flotilla.

The submarine subsequently joined the Allied war effort and conducted further war patrols in the Mediterranean. Their objectives were to attack shipping or transport Allied agents and special forces to occupied territories. During these operations, it sank more than 13,000 tonnes of enemy shipping. This was achieved despite the limitations imposed by its technical condition: for example, the submarine could not remain submerged for long and had to surface every 17–18 hours to replenish its air supply.

Most of Greece was liberated in October 1944. At the time, Papanikolis was in Malta undergoing further repairs to its propulsion system. The boat returned home on 24 November 1944.

At the time of Greece's liberation, it was one of only two submarines—from a pre-war total of six—to survive the Second World War. The other was Y 4 Nereus, which was decommissioned in 1947.

By the end of the war, the submarine had completed 18 years of intensive service, and its technical condition and performance had long since ceased to rank among the best. Wear to the propulsion system, which



Painting the deck guns of the submarine Papanikolis. The photograph was taken in Beirut, Syria, between 30 October and 7 November 1942.

Photo: IWM

had already caused problems before the war, was a particular concern. In July 1945, a decision was therefore made to retire the boat because it was obsolete. In recognition of its achievements, the vessel's conning tower was removed and respectfully preserved, while the hull was sold for scrap and dismantled in 1947. In addition to the complete conning tower of Papanikolis, the museum's collection also contains torpedo tubes, the complete periscope and a compass mount. The Athens War Museum displays an original British-made Model 1937 torpedo dating from the Second World War.

The boat exemplifies the Greek war effort and the seamanship required to operate an obsolete vessel, and it certainly deserves its place in Greek history.

OVERVIEW OF WAR PATROLS:

1st war patrol: 28 October–2 November 1940, Ionian Sea area, commanding officer: LtCdr Miltiadis Iatridis. The submarine departed Salamina Base in the afternoon together with the submarine Y 4 Nereus. The following morning, the boats reached the port of Patras. There, after some minor organisational confusion partly caused by Italian aerial bombing, arrangements were made for cooperation with the British Navy and operating areas were assigned. In the afternoon, the submarine sailed on patrol into the Gulf of Patras, from where it moved after dark to the strait between the island of Kefalonia and the mainland port of Kyllini. The next evening, 30 October, while patrolling between Zakynthos and Kefalonia, the submarine's crew sighted unidentified vessels that they assumed were British. It therefore left the area without



The Peruvian submarine BAP Pisagua (SS-33) is a German Type 209/1200 vessel, a type that also includes the Greek submarine Y/B S118 Okeanos. Photo: US Navy

taking further action. Shortly before noon the following day, the hydrophones reported an approaching target. Because of the dense fog, its identity was initially unclear. It was soon confirmed, however, that the contacts were Greek Hydra-class destroyers: Psara and Spetsai, returning from shelling Italian ground forces on the Greek-Albanian border. The patrol ended on the morning of 2 November because of numerous mechanical failures in onboard equipment, including the rudder, compass and water pumps.

2nd war patrol: 17–27 December 1940, Adriatic Sea area, commanding officer: LtCdr Miltiadis Iatridis.

The submarine departed the port of Salamina shortly before midnight and reached its assigned area on the morning of 20 December. The delay was caused by stormy weather. Shortly after midnight on 22 December, while travelling on the surface, the submarine detected the small coastal steamer Antoinetta from Salerno, Italy. After a concealed approach, the vessel, which was carrying livestock fodder, was quickly captured. Its crew were transferred aboard the submarine, which they believed to be British. The Italians could not believe that the Greeks had submarines operating in the Adriatic. The Greek crew first tried to sink the steamer by ramming it and later by setting its cargo on fire. The prisoners provided the Greeks with maps of Italian minefields in the Adriatic and information about a convoy scheduled to sail the following day from Brindisi to Vlorë, Albania. The submarine was operating in this area and, on the afternoon of the next day, located enemy transport vessels escorted by destroyers. A Zara-class cruiser was also sighted. Stormy weather, however, made it impossible to approach and attack. On 24 December, by contrast, the crew had better luck. It spotted a convoy of 12 transport vessels sailing in three columns and escorted by at least six destroyers, with numerous Italian aircraft providing air cover. After approaching the convoy, the boat fired a salvo of four torpedoes at 12:24 p.m. and immediately began withdrawing from the enemy. Within a few minutes, however, the Italian escorts recovered and attacked the submarine for several hours. Only at 9:30 that evening did the crew dare to surface and head south. The following afternoon, while travelling at periscope depth, the boat was attacked by an aircraft that dropped several bombs. Fortunately, they did not damage Papanikolis. On the way back to base, the boat made a brief stop at the port of Isthmia on the eastern side of the Corinth Canal, where the police took custody of the submarine's prisoners. It then



The preserved conning tower of the submarine Papanikolis in the outdoor exhibition of the Piraeus Maritime Museum.



Side view of the conning tower of the submarine Papanikolis. Note the 100 mm deck gun and the preserved torpedo tube in the foreground.

continued directly to Salamina Base, where it moored on the morning of 27 December.

It was later confirmed that the submarine had sunk the large troop transport Firenze. For this success, the boat's commanding officer was promoted to Commander (equivalent to a lieutenant colonel in the army) and awarded the Gold Medal for Valour. Other crew members were decorated with War Crosses, and the story was reported throughout the Greek media.

3rd war patrol: 23 January–1 February 1941, Adriatic Sea area, commanding officer: Cdr Miltiadis Iatridis.

On the afternoon of 23 January, the boat departed Salamina Base westwards on another patrol. At midnight on 24/25 January, near the island of Ithaca, it met the submarine Y 4 Nereus, which was returning from patrol. The commanding officers exchanged experiences, and on 26 January Papanikolis continued north into the Adriatic. On the way, the submarine was detected several times by Italian vessels and aircraft, but fortunately all their attacks were unsuccessful. The boat

also sighted several Italian transport vessels but was unable to attain a suitable attack position. It was not until midnight on 28/29 January, while cruising on the surface in the Brindisi area, that the crew spotted a large cargo ship with an armed escort at a distance of approximately 800 metres. The submarine fired one torpedo and disengaged from the enemy. Although the crew subsequently sighted Italian vessels several more times, the submarine came under no further attack and returned to Salamina Base on 1 February.

Subsequent analysis did not confirm that any Italian vessel had been hit during this patrol. After returning, the commanding officer also emphasised the difficult conditions for submarine operations caused by Italian patrols.

4th war patrol: 1–6 March 1941, Adriatic Sea area, commanding officer: Cdr Miltiadis Iatridis.

The boat departed on its next patrol on the afternoon of 1 March 1941, once again heading for the Adriatic. The initial phase, during which the submarine operated near the Albanian port of Vlorë, was beset by several technical



Detail of the preserved torpedo tube.

failures that led to a partially flooded the battery compartment. Acid fumes began to escape from the batteries, forcing the boat to surface. It had to remain on the surface while the water was pumped out, the faults were repaired and the boat was ventilated. The commanding officer therefore ordered the boat to proceed south on the surface at full speed and simultaneously called the gun crew to the deck, where they stood ready for action. After two hours, most of the damage had been remedied and the submarine was able to take shelter beneath the surface. Nevertheless, poisonous fumes continued to escape, leading the commanding officer to terminate the patrol and return to base. Headquarters approved his decision, and the boat moored at Salamina Base on the morning of 6 March.

5th war patrol: 14–19 April 1941, Adriatic Sea area, commanding officer: Cdr Miltiadis Iatridis.

The submarine departed Salamina Base once again on 14 April for its next patrol. To provide the full context, by then Greece was already under German attack, which had begun eight days earlier. The commanding officer was advised that, if a return to the home port proved impossible, the submarine would be sent to the British base at Alexandria in Egypt.

After three days at sea, the commanding officer was instructed to proceed immediately to Alexandria because of the continuing German advance. Nevertheless, Iatridis requested permission to return to the home base for essential repairs, and permission was granted. The boat returned to Salamina on the evening of 19 April, and work to rectify the defects began immediately.

On 22 April, in accordance with its previous orders, it departed for Alexandria, arriving on 27 April 1941. Beforehand, the boat made a brief stop at the Greek base at Souda on Crete.

At Alexandria, the submarine underwent essential repairs to prepare it for the next phase of the war.

6th war patrol: 4–17 July 1941, Mediterranean Sea area, commanding officer: Cdr Miltiadis Iatridis.

The boat was sent from Alexandria Base to the area around the island of Kastellorizo in the Eastern Mediterranean, with orders to attack enemy convoys heading for Syria and Palestine. Although the submarine sighted several vessels, checks showed them to be Turkish, so no attack was made. Owing to continuing technical failures, the boat achieved no successes and returned to base.

7th war patrol: 6–20 June 1942, Aegean Sea area, commanding officer: Cdr Athanasios Spanidis.

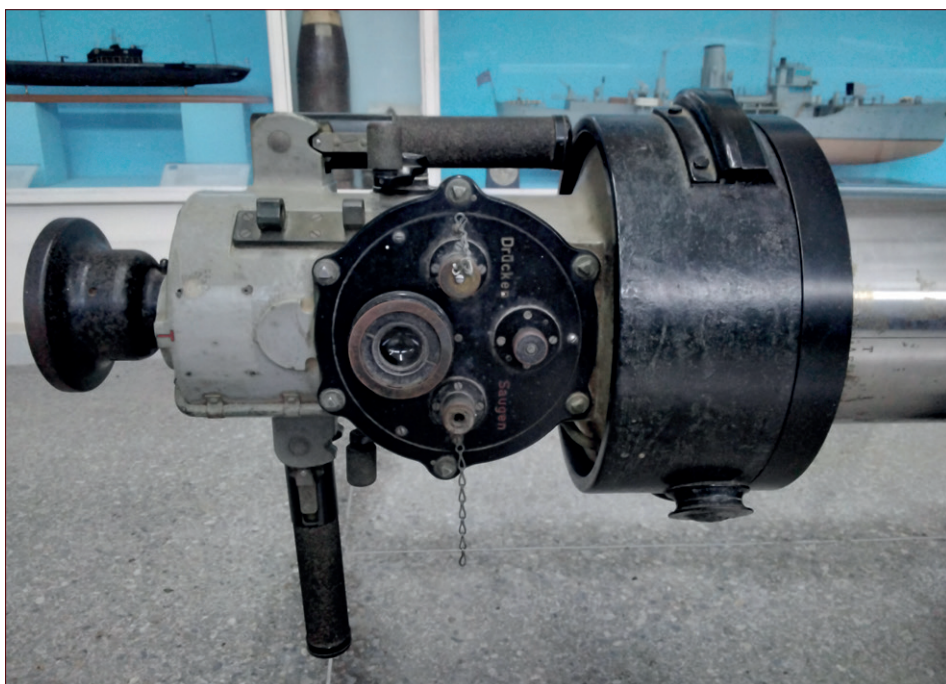
After several months of repairs in Alexandria and Port Said, the submarine was once again ready for action. In the meantime, there had also been several changes of commanding officer. The officer of greatest interest to us is Commander Athanasios Spanidis, who was appointed to the post in April 1942.

The boat left Alexandria Base on the evening of 6 June with orders to patrol the area between the Peloponnese coast and Crete, in the south-western part of the Aegean Sea. Its mission also included landing members of the Greek resistance movement on occupied Crete, while the submarine picked up a group of Allied commandos there.

Its first success came on 11 June with the sinking of a cargo sailing vessel in enemy service. To conserve valuable torpedoes and artillery shells, the small craft was destroyed by ramming. The following day brought further prizes: first, two sailing vessels were sunk, the larger by gunfire and the smaller by a blow from the submarine's bow. Later that same day, a cargo sailing vessel carrying fuel was sunk, and in the evening the submarine destroyed another sailing vessel carrying salt.

Two days later, the crew accomplished a daring feat. The commanding officer sent a boarding party in a boat to a cargo sailing vessel in the service of the occupiers, anchored near Porto Cayo. The party seized the guarded vessel and sailed it out to sea, where the submarine promptly sank it by ramming. It was discovered that the cargo consisted of many tonnes of food intended for German garrisons in Greek territory.

On the night of 15/16 June, the submarine covertly landed resistance fighters on the Cretan coast and evacuated Allied troops from there. It returned to Alexandria on 20 June after a dangerous voyage through enemy waters.



The original periscope of the submarine Papanikolis in the museum's collection.



A British Model 1937 torpedo preserved at the Athens War Museum.

8th war patrol: 24 July–9 August 1942, Crete area, commanding officer: Cdr Athanasios Spanidis.

On the evening of 24 July, the submarine sailed from Haifa on a special mission. The change of home port was prompted by a major Axis offensive that directly threatened Alexandria and other parts of Egypt. The boat's mission was to transport members of the resistance movement and British officers to the southern coast of Crete; in fact, it was carrying two separate groups.

During the voyage, the submarine encountered bad weather that nearly made the landing operation impossible. At first, communications with the reception party on Crete also failed. Fortunately, the problems were gradually resolved. During the first part of the operation, the submarine landed 17 Greek resistance fighters and one British officer, while taking aboard a group of 24 Greeks and another British officer. In his memoirs, one of the Greek resistance fighters ashore describes this landing from their perspective (George Psychoundakis, *The Cretan Runner*).

The second part of the mission, however, was not completed and no landing took place, as contact with the shore could not be established and the site instead appeared to be under the occupiers' control. All this occurred during the night and early morning of 4 August.

Another notable aspect of the mission was the evacuation of a leading resistance figure, Lieutenant Colonel Andreas Papadakis, his wife and their three children. All were transported beyond the reach of German forces to the Allies.

On the return voyage, the submarine reported that it was short of fuel and requested assistance. Thanks to the prompt intervention of the destroyer Kountouriotis, it was refuelled,

and on the evening of 9 August the submarine moored in the port of Beirut.

9th war patrol: 31 August–15 September 1942, Rhodes area, commanding officer: Cdr Athanasios Spanidis.

For its next mission, the submarine was dispatched from Beirut at the end of August, again to covertly transport a group of commandos and their equipment. This time the boat headed for the island of Rhodes, and there was no shortage of dramatic moments. On 2 September, while cruising on the surface, the submarine came under machine-gun fire from an Italian patrol aircraft. As Papanikolis could not dive immediately, it made an unsuccessful attempt to return fire. The same day, the submarine encountered an enemy tanker escorted by two corvettes. The attack

failed, however, because of the considerable distance and the evasive manoeuvres of the targeted vessels.

The boat reached the coast of Rhodes on the evening of 4 September. During the night, it landed Allied soldiers tasked with attacking German and Italian aircraft on the island. In return, another group of commandos who had been operating there covertly was evacuated from the island during the operation.

The submarine returned to Beirut on 15 September. There, its commanding officer, Spanidis, had to answer criticism from his superiors over his poor handling of the crew, which ultimately resulted in his dismissal.

Incidentally, the commandos' attack on the airfield was highly successful, but only a few individuals made it back to the Allies; the rest of the group were captured.

Okeanos was an ancient Greek deity of the first generation of Titans, the ancestor of all gods and of humankind. He ruled the river of the same name, which was believed to feed all seas and rivers. He is usually depicted as a muscular man with a serpent's body in place of legs. Tritons and nymphs accompanied him on his journeys.



Photo: QuartierLatin1968

10th war patrol: 21 November–5 December 1942, Aegean Sea area, commanding officer: Lt Nikolaos Roussen.

The boat did not set out on its next patrol until November, this time under a new commanding officer, N. Roussen. He had assumed command at the beginning of October, and both the executive officer and the engineering officer had also been replaced. The crew had two principal tasks: to land a group of resistance fighters on Crete, and then to patrol the eastern Aegean and attack enemy transport vessels.

The first part of the mission was completed on the night of 27/28 November, when a group of resistance fighters and their equipment were landed in Selino Bay on the south-west coast of Crete. The aforementioned G. Psychoundakis adds that on this occasion no one was waiting for the group ashore and, moreover, some of the equipment sank in the sea because of the bad weather. Once the resistance fighters had made contact with local people, they returned to the coast the following night and recovered their equipment.

Meanwhile, Papanikolis continued its patrol. On 30 November, the crew located an anchorage used by enemy vessels off the island of Alimia, west of Rhodes. The group comprised several torpedo craft and a sailing vessel, but above all a transport steamer with an estimated displacement of 8,000 tonnes. Before dusk the following day, the submarine cautiously entered the bay and fired two torpedoes at the transport from its stern tubes. Shortly after the attack, the steamer capsized and sank. Meanwhile, the submarine disengaged and sailed north.

It returned to its Beirut base on 5 December. The crew was also decorated for this action: the commanding officer received the War Cross, 1st Class, and other crew members were similarly honoured.

Technical problems again made themselves felt during this patrol, including failures of the port diesel engine's cooling system and the ballast-water pump.

11th war patrol: 7–23 January 1943, Aegean Sea area, commanding officer: Lt Nikolaos Roussen.

On the afternoon of 7 January, Papanikolis once again left Beirut, heading for the island of Hydra off the eastern coast of the Peloponnese. This time, too, it carried a group of commandos who were to be landed on the island.

Apart from stormy winter weather, the voyage was uneventful. Nevertheless, the submarine reached its destination, and in the evening darkness of 13 January the unit and its equipment began to disembark. Everything was completed within two hours, and the boat



The original preserved conning tower of the submarine Okeanos, rear view.

departed once more. Its next objective was to disrupt enemy supply and minesweeping operations in the Aegean. Shortly after noon on 17 January, the boat sighted and detained a two-masted sailing vessel carrying food for the German garrison on Crete. A British prize crew transferred to the sailing vessel and was ordered to sail east to Alexandria.

The following day, another sailing vessel was detained, this one carrying raisins and also bound for Crete. After warning shots from the gun, the vessel stopped and lowered its sails. A short while later it was sunk by machine-gun fire from the submarine, while the sailors were interrogated. Papanikolis then submerged again and continued eastwards.

Shortly afterwards, the patrol had to be terminated because numerous technical failures prevented the boat from diving, and assistance was requested. It was soon provided by the British corvette K-22 Gloxinia, which escorted the submarine to Port Said. It moored there on the morning of 23 January.

The crew was decorated for this patrol as well, while the boat once again entered dry dock for repairs.

12th war patrol: 7–23 March 1943, Aegean Sea area, commanding officer: Lt Nikolaos Roussen.

On the afternoon of 7 March, the submarine cast off from the support ship Corinthia in Beirut harbour and sailed towards the Dodecanese Islands in the eastern Aegean. This patrol, too, was filled with intense activity.

On the morning of 14 March, the submarine sighted a large steamer, but on approaching it identified the vessel as a hospital ship heading for Rhodes. Papanikolis therefore withdrew without taking further action. The following day, 15 March, it encountered a two-masted sailing vessel. A British boarding party and the

submarine's fourth officer were sent aboard with the aim of taking the vessel to Egypt. Unfortunately, two enemy torpedo boats later appeared and escorted the sailing vessel to occupied Rhodes. The Allied soldiers aboard were captured, for which the submarine's commanding officer blamed himself deeply.

On 16 March, a transport vessel was detained, but was released again after it was found to belong to neutral Turkey. That evening, a small Italian sailing vessel bound for Rhodes was stopped and then sunk. Three members of its crew were captured and transferred aboard the submarine. A similar action was repeated on 18 March, and once again captured crew members were carried away by the submarine.

The patrol ended on the morning of 23 March, when the submarine moored at its base in Beirut after once again having to cross a belt of stormy weather.

13th war patrol: 30 April–13 May 1943, Aegean Sea area, commanding officer: Lt Nikolaos Roussen.

At the end of April, the boat once again departed Beirut Base for occupied Crete. On the evening of 7 May, it came ashore near Cape Sidero and landed a total of eight people together with supplies for the resistance movement.

The following day, Papanikolis detained a sailing vessel carrying cement to Heraklion, Crete. The vessel was sunk by machine-gun fire, and its crew were detained aboard the submarine. Later that same day, another cargo sailing vessel was sighted and sunk; it too was carrying cement and other supplies for the occupying forces in Heraklion. It went down after being struck by the submarine's bow, and its crew were taken prisoner like their counterparts before them. Because of a pump failure, the submarine had to break off its

patrol on 9 May and sail to Port Said for repairs. It moored there on the morning of 13 May.

Owing to persistent technical problems and a shortage of spare parts, the submarine was used only as a training vessel during the period that followed.

14th war patrol: 29 January–12 February 1944, Aegean Sea area, commanding officer: Lt Nikolaos Roussen.

On the afternoon of 29 January, the submarine departed Beirut with orders to patrol the central Aegean. During the passage to its operating area, the boat encountered a winter storm. Heavy seas caused acid to leak from the batteries and water to enter the hull. After surfacing and ventilating the interior, the damage was repaired and the submarine continued its voyage.

On the evening of 2 February, the lookout aboard the surfaced submarine spotted an unidentified four-engined aircraft, and the boat dived rapidly. This occurred in the strait between the islands of Crete and Kasos.

From 3 to 12 February, the boat patrolled its assigned area, but nothing unusual was observed, so the patrol ended with its return to Beirut. Towards the end of the voyage, the commanding officer fell ill and the executive officer temporarily took command of the boat.

Owing to its technical condition, no further war patrol was planned for the time being. Instead, it was decided to transfer the submarine to Gibraltar for repairs. It was dispatched there on 19 May 1944, but before that the naval command had to deal with a mutiny by part of the crew, which also cost the life of its commanding officer, N. Roussen. He was killed during the intervention against the mutineers as the submarine was retaken by force. Lt Christos Botsaris became the new commanding officer. By then, the submarine was no longer operationally deployed and participated only in training the crews of surface ships and aircraft.

Y/B S118 OKEANOS

This boat belongs to the Type 209 class, designed by the German company Ingenieurkontor Lübeck and built at the Howaldtswerke-Deutsche Werft shipyard in Kiel. In many respects, however, the vessel drew on the preceding Type 206 class. Together with three other units, Okeanos formed part of the Greek Poseidon class. It is also the first vessel in the Hellenic Navy to bear this name. It should be stressed that this type was intended primarily for service in coastal waters.

The vessel was completed and accepted by the navy in Kiel on 15 November 1979, with Lieutenant Commander (LtCdr) Vasilios

Morakis appointed as its first commanding officer. Sea trials in the Baltic followed during November and December. The crew began the homeward voyage on 10 December and reached its destination, Salamina Naval Base, on 1 January 1980.

Its principal tactical and technical specifications are as follows: length 55.90 m; beam 6.3 m; submerged displacement 1,285 tonnes; range up to 11,000 nautical miles (20,000 km). The boat has diesel-electric propulsion and can reach a speed of 11 knots on the surface (20 km/h) or 21 knots submerged (39 km/h). Its armament comprises eight 533 mm bow torpedo tubes capable of launching both conventional torpedoes and Harpoon anti-ship missiles. It has a crew of 33.

The boat's active service began immediately upon its arrival. It consisted of routine training and maintenance, and naturally included exercises, both domestic and international (including, for example, the periodic Trident and Dogfish exercises).

Probably the most dramatic voyage undertaken by Okeanos took place in March and April 1987 during the so-called "March 1987 Crisis." At the time, Turkey decided to send a vessel to survey fossil-fuel deposits in international waters within Greece's economic zone, claiming that the area formed part of the Turkish continental shelf. It was simultaneously announced that any Greek action against the vessel would be regarded as grounds for war.

At the time, the submarine was commanded by LtCdr Nikolaos Koutsodontis. On 27 March 1987, the boat was sent on patrol in the Aegean after the naval command ordered all vessels to leave their bases and move to designated areas to monitor and, if necessary, block Turkish activities. The crisis was ultimately

resolved through diplomatic means with the involvement of the United States and NATO, and fortunately no armed conflict occurred. The voyage lasted 240 hours, and the boat spent most of that time submerged.

In 2004, under the Neptune II programme and on the basis of a decision taken in 2002, the boat underwent a modernisation conversion. This included the installation of an air-independent propulsion (AIP) system and the modernisation of the existing propulsion machinery and numerous other onboard systems. The purpose was to improve the boat's operational capabilities and reduce its acoustic signature. Another important alteration was the modification of the deck hatch to permit connection to a Deep Submergence Rescue Vehicle (DSRV).

The submarine returned to service in 2009 and is currently the sole representative of the Okeanos class. Budget constraints resulting from the financial crisis at the time meant that the other boats were not modernised.

During the conversion, the boat's original conning tower was removed and later installed in Flisvos Park. With its new sail, the vessel now resembles the Papanikolis class in appearance. Its dimensions also changed: the hull was lengthened, thereby increasing displacement. The boat's performance improved as well. This transformed it into an ocean-going type capable of extended operations without resupply.

Together with the Poseidon- and Papanikolis-class boats, Okeanos is a core element of the Hellenic Navy's submarine fleet, which protects the mainland coastline, more than 2,000 islands and the maritime lines of communication between them.



The original conning tower of the submarine Okeanos from before the vessel's modernisation.

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Air War in Ukraine

Moscow on Fire

Miro Barič

During the previous two months, the Ukrainian Air Force did not lose any aircraft. Unfortunately, that changed during the period under review (June 1–30). Ukraine lost at least three to four aircraft and one helicopter. Several airmen were also killed. Let us first look at these Ukrainian losses.

The first occurred on Tuesday, June 16, at around 7:00 p.m., when a Su-24M frontline bomber crashed near the village of Moskalivka in the Khmelnytskyi region in western Ukraine. The aircraft carried the fuselage number „White 24” and belonged to the 7th Tactical Aviation Brigade. The aircraft had previously been kept in long-term storage and was returned to operational status sometime after the Russian invasion in 2022.

The aircraft crashed during a training flight, killing both crew members. They were Major Bohdan Zahorulko, aged 55, and 23-year-old First Lieutenant Bohdan Babenko. Major Zahorulko was a highly experienced pilot who had previously performed aerobatic demonstrations in an An-32 transport aircraft. After Russia launched its full-scale invasion, he requested to return to the Air Force in a combat role flying Su-24 bombers. He had completed hundreds of combat sorties. First Lieutenant Babenko fulfilled his dream by attending the Kharkiv National University of the Air Force, after which he joined a combat brigade and gained experience from senior aviators. The cause of the crash remains under investigation.

Long-Range Shot

Saturday, June 27, can be described as a black day for Ukrainian aviation.

First, footage was released showing Russian drone strikes against the Voznesensk Air Base in the Mykolaiv region. The attack may actually have taken place earlier, but the exact date is unknown. Reports indicate that Geran-4 drones were used.

One Russian drone struck a MiG-29 fighter that was armed with missiles and was being refueled. In addition to the aircraft, a fuel truck and three white vans parked nearby were destroyed by fire.

A second drone struck another fuel truck positioned in front of a concrete aircraft shelter. According to some Ukrainian sources,



The crash site of the Ukrainian Su-24M bomber, which crashed on June 16.



Major Bohdan Zahorulko, pilot of the crashed Su-24.



A Ukrainian MiG-29 burning at Voznesensk Air Base.

another MiG-29 inside the shelter was either destroyed or damaged.

On the same day that the footage from Voznesensk was released—June 27—a Ukrainian MiG-29 was also lost during a combat mission over the Poltava region. The pilot successfully ejected.

Initially, very little information was available about the incident. However, several sources, including Ukrainian ones, later concluded that the aircraft had been shot down by a Russian Su-35 fighter.

The reported engagement occurred at an exceptionally long range—potentially the longest air-to-air kill in history if confirmed. The Russian R-37M missile is said to have struck the Ukrainian fighter at a distance of 190 kilometers (118 miles).

The Ukrainian publication Defence Express notes that reports of Ukrainian aircraft being shot down by R-37M missiles at long range have existed since 2022, with some claims suggesting distances exceeding 200 kilometers, although those reports have never been

confirmed. The Su-35 itself cannot achieve such an engagement using only its onboard radar, whose detection range is shorter than the missile's maximum range. According to Defence Express, the aircraft therefore relied on targeting data provided either by an A-50U airborne early warning and control aircraft or by ground-based air-defense radars.

More recently, Su-57 fighters have also served as „mini-AWACS“ platforms for Su-35s because they carry more powerful radar systems.

Which of these methods was used in this particular long-range engagement against the Ukrainian MiG-29 remains unknown.

The final Ukrainian aviation loss occurred on Tuesday, June 30, when a Mi-8 helicopter from the 16th Independent Army Aviation Brigade crashed near the village of Starytskivka in the Poltava region.

The helicopter was conducting a combat mission against Russian drones.

All four crew members were killed:

Major Valentyn Mukshinov,

Captain Yurii Voron,

First Lieutenant Bohdan Khmil

Junior Sergeant Mykhailo Deryaha

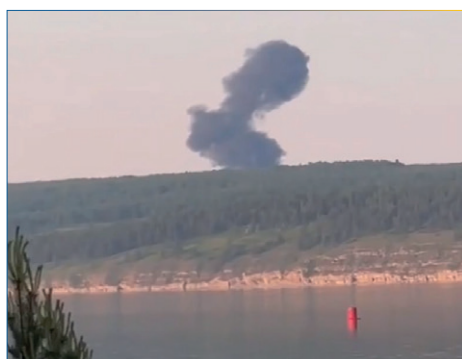
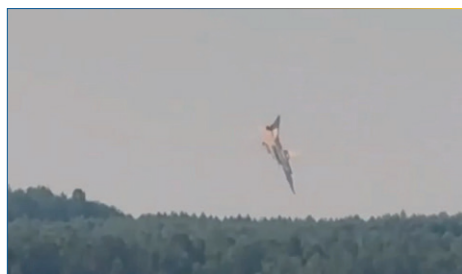


Training exercises involving Ukrainian Mi-8 helicopters.

Russian Losses

During the period under review, the Russian Air Force also suffered losses of the aviation equipment—losses that were at least as numerous as those suffered by Ukraine.

The first Russian loss occurred on Monday, June 15, when a Tu-22M3 strategic bomber crashed near the Angara River close to the town of Svirsk in Russia's Irkutsk Region. The aircraft most likely belonged to the 200th Heavy Bomber Aviation Regiment based at Belaya Air Base, approximately 25 km (16 miles) from the crash site.



The crash of the Russian Tu-22M3 bomber, which went down on June 15. 7

According to preliminary reports, one of the aircraft's engines failed during a training flight. The crew successfully ejected before the bomber plunged almost vertically into the ground and was destroyed by fire. All four crew members survived without injury.

Since April 2024, this marks the fourth Tu-22 lost in an accident. The intensive wartime use of the aircraft, reduced maintenance standards, and increased wear and tear have all contributed to these losses. Combined with the Tu-22s destroyed during Ukraine's Operation Spiderweb exactly one year earlier, this likely leaves the Russian Air Force with fewer than ten bombers of this type still operational.

On Tuesday, June 23, Ukrainian drones attacked three Russian Orion long-range combat drones at Kerch Airfield in occupied Crimea. At least one Orion drone was confirmed destroyed, while the fate of the other two has not been confirmed.

Between Sunday, June 14, and Monday, June 29, Hvardiiske (Gvardeyskoye) Air Base in Crimea was struck several times. Satellite imagery recorded multiple fires at the base.



A Ukrainian strike on Russian Orion drones on June 23.

At least three concrete aircraft shelters were hit, and one of them appears to have sustained severe damage. However, it is unknown what equipment was inside the shelters.

It is known, however, that during the night of June 25–26, a Russian MiG-29 fighter was struck by a Ukrainian drone at Belbek Air Base in Crimea. It was most likely a MiG-29K belonging to Russian Naval Aviation.



A Ukrainian drone struck a Russian MiG-29K during the night of June 25–26.

A Russian Mi-8 helicopter was also hit while on the ground. The attack reportedly occurred sometime in June at a forward operating airfield near the front line, although footage of the strike was not released until several days later.

Finally, it is worth mentioning a Russian Mi-2 helicopter that crashed on Wednesday, June 24, in the Kuban region near Ukraine. In this case, it was a civilian helicopter that crashed while conducting agricultural work.



Attack on a Russian Mi-8 helicopter at a forward operating air base.

Fuel Crisis

During the period under review, Ukrainian attacks against Russia's oil infrastructure intensified. At the same time, Ukraine expanded its campaign against Russian logistics supplying occupied Crimea.

Ukrainian drones targeted trucks traveling along the land corridor to the occupied peninsula, attacked ferries in the Sea of Azov, and destroyed bridges on both roads and railways leading to Crimea.

These attacks created serious supply problems on the peninsula and forced restrictions on fuel sales. At gas stations, motorists queued for several kilometers in an attempt to obtain increasingly scarce gasoline.

The campaign against Russian logistics had already begun at the end of 2025, and the following figures illustrate its growing intensity:

January: 4,021 Russian vehicles destroyed in occupied Ukrainian territory
 February: 4,071
 March: 6,068
 April: 6,431
 May: 8,612
 June: more than 10,000 vehicles destroyed



Long queues begin forming at gas stations across Russia.

These are Ukrainian figures, which cannot be independently verified. Nevertheless, analysts working with publicly available imagery have also documented a sharply increasing trend in Russian vehicle losses over recent months.

Russia, of course, could not ignore these attacks. Russian forces began escorting military transport vehicles with mobile fire support groups, typically consisting of vehicles equipped with machine guns intended to shoot down drones.

The tactic proved ineffective. Ukrainian drone operators not only began destroying these escort vehicles as well, but the presence of an armed escort also signaled that a convoy

was carrying something valuable, prompting them to concentrate even more heavily on destroying it.

One example occurred on Thursday, June 11, near Armyansk, where part of a convoy of 50 trucks carrying fuel and ammunition was destroyed.

Ukraine also began employing naval drones for such attacks. These unmanned surface vessels approach the Crimean coastline, launch FPV attack drones, and allow them to strike Russian logistics and air defenses from unexpected directions.

At the same time, strikes against oil refineries across Russia reduced refining capacity, allowing the fuel shortage to spread into additional regions.

Among the facilities hit were the Afipsky, Slavyansk, and Yaroslavl refineries, two separate refineries in Tatarstan—located approximately 1,100 km (680 miles) from Ukraine—and the Tyumen refinery, which was attacked twice.

Other targets included the Feodosia oil terminal, the Vtorovo pumping station, fuel storage depots, and numerous other elements of Russia's petroleum infrastructure.

St. Petersburg and Moscow

Of all the Ukrainian strikes during the period under review, two deserve a closer look.

The first took place on Wednesday, June 3, coinciding with the opening of the annual St. Petersburg International Economic Forum. This year's slogan was „St. Petersburg, the Capital of Drone Technologies.“ The opening was indeed marked by drones—but Ukrainian ones.

Among the targets hit were a fuel storage facility and the corvette Boykiy, which was undergoing maintenance in a dry dock at the Kronstadt Naval Base. Thick black smoke from multiple fires rose over the city, and footage circulated worldwide showing a Russian police officer on the waterfront unsuccessfully attempting to shoot down a Ukrainian drone



A Russian police officer fires a rifle at Ukrainian drones in St. Petersburg.

with an assault rifle while burning fuel tanks blazed behind him.

In the middle of the month, Ukraine launched an attack on Moscow, with its primary target being the Kapotnya oil refinery, located approximately 15 km (9 miles) from the Kremlin.

The refinery was attacked twice in succession. The first strike caused significant damage, but it was the second attack, on Thursday, June 18, that reportedly put the refinery completely out of operation. Images of the strike quickly gained worldwide attention.

According to Russian sources, Ukraine launched as many as 990 unmanned aerial vehicles, making it the largest drone attack carried out by either side since the beginning of the war. June also became the first month in which Ukraine launched more drones overall than Russia.

Footage from the Moscow attack identified several Ukrainian drone types, including the FP-1, Bars, Liutyi, Morok, and Sichen. The Sichen is derived from the Begemot drone but carries a smaller warhead—40 kg instead of 75 kg—while offering a greater range of 1,400 km (870 miles) at a cruising speed of 200 km/h (124 mph).

Several cruise missiles were also reportedly used in the attack.

Videos show numerous drones striking the upper floors of apartment buildings. In many cases, however, these appear to be the same buildings filmed from different angles. It is also unclear whether some of the drones had already been hit by Russian air defenses before impact.

One well-known video shows a drone being struck directly by a missile, causing one of its wings to break off. The drone immediately enters a spin and crashes—directly into the refinery—triggering a massive explosion.

Overall, however, Russian air defenses performed poorly during the attack. Multiple videos show the smoke trails of Pantsir air-defense missiles missing their targets. Even the most famous image from the attack resulted from a failed Russian interception: a missile missed the incoming drone and instead struck a fuel storage tank, causing it to explode and sending its roof flying into the air.

Other footage shows groups of soldiers attempting to shoot down drones with small arms while standing on roads in the middle of moving traffic.

That day, Moscow was shrouded in smoke from numerous fires. The Kapotnya refinery sustained multiple direct hits and is expected to remain out of operation at least until 2027.

According to Russian sources, 17 people were injured across Moscow during the attack.

Following the strike, Russian authorities began installing Pantsir air-defense systems



The Kapotnya oil refinery in Moscow engulfed in flames.

on the roofs of apartment buildings—a move that, according to the author, turns those buildings into legitimate military targets.



Russia throws every weapon it has against Ukrainian drones—but without success.



Russian forces install air defense systems on apartment buildings.



At the end of June, Ukrainian Flamingo cruise missiles destroyed the main production workshop of the Titan-Barrikady plant, where components for Russian ballistic missiles were manufactured.

The Highest Civilian Death Toll in Four Years
Following the attack on its capital, Russia threatened a massive retaliation.

The question is how Russia intends to further escalate its attacks against Ukrainian civilian targets, which it has been carrying out since the beginning of the invasion.

Even before the Moscow strike, Russia had already conducted a series of large-scale air attacks, as in previous reporting periods.

On Tuesday, June 2, Russia launched 729 aerial weapons—including drones, missiles, and rockets—against Kyiv, Dnipro, Kharkiv, and other cities. Ukrainian air defenses intercepted 642 of them.

The attack killed at least 23 people and injured more than 120.

Another major strike followed on Monday, June 15, when Russia launched 681 projectiles, of which Ukrainian air defenses intercepted 632. In Kharkiv, four firefighters were killed that day in a Russian double-tap strike. This

means Russia deliberately attacked the same location a second time in order to hit emergency responders arriving after the initial strike.

Overall, at least 293 Ukrainian civilians were killed in June, while 1,990 were injured.

This represents the highest civilian casualty toll since April 2022.

The author notes that these are not figures from „Ukrainian propaganda,” but casualty numbers confirmed by the United Nations. The actual number of civilian casualties caused by Russian attacks may be even higher.

Assistance from the Czech Republic

At the end of the reporting period, Ukraine received ten Czech-built Alto NG ultralight aircraft, which will be used for the basic training of Ukrainian pilots.

The aircraft are manufactured by Direct Fly, based in the town of Hluk, near Uherské

Radostice in the Czech Republic. Five aircraft were supplied with financial support from the Czech government, while the remaining five were funded through public donations collected by the „Gift for Putin” (Dárek pro Putina) initiative. The fundraising campaign had been underway since August of the previous year.

The Alto NG is a two-seat ultralight aircraft with a maximum takeoff weight of 600 kg (1,323 lb).

It features:

Length: 6.3 m (20.7 ft)

Wingspan: 8.2 m (26.9 ft)

The aircraft is powered by a 100-horsepower Rotax 912 ULS engine, giving it:

Maximum speed: 260 km/h (162 mph)

Typical cruising speed: 180 km/h (112 mph)



A Czech-built Alto NG aircraft destined for Ukraine.



A Ukrainian Black Hawk helicopter in action.



A former Czech Mi-24 helicopter undergoing an engine overhaul.



Launch of a Ukrainian drone.

The Goose Shoot

Text: Jan Bobek

Illustration: Gareth Hector



During the final weeks of the North African campaign in northern Tunisia, hazardous shipping left Axis forces increasingly dependent on large formations of three-engined Junkers Ju 52 transports and six-engined Messerschmitt Me 323 Gigants. Fighter escorts from Sicily landed and refuelled in Tunisia before accompanying the transports back home. Although the formations often passed through unopposed, they sometimes suffered losses to Allied fighters and bombers.

The largest engagement involving the transport aircraft took place on 18 April 1943 - Palm Sunday, or Palmsonntag in German. At around 10:00 German time, the first formation of Ju 52s arrived at Tunis under the protection of Bf 109s from JG 53. Their cargo was unloaded with remarkable speed. Some of the escort fighters were occasionally retained in Tunisia during the day, committed to operations over the front and sent back to Sicily only in the evening. This did not happen on this occasion, however, and half an hour later the Junkers transports and their escort departed for Sicily. At 16:35, another formation of Ju 52s began taking off from Sicily for Tunis, this time escorted by 7./JG 53 and part of II./JG 27. The formation landed safely in Africa shortly after 18:00 German time. Again, within 30 minutes, the Junkers aircraft were ready for the return flight. Their escort was reinforced by two Bf 110s from III./ZG 76 and three Me 210s from III./ZG 1.

Allied intelligence learned of the planned airlift during the morning of 18 April. From late morning onwards, the US 57th Fighter Group dispatched patrols towards Tunis, but they returned empty-handed throughout the day. In a final attempt,

shortly after 17:00 Allied time, the Americans sent out 48 Curtiss P-40s of the 57th FG and another 12 P-40s from the 324th FG. They operated in conjunction with a dozen Spitfire Mk IXs of No. 92 Squadron RAF, which provided high cover.

Near Cape Bon, the Americans encountered 65 Junkers transports flying low over the sea. The Spitfires and some of the American fighters engaged the German escort, while the remaining P-40s fell upon the transports. Thirty-seven Junkers aircraft crashed into the sea, while another nine returned to Tunisia damaged. The Ju 52s belonged to the transport units KGr. zbV 1, KGr. zbV 600, KGr. zbV 800 and Tr.St. II.FL.K, the transport squadron of II Fliegerkorps.

The number of aircraft claimed by the Americans was far higher, entirely understandable given the circumstances of the engagement. There were instances in which an American pilot took poor aim and its burst missed the intended target, only to strike another Junkers flying nearby. One pilot later recalled having three Ju 52s in his sights at the same moment. The transport aircraft were arranged in V-shaped formations which resembled wedges of geese, the spectacular action was therefore immediately dubbed the "Goose Shoot" by the press, although today it is better known as the Palm Sunday Massacre. The box art depicts the aircraft of Capt. James G. Curl of the 66th FS, 57th FG. Although officially a flight leader, Curl led the entire American formation during the mission and was the first to sight the Junkers transports flying low over the sea in the gathering dusk. He was credited with two Ju 52s and one Bf 109 confirmed destroyed, as well as two Ju 52s

damaged. Shortly after, he was promoted to major and assumed command of the 66th FS.

Once the Germans realised the scale of the force confronting them, they dispatched additional fighters from I. and II./JG 53, but they were unable to prevent the massacre. After the battle, the German fighter units were missing one pilot from 4./JG 53, who disappeared during combat with Curtiss P-40s near Zembra Island. Another pilot, this time from II./JG 27, bailed out of his Bf 109 in the same area after suffering engine failure. Several Bf 109s returned to Tunis damaged. At least one German twin-engined fighter plane was lost.

Following the battle, the pilots of JG 53 claimed five P-40s and one Spitfire destroyed. The Americans lost six aircraft and at least three pilots from the 324th FG. An NCO from II./JG 27 claimed a Spitfire shot down south of Zembra Island. A radio operator aboard one of the Junkers transports was also credited with shooting down an aircraft that he identified as a Buffalo.

The British high-cover formation claimed one "Macchi C.202," while the Americans concluded their spectacular goose shoot with claims for 60 Ju 52s, 14 Messerschmitt Bf 109s and two Bf 110s destroyed.

Before the end of the fighting in Africa, one further engagement of a similar nature took place, albeit on a smaller scale. South African pilots flying P-40s inflicted heavy losses on a formation of Messerschmitt Gigants.

Against the Defenders of Crimea

Text: Jan Bobek

Illustration: Piotr Forkasiewicz



By autumn 1941, Nazi Germany's leaders realised that the invasion of the USSR was not following Operation Barbarossa's original plan. They had intended to capture Leningrad, Moscow and Ukraine and advance towards the Caucasus by year's end, ultimately occupying Soviet territory as far as the Arkhangelsk–Astrakhan line.

Despite heavy initial losses, Soviet forces often resisted tenaciously. As late as August 1941, Army Group South, supported by Axis satellite forces, was still trying to cross the Dnieper east of Kherson, while Odessa and Kyiv remained unconquered. This slowed the advance towards Crimea and the Donbas and delayed the later drive on Stalingrad. Kyiv fell in late September and Odessa in mid-October.

In the south, Soviet commanders aimed to defend Crimea – an unsinkable aircraft carrier containing the Sevastopol naval base – for as long as possible, while delaying the enemy's advance towards Taganrog so its industrial plants could be evacuated and emptied of their machines and material to be relocated further to the east.

The German 11th Army and Romanian 3rd Army advanced along these two axes, supported from the air by IV Fliegerkorps. Its principal fighter units were II. and III./JG 77; I.(J)/LG 2, later redesignated I./JG 77, was also under JG 77 command. Its other forces included five bomber Kampfgruppen, mainly from KG 27 "Boelcke," and several smaller air units.

In early September, the Germans consolidated positions on the Dnieper's southern bank near Beryslav and advanced south despite fierce Soviet counterattacks. In mid-September,

11th Army commander Generaloberst Eugen Ritter von Schobert was killed when his Storch made an emergency landing in an enemy minefield. Erich von Manstein succeeded him, and on 24 September 1941 his formations attacked the Soviet defensive line on the Perekop Isthmus in northern Crimea.

The fighter units II./JG 3 and III./JG 52 also briefly took part in the fighting over Crimea, as did additional bomber formations, including the Stukas of St.G 77. German bomber crews succeeded in sinking the light cruiser Chervona Ukraina at Sevastopol. However, the properly marked hospital ship Armenia also fell victim to them during evacuation mission. More than 5,000 passengers, including many civilians, were killed in the disaster, making it the third-deadliest maritime disaster in human history. Only eight people survived the sinking.

Soviet air units of the VVS Southern Front and the Black Sea Fleet's VVS opposed the German aerial onslaught. They were gradually reinforced by units including veterans of the fighting against Japan. Consequently, besides the older I-15, I-153 and I-16 aircraft, the Germans over Crimea and along the Sea of Azov mostly encountered modern types, particularly the MiG-3, Yak-1, LaGG-3 and IL-2.

On some days, Soviet airmen achieved air superiority in the region, causing serious difficulties for Axis ground forces. Soviet air raids sometimes continued uninterrupted for 30 minutes without a single German aircraft able to help. Some smaller German airfields were protected by only a handful of anti-aircraft guns.

German fighter pilots experienced considerable difficulty against the heavily armoured Ilyushin IL-2 Shturmovik ground-attack aircraft. The problem was so serious that Oberst Werner Mölders, then coordinating fighter and ground-attack units in Crimea, personally sought a solution. Despite being strictly prohibited from flying combat missions, Mölders joined operational sorties to demonstrate how to attack the aircraft effectively. His method involved firing into the cockpit from the rear hemisphere at an angle of approximately 30 degrees. Flying with III./JG 77 on 8 November 1941, he achieved one such kill, although it is not included among his officially claimed victories.

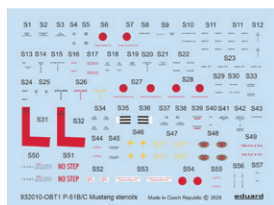
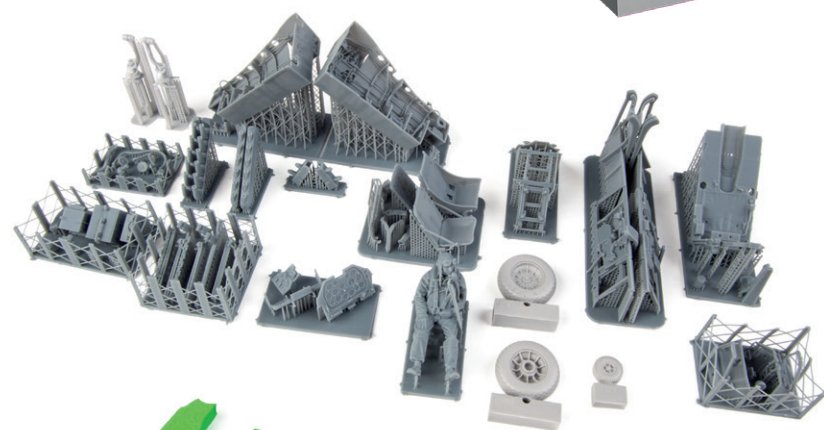
At the time, III. Gruppe was commanded by Oberleutnant Kurt Ubben, since September 1941, until then, he had served as commander of its 8. Staffel. His new command aircraft is depicted on the box art in combat at the beginning of November. Before the invasion of the USSR, III./JG 77 had been credited with 41 victories during the campaigns in the west and the Balkans. Interestingly, it had originally been intended to operate as the fighter unit aboard the aircraft carrier Graf Zeppelin. By the end of 1941, this Jagdgruppe had been credited with more than 540 victories. Apart from Sevastopol and the Kerch bridgehead, the whole of Crimea was then in German hands. Nevertheless, the Soviet airmen who had resisted the enemy invasion of Crimea made a significant contribution to slowing the enemy advance and enabled Sevastopol's defenders to strengthen their defensive preparations. Neither Sevastopol nor Kerch fell into enemy hands until the middle of 1942.

P-51B Mustang

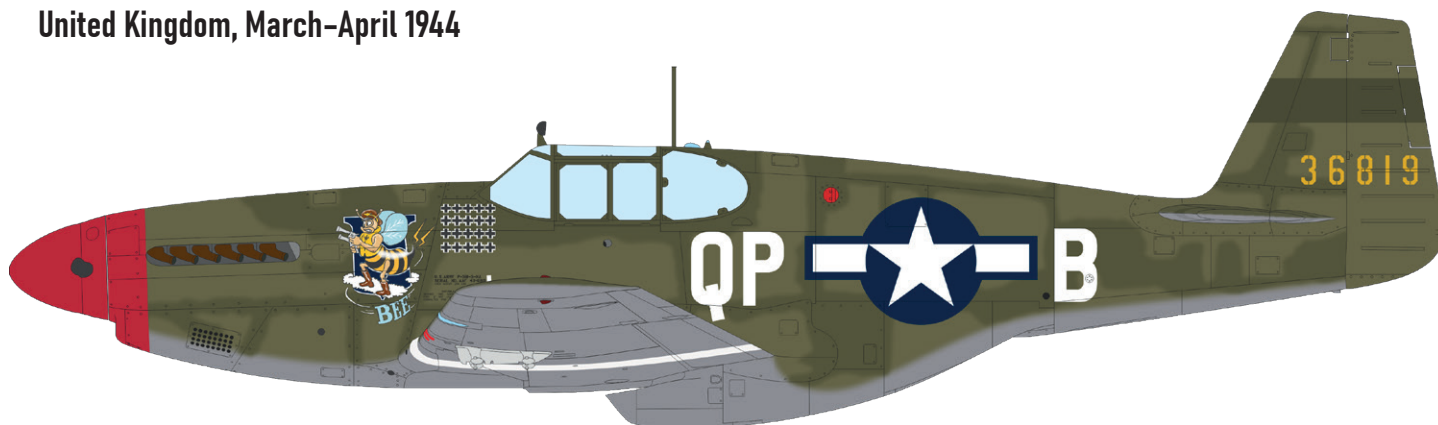
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The Royal Hybrid edition kit of the famous US fighter aircraft P-51B Mustang in 1/32 scale. The kit offers markings for 8 aircraft of 8th and 9th Air Force.

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■ P-51B-5-NA, s/n 43-6819, Capt. Duane W. Beeson, 334th FS, 4th FG, 8th AF, Debden, United Kingdom, March–April 1944

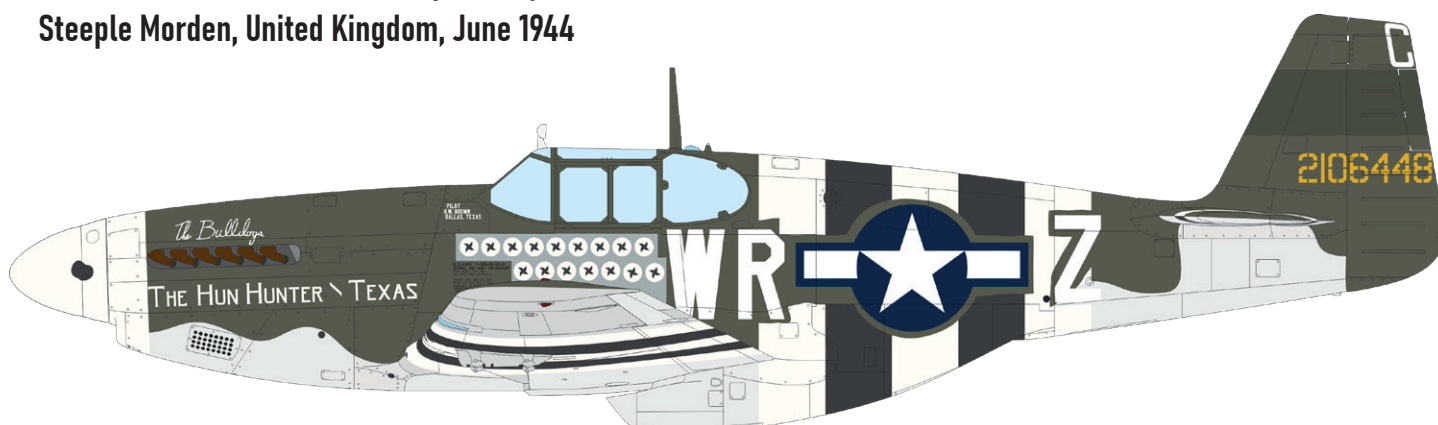


Duane Willard Beeson was one of only ten pilots to achieve fighter ace status within the USAAF with two different types of aircraft. In his case, these were the P-47 and the P-51. He scored a total of 17.3 kills, 12 of which were achieved with the P-47C/D and 5.3 with the P-51B. The Idaho native, like many others, did not meet the Air Force requirement of at least two years

of college, so he enlisted in the Canadian Air Force, which accepted him into its ranks on January 23, 1941. After moving to England, he retrained as a Hurricane and was assigned to No. 71 Squadron at Debden on September 5, 1942. After the formation of the 4th FG with the Eagle Squadrons as a base, Beeson flew with the 334th FS and achieved his first kill on May 18,

1943. After flying 80 missions, he became B Flight Commander and was assigned his first P-51B, which he named Bee, on February 28, 1944. On April 5, he first achieved one third of the Ju 88 shoot-down near Brandenburg but then was hit by flak and captured. Shortly after the war he was diagnosed with a brain tumor and died prior to a surgery aged 25.

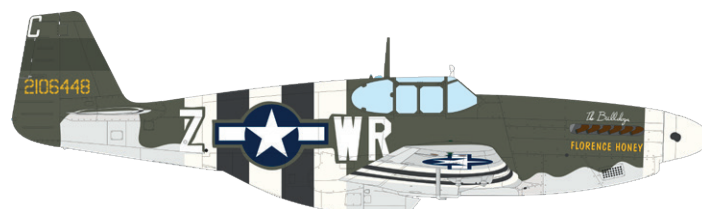
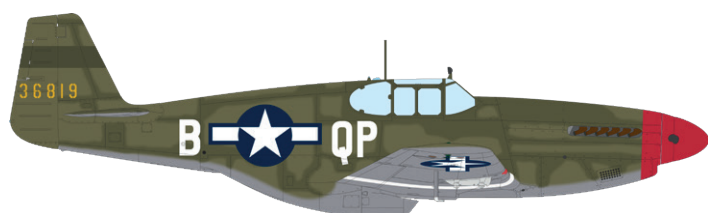
■ P-51B-10-NA, s/n 42-106448, Capt. Henry W. Brown, 354th FS, 355th FG, 8th AF, Steeple Morden, United Kingdom, June 1944



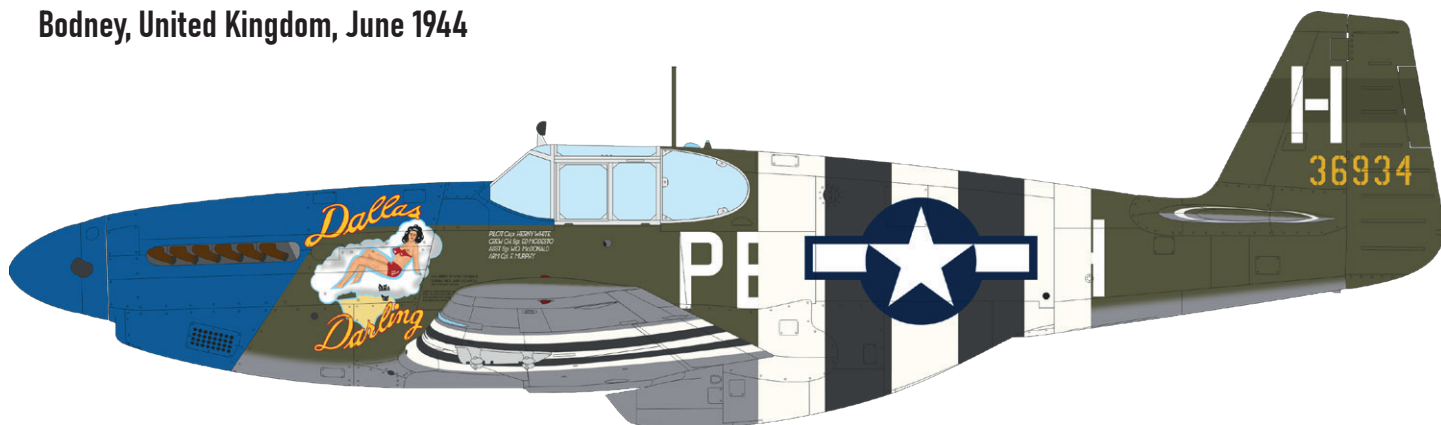
"Baby" Brown was a fighter ace with 14.2 kills, damaging three other aircraft. On the ground he destroyed 14.5 and damaged 10. He achieved four wins with the Thunderbolt, the others on the Mustang. He became the 355th FG's fifth ace fighter on April 24, 1944, and by May 13, he even held the status of the most successful fighter of the entire group. Returning from leave, he then became the most successful fighter of the entire

8th Air Force in late August after destroying eight aircraft on the ground and seven in the air in a 30-day period. Further increases in his score were halted by a German flak hit that forced Brown to make an emergency landing on enemy soil on 3 October 1944. His commander, Maj. Chuck Lenfest (5.5 kills), landed nearby to rescue him, but his Mustang bogged down in the mud and both pilots eventually fell into captivity.

He remained in the service after the war and led the F-111 development program at Nellis AFB. Later he was commander of the 48th TFW and deputy commander of operations for the 7th AF during the Vietnam War. He retired in 1974 and died on 19 February 2008 at the age of 85.



■ P-51B-10-NA, s/n 43-6934, Capt. Henry White, 328th FS, 352nd FG, 8th AF,
Bodney, United Kingdom, June 1944

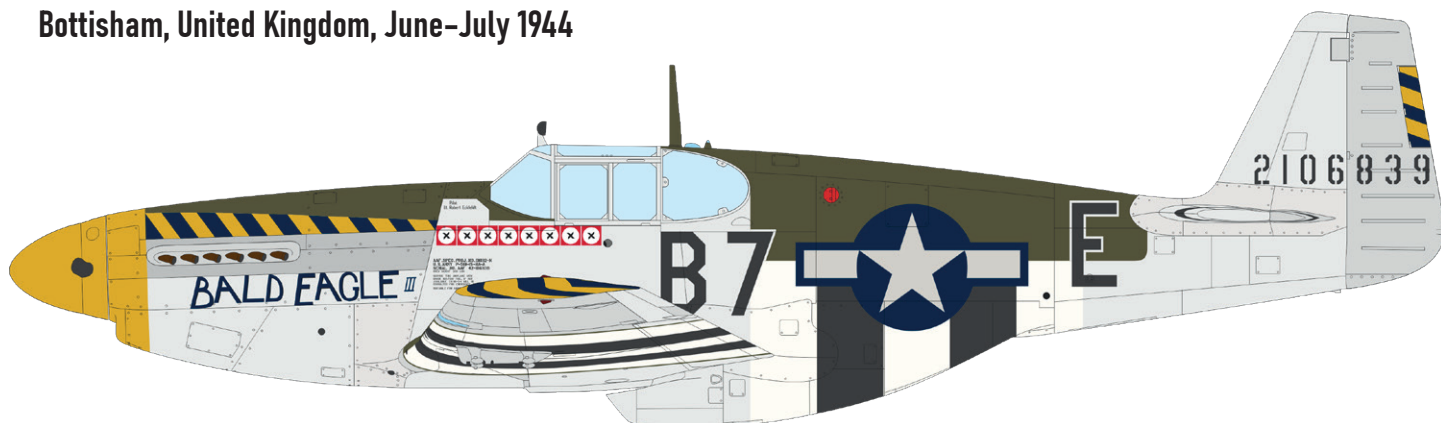


The 352nd Fighter Group was formed on September 29, 1942 and activated three days later on October 1. Its first commander was Lt. Col. Edwin M. Ramage. The 328th, 486th, and 487th Fighter Squadrons, all initially flying P-47s before rearming to P-51B, were part of the group. During June and July, the group moved from the USA to the UK. The first commander of the 328th Fighter Squadron was Capt. J. H.

Posten, the most famous of the commanders was Maj. G. E. Preddy, the most successful American P-51 fighter pilot with 26.83 confirmed kills. Capt. Henry White flew a total of 89 operational sorties with the unit, recording two kills. He achieved the first on May 28, 1944, and the second on July 18. The entire squadron scored 143 kills, 14 were destroyed probably and 35 damaged by its pilots on the ground during the

war. Captain White's P-51B bore the distinctive livery of "Blue-nosed Bastards of Bodney", as the 352nd FG was nicknamed after the blue noses of its aircraft. On the left side forward of the cockpit, a painting of a girl in a red bikini and the name "Dallas Darling" adorned the nose. Full invasion stripes are portrayed here.

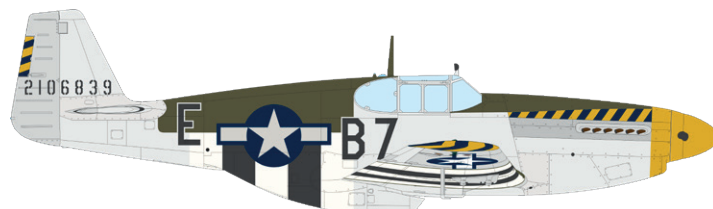
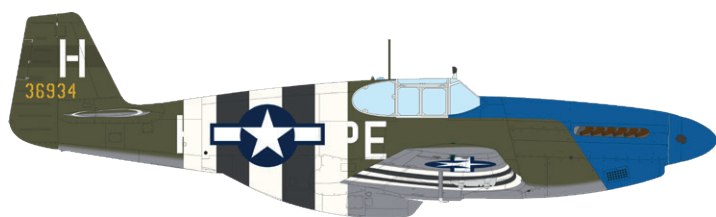
■ P-51B-15-NA, s/n 42-106839, Lt. Robert Eckfeldt, 374th FS, 361st FG, 8th AF,
Bottisham, United Kingdom, June–July 1944



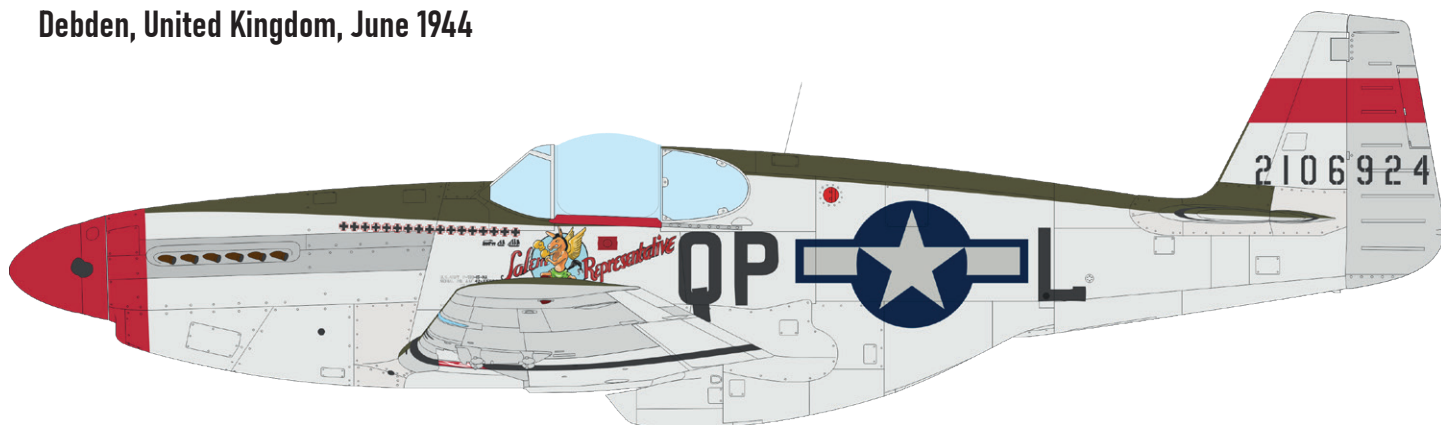
The 361st FG was established on February 10, 1943 and its pilots retrained on the P-47. They moved to England to the Bottisham base in November that year. The pilots of the 361st FG flew their first combat mission on January 21, 1944. By May, the unit had already re-equipped to the P-51s and moved to Little Walden Air Force Base on September 26, 1944. From early February

until May 1945, the group operated out of Chièvres, Belgium, and its pilots destroyed 222 enemy aircraft in the air, probably destroyed 11 and damaged 67 during the combat deployment. Among the group's aces was Lt. Robert Eckfeldt, who scored three aerial victories and destroyed four more enemy aircraft on the ground. This is matched by the seven symbols

under the cockpit of his aircraft named "Bald Eagle", a nickname for the 22-year-old pilot, referring to his thinning hair despite his youth. "Eggie," as his colleagues also called him, was the son of an Army major general and hailed from Belmont, Massachusetts.



■ P-51B-15-NA, s/n 42-106924, 2nd Lt. Ralph K. Hofer, 334th FS, 4th FG, 8th AF, Debden, United Kingdom, June 1944

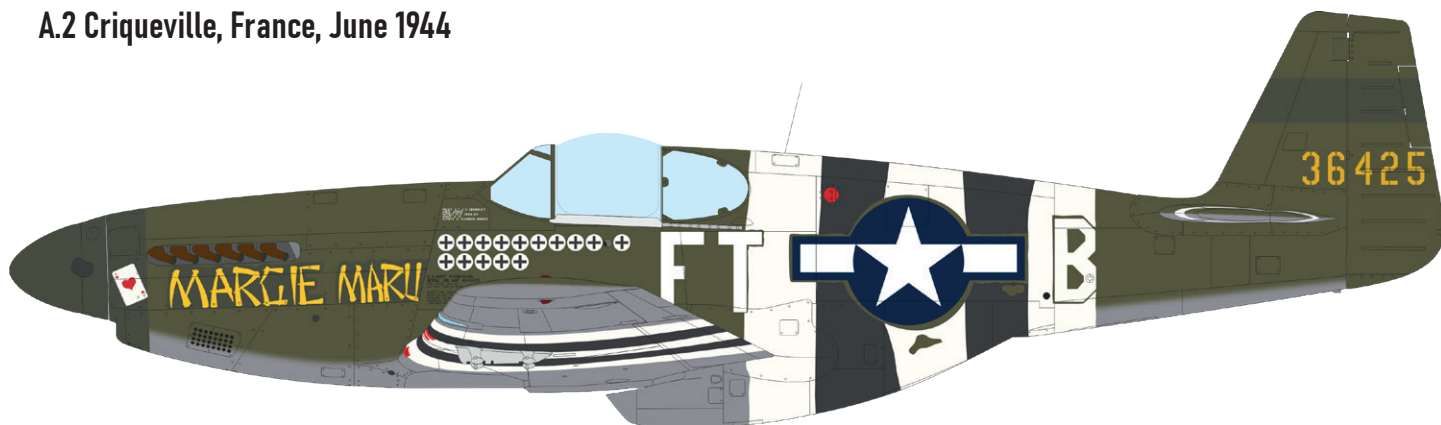


Light-hearted, perhaps undisciplined, but all the more courageous and charismatic was "Kid" Hofer, one of the USAAF's most successful fighters. The nickname was based on his youthful appearance and flowing and by Army standards long hair as well as his prevailing good humor. Until his death, he destroyed 15 enemy aircraft in the air, damaging two and destroying another

14 on the ground. On July 2, 1944, "Kid" participated in the escort of bombers to Budapest from the Italian base Foggia. Prior to reaching the target area, a group of Bf 109 entered the scene and the aerial battle started. Hofer's leader had to make an emergency landing due to a malfunction and watched from the ground as a Hungarian Bf 109, sitting on the tail of his Wingman, opened fire.

Hofer's Mustang was apparently only damaged and so he tried to return to the base. Near Mostar, he decided to strafe a German airfield, his P-51B "Salem Representative" was hit by flak and "Kid" Hofer was killed.

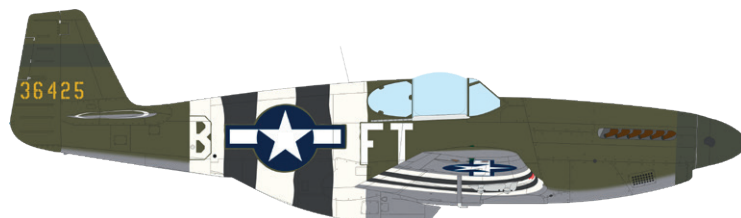
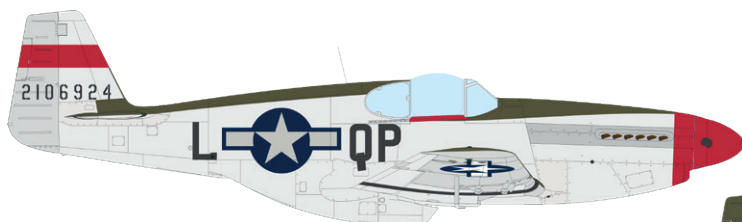
■ P-51B-5-NA, s/n 43-6425, Maj. Jack T. Bradley, CO 353rd FS, 354th FG, 9th AF, A.2 Criqueville, France, June 1944



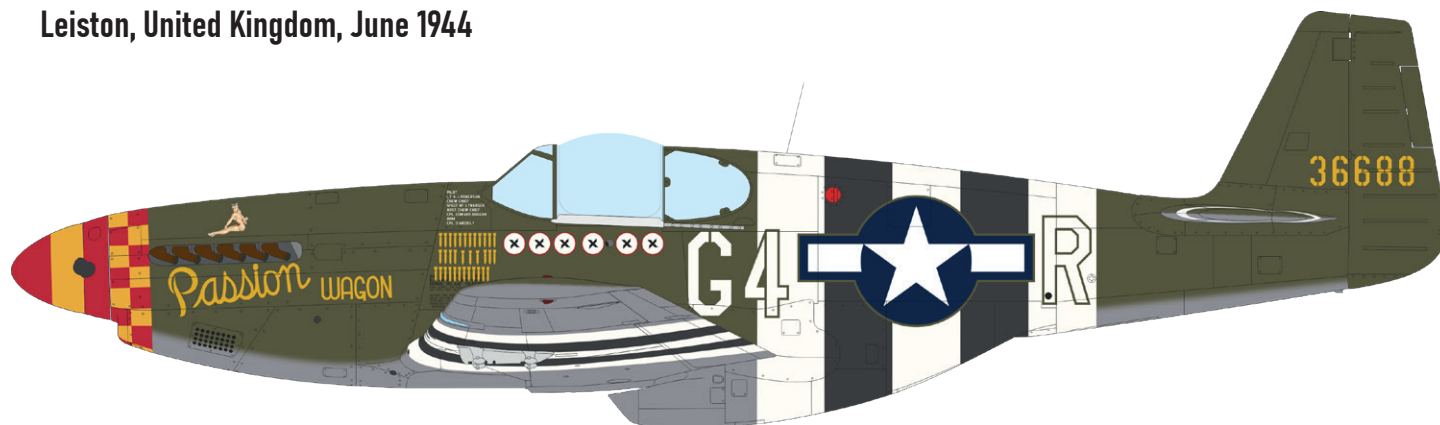
Jack Bradley became an Army pilot with the rank of 2nd Lt on August 27, 1942, and was assigned to the 384th FG/353rd FS on January 18 the following year. After moving to England, he achieved his first kill out of 15 confirmed (plus three probable and 12.66 damaged) on December 20. With "Margie Maru" carrying code FT B, he achieved his first success on December

30, when he contributed a third of the damage to Do 217. Bradley was promoted to Captain in mid-January and took command of the 353rd FS at the end of the month. He kept the position until June 30, when he left for the USA for leave and took the post again on his return. He subsequently served as deputy CO of the 354th FG and at the end of the war, already at the rank

of Lieutenant Colonel, became the CO. After the war he stayed with the Air Force, retiring from the Reserves in December 1962. His Margie Maru is shown in a state where it bore the symbols of 15 kills, the invasion stripes on the fuselage were painted very carelessly. The aircraft was subsequently given the designation FT W and the name "Edgewood's Entry".



■ P-51B-10-NA, s/n 43-6688, 1Lt. Arval J. Roberson, 362nd FS, 357th FG, 8th AF,
Leiston, United Kingdom, June 1944

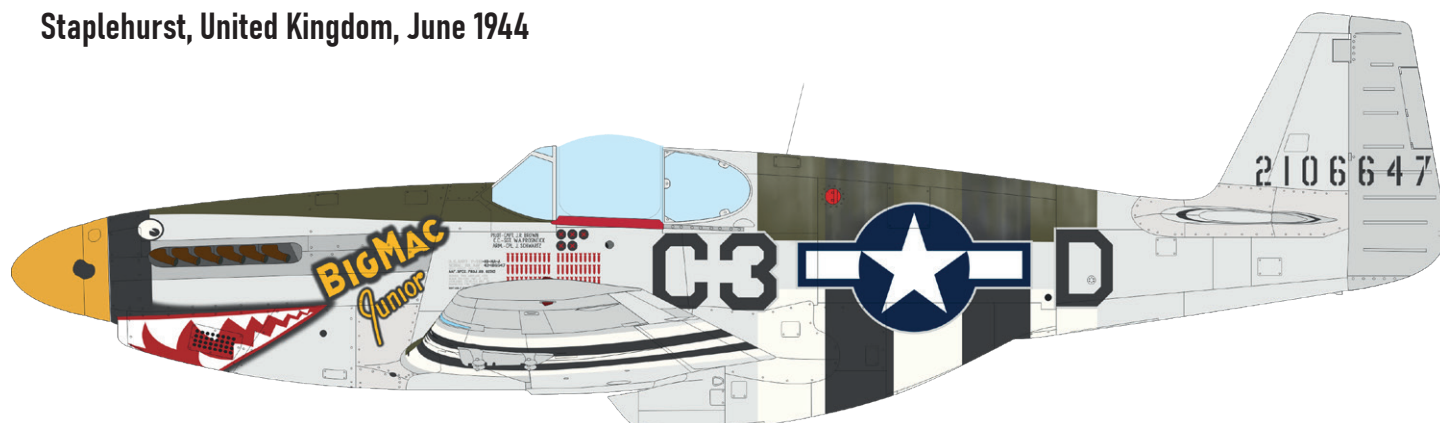


"Robby" Robertson joined the ranks of the Army Reserves in June 1942 and was officially an Army pilot on May 20, 1943. He was assigned to the 362nd FS, with which he subsequently flew 76 missions. In all, he scored six confirmed victories over German fighters, with another

remaining unconfirmed. During the Korean War, he credited himself with another 100 combat missions as a member of the 12th FBS/18th FBG. Already at the rank of Lieutenant Colonel, he added 26 more missions with the C-47. Robertson retired in 1973 as the last commander

of Otis Air Force Base before its closure. His P-51B Mustang, serial number 43-6688, was the first of two aircraft named the Passion Wagon (the other was P-51D 44-13691), and Robertson achieved all of his kills with it.

■ P-51B-10-NA, s/n 42-106647, Capt. John R. Brown Jr., 382nd FS, 363rd FG, 9th AF,
Staplehurst, United Kingdom, June 1944



Prior to the combat, John Brown had managed to destroy four aircraft and damage one in various accidents, so he claimed himself to be only three-fifths of an aircraft away from becoming a Luftwaffe ace. He flew successively in the 356 FG and 362 FG, both with P-47s, then briefly became commander of the 382nd FS/363 FG, flying the P-51B. He was shot down with

his "Big Mac" on August 8, 1944, while leading a formation of eight P-51s in an attack on ships in Bedonet Harbor. It was his 99th mission. He made an emergency landing near Quimper after being hit by flak from a destroyer but managed to escape capture and slip back to the Allies within a week. He subsequently became commander of the 437th FS/414 FG, with which he moved

to Guam, where he flew P-47Ns. After the war, he became an air attaché in Afghanistan and Pakistan and completed a secret mission in the USSR. During his wartime career, he scored one aerial kill, destroyed four enemy aircraft on the ground, and damaged eight.

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F/O Charles E. Yeager

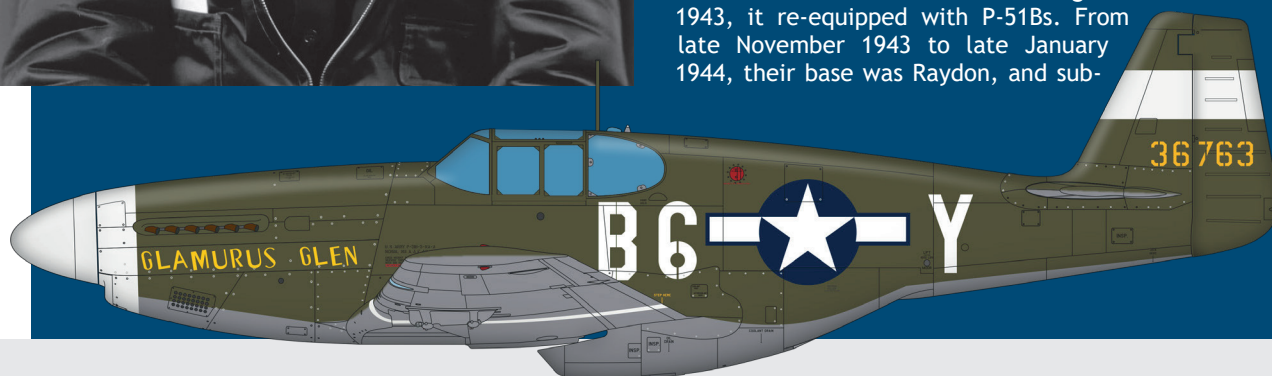


Although American pilot Charles E. “Chuck” Yeager is not primarily known to the general public as a World War II fighter pilot, his participation in the fighting in Europe is quite fascinating.

He was born on February 13, 1923, in Myra, WV, and was drafted into the army on September 12, 1941. After technical and military training, he served as a mechanic with a training unit. However, he was more drawn to being a pilot than to maintaining aircraft on the ground. Shortly thereafter, he applied for pilot training, where he was accepted in July 1942. He completed various phases of training at bases in Hemet, CA; Gardner Field, Taft, CA; and Luke Field, AZ, where he earned his pilot's wings on March 10, 1943.

With the rank of F/O, he joined the 363rd FS, which was part of the newly forming 357th FG. There he trained for combat in the P-39. On October 23, 1943, during a practice attack on a formation of Liberators, he had to use his parachute for the first time to save himself. The engine of his Airacobra exploded, and the aircraft burst into flames.

When the 357th FG moved to England in November 1943, it re-equipped with P-51Bs. From late November 1943 to late January 1944, their base was Raydon, and sub-



P-51B-5-NA, s/n 43-6763, F/O Charles E. Yeager, 363rd FS, 357th FG, 8th AF, Leiston, March 1944

The Mustang with which Charles E. ‘Chuck’ Yeager — who would later become a famous American record-breaking pilot (holding the rank of F/O in early 1944 and before retiring of a brigadier general) — began his combat career with the 357th Fighter Group, was a B-5-NA variant. Yeager named the aircraft after his fiancée, Glennis Faye Dickhouse. The spelling of the inscription differed from that on Yeager’s later aircraft.

It is unclear whether this was intentional on the pilot’s part or a mistake by the mechanic who painted the inscription. What is certain is that Yeager flew fewer than nine combat missions in this aircraft. During his eighth mission, he shot down a Bf 109. The following day, he was shot down himself during a mission over France. Yeager bailed out of the aircraft, which crashed in the Gironde region.

sequently Leiston on the North Sea coast. German propaganda soon dubbed this unit “The Yoxford Boys” after the nearby village of Yoxford. The Americans adopted the nickname and used it throughout the war; it has remained a legacy of the unit to this day.

The pilots of the 357th FG, which was the very first fighter group of VIII Fighter Command to be equipped with this type of aircraft, quickly became accustomed to the new plane. It was no different for Chuck Yeager. His assigned Mustang was aircraft s/n 43-6763, which was given the squadron code designation B6-Y. Yeager named the aircraft “Glamurus Glen” after his fiancée, Glennis Dickhouse (this is not a typo in the aircraft’s name; it truly differed from the spelling used on Yeager’s later Mustangs). He entered combat in February 1944 and scored his first kill on March 4 while escorting a not-quite-full, yet still the first daytime mission to Berlin. It was Chuck’s eighth mission overall. He was assigned to his squadron’s White Flight for it. The engagement took place at 13:05 hrs southeast of Kassel:

“I was flying at 26,000 feet when I spotted a Me 109 to the right and behind us about 2,000 feet below. I broke to the right and down. The enemy aircraft turned right and down and went into a 50° dive. I closed in fast and opened fire at 200 yards. I observed hits on the fuselage and wing roots, with pieces flying off. I was overrunning, so I pulled up, performed an aileron roll, fell in behind again, and started shooting at 150 yards. The enemy aircraft’s engine was smoking and windmilling. I overran again, observing hits on the fuselage and canopy. I pulled up again and performed a wingover on his tail. His canopy flew off, and the pilot bailed out and went into a tailspin at 9,000 feet. The enemy aircraft had a large red and black “Devil’s Head” on the left side of the fuselage. The enemy aircraft took no evasive action after the first burst”.

The very next day, during a mission to Bordeaux, France, he himself was hit by German fighters around 12:40 p.m. while flying in the Tail End Charlie position of his flight. Another pilot in his flight, Lt. William R. McGinley, described the engagement as follows: “We had made R/V with the bombers and were protecting them at the target area. I was leading the second element in a flight of four. We had just gone down to investigate some planes near the bombers. I was bringing my element into formation with the leader when F/O Yeager called for a break to the right. I broke and saw a Me 109 making a pass at us. Captain O’Brien, who was leading the formation, called for us to keep protecting him while he went after the enemy aircraft. I circled and kept looking into the sun. From the time that F/O Yeager called for the break, I did not see him again. I joined formation with two planes from another squadron and returned home with them”.

None of the Mustang pilots saw when or how Chuck Yeager was hit. He himself later stated in his Escape & Evasion Report: “Three Fw 190s came in from the rear and cut my elevator cables. I snap-rolled with the rudder and jumped at 18,000 feet. I took off my dinghy-pack, oxygen mask, and helmet in the air, and then I was whirling on my back and began to feel dizzy. I pulled the ripcord at 8,000 feet. An Fw 190 dove at me, but when he was about 2,000 yards from me, a P-51 came in on his tail and blew him to pieces. I landed in a forest clearing where there was a solitary sapling about twenty feet tall. I grabbed the top of the sapling as I passed it and swung gently to the ground. My chute was caught in the tree, however...”

(Although Yeager describes the attack by Fw 190s, it was much more likely by Bf 109s, which corresponds with Lt. McGinley’s account and also with the claimed victories of other pilots in the group).

With minor injuries caused by shrapnel from 20 mm ammunition, he soon managed to make contact with



Cpl. Charles E. Yeager as a Crew Chief with Beechcraft AT-11 Kansan, 1942.

Chuck Yeager with his first Mustang, P-51B-5-NA 43-6763 ‘Glamurus Glen’.





After return from the 'trip' in France and Spain Chuck received a new P-51, this time it was D series, which he named 'Glamorous Glenn II'.

French civilians, who took him to a nearby farmhouse, where they cared for him properly. They not only gave him food but also provided him with civilian clothes. He was then moved to a hotel near Gironde, where he met an elderly English-speaking woman who explained his options to him and told him he needed to trust his rescuers. This was followed by travel by bicycle, contact with other people, and hiding. After a week, he was handed over to the Maquis, the French resistance organization.

The following week was different for Chuck Yeager than for many other Allied pilots cared for by the French, Dutch, or Belgian resistance. Instead of taking a hasty path to freedom or hiding under the care of brave civilians, he joined the Maquis in their sabotage operations. He taught them how to use timers and detonators for explosives, just as he had learned from his father as a child.

Finally, on March 23, 1944, Chuck Yeager and several other Allied pilots were transported to the Pyrenees to continue on to the Spanish side of the mountains, first accompanied by Maquis escorts and later on their own. The crossing was extremely arduous and full of twists and turns. Days of trekking up steep slopes in deep snow, crossing icy streams, thickets, rocky slopes... One of the airmen, Lt. Omar M. Patterson, a B-17 bombardier from the 95th BG, was in a serious state of delirium from exhaustion and was cared for by Chuck Yeager, who, mustering his last strength, eventually got him to the other side of the mountains, where the airmen were detained by Spanish authorities on March 28, 1944. Although Franco's Spain was essentially more sympathetic to the Germans, it tried to remain neutral during the war and served as a waystation to freedom for many Allied airmen. After nearly two months of internment in Spain, he reached Gibraltar, from where he was flown to Great Britain on May 20, 1944 (some sources describe this wartime episode of escape after being shot down differently; the information provided here is based on interrogation records following the re-

turn to the Allies of both Chuck Yeager himself and other pilots involved).

Allied pilots who, like Chuck Yeager, had experienced assistance from the resistance on the continent—whether in France, Belgium, or the Netherlands—were typically excluded from operational missions over the continent. The reason was a concern that, in the event of another shootdown and capture, they might reveal under duress their previous experiences of help by civilians in occupied countries, thereby endangering both those individuals and the entire system. Yet things were different for Chuck Yeager. He returned to his squadron and combat flying. He named his new Mustang 'Glamorous Glenn II'. It was a P-51D-5-NA, serial number 44-13897 (though some sources state it was a P-51C). On July 6, 1944, he was promoted to 2nd Lt (A.U.S.).

He scored his second aerial victory on September 13, 1944, and just as in the first instance, it was south of Kassel. Yeager's finest hour during combat operations came on October 12, 1944, when he claimed the downing of five Bf 109s in the area between Steinhuder Meer and Hanover. On October 24, he was promoted to Captain.

He nearly repeated his success of October 12 on November 27, 1944, when he claimed four Fw 190s. He also added a dream of American fighter pilots to his record: the downing of a Me 262 near Osnabrück during a mission on November 6, 1944. By that time, he was already flying his last P-51D-15-NA, s/n 44-1488 "Glamorous Glenn III."

Yeager flew his final combat mission, his 61st, on January 15, 1945. The day before, his group had engaged in a major battle in which its pilots claimed 55.5 enemy aircraft shot down. Chuck Yeager did not participate in this mission, and according to his own memoirs, he dealt with his frustration in an unusual way: during his final mission, as an "unused spare," he flew with one other colleague over neutral Swiss territory, where they jettisoned their auxiliary fuel tanks and then fired at them on the ground. The insanity and frivolity of youth sometimes know no bounds. Yeager ended his score at an official 11.5 enemy aircraft destroyed.

During his combat deployment in 1944-45, F/O, later Captain Yeager, was awarded the Silver Star with OLC, the DFC, the Bronze Star with "V" (For Valor); the Air Medal with 6 OLC, and the Purple Heart.

After returning to the U.S., on February 26, 1945, Chuck Yeager married his "Glamorous Glen," Miss Glenis Faye Dickhouse.

As an experienced military fighter pilot and an excellent pilot, Chuck Yeager subsequently underwent six months of test pilot training at Wright Field in Ohio and participated, among other things, in the development of the P-80 Shooting Star and P-84 Thunderjet aircraft.

He was subsequently assigned to the test program for the experimental Bell X-1 rocket plane, which took place at Muroc Dry Lake Field in the Southern California desert. Following the example of his Mustangs, Yeager named the Bell X-1 "Glamorous Glennis." On October 14, 1947, he broke the sound barrier in it. Testing continued on both the X-1 and the later X-1A. On December 12, 1953, despite warnings from technicians, he

reached a speed of Mach 2.345, or 2,604 km/h. This was a new record, but it nearly cost Yeager his life. After shutting down the rocket engine at an altitude of approximately 80,000 feet (24,000 m), the aircraft became highly unstable, and he was only able to recover from the uncontrolled descent at 29,000 feet (8,800 m). He then managed to land safely at the base, but he gave up testing rocket-powered aircraft.

At the same time, as a sound barrier test pilot, he also participated in testing the MiG-15, captured during the Korean War. He returned to the USAF and in the following years commanded several units equipped with F-86 and F-100D aircraft. In 1962, he was promoted to the rank of Colonel and became commander of the USAF Aerospace Research Pilot School, which trained future astronauts for NASA.

At the same time, he actively flew and tested new USAF and NASA aircraft, such as the M2-F1 and NF-104, with which he had a serious accident in December 1963. During a test flight attempting a record altitude, he lost control of the aircraft, which went into a flat spin. After losing an incredible 95,000 feet, Yeager finally ejected from the aircraft. The ejection, which did not go entirely smoothly, caused the pilot to suffer severe burns. For Yeager, who was constantly pushing the limits and ignoring prescribed procedures, this was his last attempt at such a record.

In 1966, he commanded the 405th Tactical Fighter Wing, with which he saw combat over Vietnam. In February 1968, he assumed command of the 4th Tactical Wing, equipped with F-4 Phantom II aircraft, which he led in South Korea during the crisis involving the reconnaissance ship USS Pueblo.

In July 1969, was Chuck Yeager promoted to the rank of Brigadier General and became vice-commander of the 17th EAF. From 1971 to 1973, he served as Air Attaché in Pakistan, including during the Third Indo-Pakistani War. During the conflict and afterward, he not only oversaw the ability of Pakistani Air Force personnel to use American weapon systems but also examined the wreckage of Soviet-designed Indian aircraft, collected data on them, and arranged for the transport of the wreckage to the U.S. for further analysis.

On February 25, 1975, Chuck Yeager returned to Edwards AFB to complete his final flight in active duty aboard an F-4C Phantom II. When he touched down that day, he had logged 10,131.6 flight hours across approximately 361 different aircraft types.

On March 1, 1975, he left his long service in the Air Force and retired. He remained active even after that, appearing in films, and became part of film culture from the other side as well—a film was made about him, references to him appear in the Star Trek universe, and he contributed to the development of computer simulators.

He was active in the veterans' community and participated in projects to preserve the memory of his comrades-in-arms. He died on December 7, 2020, at the age of 97.

Lt.Col. Charles E. Yeager in cockpit of Lockheed NF-104A Starfighter, 4 December 1963 Edwards AFB.



The Bell X-1 in which Chuck Yeager broke the sound barrier on October 14, 1947. Below: For his record flight, Captain Charles Yeager received the Gold Medal of the Fédération Aéronautique Internationale at ceremonies on Sept. 6, 1949. Right is William R. Enyart, who made the presentation, and left is Yeager's wife, 'The Glamorous' Glennis Yeager.



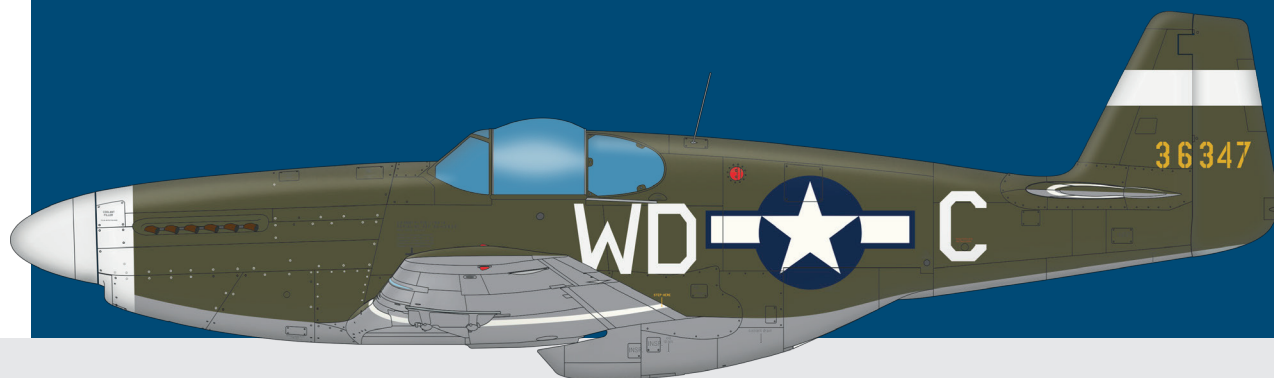
Col. Donald J. M. Blakeslee



Although with 14.5 confirmed kills Donald Blakeslee does not rank among the top American fighter aces of the the WWII he was a remarkable pilot and respected commander. Love for the airplanes accompanied his life since the childhood. In his desire to learn how to fly in the end of 30s, together with his friend he bought Piper J-3 Cub which he leased to the local avi-

ation club in exchange for the pilot training. After the crash of his Cub in 1940 Blakeslee sought other opportunities to continue flying. The only financially feasible option seemed to be to enlist into the Air Corps. However, there was an obstacle on the path of the young pilot. Since he did not meet the educational requirements he was denied the access to the cadet course in the USA so he was able to join RCAF instead. After the training in Canada he was dispatched to the Great Britain where he arrived in the middle of May 1941. He flew his first combat mission as a member of the 401 Squadron RCAF and enjoyed his first combat success on November 18, 1941 when he damaged a Bf 109 in the Tourqueet area. After a short stint with 121 Squadron he left for the squadron numbered 133 where all the American volunteers gathered and where he became a flight leader. On September 29, 1942 he left the RAF service and with the rank of Captain joined the USAAF where his home squadron became a part of the newly formed 4th Fighter Group.

This move also meant exchanging the trusty Spitfires Mk. V for P-47s. From the end of November 1942 till the middle of May 1943 Don Blakeslee acted as the 335th FS commander and later became the Operations Officer of the whole fighter group. In the course of his service he was gradually promoted up to the rank of Lt.Colonel (July 7, 1943) and increased both his personal score (in 1943 it stood at 5 confirmed kills, 2 probables and 7 enemy aircraft damaged) and his leadership experience above all. At this stage of his career he also accomplished one of his extraordinary feats-he became the first P-47 pilot in the world to shoot down an enemy aircraft. In December 1943 he was posted to 354th FG in order to facilitate their accommodation in the ETO (European Theater of Operation). The unit flew new P-51B and Blakeslee immediately fell in love with it. After returning to 4th FG he started to lobby for its re-equipment with Mustangs. His effort met quite



P-51B-5-NA, s/n 43-6437, Lt.Col. Donald J. M. Blakeslee, CO 4th FG, 8th AF, Debden, March 1944

The first Mustang that Lt. Col. Donald J. M. Blakeslee used to lead his men across the continent was an early B-5 in olive drab with no personal markings, a feature also found on Blakeslee's later aircraft. As the 4th Fighter Group's distinctive red nose identification markings had not yet been applied, the aircraft bears only a white nose and a white stripe on the engine cowling. These were initially used as a quick identification marking for Mustangs in the European Theatre of Operations. Blakeslee began his combat career in 1941 with the RAF's Eagle Squadrons, before transition-

ing to the 4th FG. He finally commanded the 4th FG from January to November 1944. He flew Spitfires, P-47 Thunderbolts and, eventually, P-51s, completing over 400 combat missions – an extraordinary achievement on the European battlefield. He was officially credited with 14.5 aerial victories (some sources cite 15.5). Thanks to his aggressive yet prudent tactics and leadership, the 4th Fighter Group became one of the most renowned of the 8th Air Force.

*Col. Donald J. Blakeslee in cockpit
of his early P-51B, 43-6337.*

some resistance since it would have broken the established rules according to which the new units arriving in ETO had the priority to convert to P-51. Blakeslee's effort did not bring fruits even after he was promoted to command the whole 4th FG on January 1, 1944. The VIII. Fighter Command was afraid of the interruption of the operational flying which the conversion to the new type would have caused. Don Blakeslee's negotiations with VIII. FC commander finally resulted in authorizing P-51 deliveries to the 4th FG under the condition that the pilots had to convert to them within 24 hour i.e. without the interruption in flying the combat missions. Lt. Col. Blakeslee approached this unusual condition in a way contradicting the standard procedures-he told his pilots that they could familiarize themselves with the new type during the actual combat mission! This took place on February 28, 1944. Some pilots in the units in fact did not log more than one hour on P-51. Barely a week later Don Blakeslee, already a Colonel, became the first American aviator who reached Berlin area while leading the escort of the „Big Brothers“ over „Big B“.

He also led larger formations in the consequent operations. The most crucial was commanding the fighter escort on the mission Frantic I.- longhaul flight of the 8th USAAF bombers and fighter to Soviet Union, further to Italy and back to the Great Britain during June 21-May 7, 1944. During this mission Col. Blakeslee also scored his last aerial victory when on July 2, 1944 he shot down a Bf 109 in Budapest area. His final score was 14.5/3/11.

After a leave in the USA during September and October 1944, having spent three and half years away, Blakeslee returned to the combat flying. Oddly it was stopped by the loss of another outstanding pilot, Hub Zemke, 56th FG leader on October 30, 1944. Gen. Kepner, VIII. FC commanding officer decided to „ground“ Blakeslee reasoning that the Air Force cannot afford to loose another commander of such caliber. On November 4, 1944 Col. Blakeslee handed over the command of the 4th FG and several days later set on his journey back to the United States. His incredible career spanned the past four years starting with bumpy entry into RCAF, service in the RAF and all the way up to the post of one of the most respected fighter commanders the USAAF in Europe ever had. He logged 500 combat missions and more than 1000 flight hours. It was said that he had his administration officers record some of his combat missions as training flights not to reach the combat tour quota too soon. He spent the rest of the war „tucked away“ as a commander of Page Field base in Florida. He remained in the Air Force after the war and for example commanded the 31st FG and 27th Fighter Escort Wing flying P-82 Twin Mustan in the Pacific. After that he served two tours with the occupational forces in Germany and one in Korea where he served at the Tactical Air Command headquarters. He served in various commanding posts, primarily 17th Air Force until April 30, 1965 when he retired.

Col. Donald J. Blakeslee received the DFC from General Eisenhower. On Blakeslee's right shoulder is one of his successful fighter pilots, Capt. Dominic S. Gentile.



The same Mustang with Col. Blakeslee in cockpit just after return from the Group's trip over Berlin on March 3, 1944. This very first presence of US Fighters over the German capital was without bombers, who must scrub the mission due to weather.



SAMPLE FROM THE BOOK P-51B/C MUSTANG

TECHNICAL DEVELOPMENT
COMBAT OPERATIONS
MARKING EVOLUTION

JAN ZDIARSKÝ, VLADIMÍR ŠULC,
MICHAL KRECHOWSKI & COMP.



USAAF 1944 FIGHTER PILOT'S EQUIPMENT

Items description
by Pavel Beránek

The P-51 pilots' flying gear was largely specified by regulations, yet it varied greatly on an individual basis. Functionally, the gear was adapted to the specific conditions of missions lasting many hours and the environment in which the pilots operated. Over time, it was supplemented with additional items such as the F-2/F-3 heated flight suit and, starting in the summer of 1944, G-3 anti-G trousers or heavy, warm A-6 boots. The list of equipment types provided here is only partial. Pilots of the 8th AF also liked to use British-made goggles, gloves, or even flight helmets intended for the RAF on an individual basis. The example shown here illustrates the most common variant of the suit and equipment for an American fighter pilot in the ETO in 1944.





1 - Flying Helmet, Type A-11

The Type A-11 intermediate flying helmet was standardized on August 6, 1943, and quickly became one of the most widely used flying helmets of the Second World War, valued for its practical design, comfort, and compatibility with modern communication equipment.

2 - Flying Gloves, Winter, Type A-10

The A-10 was standardized on July 20, 1938, as an intermediate-weight flying glove and remained in service throughout the entire Second World War. Combining warmth with a relatively lightweight construction, it provided aircrew with the protection necessary for high-altitude operations while still preserving the dexterity required for operating cockpit controls.

3 - Oxygen Mask, A-14

This pattern of oxygen mask entered service with the USAAF in 1943 and quickly became standard equipment for both fighter pilots and bomber crews during the latter half of the Second World War. Designed for high-altitude operations, the A-14 combined improved oxygen delivery with compatibility for modern communication systems used in increasingly demanding combat conditions.

4 - Flying Goggles, Type AN-6530

The AN-6530 goggles were produced during the Second World War as protective eyewear for United States Army and Navy flight crews. Introduced in 1943 as a modified development of the earlier USAAF B-7 design, they saw widespread use among pilots, gunners, and observers who required reliable protection against glare, wind, and airborne debris during combat operations.

The expense of their production, together with issues involving shattered lenses and resulting eye injuries, eventually led to the development of the rubber-framed, plastic-lensed B-8 goggle. Standardized in 1944, the B-8 gradually rendered the AN-6530 obsolete.

5 - Jacket, A-2

The Type A-2 leather flight jacket became one of the most recognizable garments associated with U.S. Army Air Forces aircrews during the Second World War. Officially adopted by the U.S. Army Air Corps in 1931 as the "Jacket, Flying, Type A-2," it replaced the earlier A-1 pattern and remained in widespread use throughout the war despite being officially superseded in 1943. Constructed from brown horsehide leather with knitted cuffs and waistband, the jacket introduced a zippered front closure in place of buttons and featured either buttoned pockets or concealed snap fasteners. Although produced by numerous contractors, all jackets were based on two officially approved shades: seal, a dark brown tone, and russet, ranging from pale to medium brown.

Once an Army Air Forces officer completed basic flight training, he was issued his A-2 jacket before advancing to operational training. Prior to the outbreak of the war, the garment was reserved exclusively for commissioned officers, although enlisted aircrew personnel were later authorized to wear it as well. Both officers and enlisted men frequently personalized their jackets with hand-painted artwork inspired by aircraft nose art, mission markings, or unit insignia. In the China-Burma-India Theater, some pilots also carried a so-called "blood chit" sewn into the lining or on the back of the jacket — a printed message promising a reward to local civilians who assisted in the rescue of a downed airman.

6 - AN-6510, Seat Pack

The USAAF AN 6510-1 seat pack parachute was used by American pilots throughout the European theatre of operations until the end of the Second World War. Also known as the S-1, this parachute type was standardized on May

11, 1928, and utilized a 24-foot canopy. Many pilots preferred seat-type parachutes because they provided greater freedom of movement inside the cockpit, particularly when turning their heads during combat or formation flying.

7 - B-4, Life Vest

The USAAF Pneumatic Life Vest, designated B-4, was constructed from yellow rubberized canvas and saw widespread use not only within the USAAF, but also among American airborne troops throughout the Second World War. Inflation was provided by liquid CO2 cartridges activated by pulling two cords located at the lower section of the vest. Once released, the liquid rapidly expanded into gas, inflating the air chambers within seconds. As an emergency back-up, the vest also incorporated rubber inflation tubes near the neck opening, allowing it to be inflated manually by mouth. When fully inflated, the bulky appearance of the vest led Allied airmen to nickname it the "Mae West," after the famous Hollywood actress.

8 - Belt, Pistol or Revolver, M-1936

The M-1936 pistol belt served as standard field equipment for personnel armed with pistols, revolvers, carbines, and submachine guns, and was also widely used by drivers, medics, chaplains, and other support troops. The belt featured three rows of reinforced eyelets: the upper row was intended for attaching M-1936 suspenders, the middle row allowed size adjustment, and the lower row was used for securing field equipment such as canteens, first-aid pouches, or bayonets. A snap fastener located on the left side of the belt allowed the attachment of ammunition pouches for the M1 Carbine or the M1911A1 pistol.

9 - Holster, Pistol, Cal.45, M-1916

Brown leather holster for the M1911A1 pistol.

10 - Pocket, Magazine, M-1918

Belt-mounted pouch designed to carry two seven-round magazines for the M1911A1 pistol. A metal fastener on the reverse side allowed attachment to the M-1936 pistol belt.

11 - M1911A1

The most famous American military handgun of the twentieth century was the Model of 1911. Designed by the legendary John M. Browning and manufactured by Colt Patent Firearms Manufacturing Company, the M1911 became universally known among U.S. servicemen simply as the ".45."

12 - USAAF AN-S-31/AN6550 Summer Flying Suit

The AN-S-31 summer flying suit was standardized in 1943 for use by USAAF pilots and aircrew personnel. Developed for the U.S. Army Air Corps, the suit featured two buttoned breast pockets and two buttoned pockets positioned on the lower legs, allowing easy access while seated in the cockpit. It was produced from either wool or tightly woven cotton, materials chosen for their ability to provide limited protection against wind exposure and fire. The simplified design of the AN-S-31 also helped accelerate production and reduce manufacturing costs during wartime.

13 - US Army Service Shoes Type II

Designed during the 1930s with an emphasis on everyday service use, these shoes soon proved insufficiently durable for extended field and combat conditions. Although several improvements were introduced over time, the leather soles used on early models wore out quickly during active service. In the autumn of 1941, rubber heels and protective sole taps were introduced, creating what became known as the Type II pattern. Service shoes of this type remained in use with both the U.S. Army and the Army Air Forces throughout the Second World War.



WILDE SAU Episode Three: Untill the Fall of the Empire

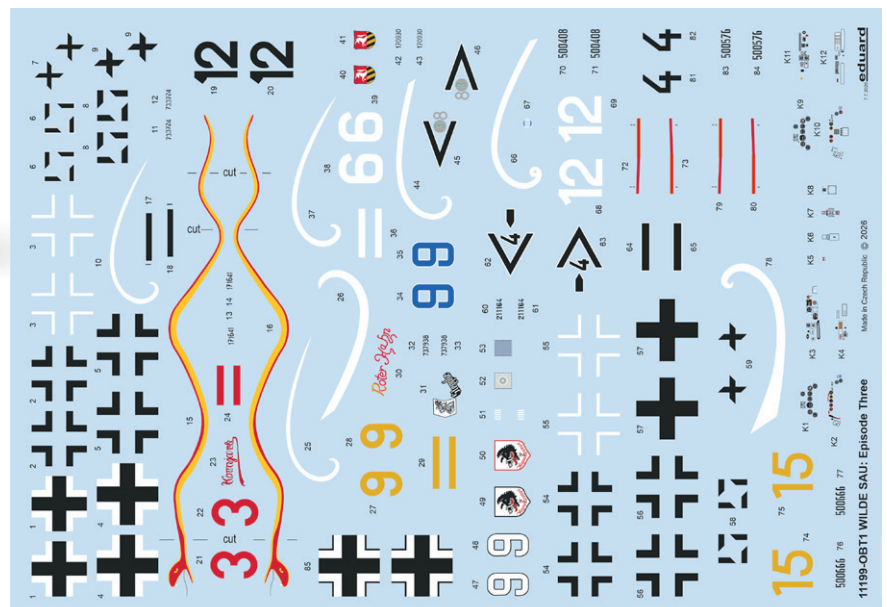
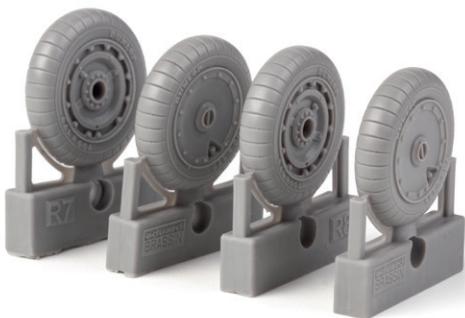
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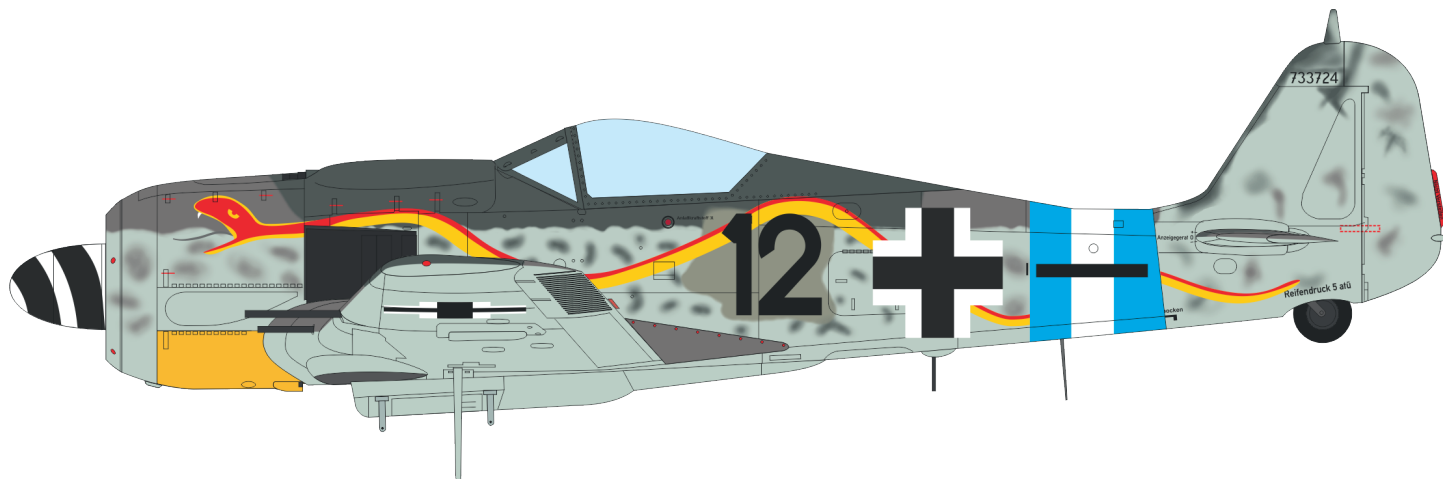
Limited edition kit of German WWII fighter aircraft Fw 190A-8 and Fw 190D-9 in 1/48 scale. The kit is focused on aircraft from JG 300, JG 301 and NJGr. 11.

- plastic parts: Eduard
- marking options: 11
- decals: Eduard
- PE parts: yes, pre-painted
- painting mask: yes
- resin parts: yes, wheels

Product Page



■ Fw 190A-8, W.Nr. 73372?, II./JG 300, Bayreuth-Bindlach, Germany, Spring 1945

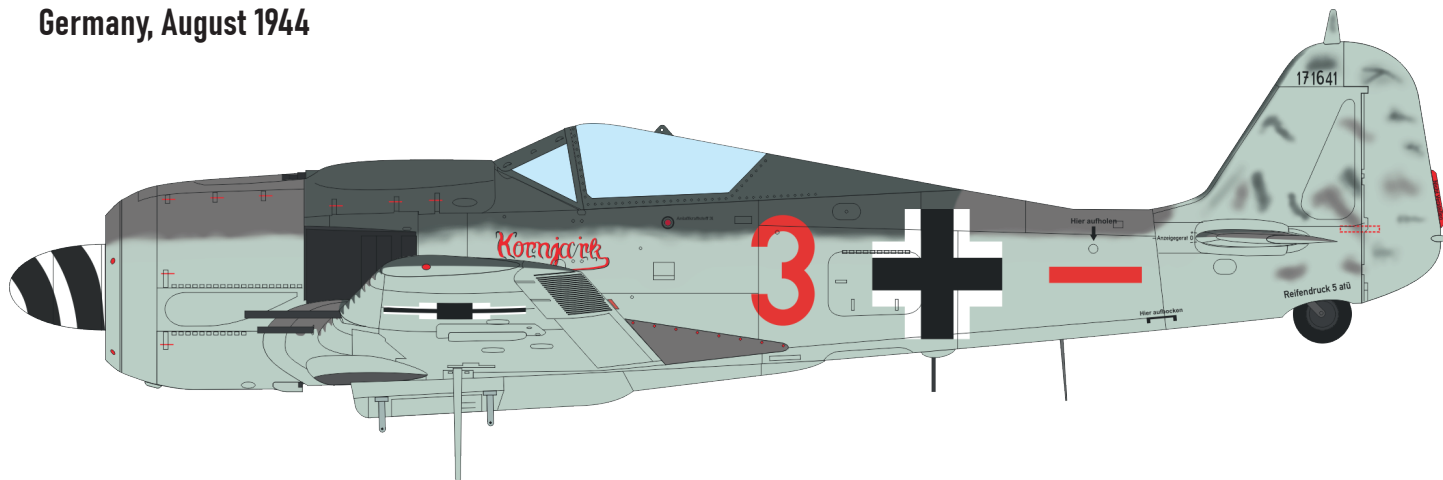


This aircraft served with Jagdgruppe 10. The task of the unit was to test new tactics and weapons to be used against Allied four-engined heavy bombers. The JGr.10 aircraft sported the rendition of a red and yellow snake on both sides of the fuselage. At the end of the war this aircraft was reassigned to II./JG 300 and

received relevant markings, such as the blue-white-blue fuselage band identifying JG 300 within the Defense of the Reich system. This band partially obscured the small code I1, which belonged to JGr.10. On the port side, this allowed the letter I to remain visible, and the number 1 on the starboard. This aircraft was dismantled

and its remains found in May 1945 at Bayreuth-Bindlach air base, which served as a repair and conversion depot from 1944.

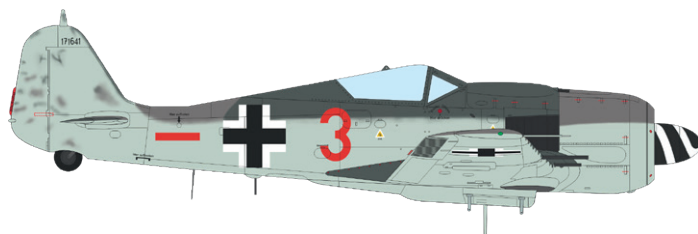
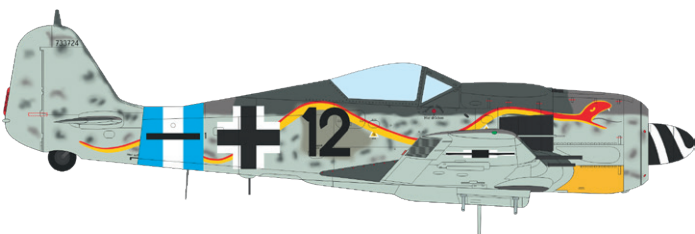
■ Fw 190A-8, W.Nr. 171641, Fw. Konrad Bauer, 5./JG 300, Erfurt-Bindersleben, Germany, August 1944



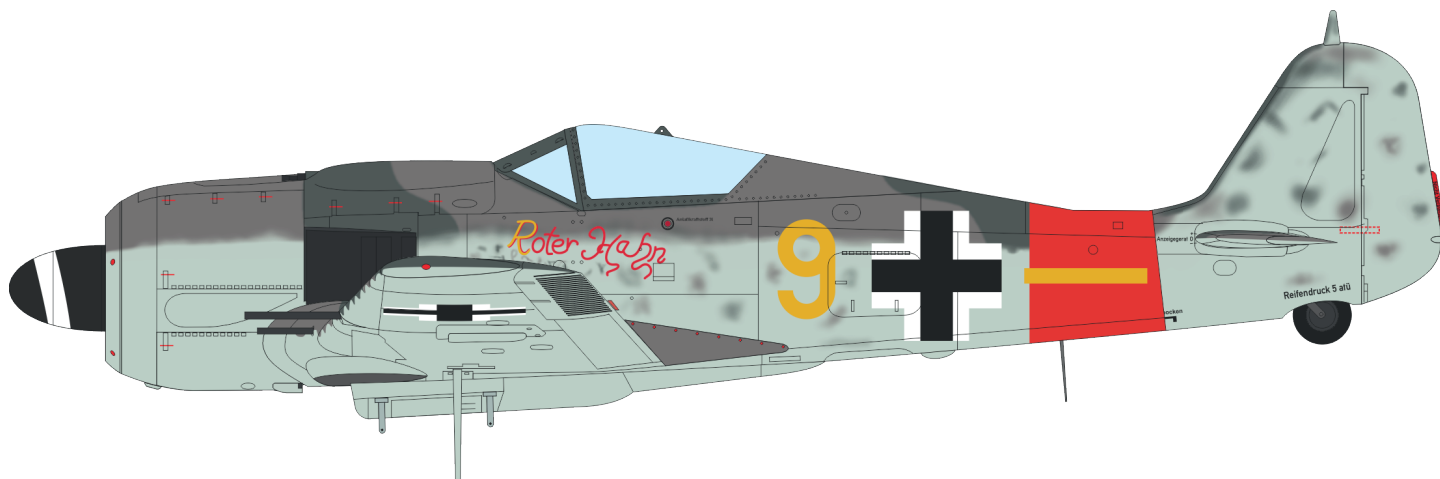
Konrad Bauer was born on February 9, 1919, in Gelsenkirchen. He joined the Luftwaffe in 1943, and after completing his training, he was assigned in March 1943 to 10./JG 51, which was fighting on the Eastern Front. With JG 51, he scored a total of eighteen aerial victories. In March 1944, he was transferred to 2./JG 3, and then in June to 5./JG 300, commanded by Lt. Bretschneider. With this unit, Fw. "Pitta" Bauer's star rose, and he became one

of the greatest aces in shooting down American four-engine bombers. On September 11, 1944, Fw. Bauer was shot down in combat with Mustangs, wounded (among other injuries, two fingers on his right hand were blown off), he landed near Nordhausen, survived a subsequent Mustang attack, and, after six weeks of convalescence, reported back to his unit. He no longer flew operational missions, after Bretschneider's death, he assumed command

of 5./JG 300, with which he remained until the end of the war. In total, he shot down 68 enemy aircraft, including 32 four-engine bombers, and was awarded the Knight's Cross on October 31, 1944, for his achievements. He himself was shot down seven times. After the formation of the Bundesluftwaffe, he continued to serve in the air force and retired in December 1960 with the rank of Hauptmann. He died on October 26, 1990, in his hometown of Gelsenkirchen.



■ Fw 190A-8, Fw. Hannes Theis, 6./JG 300, Löbnitz, Germany, October – November 1944

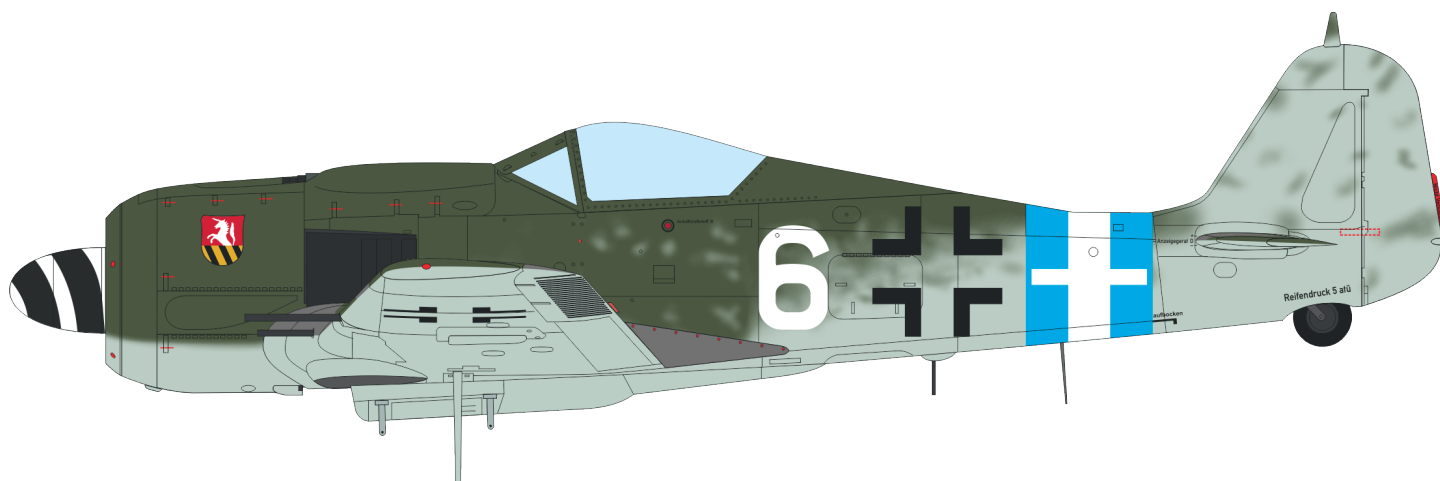


Feldwebel Hannes Theis served in the meteorological service and as a flight instructor before being assigned to 6./JG 300. During his service with JG 300, he scored a total of 10 aerial victories (five four-engine bombers and five fighters). He survived World War II and

died in 2006. His Focke-Wulf marked "Yellow 9," bore a horizontal yellow bar behind the fuselage cross (the horizontal bar denoted II. Gruppe, and the yellow color indicated a 6. Staffel aircraft), while the red band encircling the tail identified JG 300 aircraft flying as part of the

Reich's air defense. The inscription "Roter Hahn" (Red Rooster) painted beneath the cockpit referred to the red color of Theis's hair.

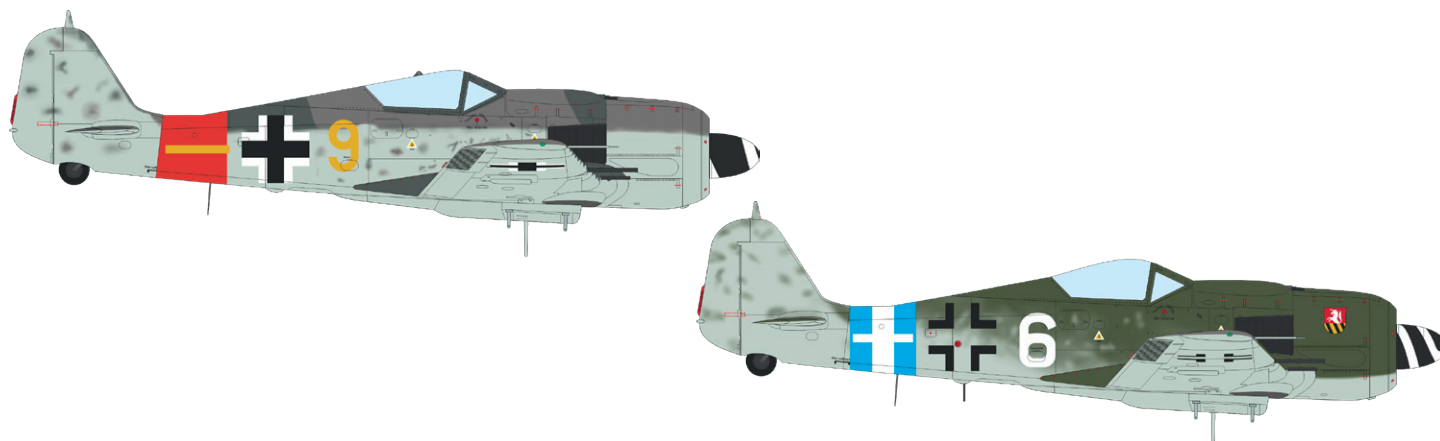
■ Fw 190A-8, Lt. Gustav Salfner, CO of 7./JG 300, Löbnitz, Germany, March 1945



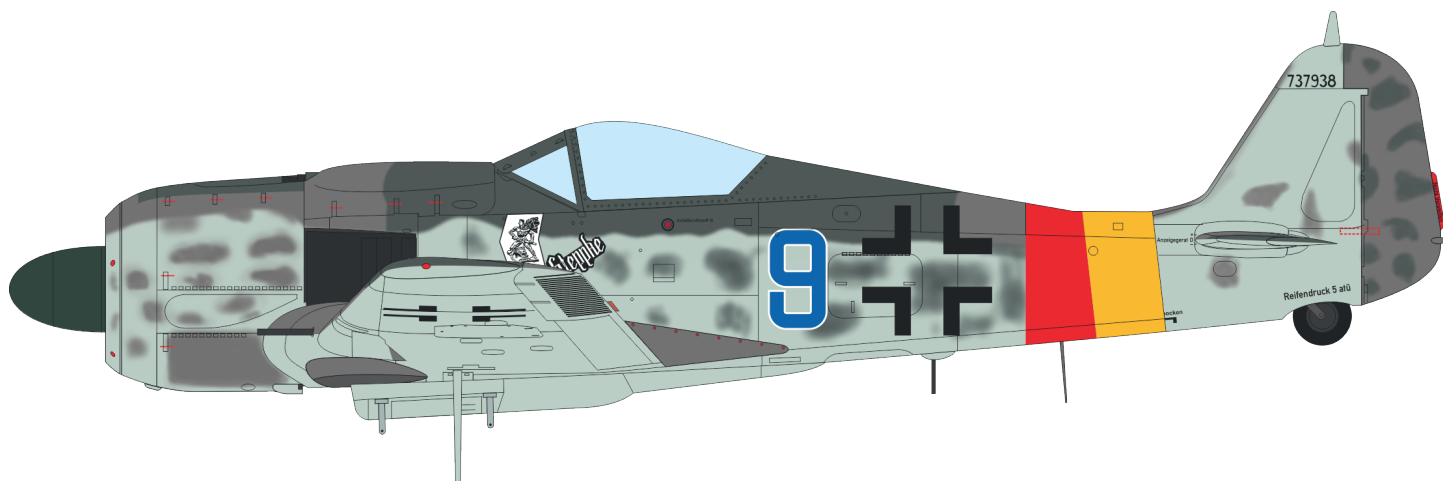
White 6, flown by the CO of 7./JG 300, carried the typical camouflage pattern from the closing months of the war. The top surfaces of the fuselage was sprayed RLM 81 that carried over to the side fuselage color, RLM 76. The top of the

wings were covered with RLM 75/81 (perhaps 81/82). JG 300 ID marking in its later form, the blue-white-blue rear fuselage band, was carried. The emblem consisting of a unicorn on a red background was a simplified insignia

of Salfner's family. A Munich native, Gustav Salfner ended the war with Iron Cross Second Class and seven confirmed and seven probable victories.



■ Fw 190A-8, W.Nr. 737938, 4./JG 301, Brunnthal, Germany, 1945

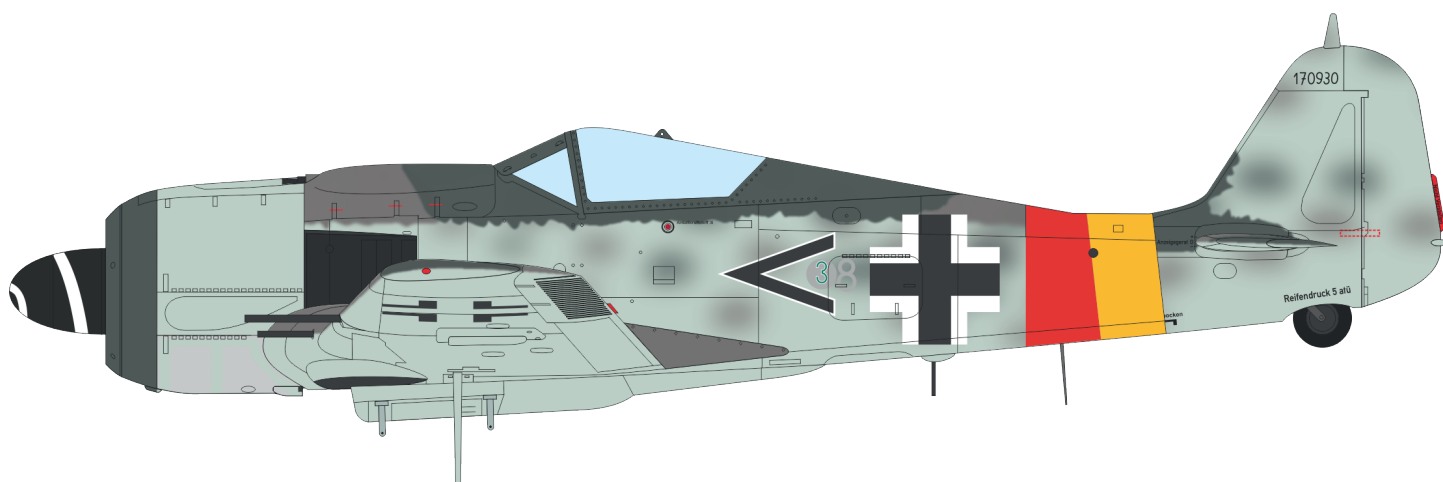


This Focke-Wulf, found after the fighting ended near the village of Brunnthal, south of Munich, was manufactured at the Ago factory in Oschersleben in early 1945. The aircraft was camouflaged with RLM 74 and 75 on the

upper surfaces, the side and lower surfaces—with the exception of the center section and the lower rear portion of the wing, which remained unpainted—were sprayed with RLM 76. An interesting detail is the reversal of the colors

of the band used to mark JG 301 aircraft within the Reich Defense, correctly applied toward the rear of the fuselage the order should be yellow and red. Below the cockpit, the aircraft bears the Steppke coat of arms and inscription.

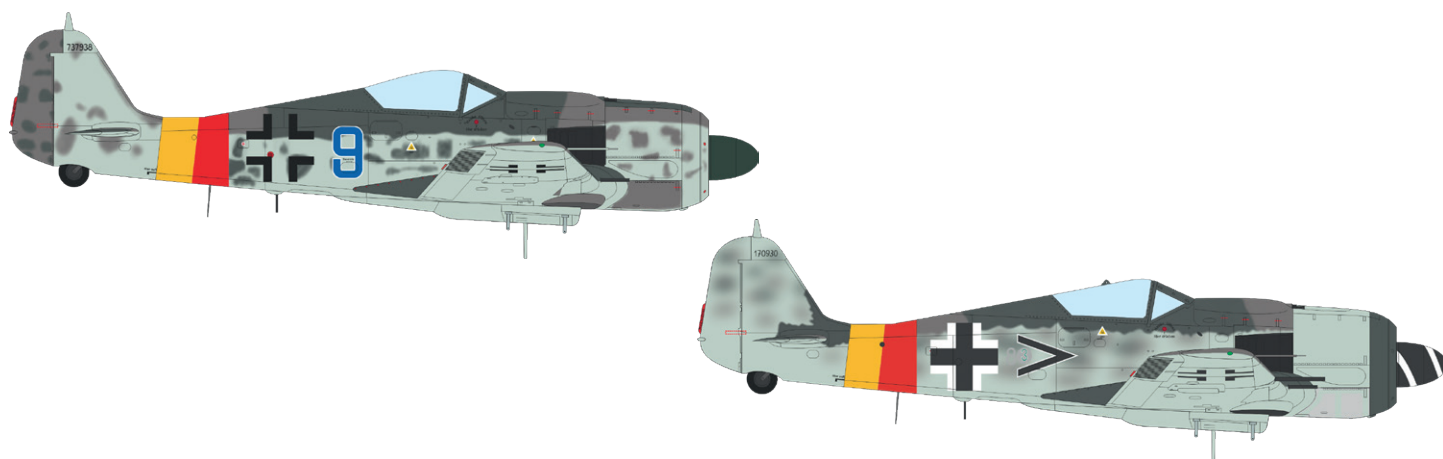
■ Fw 190A-8, W.Nr. 170930, Stab I./JG 301, Stendal, Germany, April 1945



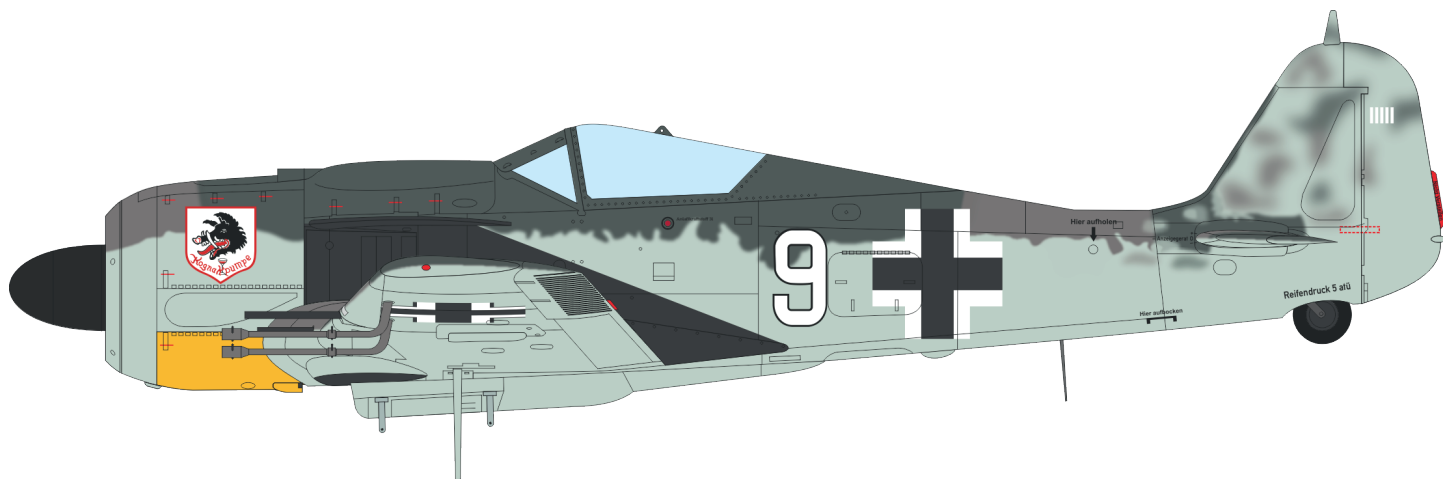
This Focke-Wulf, manufactured at the parent company's plant in Cottbus, likely flew with JG 11 before being assigned to JG 301. After being assigned to JG 301, it served with the unit's headquarters. The aircraft, painted in the

standard Luftwaffe fighter color scheme of RLM 74/75/76, likely had its engine unit replaced, including the cowlings, which was sprayed with a thin coat of RLM 76. The lower panels of this cowlings were left in their natural metal color;

only the rows of rivets were repainted. The nose was likely repainted in RLM 74. As with the aircraft in the previous color profile, the order of the Reich Defense band colors was reversed on this aircraft.



■ Fw 190A-8/R11, Ofw. Günther Migge, 1./NJGr. 10, Werneuchen, Germany, March 1944

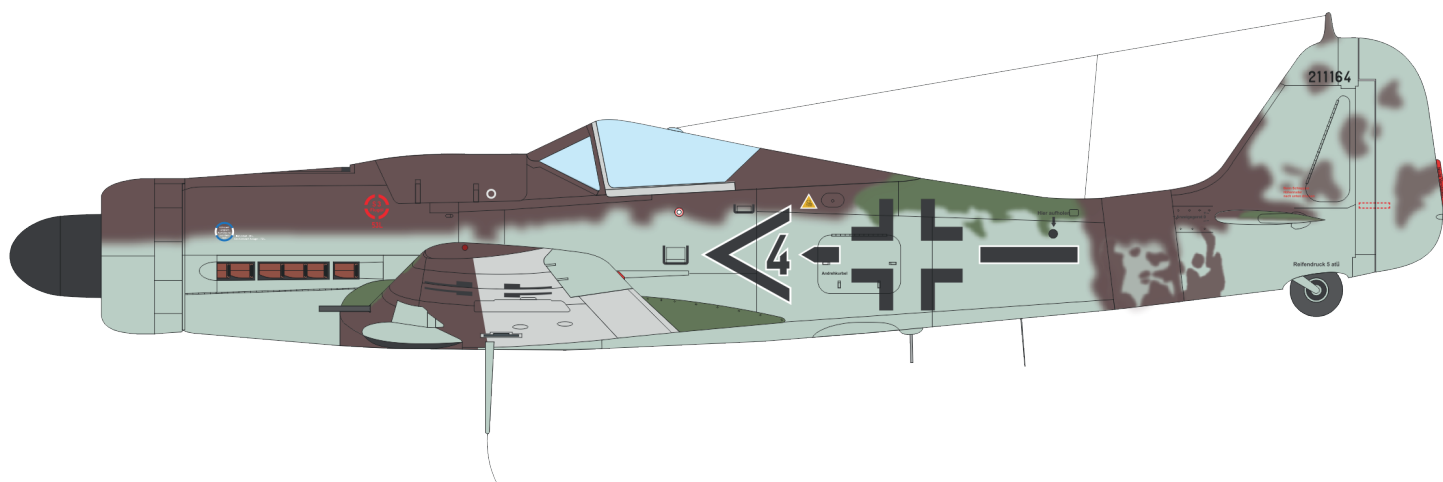


This plane, modified for night missions, served with Nachtjagdgruppe 10, formed on January 1, 1944, from parts of JG 300. The unit was tasked with the defense of important cities and also carried out testing of new equipment for night fighters. Günther Migge was previously a night fighter pilot with JG 300, so his Fw 190 carried

the Wilde Sau emblem, supplemented with the "Kognakpumpe" inscription, and a picture of a cognac glass. The outline of the emblem as well as the inscription were most likely red, but black cannot be ruled out. The aircraft carried the standard camouflage scheme with the use of black Adlerflügel behind the exhaust stacks

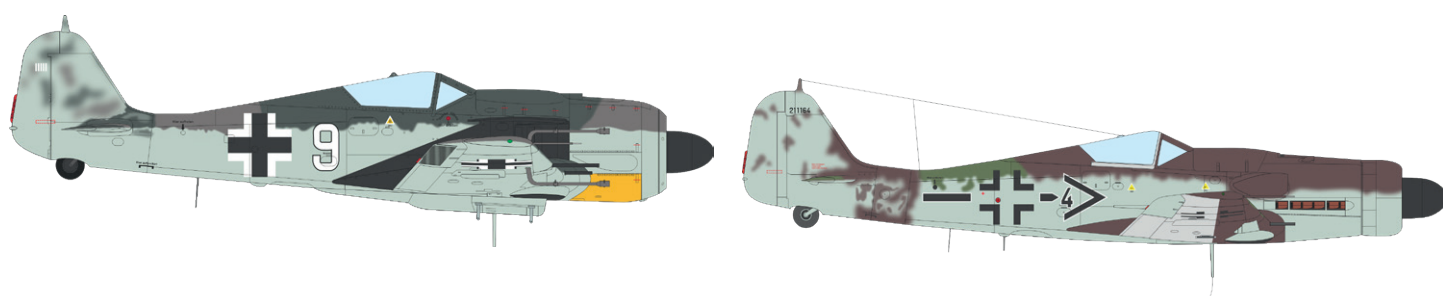
in less common shape for this period of time. The bottom white segments of the fuselage Balkenkreuz were quite shabby. The kill marks on the rudder relate to Migge's victories achieved with JG 300, but flying this aircraft with NJGr.10, he added several more kills.

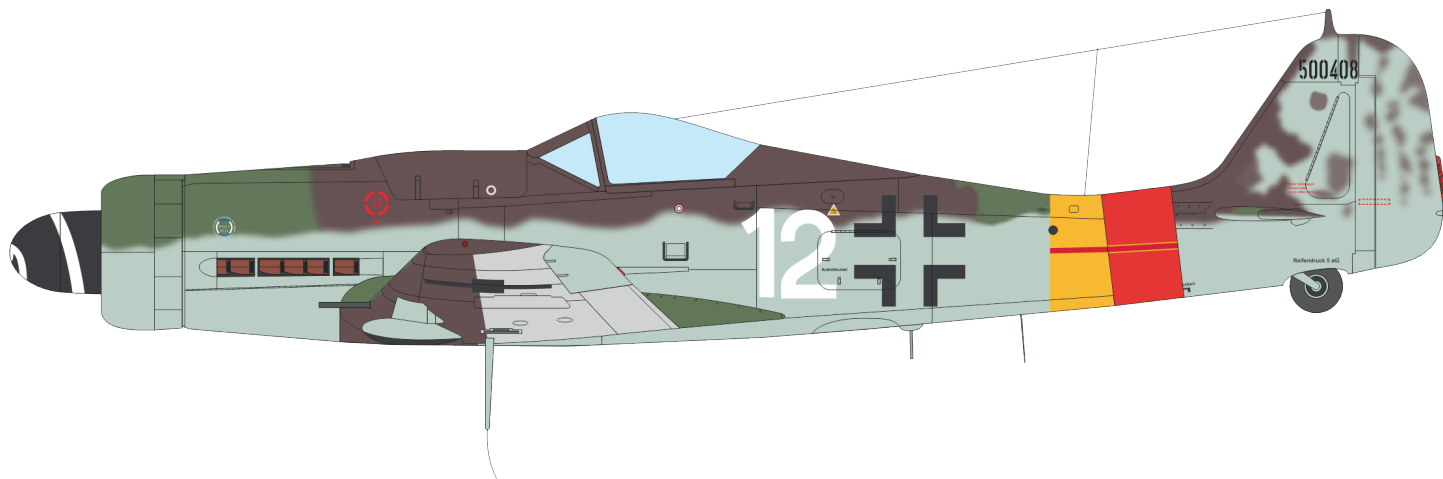
■ Fw 190D-9, W.Nr. 211164, Stab/JG 300, Prag – Ruzyně, Czechoslovakia, May 1945



Dora W.Nr. 211164 found at Prague-Rusin airfield after WWII, in all probability belonged to Stab/JG 6 or JG 300. The upper cowling was painted in RLM 81 as well as the rest of the fuselage except for the rear, which was sprayed RLM 82. The tail section had previously been painted with a light colored tailband, which was oversprayed with RLM 81. The same colour was used for spots sprayed on the vertical tail surface. Wing upper

surfaces were in RLM 81/ 82 too. The forward part of the wing undersides were painted RLM 81. Note the propeller spinner is missing the white spiral that was prescribed for all fighter aircraft engaged in the Western theatre of operations from July 1944 onwards.

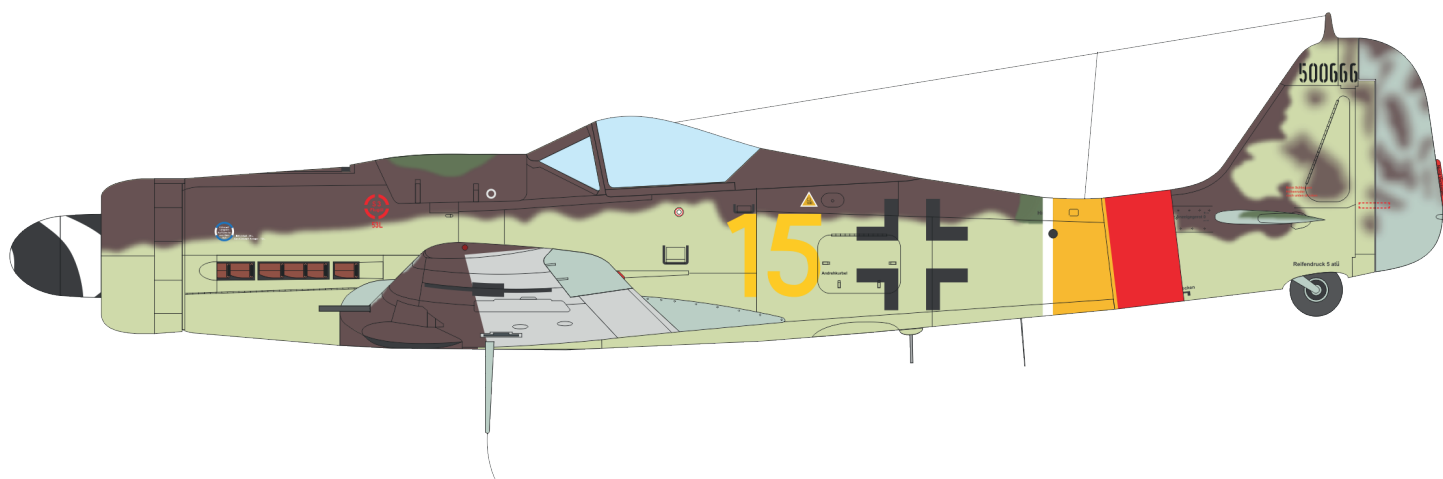


Fw 190D-9, W.Nr. 500408, 5./JG 301, Bad Langensalza, Germany, May 1945


This Dora, W.Nr. 500408, was discovered by U.S. forces at the airport near Bad Langensalza. She was one of seventy aircraft of Mimetalls' second production batch, produced between December 1944 and January 1945. The yellow-

red tail band indicates that this aircraft belonged to JG 301, the red horizontal bar denotes use by II. Gruppe, and the white individual numbers denote 5. Staffel aircraft. The fuselage was camouflaged in RLM 81 and 82 pattern. Wing

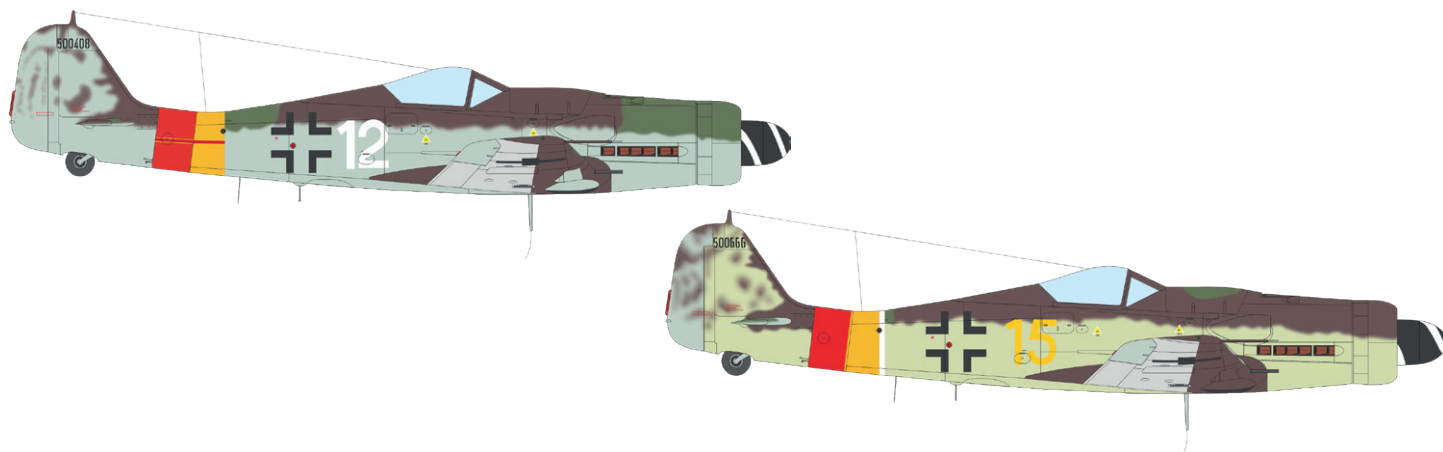
upper surfaces were RLM 81 and 82. The forward part of the wing under surfaces were RLM 81. Note two variations of the RLM 76 color. The camouflage of the aileron uppersurfaces indicate field replacement.

Fw 190D-9, W.Nr. 500666, II./JG 301, Erfurt-Nord Airfield, Germany, May 1945


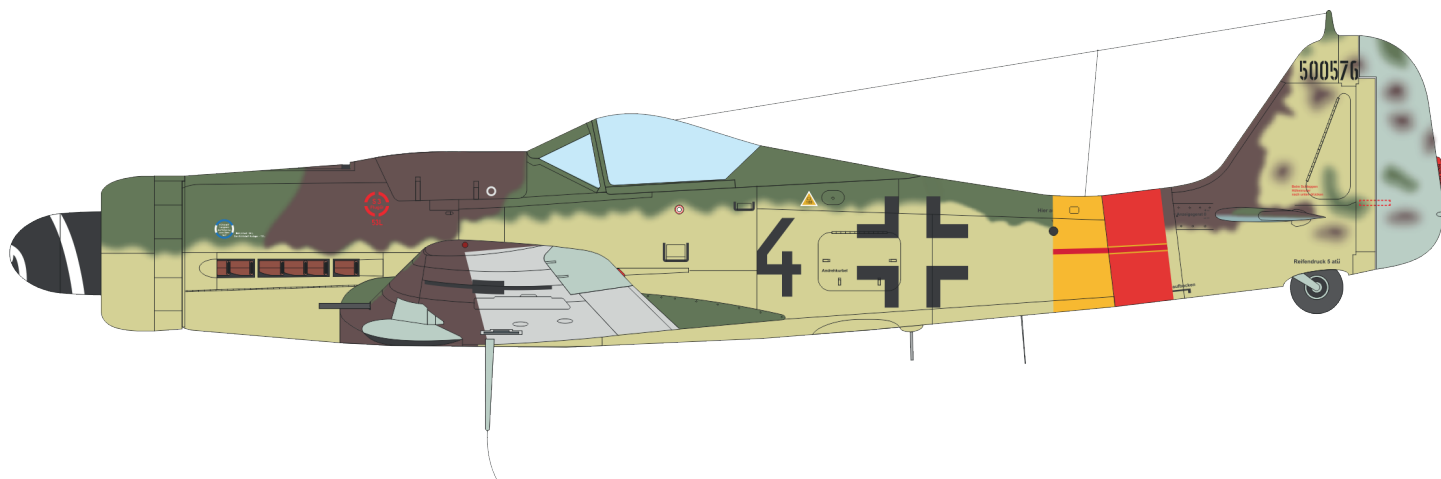
This aircraft was found at the end of the war at Erfurt. Apparently, it got to this airfield by way of an emergency landing, as II. Gruppe JG 301 was based over the last few months of

the war at Stendal (from February 19, 1945) and Neustadt - Gleve (from April 10, 1945). The yellow number puts it with 9. Staffel. The yellow and red fuselage band signifies JG 301. This aircraft

also comes from the third production block from Mimetall and carries its typical paint scheme and colors.



■ Fw 190D-9, W.Nr. 500576, 12./JG 301, Wunsdorf, Germany, May 1945



This Dora, also manufactured at the Mimetall factory in Erfurt sometime in early 1945, was found after the war at the Wunsdorf airfield and saw operational service with the 12. Staffel of JG 301. Its camouflage was sprayed on the

upper surfaces with RLM 81 and 82, while the sides and underside of the fuselage were painted in a late-production shade of RLM 76. The front portion of the lower wing surface was camouflaged with RLM 81, while the rear portion

was left unpainted, showing the bare metal. Due to the fragmentation of production, the ailerons, landing gear covers, and tail surfaces were manufactured by subcontractors, for this reason, their undersides are painted RLM 76.

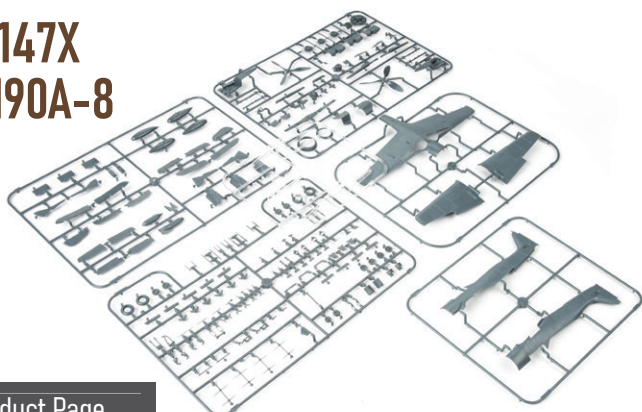
For Fw 190A-8 and Fw 190D-9 1/48 RECOMMENDED:

48651	Fw 190D-9 (PE-Set)
481161	Fw 190A landing flaps (PE-Set)
FE863	Fw 190A seatbelts STEEL (PE-Set)
644014	Fw 190D-9 LööK (Brassin)
648150	Fw 190 wheels late (Brassin)
648356	Fw 190A wingroot gun bays (Brassin)
648366	Fw 190A propeller (Brassin)
648371	Fw 190A control surfaces early (Brassin)
648381	Fw 190A exhaust stacks (Brassin)
648464	Fw 190A-8 engine & fuselage guns (Brassin)

648736	Fw 190A landing flaps PRINT (Brassin)
6481014	Fw 190A seat PRINT (Brassin)
6481038	Fw 190A seat w/ integral belts PRINT (Brassin)
6481178	Fw 190A-8 undercarriage legs PRINT (Brassin)
3DL48079	Fw 190A-8 SPACE (3D Decal Set)
3DL48185	Fw 190D-9 SPACE (3D Decal Set)
EX587	Fw 190A TFace (Mask)

OVERTREES

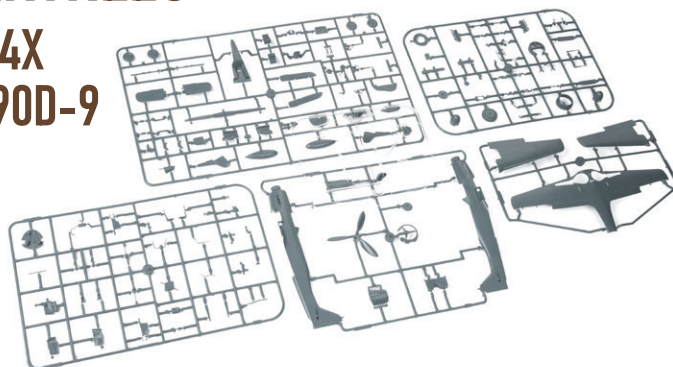
#82147X
Fw 190A-8
1/48



Product Page

OVERTREES

#8184X
Fw 190D-9
1/48



Product Page

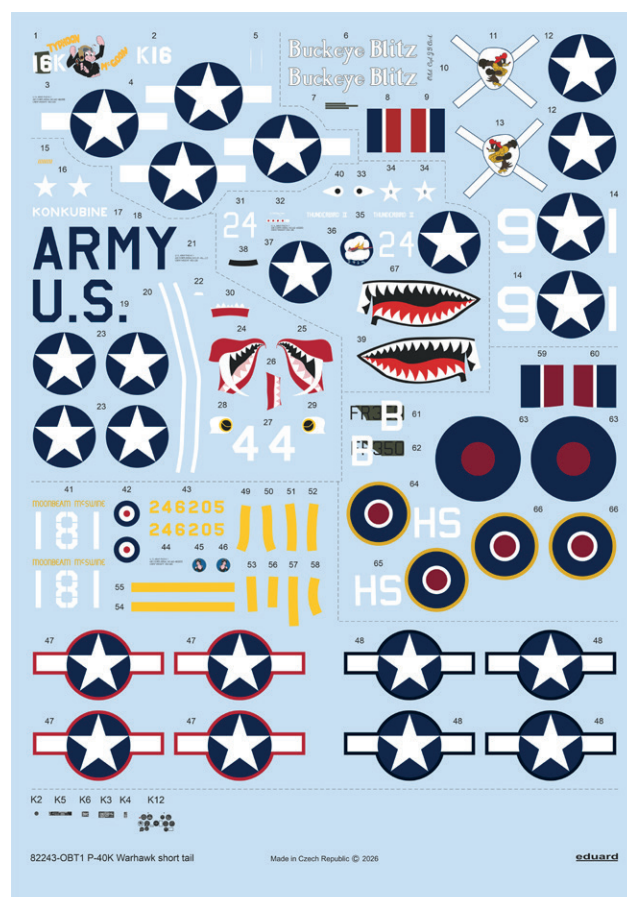
P-40K short tail

1/48

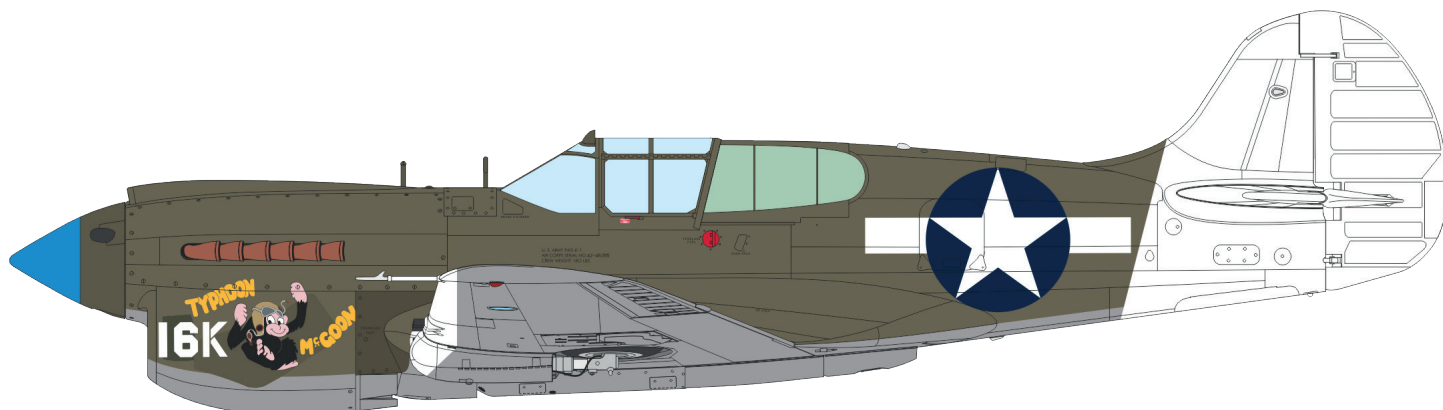
#82243

The ProfiPACK edition kit of the US fighter aircraft P-40K Warhawk (short tail) in 1/48 scale.

- plastic parts: Eduard
- marking options: 6
- decals: Eduard
- PE parts: yes, pre-painted
- painting mask: yes
- resin parts: no

[Product Page](#)


■ 42-46285, Lt. John Miller, 7th FS, 49th FG, Dobodura, New Guinea, summer 1943

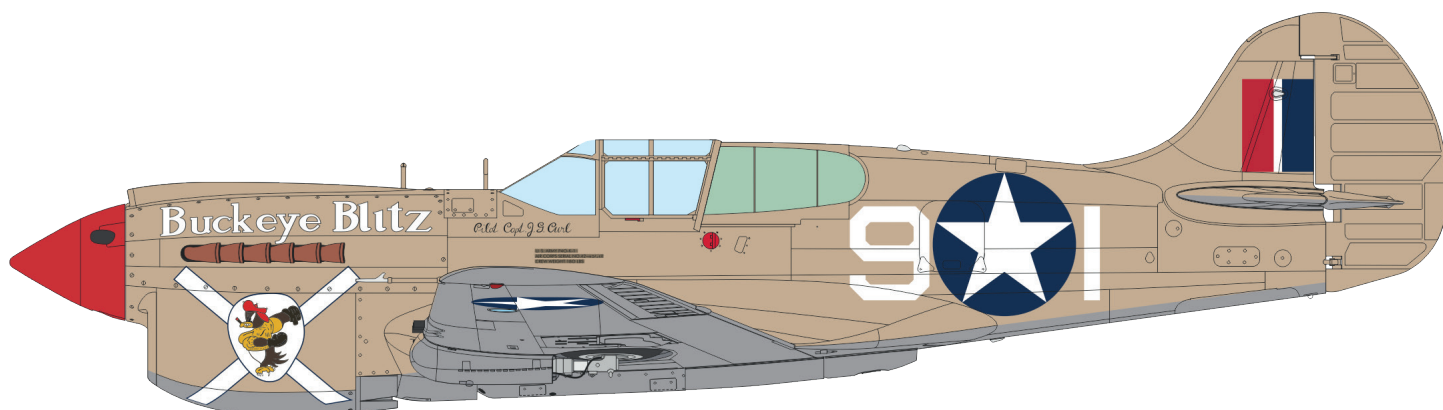


This aircraft, named Typhoon McGoon, became a "servant of two masters" when Lt. Claude Kinsley first flew it and John Miller later took over. Kinsley first had a little monkey wearing a flight helmet painted on the nose and later added a name inspired by Al Cap's comic strip Li'l Abner, which featured a colorful character named Earthquake McGoon. As he himself noted in one of his letters, most of his colleagues

named their planes after girlfriends or wives, and since he didn't have any at the time, he decided on something different. Before the monkey was painted, the previous nose art was apparently painted over with green color. The aircraft also gradually showed signs of repairs and underwent some marking changes. The panel in front of the root of the left wing was painted with a fresher shade of Olive Drab,

followed by a touch-up in a different (darker) shade of green beneath the tactical number 16 which was later reshaped. During summer 1943, when Miller took over the aircraft, the letter "K" was added, presumably to quickly distinguish these older aircraft from the newly delivered P-40Ns.

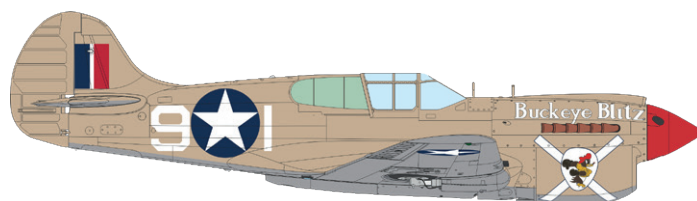
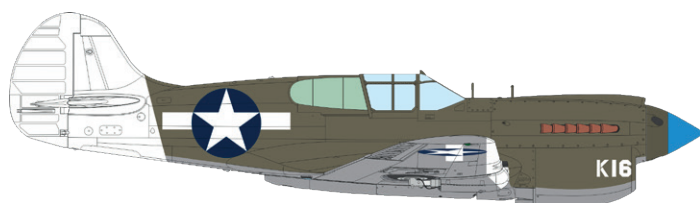
■ Capt. James G. Curl, 66th FS, 57th FG, Tunisia, April 1943



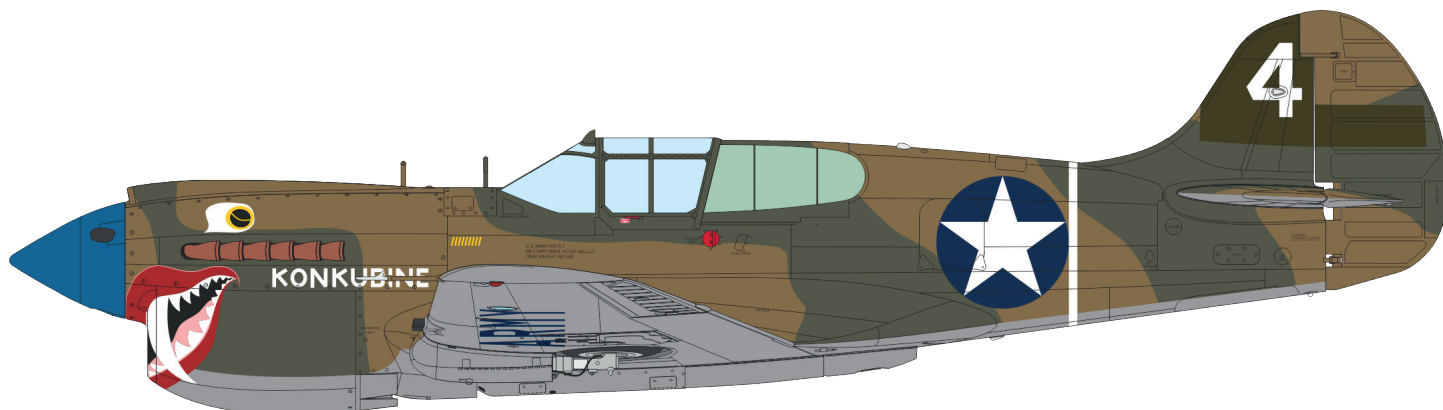
James Gardner Curl was born on December 8, 1919, in Columbus, Ohio. After his enlistment and pilot training he was sent to North Africa as a pilot of 66th FS. He later led this squadron until his move to 52nd FG in early 1944. There he changed Warhawk for Mustang and led 2nd FS. On April 18, 1943, the 57th Fighter Group made its name in the aerial battle which is known today as The Palm Sunday Massacre. On that day forty-six Warhawks with RAF Spitfires

flying top cover swept in with blazing guns. Junkers transports, with troops and supplies on board, blew up in midair or crash-landed. Allied pilots claimed 75 planes destroyed, including 58 of Ju-52's and 15 Bf 109s and 110s plus two Italian fighters. The formation of 47 Warhawks of 57th FG was let by Capt. James Curl flying his personal Warhawk named Buckeye Blitz. He himself shot down two Ju 52s and one Bf 109. He also damaged two more Ju 52s. Next day he

was promoted to Major rank. On March 19, 1945, Maj. Curl's P-51D (44-14474) was hit by Flak during a strafing mission on the Schwabstadl airfield from where Me 262 were operating. Low altitude and high speed made bail out impossible and Curl crashed and died.



■ Lt. Robert McClurg, 25th FS, 51st FG, Assam Valley, India, 1943

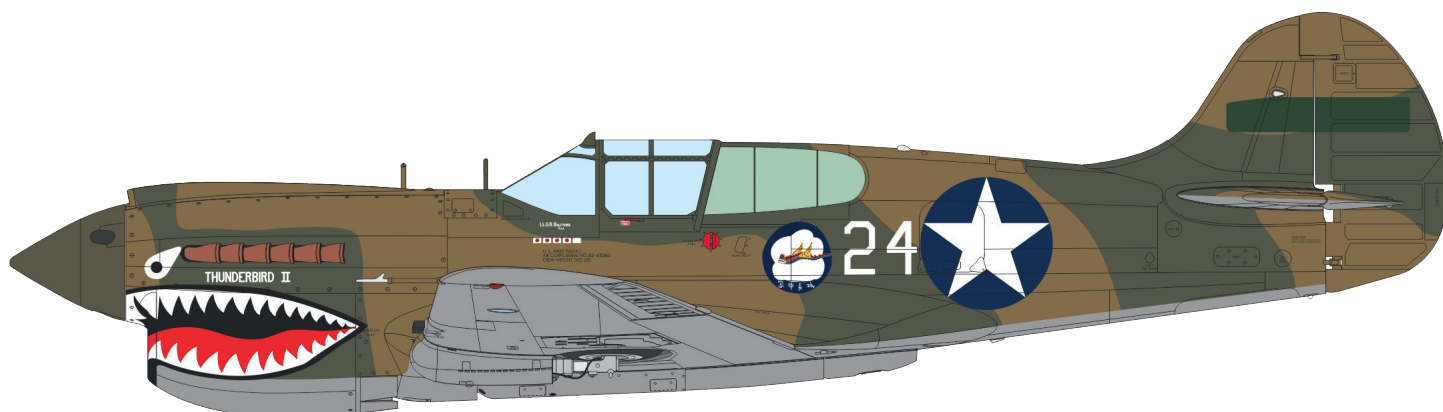


Formed as the 25th Pursuit Squadron at Hamilton Field, California, on January 15, 1941, the Squadron received its first P-40s in July and by March 1942 had sailed around the globe to set up operations in British India. As the unit settled in Assam, India, the 25th picked up the name "Assam Draggins." The 51st Fighter Group consisted of 16th FS, 25th FS and 26th FS, to which was later added, in 1943, the 449th

FS flying P-38 Lightnings. As the P-40s were most used as fighter-bombers to prevent the advance of Japanese forces, Lt. Col. John E. Barr, the executive officer for the 51st Fighter Group, modified the P-40s to carry 1,000-pound bombs. Due to this modification, these P-40s were unofficially redesignated B-40, and thanks to it, by May 1943, the men from 51st FG had halted the Japanese offensive. The P-40K named

Konkubine got popular thanks to the photos of 1000-pounder with numerous messages being hung under the fuselage pylon.

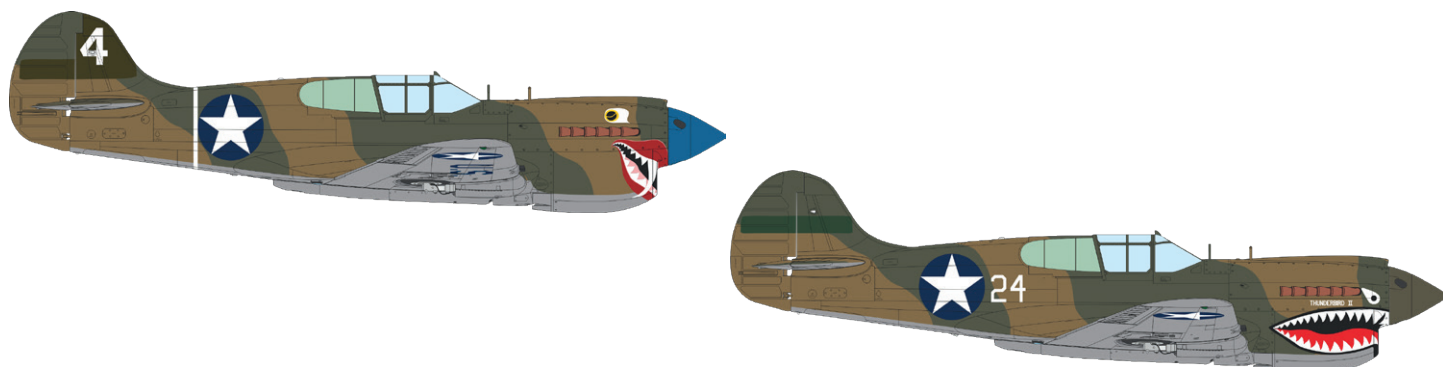
■ 42-46263, 1Lt George R. Barnes, 16th FS, 23rd FG, Chanyi, China, spring 1943



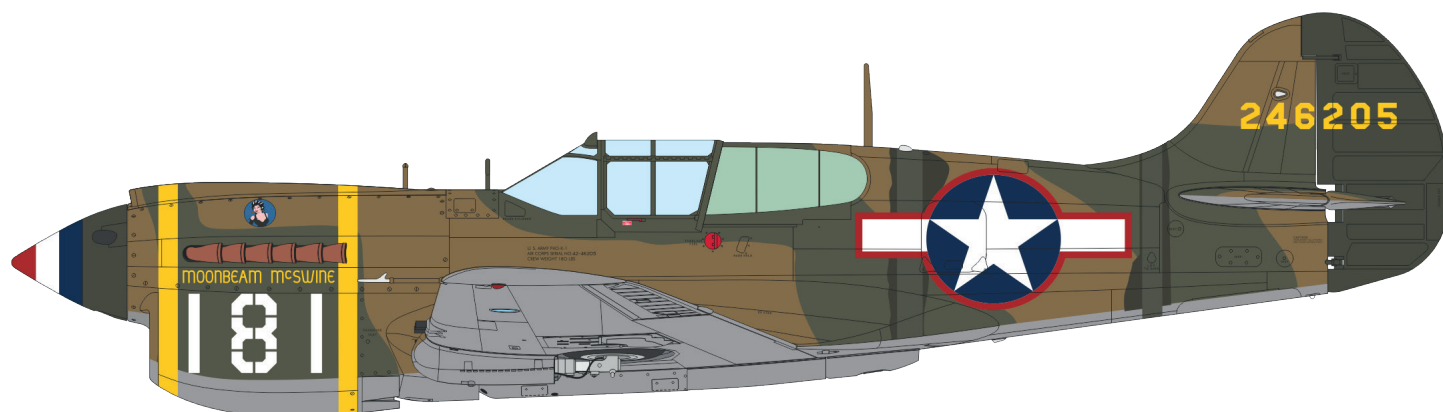
After completion of his pilot training, George Barnes was deployed to Asia in March 1942 to join the newly formed 16th FS. The mission of the pilots of the entire 23rd Fighter Group was to protect key supply routes (flights over the Himalayas, known as "The Hump"), escort bombers, and carry out direct attacks on Japanese positions in the jungles of Burma and southern China. During his combat service,

Barnes scored four confirmed kills and one probable kill. He recorded his first victory on November 12, 1942, during a major air battle over Kweilin. In the spring, he flew a P-40K named "Thunderbird II" which bore the markings of his victories. A white field without a red dot indicated a probable kill. This aircraft also bore the insignia of the 16th FS, known as "The Flying Wall of China," featuring a flying wall inspired

by a drawing created by the grateful residents of Ling Ling city, which the pilots of the 16th FS had protected from Japanese air raids in July and August 1942. The Chinese characters at the bottom of the emblem can be translated as "Flying Defensive Wall." Barnes was shot down and killed on July 24, 1943, near the city of Ling Ling. At the time, he was already fighting in the ranks of 74th FS.



■ 42-46205, 47th FS, 15th FG, Hawaiian Islands, 1943/45th FS, Baker Atoll, December 1943

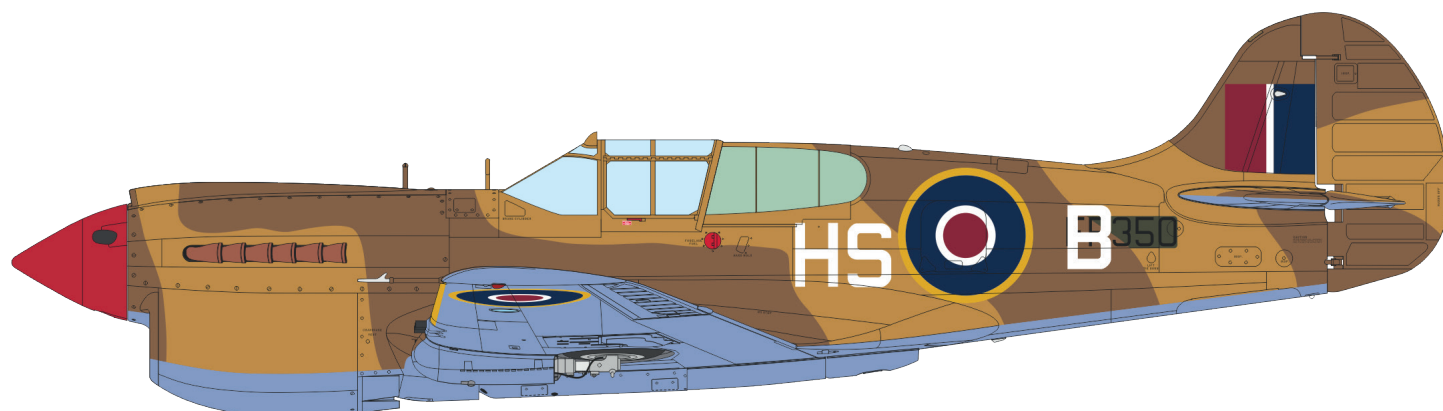


After the Japanese Pearl Harbor attack, the Hawaiian Air Force was redesignated 7th Air Force on February 5, 1942, and its fighter units were kept on the islands to defend the territory against further possible threats. As these never occurred, pilots were losing their fighting spirit and, as the airfields were surrounded by pineapple plantations, the group had started to be called the Pineapple Air Force. Nevertheless, squadrons and detachments were sent to the

combat areas from 1943. This aircraft of 47th FS was one of 13 P-40K sent from Hawaii early on December 1943 to reinforce 45th FS, fighting already from atolls Baker, Canton, Apamama or Makin. This aircraft had its distinguishing color bands around the aft fuselage overpainted with Olive Drab and its rudder was changed for one also in Olive Drab. At the time of embarking on USS Breton, the red outline of insignias was overpainted with insignia blue color. This option

is included in decals. The P-40Ks were not in good shape and so were not too popular with the pilots of 45th FS, who preferred their more powerful P-40Ns.

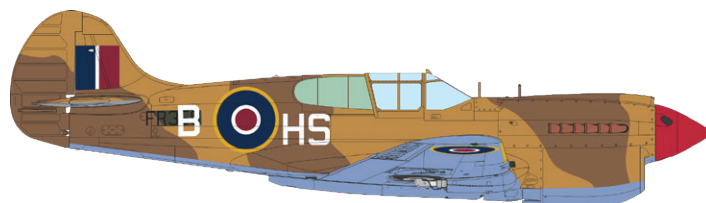
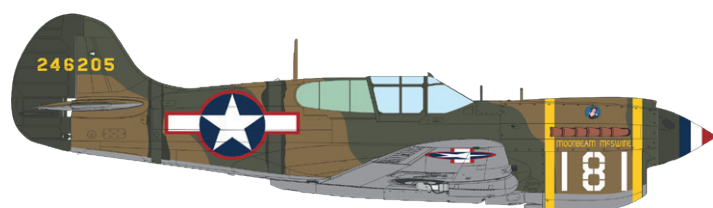
■ FR350, F/Lt James F. Edwards, No. 260 Squadron RAF, Castel Benito, Libya, January 1943



James Francis Edwards was born on June 5, 1921, in Nokomis, Saskatchewan, and after graduating from St Thomas College in 1940, he volunteered for the RCAF. As a Sergeant he was posted to No. 94 Squadron RAF in January 1942, where he was flying P-40s. He achieved his first aerial victory during his first operational flight on March 23. In May, he was posted to No. 260 Squadron RAF and had six victories by September, when he was promoted to the rank of Flight Lieutenant. At the start of 1943, "Stocky"

Edwards was already a Flight Commander and at the end of his tour of duty in May 1943 his score counted 17 victories. One of Edwards' victims was the famous Luftwaffe ace Otto Schulz (51 victories), who was shot down by "Stocky" on June 17, 1942. In November 1943, Edwards was posted to No. 417 Sqn RCAF and then to No. 92 Sqn RAF, where he flew Spitfires Mk. VIII. He added three Fw 190s and one Bf 109 to his score, three of them on a single day. At the beginning of March 1944, he was posted to

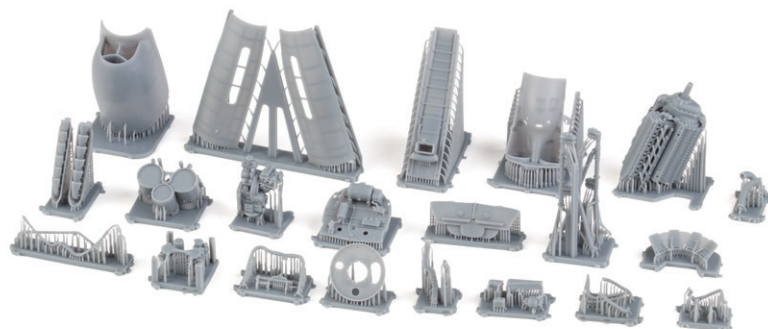
No. 274 Sqn RAF, where he got a taste of Hawker Tempest at the end of his tour. During his third tour, he became Wing Commander of No. 127 RCAF Wing in 1945. "Stocky" Edwards finished the war with a total of 373 operational sorties without being shot down, he was credited with 19 aerial victories, two shared, 6.5 probable, 17 damaged and 12 destroyed on the ground. He stayed with RCAF after the war and flew Vampires, Sabres and CF-100s. He died on May 14, 2022, at the age of 100.



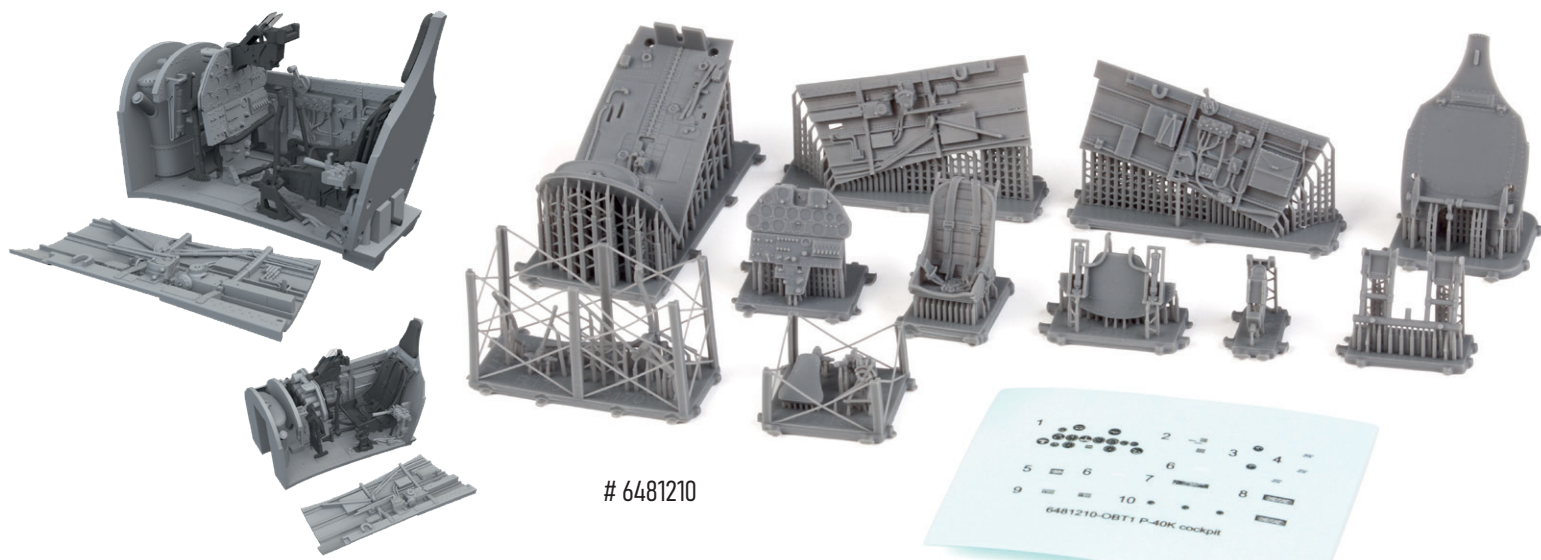
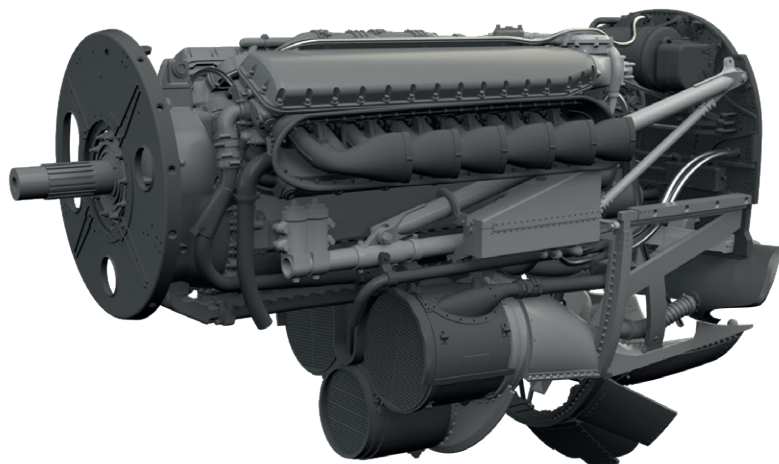
For P-40K short tail 1/48

RECOMMENDED:

481181	P-40K landing flaps (PE-Set)
FE1585	P-40K seatbelts STEEL (PE-Set)
644351	P-40K LööK (Brassin)
6481067	P-40 wheel bays PRINT (Brassin)
6481068	P-40 wheel bays with canvas PRINT (Brassin)
6481076	P-40 1000lb US bomb (Brassin)
6481079	P-40 500lb M64 US bombs (Brassin)
6481083	P-40 100lb M30 US bombs PRINT (Brassin)
6481084	P-40 75gal drop tank PRINT (Brassin)
6481085	P-40 52gal drop tank PRINT (Brassin)
6481191	P-40K radio compartment PRINT (Brassin)
6481192	P-40K undercarriage legs PRINT (Brassin)
6481193	P-40K radiators upgrade set PRINT (Brassin)
6481194	P-40K tail wheel bay PRINT (Brassin)
6481195	P-40K gun bays PRINT (Brassin)
6481210	P-40K cockpit PRINT (Brassin)
6481211	P-40K engine PRINT (Brassin)
6481213	P-40 40lb frag bombs PRINT (Brassin)
3DL48275	P-40K SPACE (3D Decal Set)
EX1171	P-40K TFace (Mask)
EX1172	P-40K US national insignia (Mask)



6481211

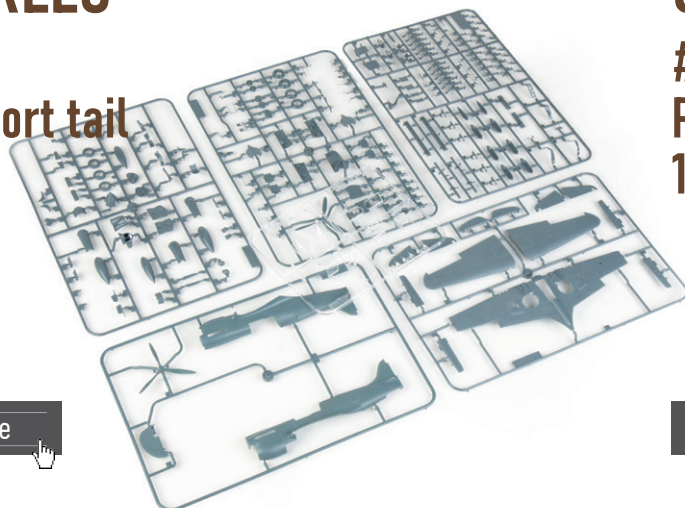


6481210

OVERTREES

#82243X

P-40K short tail
1/48

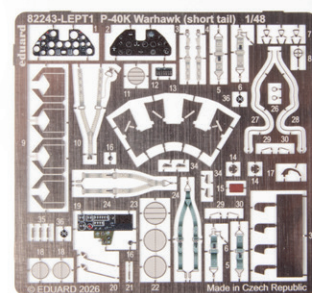


Product Page

OVERLEPT

#82243-LEPT

P-40K short tail
1/48



Product Page

Bf 109F-4

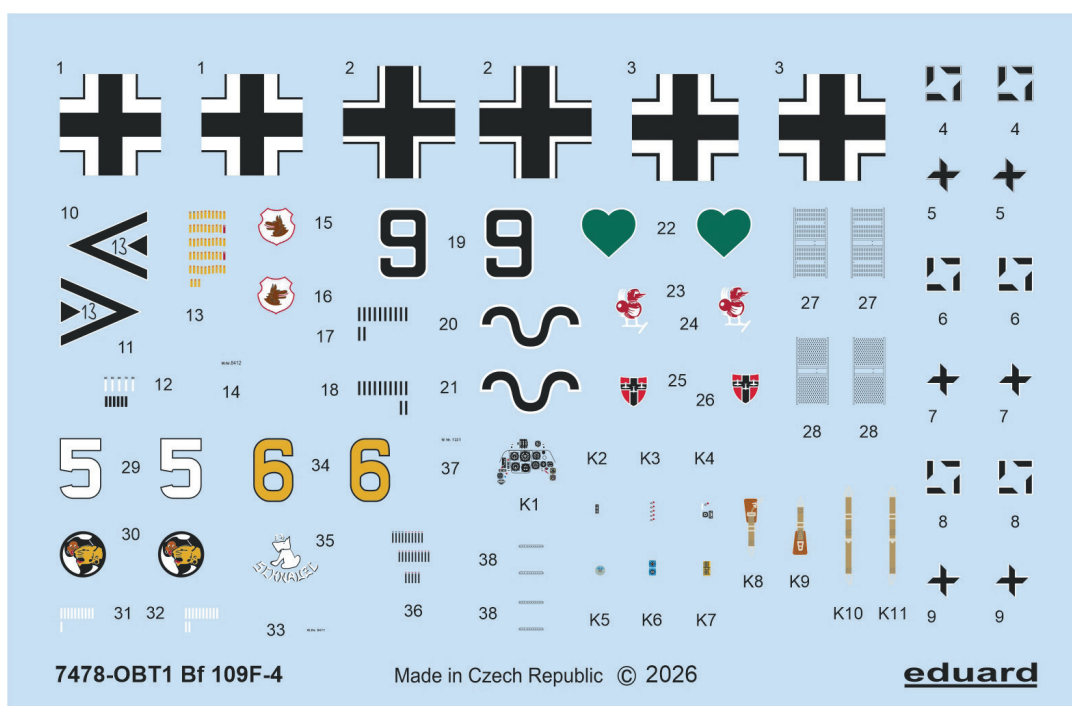
1/72

#7478

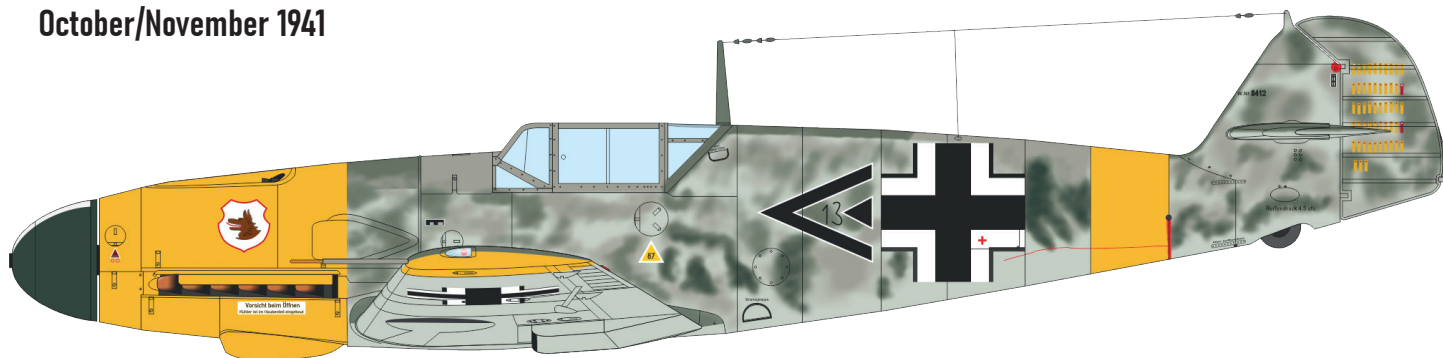
The Weekend edition kit of German WWII fighter plane Bf 109F-4 in 1/72 scale.

- plastic parts: Eduard
- marking options: 5
- decals: Eduard
- PE parts: no
- painting mask: no
- resin parts: no

Product Page



■ Bf 109F-4/Z, WNr. 8412, Oblt. Kurt Ubben, CO of III./JG 77, the Soviet Union, October/November 1941

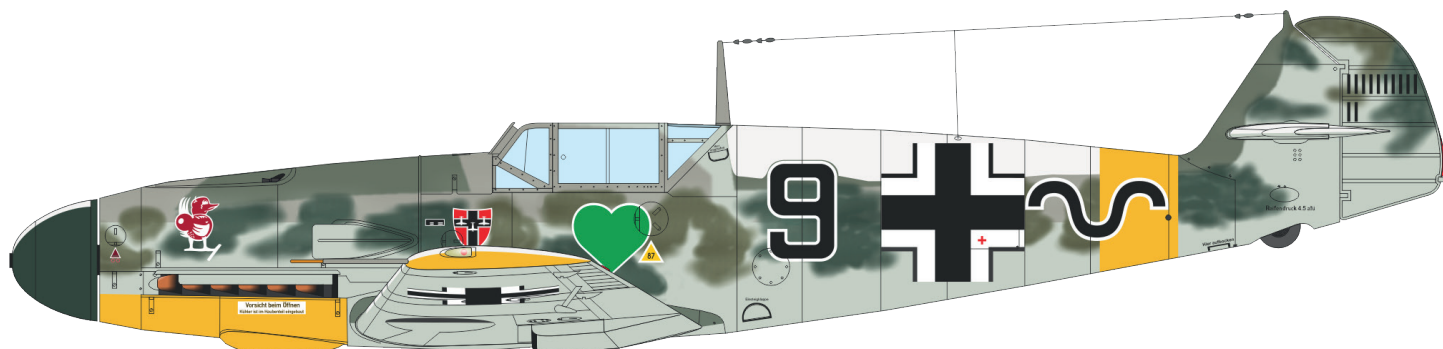


Kurt "Kuddel" Ubben was born on November 18, 1911, in Dorstadt. In 1935, he was accepted into the Luftwaffe. After completing his flight training, he was assigned to 6./JG 186 (T), which was to serve aboard the aircraft carrier Graf Zeppelin. In July 1939, Kurt Ubben was transferred to 5./JG 186 (T), with which he participated in the invasion of Poland. He scored his first aerial victory on May 10, 1940, over the Netherlands during the Battle of France, and on July 22 of that year, he became commander of the newly

formed 8./JG 77. On April 19, 1941, during the invasion of Greece, he shot down a Hawker Hurricane from No. 33 Squadron, but his Bf 109E-7 was severely damaged in the dogfight, and Ubben was forced to make an emergency landing. During Operation Barbarossa, III./JG 77 operated on the southern sector of the front, and Kurt Ubben scored numerous aerial victories there until October 16, 1942. III./JG 77 was then deployed to the African theater in Tobruk on October 26, 1942. In Africa

as well, Ubben recorded several aerial victories until October 1943. After the retreat from Africa, III./JG 77 was stationed in Romania to defend Ploiești. On March 10, 1944, Ubben left III./JG 77 and assumed command of the entire JG 2, but on April 27, 1944, he was shot down in a dogfight with American Thunderbolts from the 356th FG. Although he managed to bail out of his Fw 190A-8/R2, W.Nr. 680113, his parachute failed to open, and he was killed.

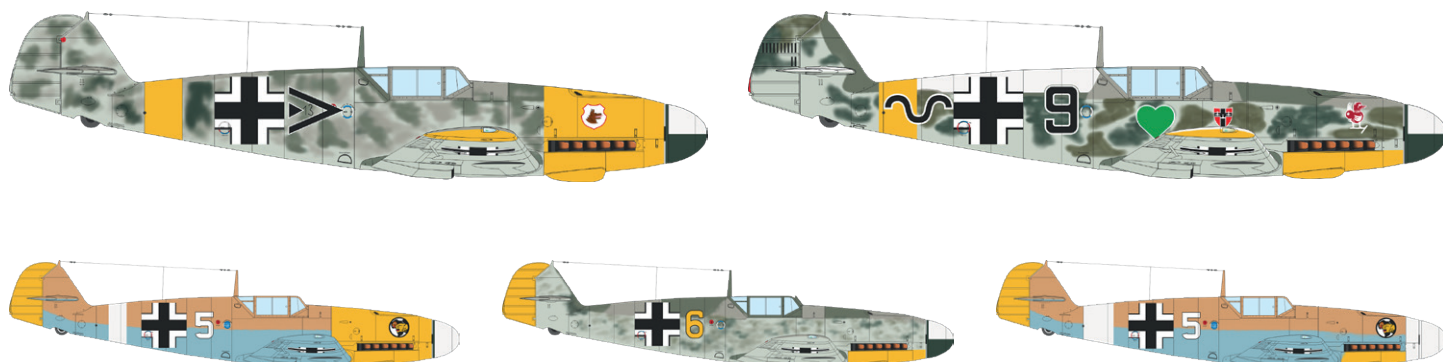
■ Bf 109F-4, Lt. Hans-Joachim Heyer, 8./JG 54, Siwerskaya, the Soviet Union, April 1942



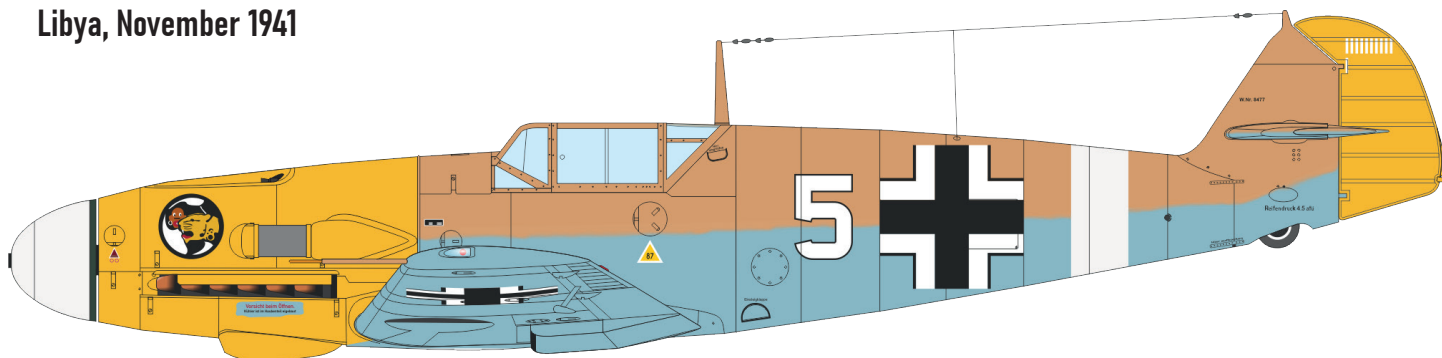
The recipient of the Knight's Cross, Hans-Joachim Heyer, was born on April 20, 1922, in Rehungen. He served his entire aviation career as a member of 8./JG 54 and scored his first kill on the first day of the invasion to Soviet Union on June 22, 1941. His victim was a Polikarpov I-15. Heyer's "Black 9", which he flew from the spring of 1942, was camouflaged with RLM 74/75/76

colors and the fuselage sides were completed with RLM 70 and RLM 71 patches. The upper surfaces of the wing, the rear fuselage behind the cockpit and the horizontal tail surfaces were all overpainted in white with washable color. The III./JG 54 emblem was painted below the windshield on both sides of the fuselage. More to it, on the left side under the cockpit there

was painted the JG 54 emblem – a green heart. On the rudder, there were kill marks painted on both sides. Hans-Joachim Heyer was shot down and killed near Leningrad on November 9, 1942. He was posthumously awarded the Knight's Cross on November 25, 1942. His score stopped at 53 aerial victories, all achieved on the Eastern Front.



■ Bf 109F-4/Trop, WNr. 8477, Ofw. Albert Espenlaub, 1./JG 27, Ain-el-Gazala, Libya, November 1941

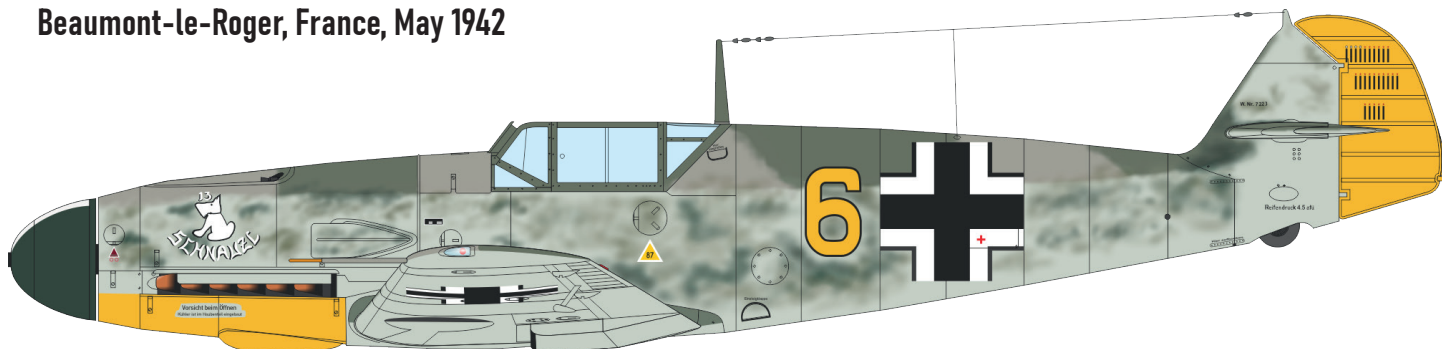


Albert Espenlaub was born on August 25, 1913, in Balzholt. He joined the army in 1937 and completed his flight training at the end of 1940. He was assigned to 1./JG 27 and saw action on the African front. He recorded his first aerial victory on April 21, 1941. On December 13, 1941, after

a dogfight with a Hawker Hurricane, he was shot down, made an emergency landing, and was captured by the British. He had achieved a total of 14 aerial victories. On February 25, 1942, while attempting to escape from a prisoner-of-war camp, he was shot and killed by a British guard.

Espenlaub flew the Messerschmitt pictured here in November 1941. At that time, the noses of aircraft in Africa were painted yellow. Eleven stripes were painted on the rudder, representing Espenlaub's aerial victories.

■ Bf 109F-4, WNr. 7223, Ofw. Josef Heinzeller, 3./JG 2, Beaumont-le-Roger, France, May 1942

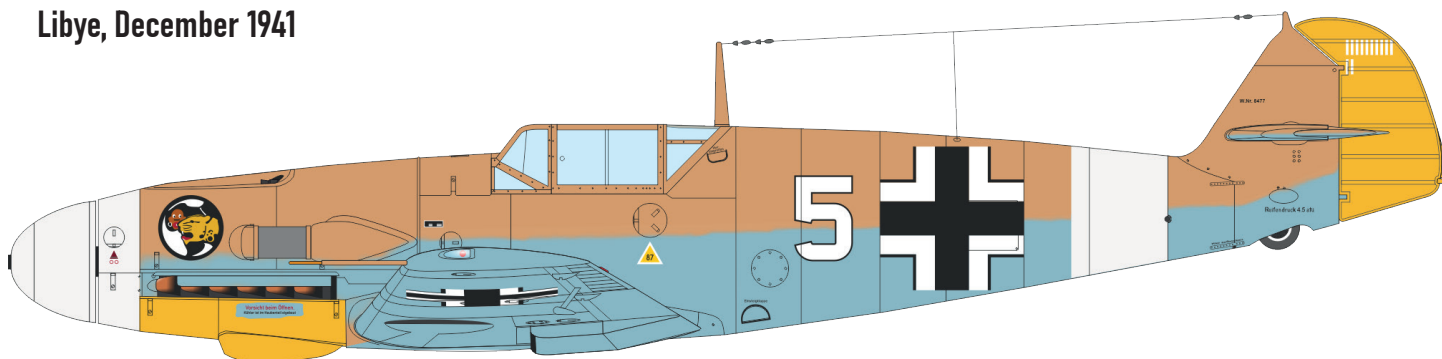


Josef Heinzeller was born on June 10, 1915, in Innsbruck. After completing his flight training with the Luftwaffe, he was assigned to 2.(J)/LG 2. It was there, during the campaign in France, that he scored his first aerial victory on May 31, 1940.

He then served in 5./JG 3, from where he was transferred in June 1942 to 3./JG 2 Richthofen. He then moved to 2./JG 54, which was operating on the Eastern Front. There, in May 1944, he became commander of 1./JG 54. During World

War II, he scored 35 aerial victories and lived to see the war's end. All of his aircraft were adorned with a drawing of a dog and the inscription "SCHNAUZL" on the engine cowling.

■ Bf 109F-4/Trop, WNr. 8477, Ofw. Albert Espenlaub, 1./JG 27, Ain-el-Gazala, Libya, December 1941



This color scheme depicts the appearance of Ofw. Albert Espenlaub's Bf 109F-4/trop after its emergency landing on December 13, 1941, and the repairs it underwent during November 1941.

It had new engine cowlings, a widened white stripe on the fuselage, and a white kill mark added to the rudder, on which a repaired bullet hole was also visible.

644347

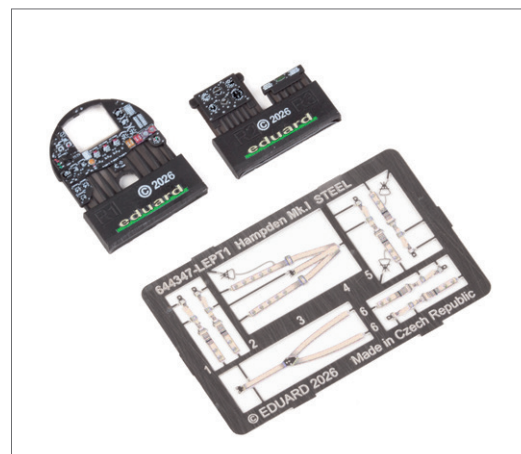
Hampden B Mk.I LööK

1/48 ICM

LööK set - Brassin pre-painted dashboard and STEEL seat belts for Hampden B Mk.I in 1/48 scale. Easy to assemble, replaces plastic parts. Recommended kit: ICM

Set contains:

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

[Product Page](#)


644348

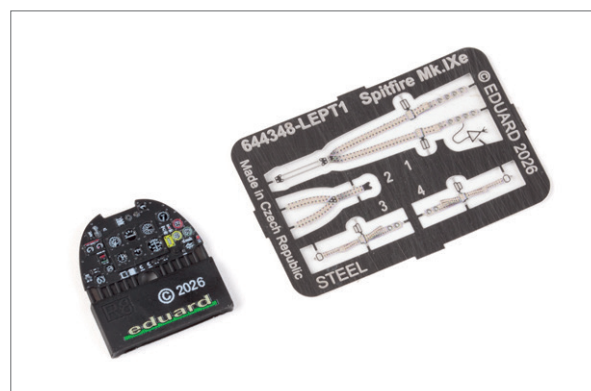
Spitfire Mk.IXe LööK

1/48 Airfix

LööK set - Brassin pre-painted dashboard and STEEL seat belts for Spitfire Mk.IXe in 1/48 scale. Easy to assemble, replaces plastic parts. Recommended kit: Airfix

Set contains:

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

[Product Page](#)


644354

Hampden TB Mk.I LööK

1/48 ICM

LööK set - Brassin pre-painted dashboard and STEEL seat belts for Hampden TB Mk.I torpedo bomber in 1/48 scale.

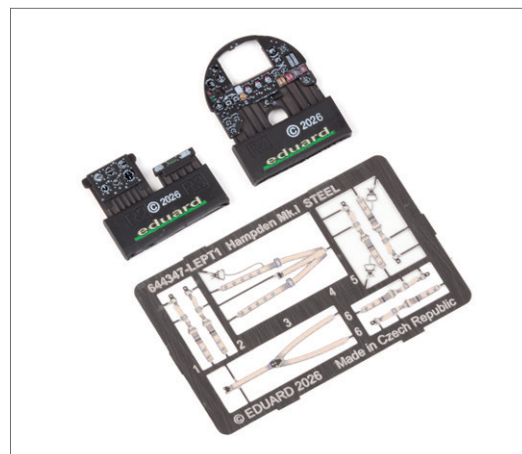
Easy to assemble, replaces plastic parts.

Recommended kit: ICM

Set contains:

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

[Product Page](#)



674070

Me 262A-1 LööK

1/72 Arma Hobby

LööK set - Brassin pre-painted dashboard and STEEL seat belts for Me 262A-1

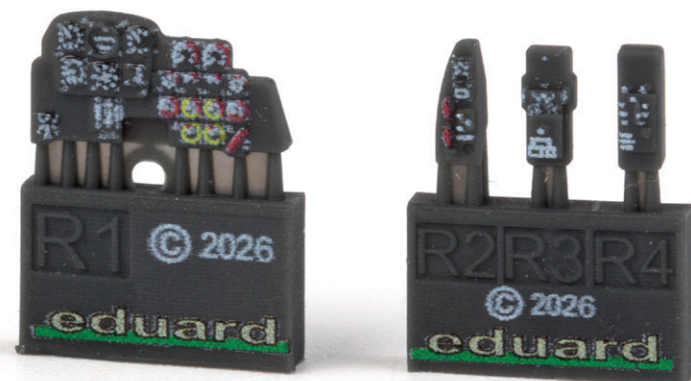
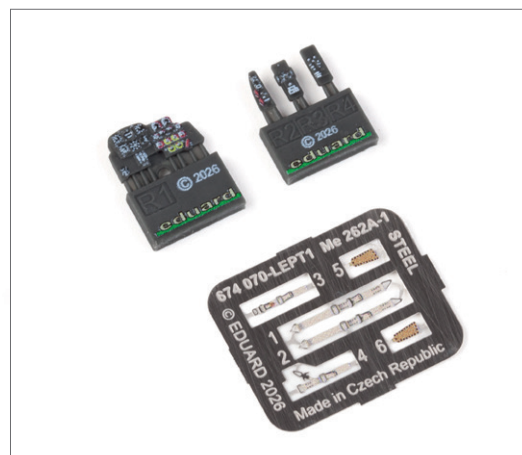
in 1/72 scale. Easy to assemble, replaces plastic parts.

Recommended kit: Arma Hobby

Set contains:

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

[Product Page](#)



644355

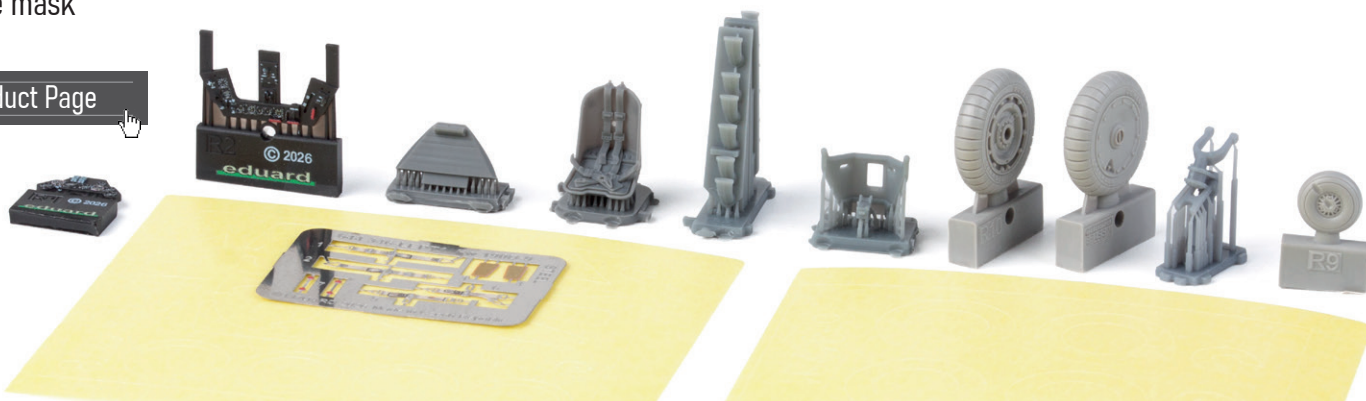
Fw 190D-9 LööKplus

1/48 MiniArt

Collection of 6 sets for Fw 190D-9 in 1/48 scale.

Recommended kit: Miniart

- LööK set (pre-painted Brassin dashboard & Steelbelts)
- undercarriage wheels
- exhaust stacks
- pilot seat
- gun sight
- TFace mask


[Product Page](#)


644356

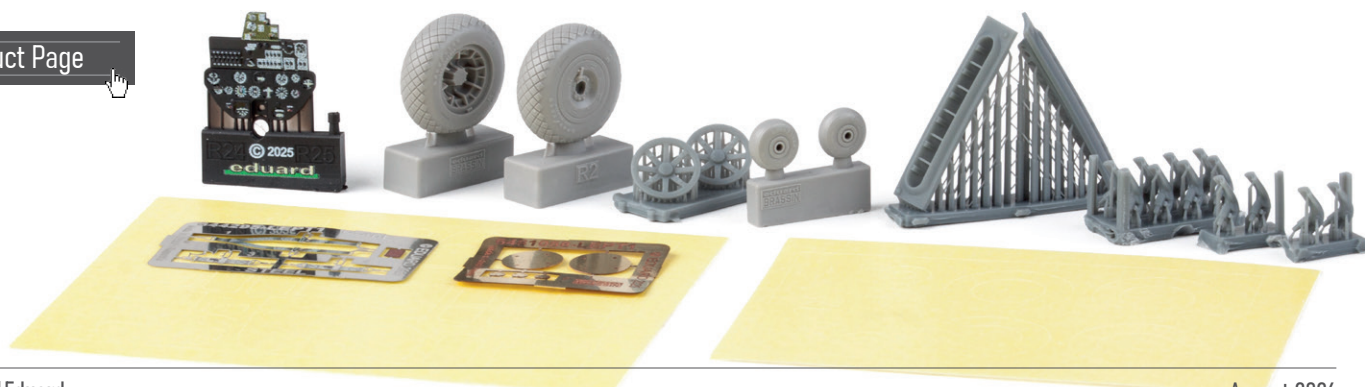
P-40K LööKplus

1/48 Eduard

Collection of 4 sets for P-40K in 1/48 scale.

Recommended kit: Eduard

- LööK set (pre-painted Brassin dashboard & Steelbelts)
- undercarriage wheels
- exhaust stacks
- TFace mask


[Product Page](#)


632216

P-51B/C gun bays PRINT

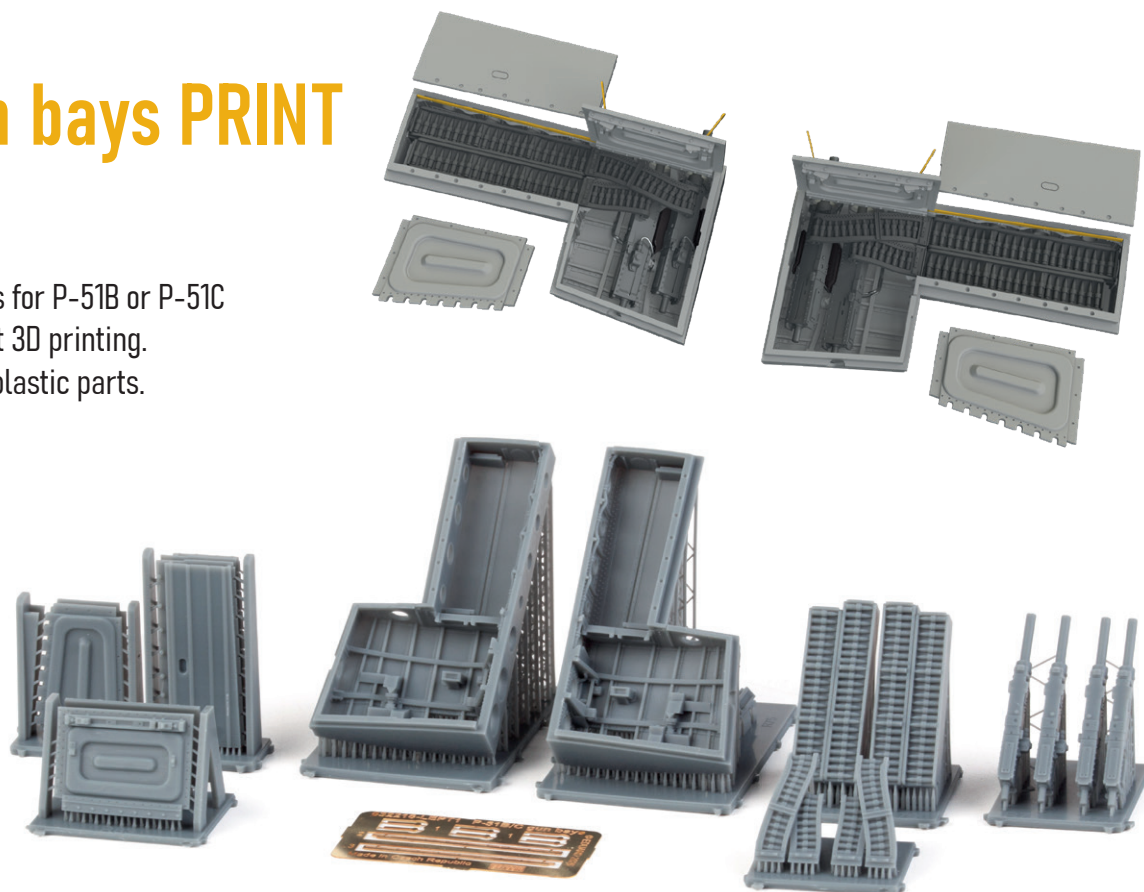
1/32 Eduard

Brassin set - wings gun bays for P-51B or P-51C in 1/32 scale. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

- 3D print: 18 parts
- decals: no
- photo-etched details: yes
- painting mask: no

[Product Page](#)



635052

WWII German towing cable eyes PRINT

1/48

Brassin set - towing cable eyes for German WWII armoured vehicles in 1/48 scale. Set consists of 10 eyes. Made by direct 3D printing. Easy to assemble, replaces plastic parts.

Set contains:

- 3D print: 10 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)



635053

WWII German trench binoculars PRINT

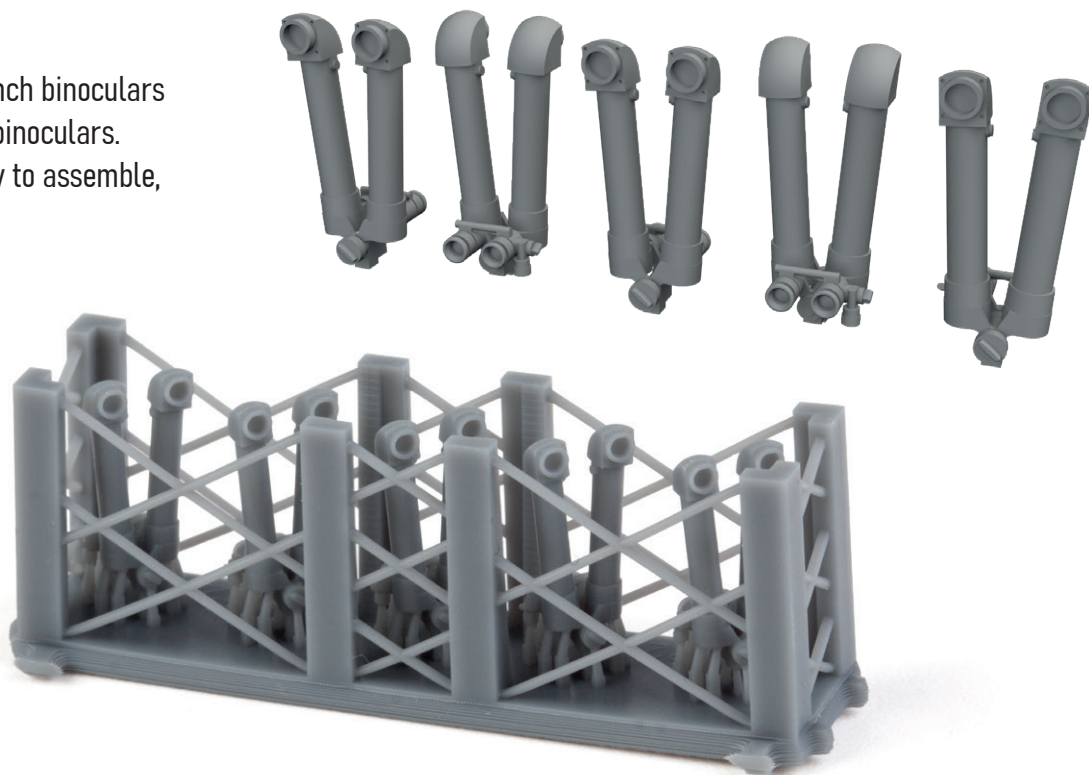
1/48

Brassin set – German WWII trench binoculars in 1/48 scale. Set consists of 5 binoculars. Made by direct 3D printing. Easy to assemble, replaces plastic parts.

Set contains:

- 3D print: 5 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)



635059

WWII German Jerry Cans PRINT

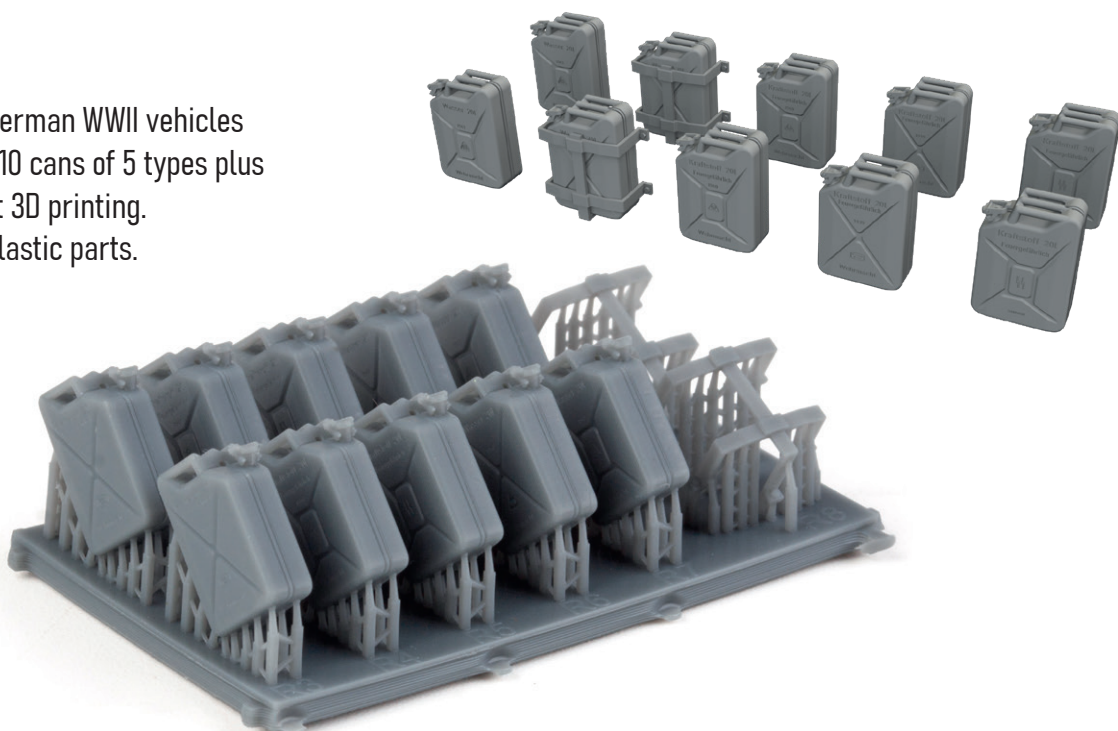
1/48

Brassin set – jerry cans for German WWII vehicles in 1/48 scale. Set consists of 10 cans of 5 types plus 2 can holders. Made by direct 3D printing. Easy to assemble, replaces plastic parts.

Set contains:

- 3D print: 12 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)



6481203

Fw 190D-9 undercarriage legs PRINT

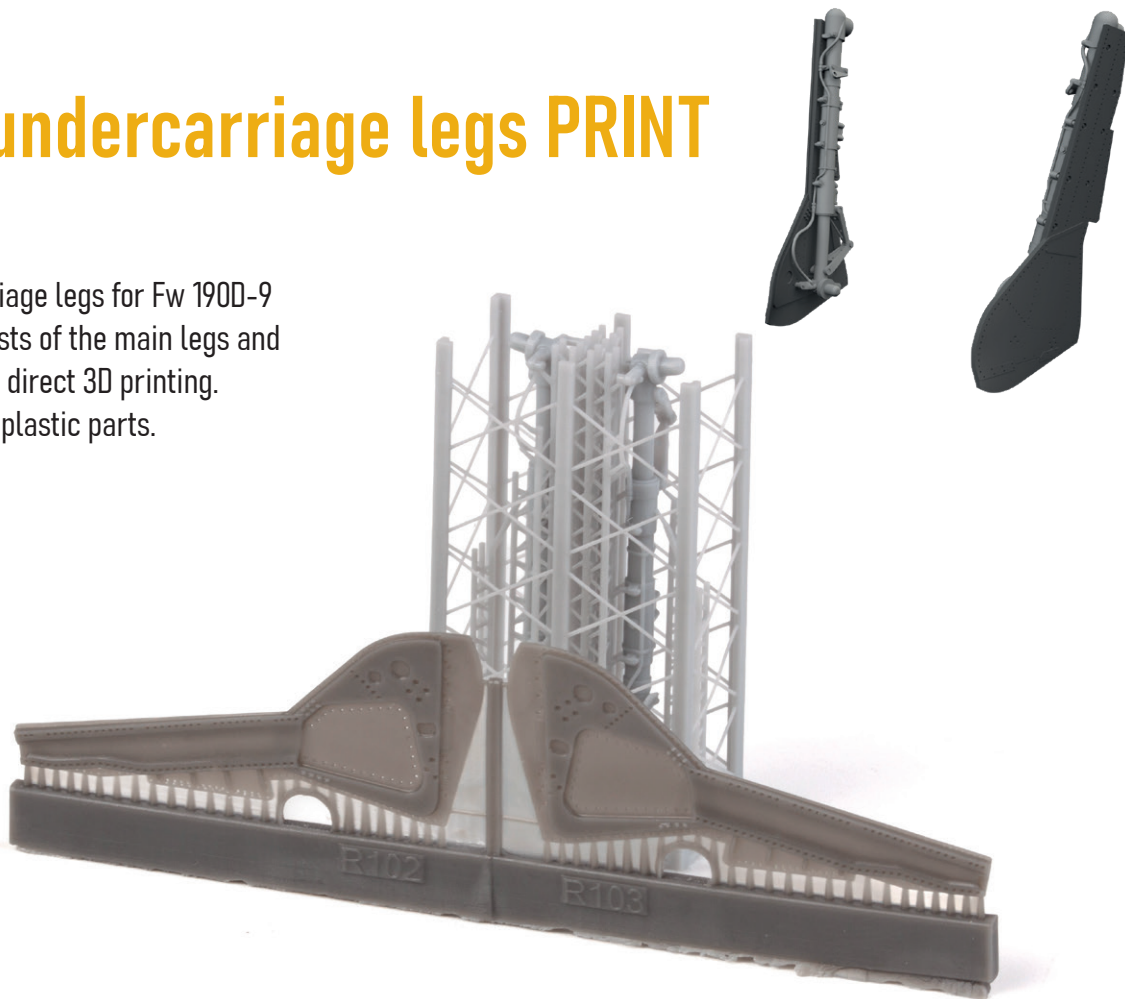
1/48 MiniArt

Brassin set - the undercarriage legs for Fw 190D-9 in 1/48 scale. The set consists of the main legs and a wheel bay doors. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Miniart

Set contains:

- 3D print: 2 parts
- resin: 2 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)



6481204

Hampden B Mk.I wheels

1/48 ICM

Brassin set - the undercarriage wheels for Hampden B Mk.I in 1/48 scale. The set consists of the main wheels and a tail wheel. Easy to assemble, replaces plastic parts. Recommended kit: ICM

Set contains:

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

[Product Page](#)

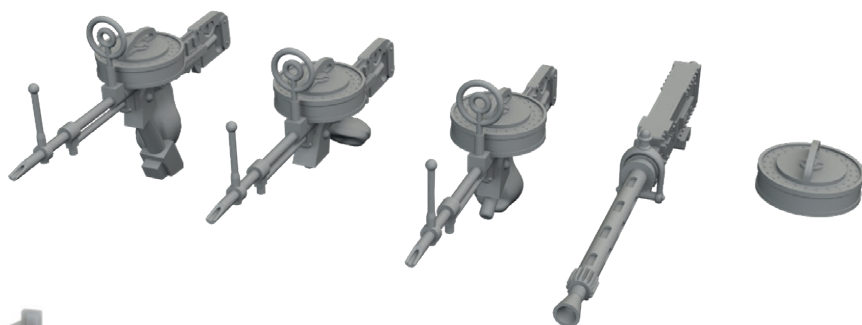


6481205

Hampden B Mk.I guns PRINT

1/48 ICM

Brassin set - guns for Hampden B Mk.I
in 1/48 scale. Made by direct 3D printing.
Easy to assemble, replaces plastic parts.
Recommended kit: ICM



Set contains:

- 3D print: 20 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)


6481206

Spitfire Mk.IX wheels

1/48 Airfix

Brassin set - the undercarriage wheels
for Spitfire Mk.IX in 1/48 scale. The set consists
of the main wheels and a tail wheel.
Easy to assemble, replaces plastic parts.
Recommended kit: Airfix



Set contains:

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

[Product Page](#)


6481207

Spitfire Mk.IXe undercarriage legs PRINT

1/48 Airfix

Brassin set - the undercarriage legs for Spitfire Mk.IXe in 1/48 scale. The set consists of the main legs and wheel bay doors. Made by direct 3D printing. Easy to assemble, replaces plastic parts.

Recommended kit: Airfix

Set contains:

- 3D print: 4 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)



6481208

Spitfire Mk.IX exhaust stacks fishtail PRINT

1/48 Airfix

Brassin set - exhaust stacks for Spitfire Mk.IX in 1/48 scale. Made by direct 3D printing.

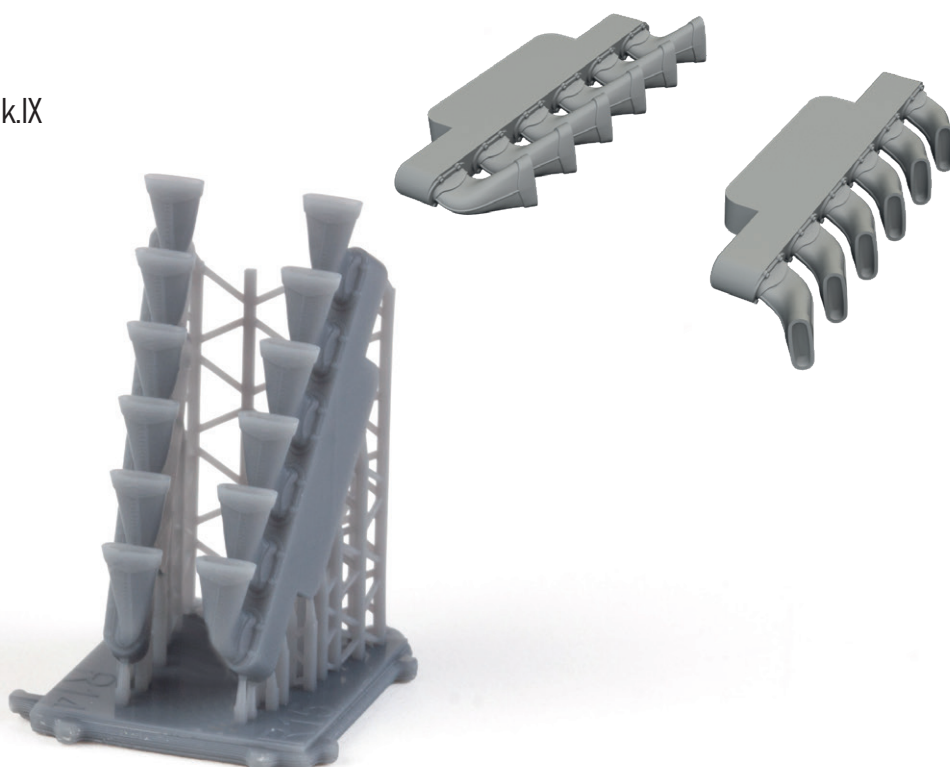
Easy to assemble, replaces plastic parts.

Recommended kit: Airfix

Set contains:

- 3D print 2 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)



6481209

Spitfire Mk.IX exhaust stacks rounded PRINT

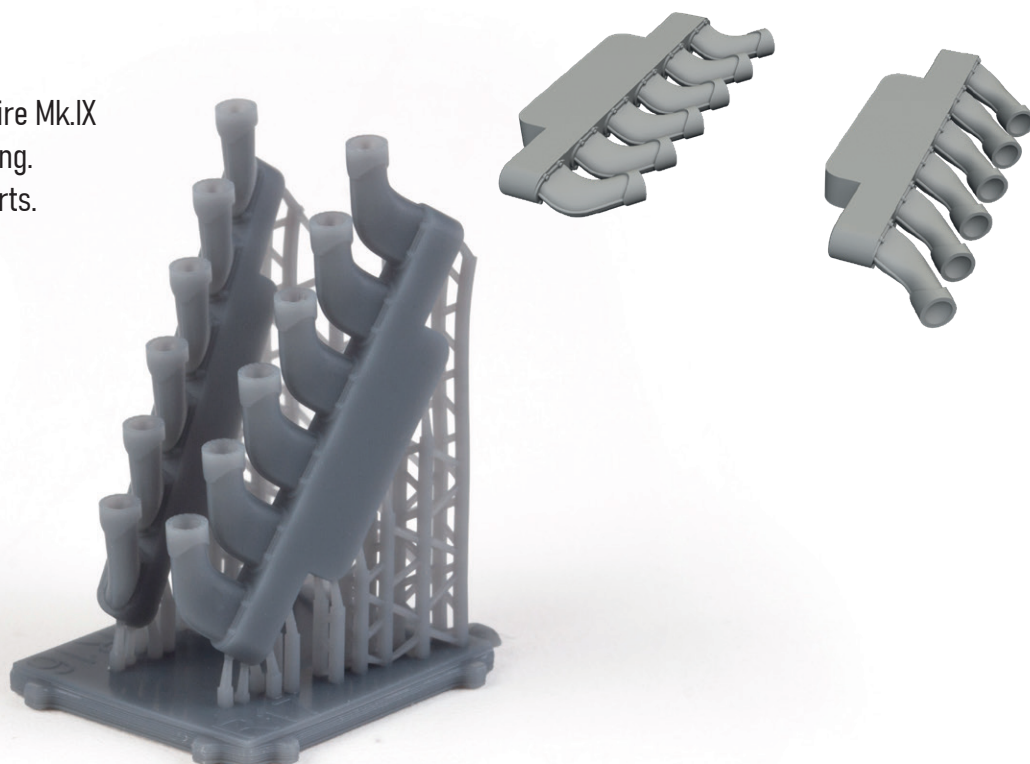
1/48 Airfix

Brassin set - exhaust stacks for Spitfire Mk.IX in 1/48 scale. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Airfix

Set contains:

- 3D print 2 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)



6481214

PBY-5A machine guns PRINT

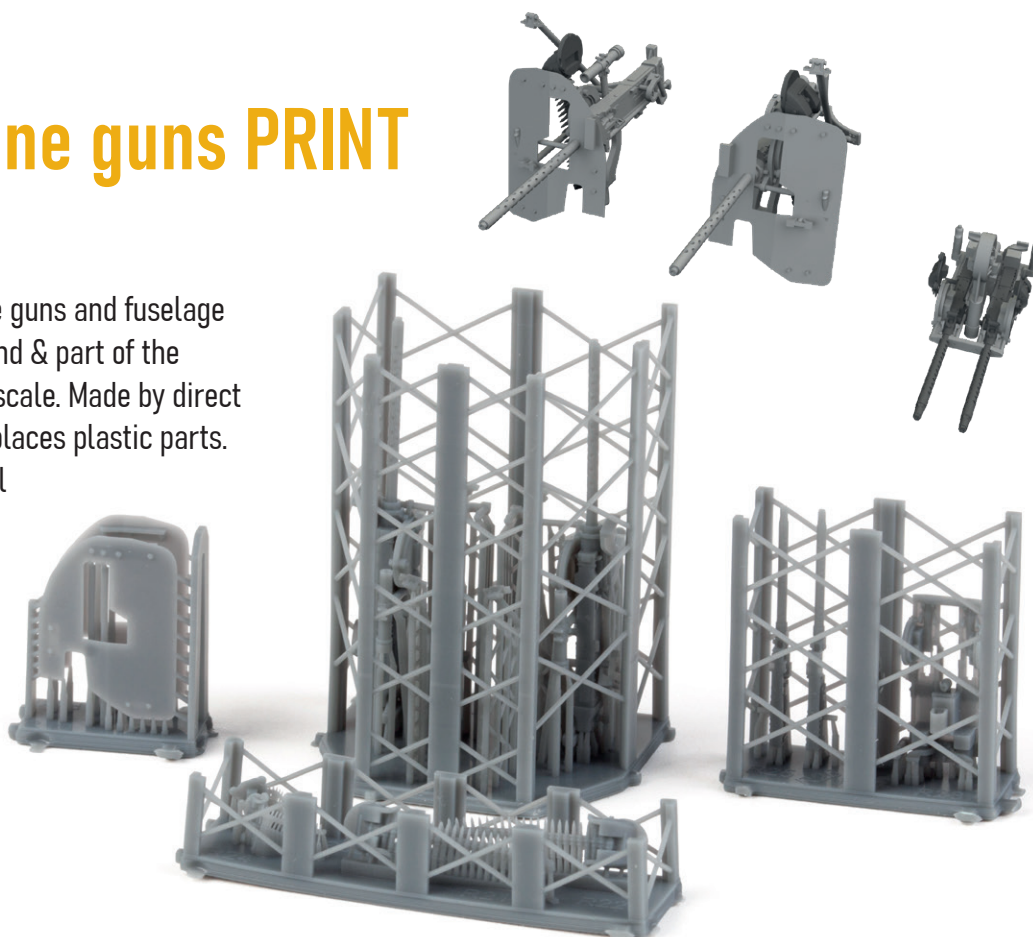
1/48 Eduard/Revell

Brassin set - nose turret machine guns and fuselage machine guns with ammo links and & part of the fuselage floor for PBY-5A in 1/48 scale. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Eduard / Revell

Set contains:

- 3D print: 12 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)



6481215

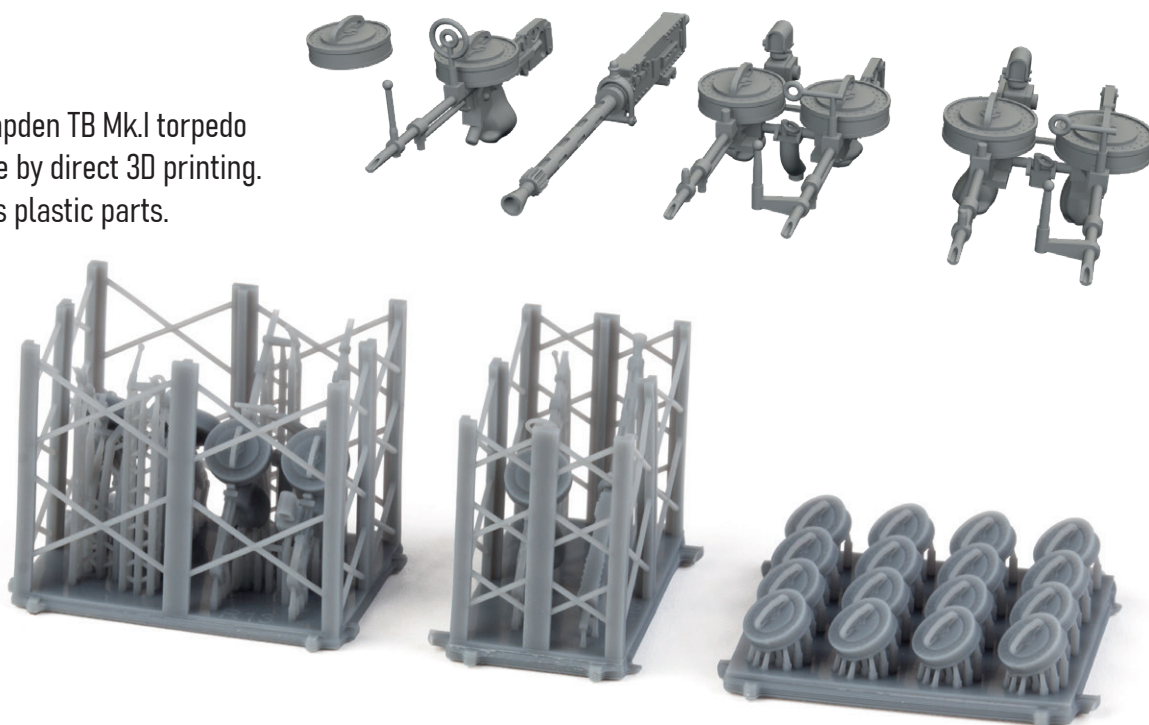
Hampden TB Mk.I guns PRINT

1/48 ICM

Brassin set - guns for Hampden TB Mk.I torpedo bomber in 1/48 scale. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: ICM

Set contains:

- 3D print: 20 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)

672459

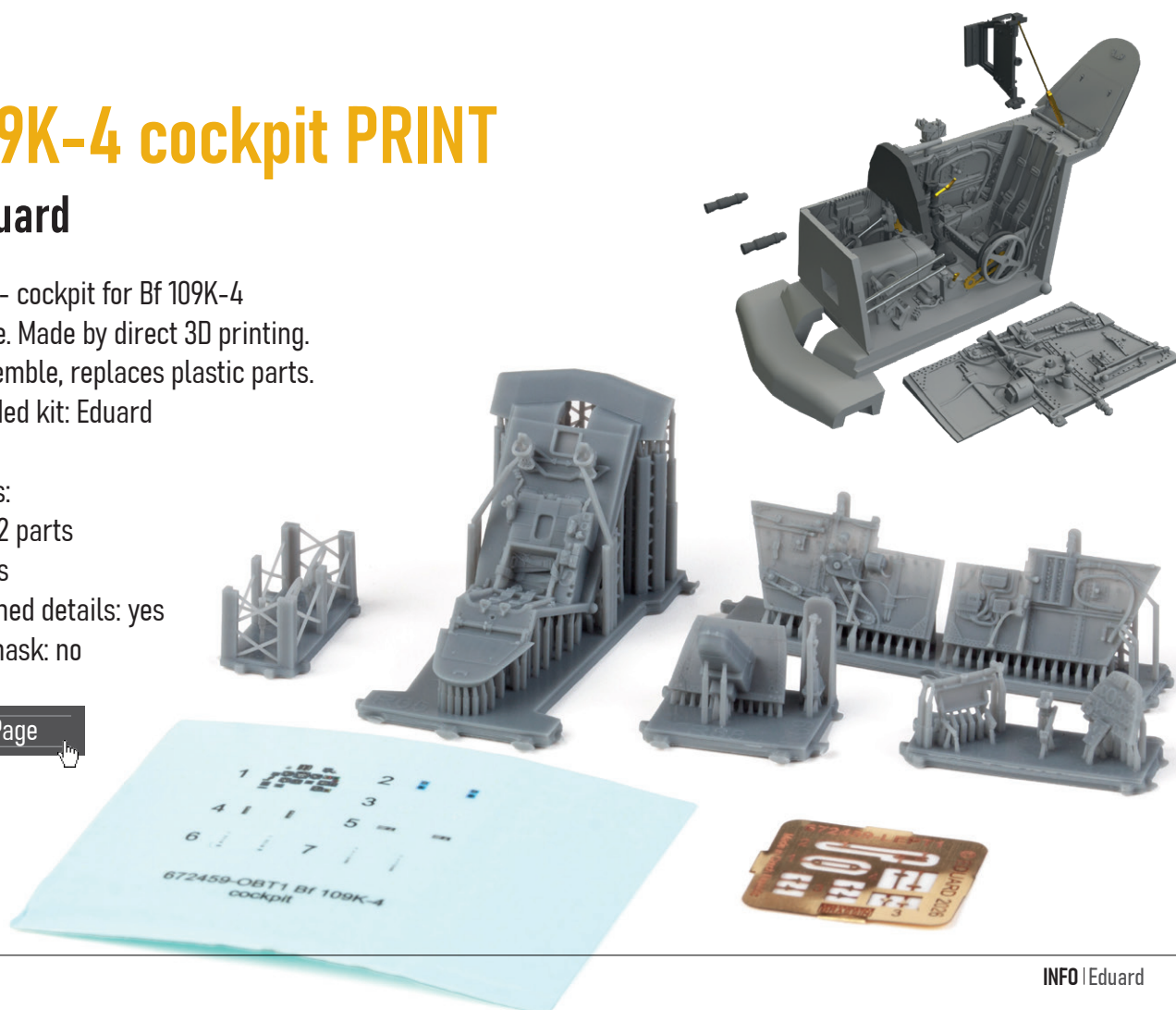
Bf 109K-4 cockpit PRINT

1/72 Eduard

Brassin set - cockpit for Bf 109K-4 in 1/72 scale. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

- 3D print: 12 parts
- decals: yes
- photo-etched details: yes
- painting mask: no

[Product Page](#)


672461

Me 262 wheels

1/72 Arma Hobby

Brassin set - the undercarriage wheels for Me 262 in 1/72 scale. The set consists of the main wheels and a nose wheel. Easy to assemble, replaces plastic parts. Recommended kit: Arma Hobby

Set contains:

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

[Product Page](#)



672462

F-14D exhaust nozzles PRINT

1/72 Tamiya

Brassin set - exhaust nozzles for F-14D in 1/72 scale. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Tamiya

Set contains:

- 3D print: 10 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)



672463

Me 262A rudder pedals PRINT

1/72 Arma Hobby

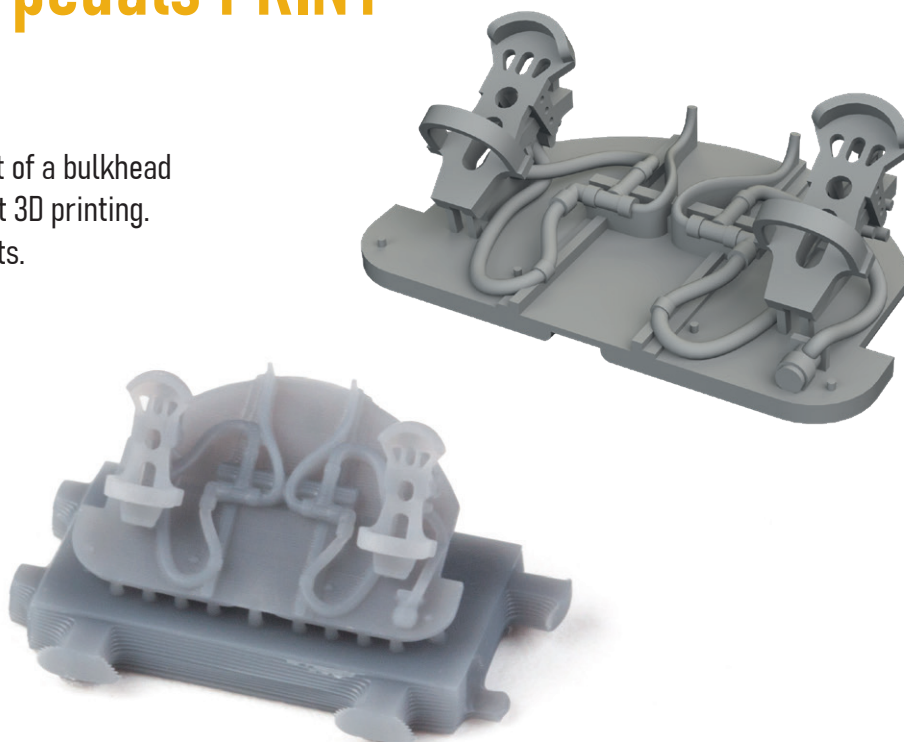
Brassin set - rudder pedals with a part of a bulkhead for Me 262 in 1/72 scale. Made by direct 3D printing.

Easy to assemble, replaces plastic parts.

Recommended kit: Arma Hobby

Set contains:

- 3D print: 1 part
- decals: no
- photo-etched details: no
- painting mask: no

[Product Page](#)

672464

MiG-21R exhaust nozzle

1/72 Eduard

Brassin set - exhaust nozzle for MiG-21R in 1/72 scale. Easy to assemble, replaces plastic parts.

Recommended kit: Eduard

Set contains:

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

[Product Page](#)


672465

MiG-21R wheels

1/72 Eduard

Brassin set - the undercarriage wheels for MiG-21R in 1/72 scale. The set consists of the main wheels and a nose wheel. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

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

[Product Page](#)


SIN648156

P-40K ESSENTIAL

1/48 Eduard

Collection of 5 sets for P-40K in 1/48 scale.
Recommended kit: Eduard

- cockpit
- undercarriage wheels
- undercarriage legs
- radio compartment
- 75gal fuel drop tank

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

[Product Page](#)


SIN648157

P-40K ADVANCED

1/48 Eduard

Collection of 4 sets for P-40K in 1/48 scale.

Recommended kit: Eduard

- engine,
- main wheel bays,
- tail wheel bay,
- gun bays.

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

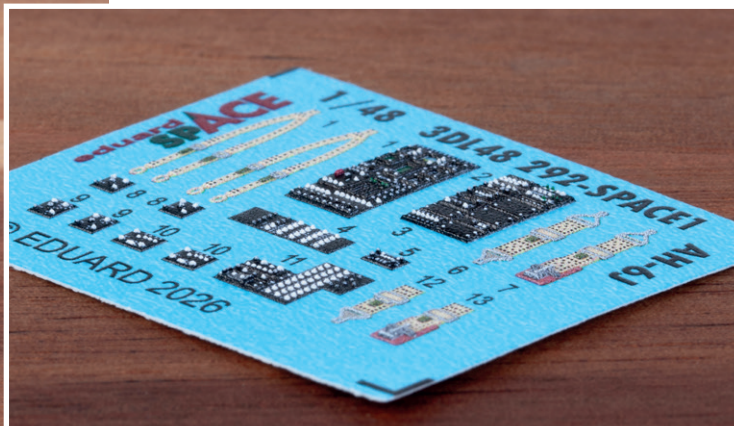
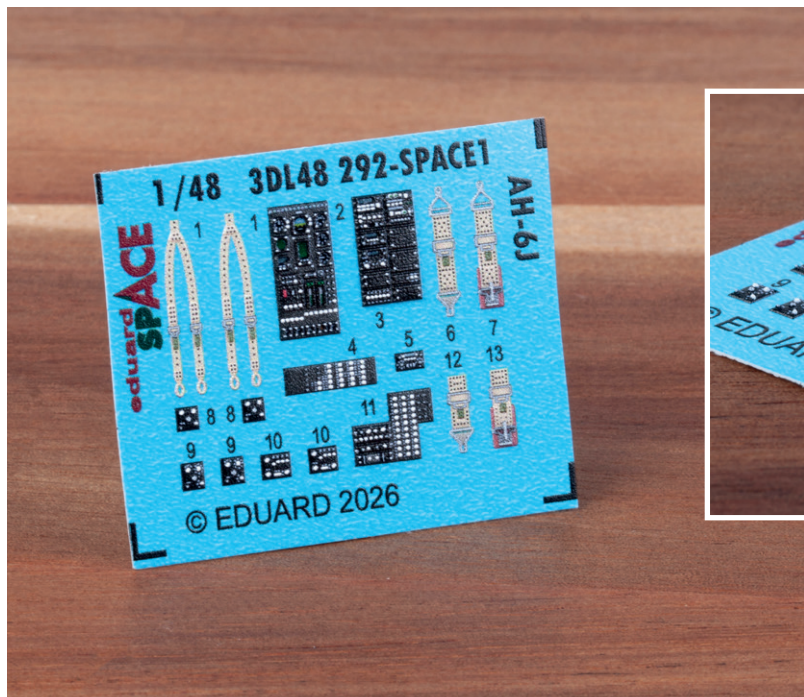
[Product Page](#)



3DL48292 **AH-6J SPACE** 1/48 ICM

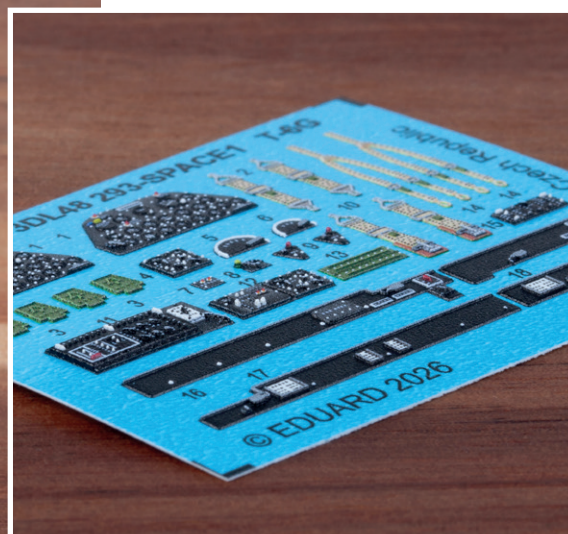
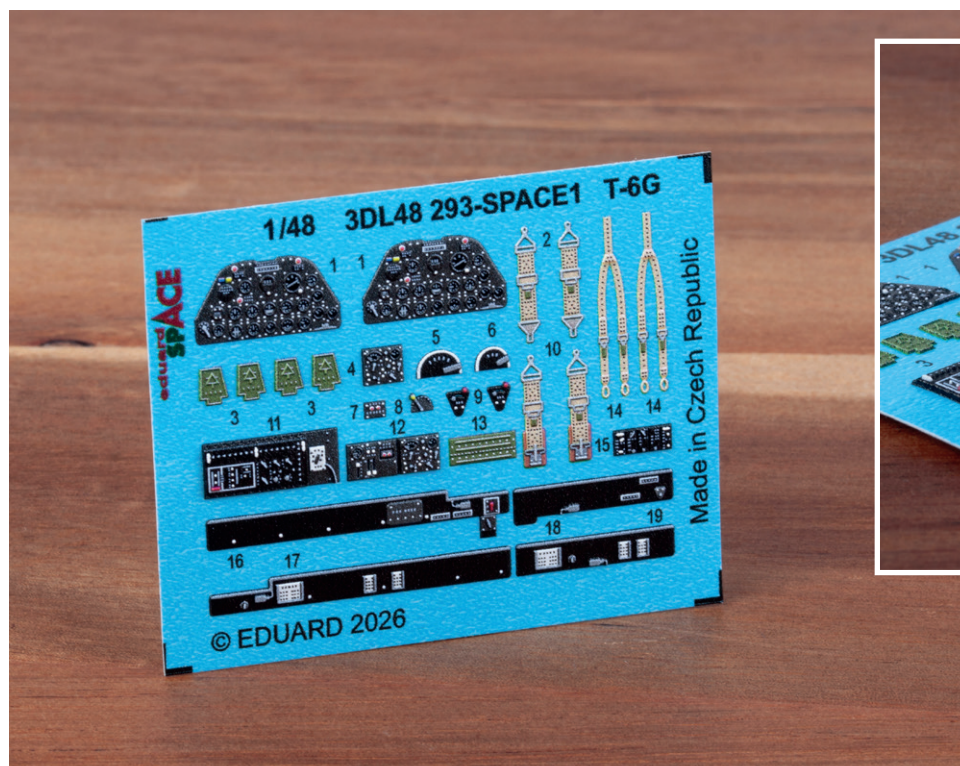
Product Page

*EASY
APPLICATION*

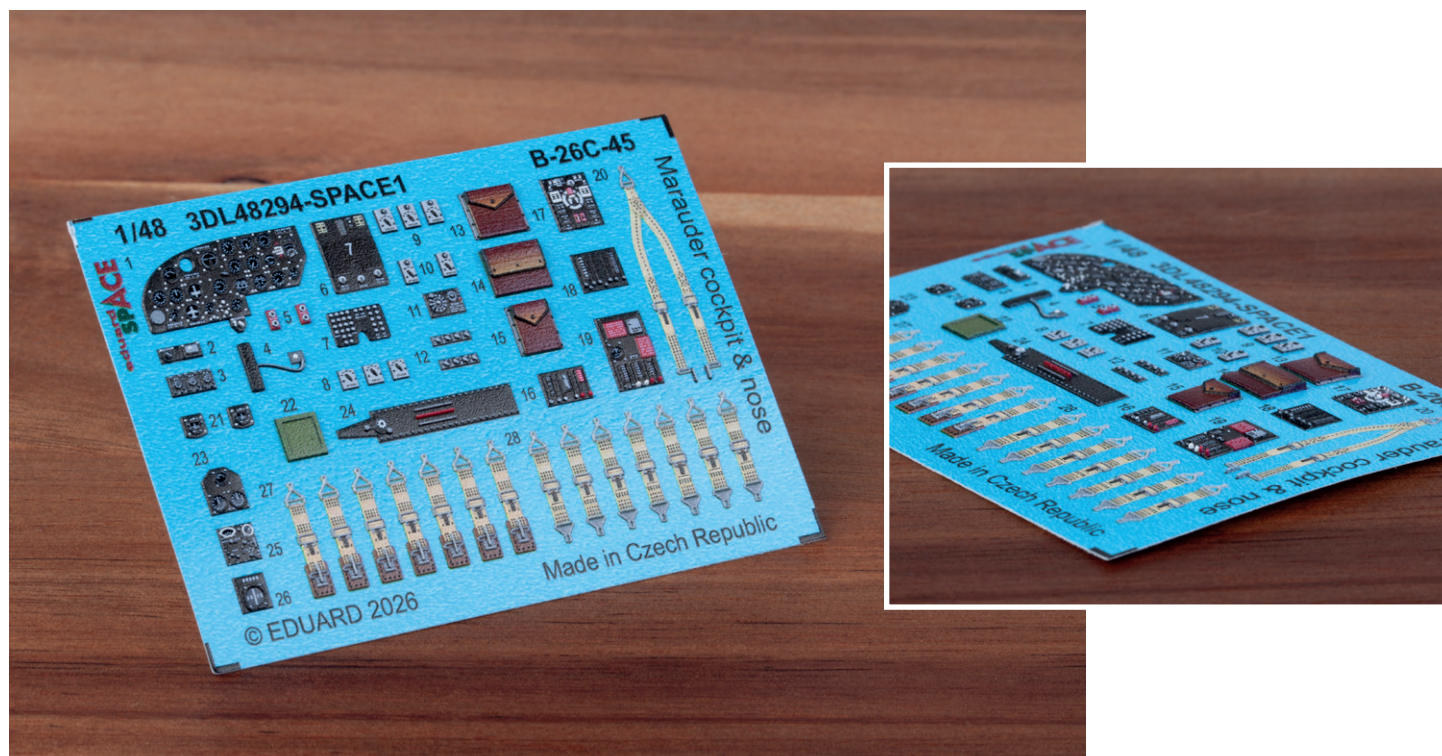


3DL48293 **T-6G SPACE** 1/48 Italeri

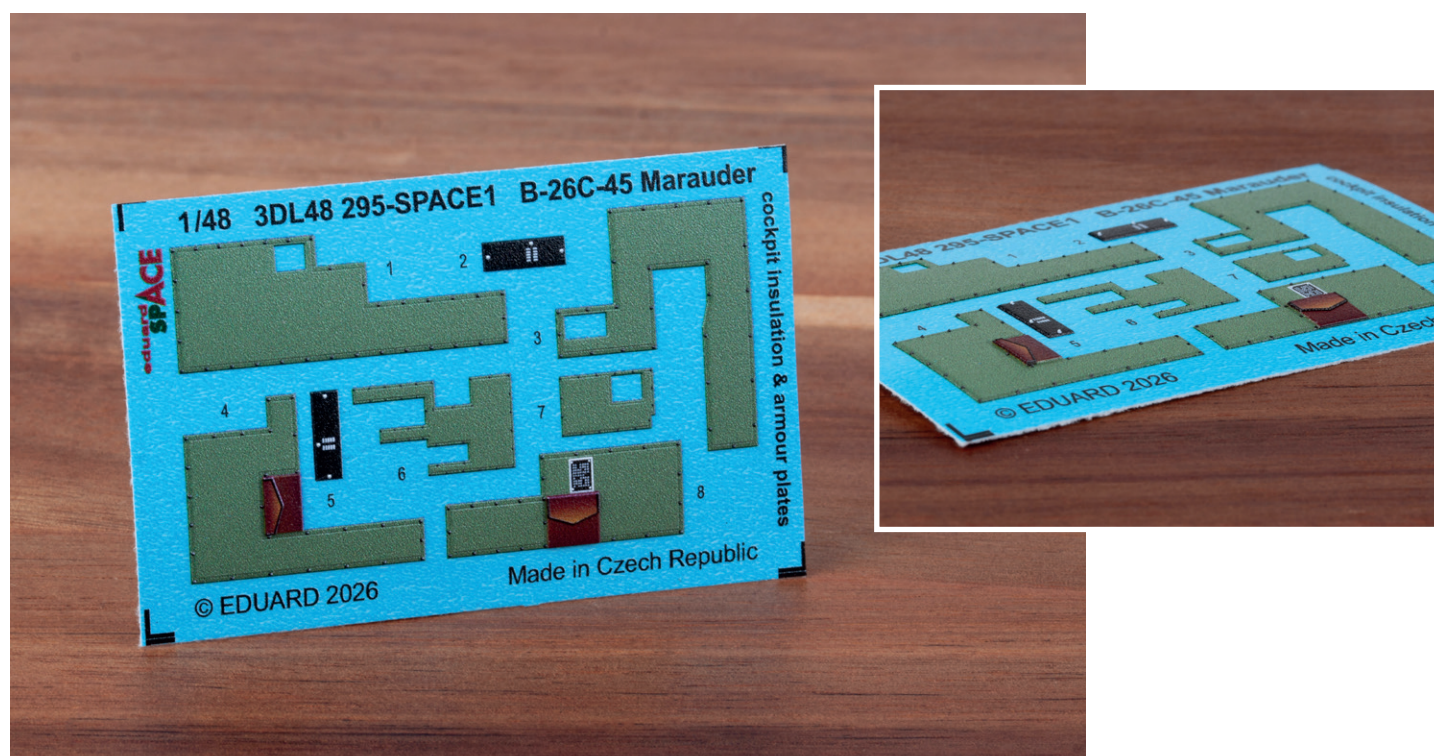
Product Page

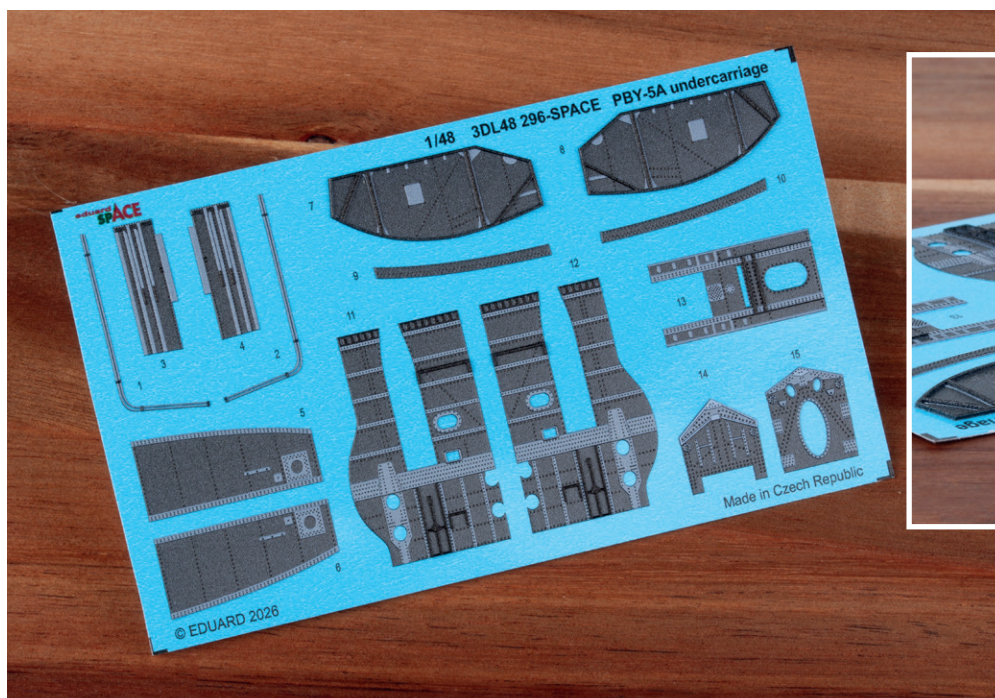
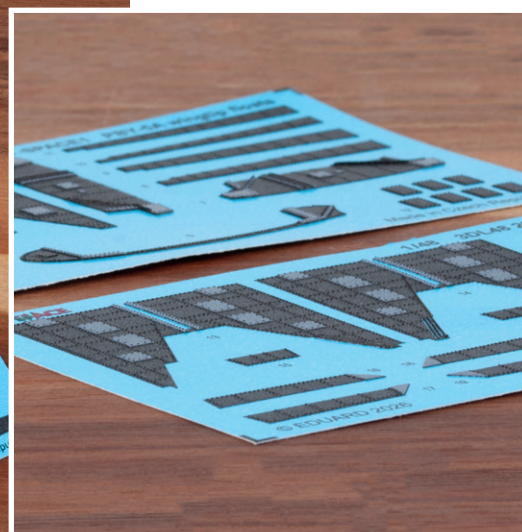


3DL48294 B-26C-45 Marauder cockpit & nose SPACE 1/48 ICM

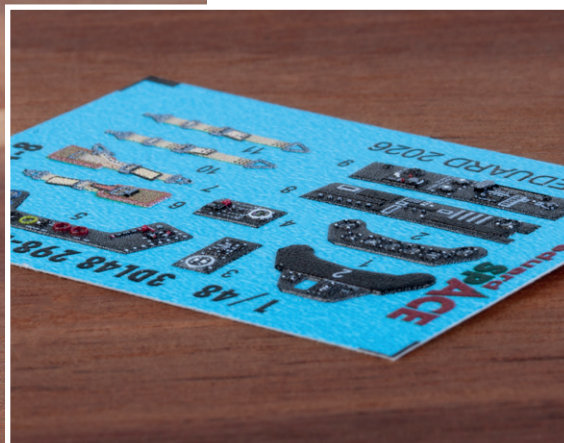
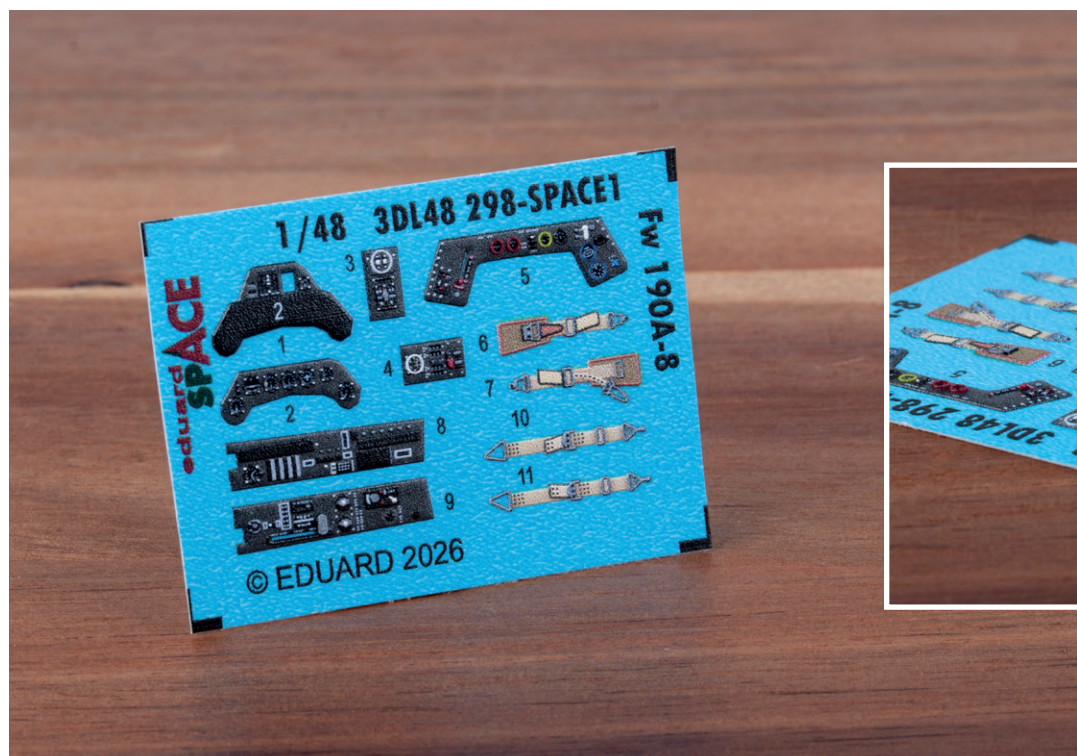
[Product Page](#)


3DL48295 B-26C-45 Marauder cockpit insulation & armour plates SPACE 1/48 ICM

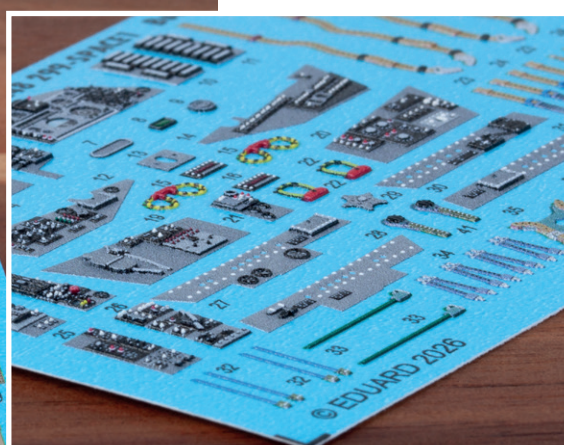
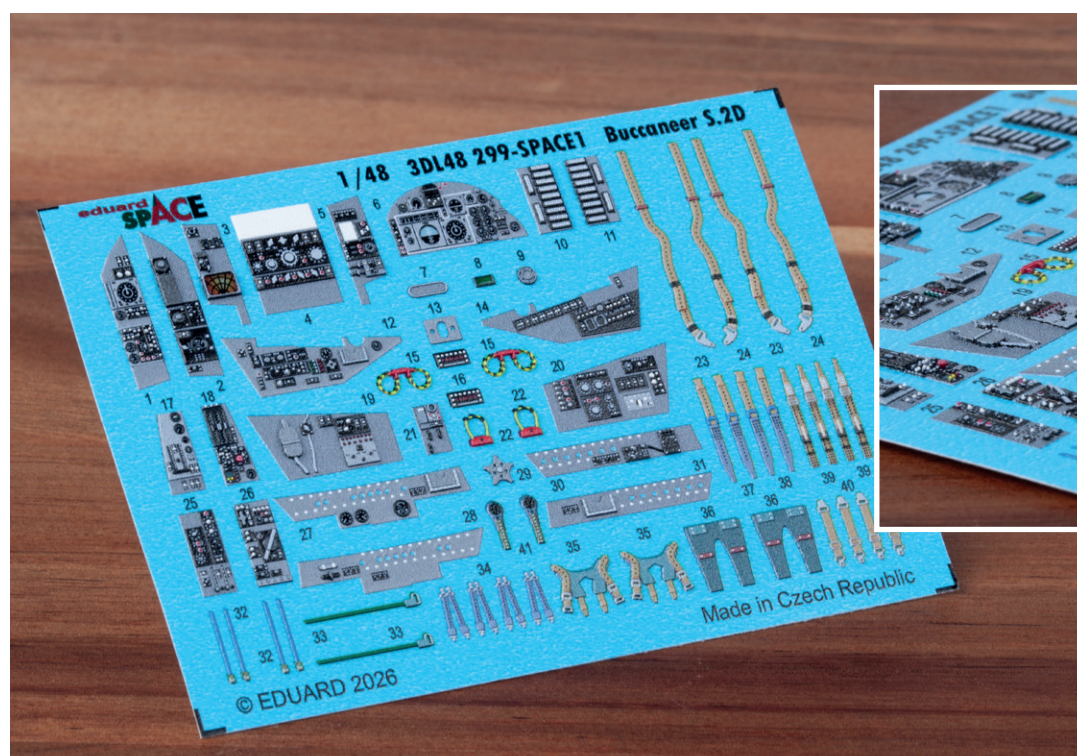
[Product Page](#)


3DL48296 **PBY-5A undercarriage SPACE** 1/48 Eduard/Revell[Product Page](#)3DL48297 **PBY-5A wingtip floats SPACE** 1/48 Eduard/Revell[Product Page](#)

3DL48298 Fw 190A-8 SPACE 1/48 Hobby Boss

[Product Page](#)


3DL48299 Buccaneer S.2D SPACE 1/48 Trumpeter

[Product Page](#)


JX351 P-51B Birdcage

Canopy TFace

1/32 Eduard

JX352 P-51B Malcolm Hood

canopy TFace

1/32 Eduard

JX353 P-51B US national insignia

1/32 Eduard

JX354 P-51B US national insignia

& D-Day stripes

1/32 Eduard

EX1185 AH-6J

1/48 ICM

EX1186 AH-6J TFace

1/48 ICM

EX1187 B-26C-45 Marauder

1/48 ICM

EX1188 B-26C-45 Marauder TFace

1/48 ICM

EX1189 B-26C-45 Marauder

national insignia & tail marking

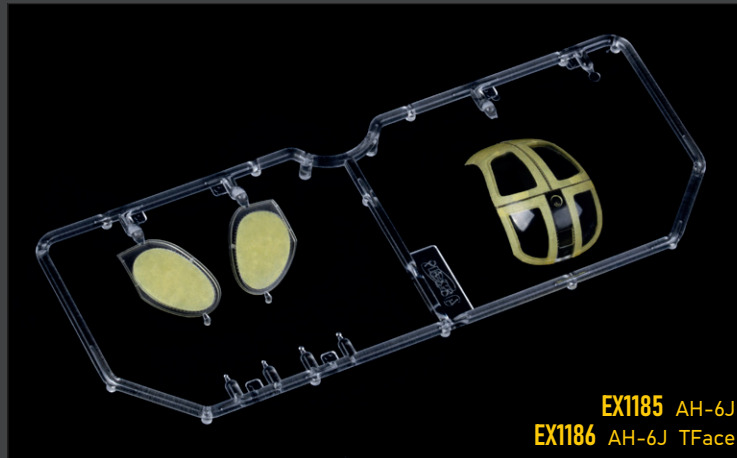
1/48 ICM

EX1190 Fw 190A-8 TFace

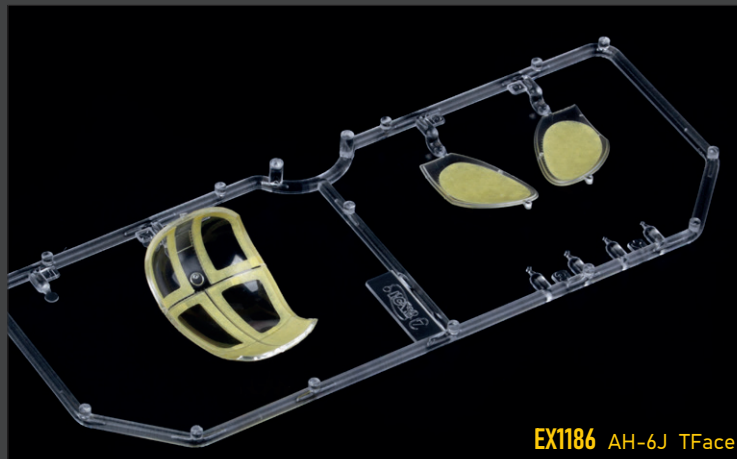
1/48 Hobby Boss

EX1191 Buccaneer S.2D TFace

1/48 Trumpeter



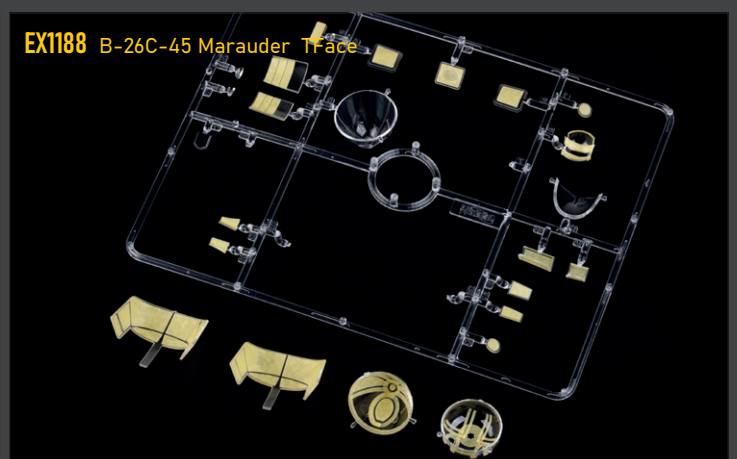
EX1185 AH-6J
EX1186 AH-6J TFace



EX1186 AH-6J TFace



EX1187 B-26C-45 Marauder
EX1188 B-26C-45 Marauder TFace



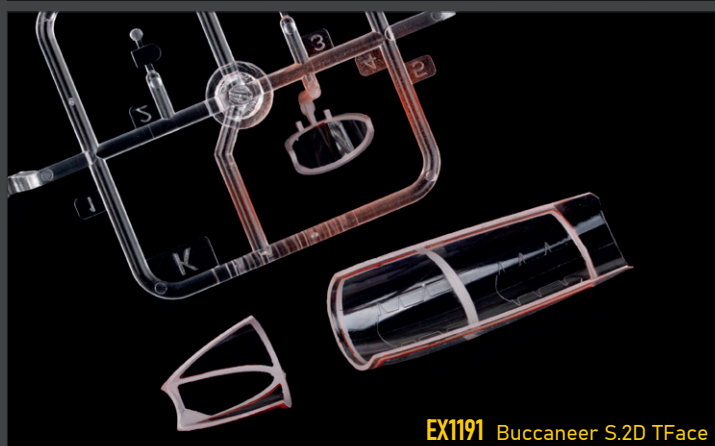
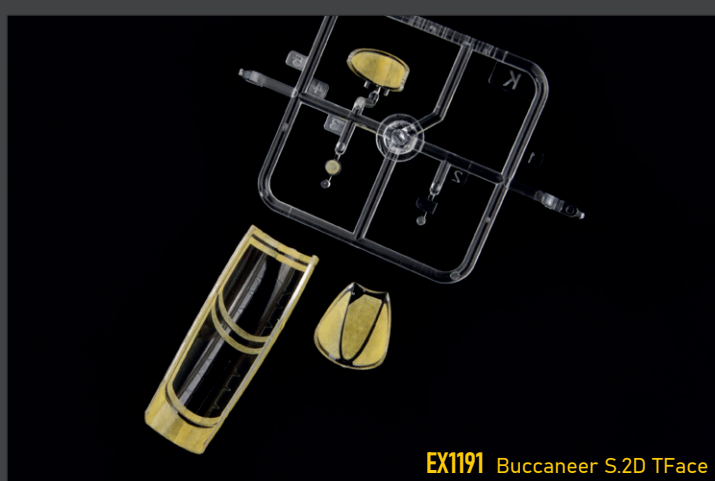
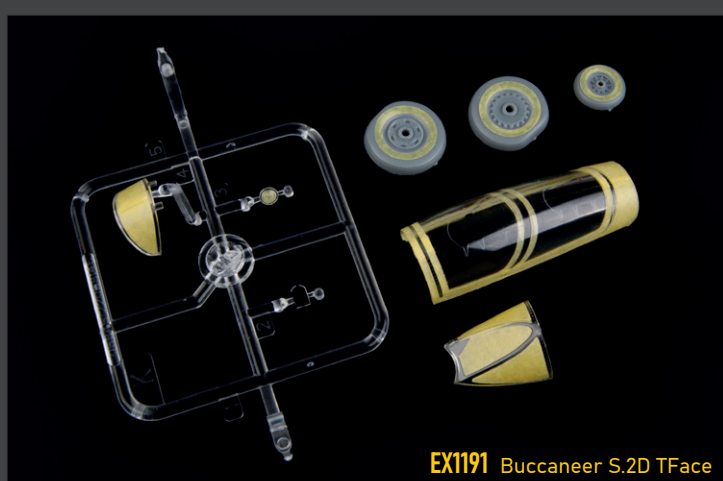
EX1188 B-26C-45 Marauder TFace



EX1187 B-26C-45 Marauder
EX1188 B-26C-45 Marauder TFace



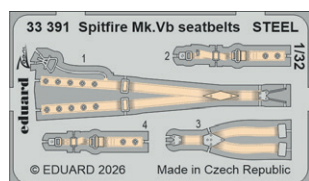
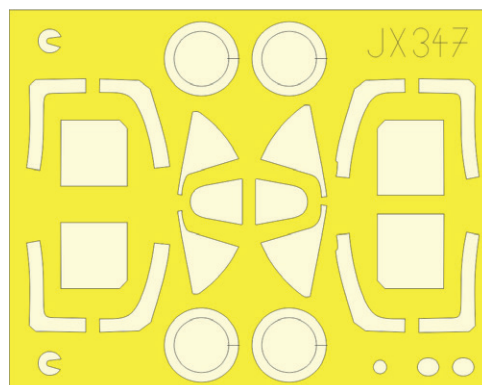
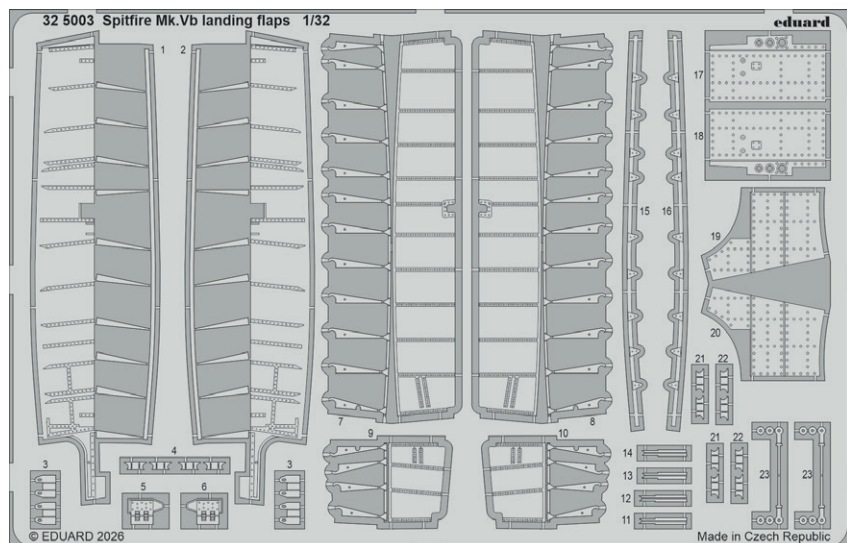
EX1188 B-26C-45 Marauder TFace



BIG33176 Spitfire Mk.Vb 1/32 Kotare

Product Page

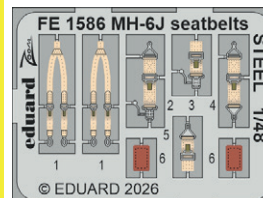
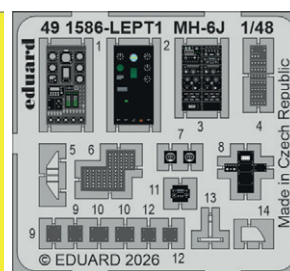
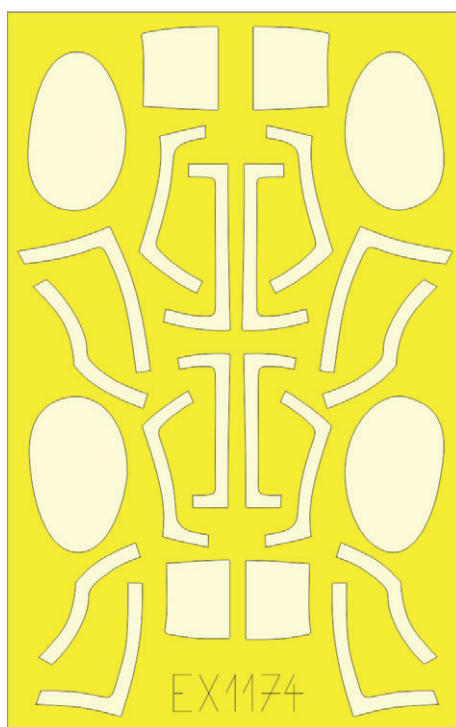
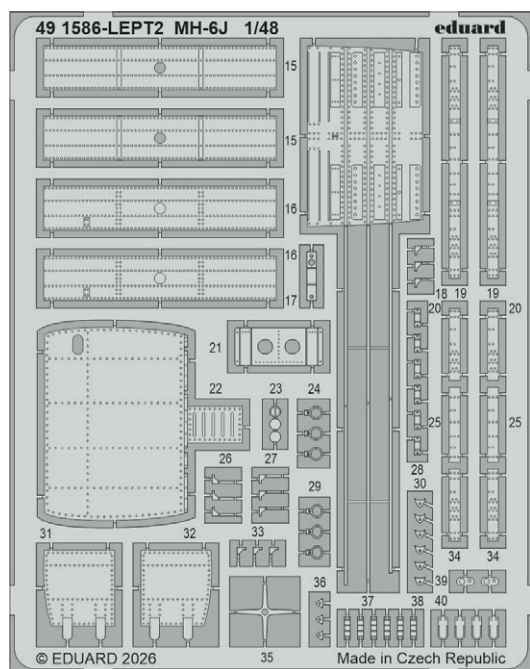
325003 Spitfire Mk.Vb landing flaps
33391 Spitfire Mk.Vb seatbelts STEEL
3DL32047 Spitfire Mk.Vb SPACE
JX347 Spitfire Mk.Vb TFace



BIG49478 MH-6J 1/48 ICM

Product Page

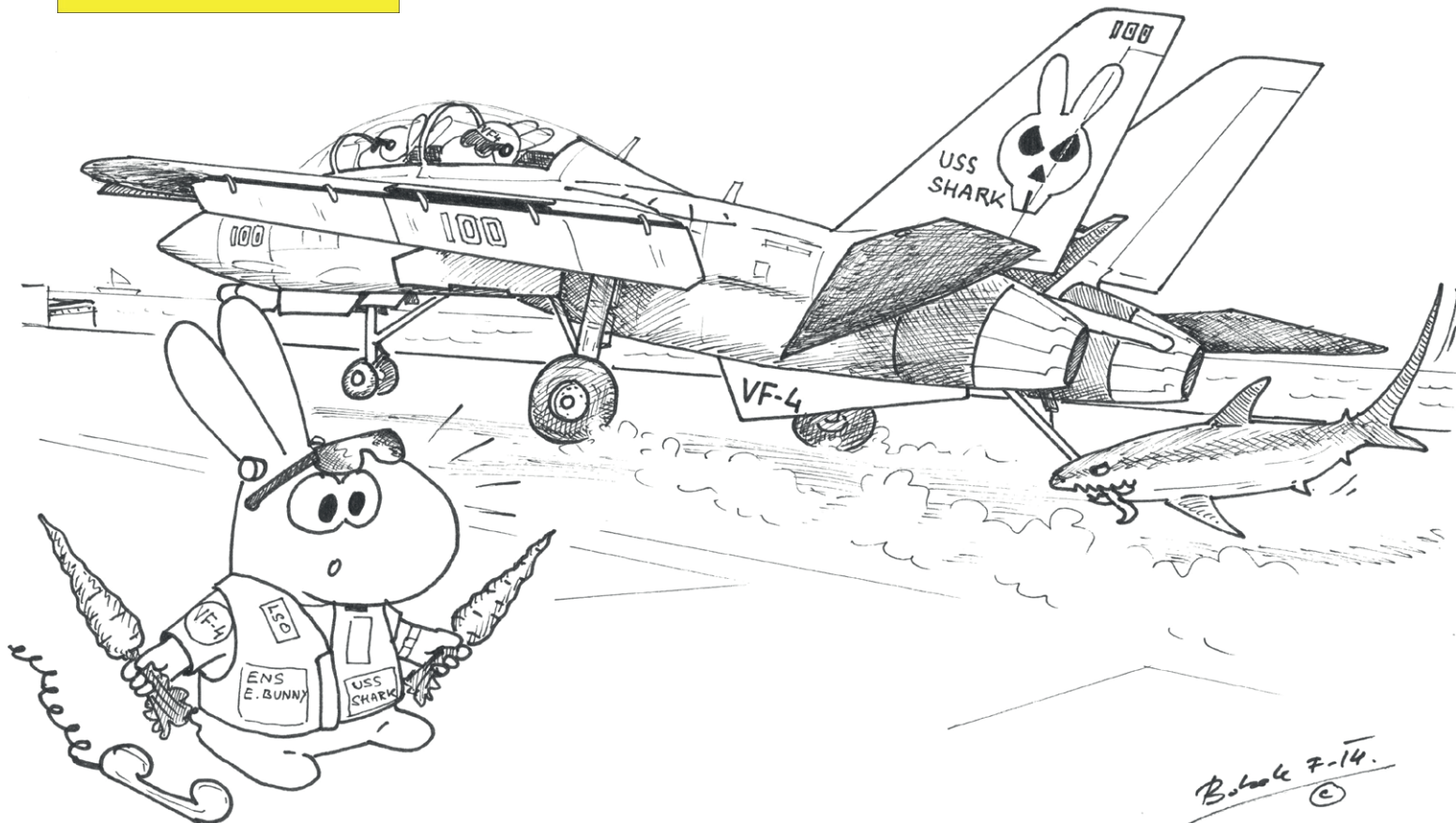
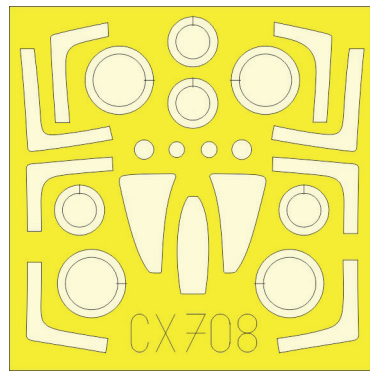
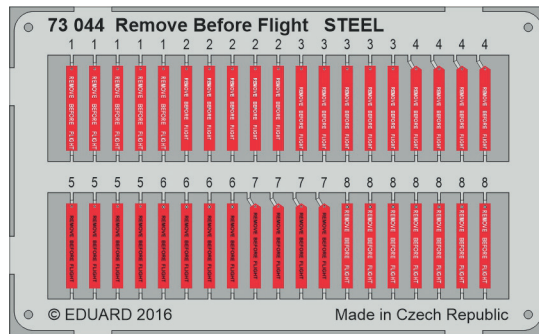
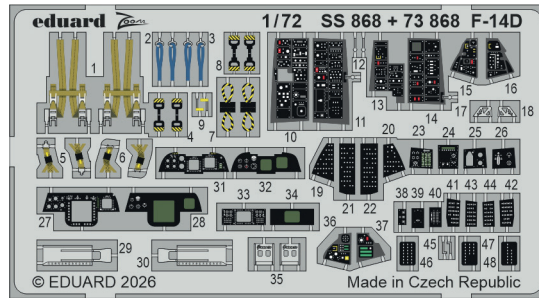
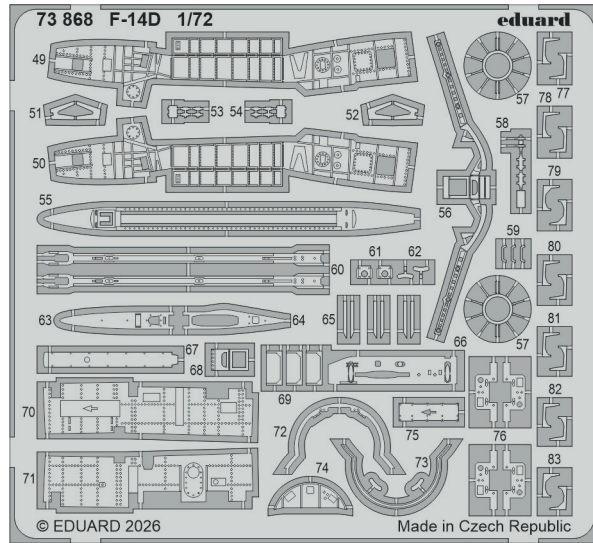
491586 MH-6J
FE1586 MH-6J seatbelts STEEL
EX1174 MH-6J TFace



BIG72193 F-14D 1/72 Tamiya

Product Page

73868 F-14D
CX708 F-14D
73044 Remove Before Flight STEEL



KITS

932011	P-51B Mustang	1/32	Royal Hybrid
11199	WILDE SAU Episode Three: Untill the Fall of the Empire	1/48	Limited
82243	P-40K short tail	1/48	ProfiPACK
7478	Bf 109F-4	1/72	Weekend

PE-SETS

481182	T-6G landing flaps	1/48	Italeri
481183	Fw 190A-8 landing flaps	1/48	Hobby Boss
491593	AH-6J	1/48	ICM

ZOOMS

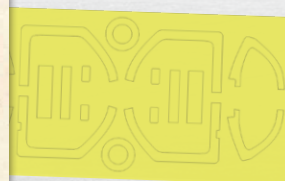
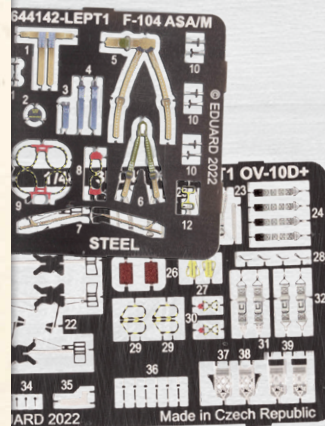
FE1593	AH-6J seatbelts STEEL	1/48	ICM
FE1594	Fw 190A-8 seatbelts STEEL	1/48	Hobby Boss
FE1595	T-6G seatbelts STEEL	1/48	Italeri
FE1596	B-26C-45 Marauder seatbelts STEEL	1/48	ICM
FE1597	Buccaneer S.2D seatbelts STEEL	1/48	Trumpeter

MASKS

JX351	P-51B Birdcage Canopy TFace	1/32	Eduard
JX352	P-51B Malcolm Hood canopy TFace	1/32	Eduard
JX353	P-51B US national insignia	1/32	Eduard
JX354	P-51B US national insignia & D-Day stripes	1/32	Eduard
EX1185	AH-6J	1/48	ICM
EX1186	AH-6J TFace	1/48	ICM
EX1187	B-26C-45 Marauder	1/48	ICM
EX1188	B-26C-45 Marauder TFace	1/48	ICM
EX1189	B-26C-45 Marauder national insignia & tail marking	1/48	ICM
EX1190	Fw 190A-8 TFace	1/48	Hobby Boss
EX1191	Buccaneer S.2D	1/48	Trumpeter

BIG ED

BIG33176	Spitfire Mk.Vb	1/32	Kotare
BIG49478	MH-6J	1/48	ICM
BIG72193	F-14D	1/72	Tamiya



BRASSIN

644347	Hampden B Mk.I LööK	1/48	ICM
644348	Spitfire Mk.IXe LööK	1/48	Airfix
644354	Hampden TB Mk.I LööK	1/48	ICM
674070	Me 262A-1 LööK	1/72	Arma Hobby
632216	P-51B/C gun bays PRINT	1/32	Eduard
635052	WWII German towing cable eyes PRINT	1/48	
635053	WWII German trench binoculars PRINT	1/48	
635059	WWII German Jerry Cans PRINT	1/48	
6481203	Fw 190D-9 undercarriage legs PRINT	1/48	MiniArt
6481204	Hampden B Mk.I wheels	1/48	ICM
6481205	Hampden B Mk.I guns PRINT	1/48	ICM
6481206	Spitfire Mk.IX wheels	1/48	Airfix
6481207	Spitfire Mk.IXe undercarriage legs PRINT	1/48	Airfix
6481208	Spitfire Mk.IX exhaust stacks fishtail PRINT	1/48	Airfix
6481209	Spitfire Mk.IX exhaust stacks rounded PRINT	1/48	Airfix
6481214	PBY-5A machine guns PRINT	1/48	Eduard / Revell
6481215	Hampden TB Mk.I guns PRINT	1/48	ICM
672459	Bf 109K-4 cockpit PRINT	1/72	Eduard
672461	Me 262 wheels	1/72	Arma Hobby
672462	F-14D exhaust nozzles PRINT	1/72	Tamiya
672463	Me 262A rudder pedals PRINT	1/72	Arma Hobby
672464	MiG-21R exhaust nozzle	1/72	Eduard
672465	MiG-21R wheels	1/72	Eduard

LööKPLUS

644355	Fw 190D-9 LööKplus	1/48	MiniArt
644356	P-40K LööKplus	1/48	Eduard

BIGSIN

SIN648156	P-40K ESSENTIAL	1/48	Eduard
SIN648157	P-40K ADVANCED	1/48	Eduard

SPACE

3DL48292	AH-6J SPACE	1/48	ICM
3DL48293	T-6G SPACE	1/48	Italeri
3DL48294	B-26C-45 Marauder cockpit & noseSPACE	1/48	ICM
3DL48295	B-26C-45 Marauder cockpit insulation & armour plates SPACE	1/48	ICM
3DL48296	PBY-5A undercarriage SPACE	1/48	Eduard / Revell
3DL48297	PBY-5A wingtip floats SPACE	1/48	Eduard / Revell
3DL48298	Fw 190A-8 SPACE	1/48	Hobby Boss
3DL48299	Buccaneer S.2D SPACE	1/48	Trumpeter

eduard
BRASSINeduard
BRASSIN
*Print**LööK**LööKt*eduard
SPACE

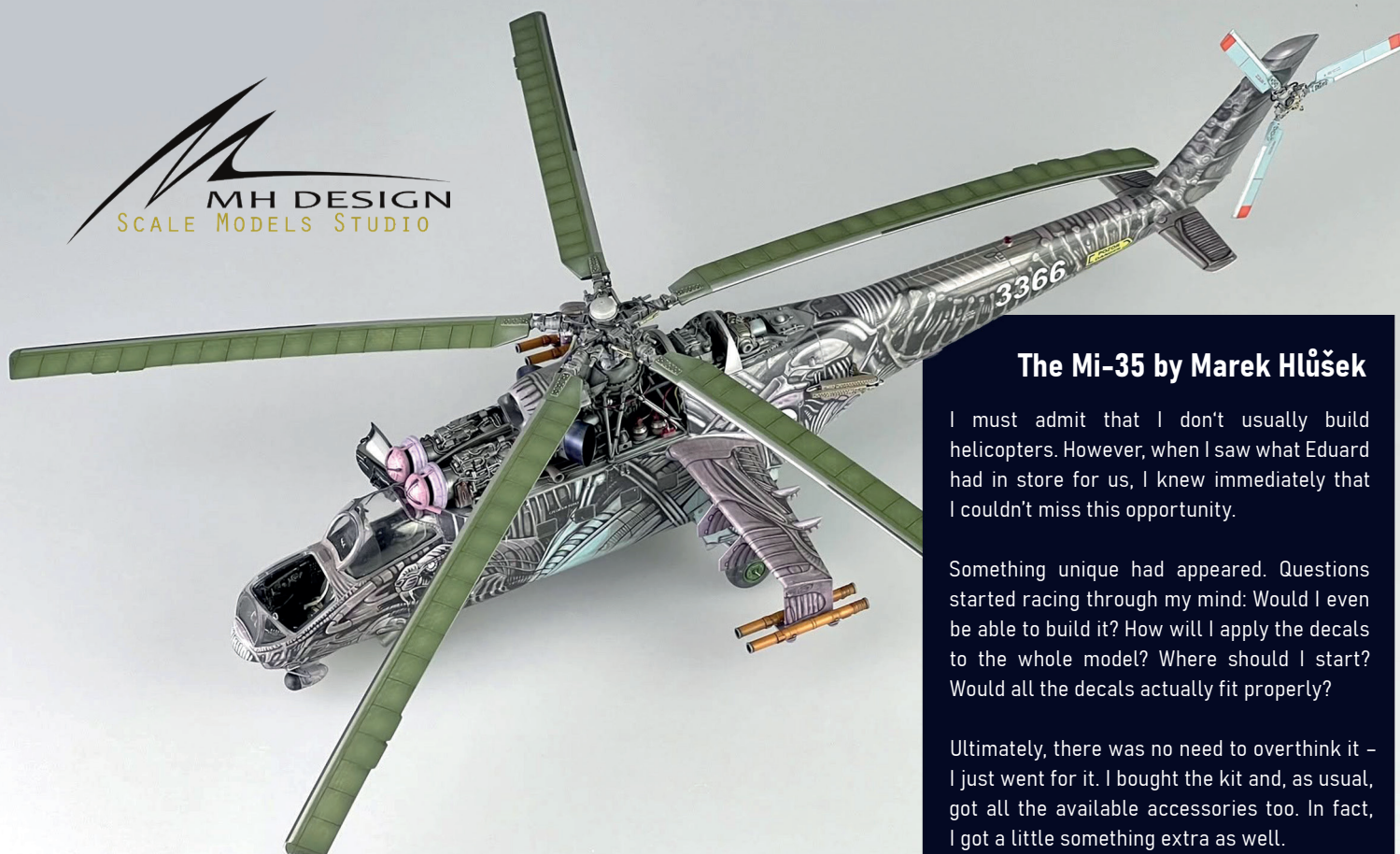


1/48

TIGER 3366

#11173

MH DESIGN
SCALE MODELS STUDIO

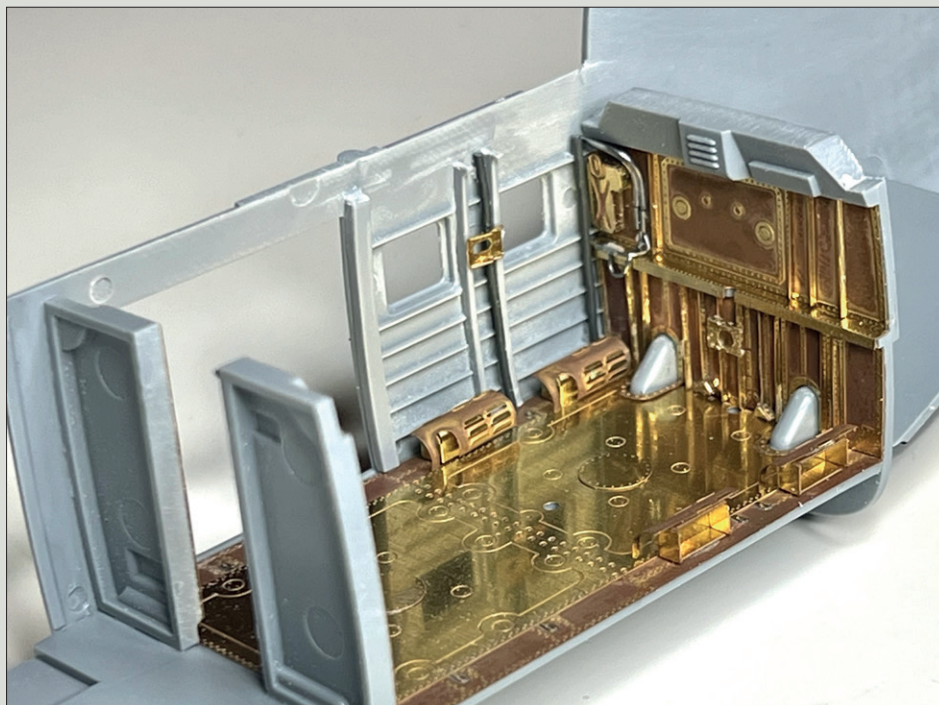


The Mi-35 by Marek Hlůšek

I must admit that I don't usually build helicopters. However, when I saw what Eduard had in store for us, I knew immediately that I couldn't miss this opportunity.

Something unique had appeared. Questions started racing through my mind: Would I even be able to build it? How will I apply the decals to the whole model? Where should I start? Would all the decals actually fit properly?

Ultimately, there was no need to overthink it – I just went for it. I bought the kit and, as usual, got all the available accessories too. In fact, I got a little something extra as well.



Eduard used a Zvezda kit as the basis. I'd never worked with models from this brand before, so I was curious to see what the quality would be like. I must say I was very pleasantly surprised. The model came together without any problems, and the same goes for the Eduard accessories. Everything fitted perfectly the first time. The beautifully crafted, 3D-printed cockpit added a whole new dimension to the model, and the cargo hold looked great once the photo-etched parts had been added. The entire build process was absolutely smooth.

Then came the star of the kit: the decals. Initially, I considered not using rivets at all, as I was concerned that they would be obscured by another layer of decals. In the end, though, I decided to stick them on. Then it was time for the Alien design itself. I admit I was a bit daunted at first. I thought about how to start to ensure there were no unwanted gaps and that the individual parts lined up correctly.

But the biggest surprise of the whole build came here. I really enjoyed applying the decals. Everything fitted together perfectly, and I made more progress than I'd expected. At one point, I just said to myself, "Brilliant!"

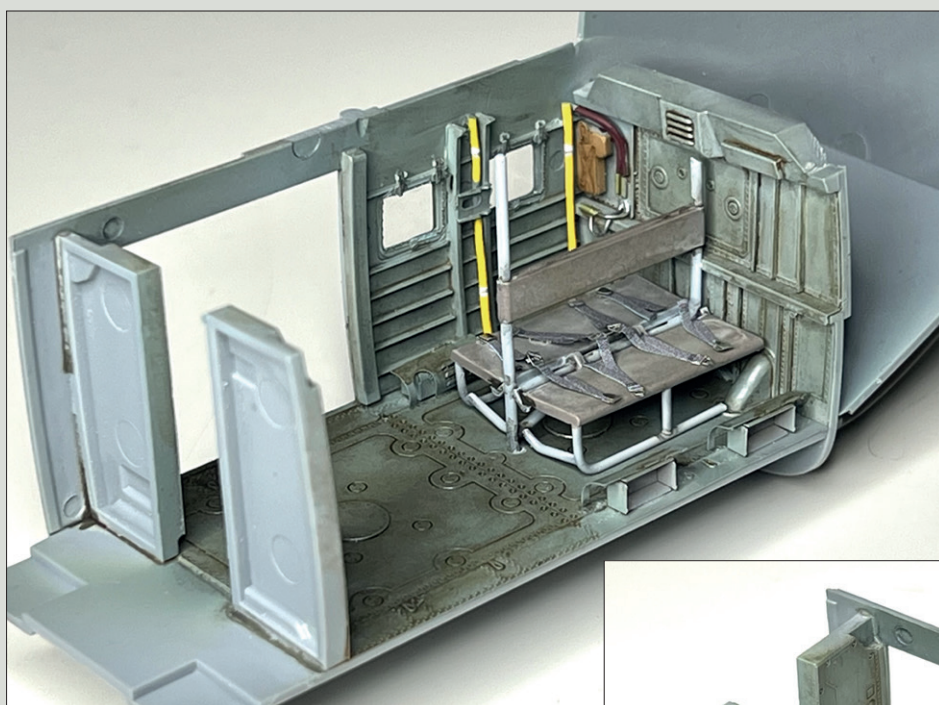
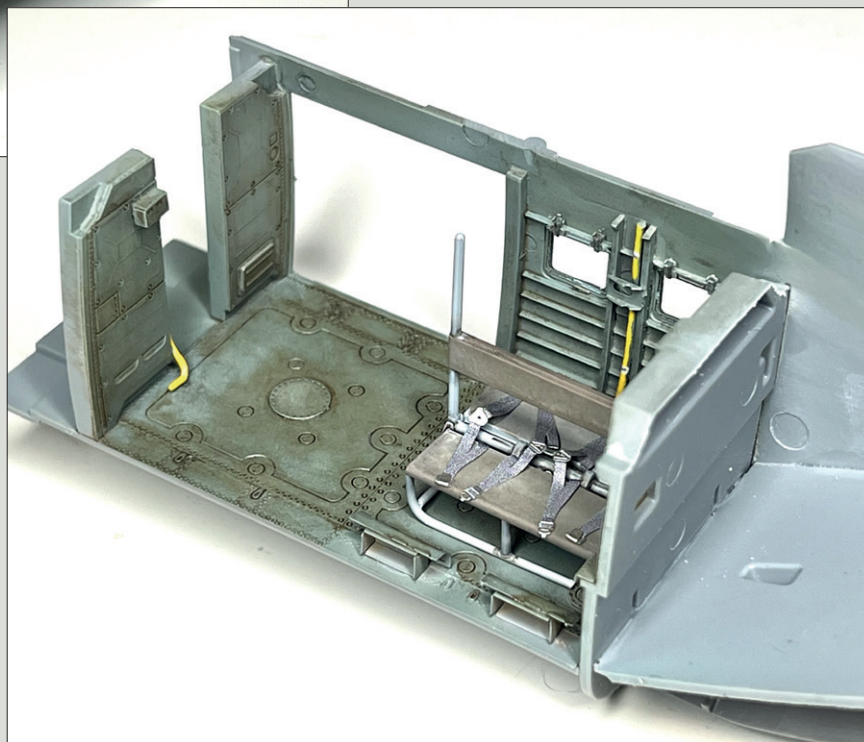
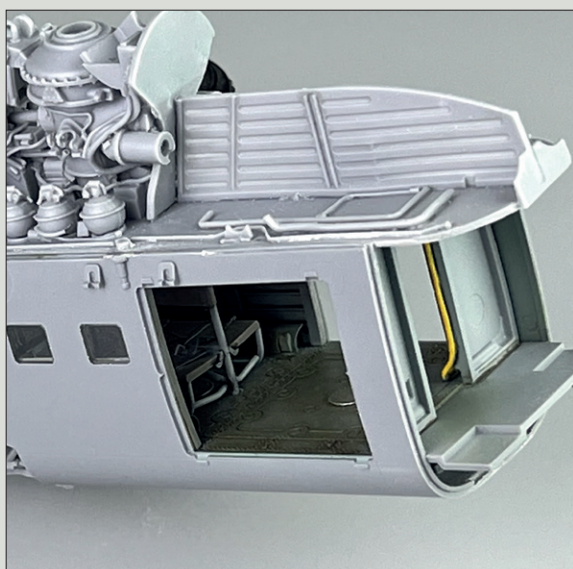
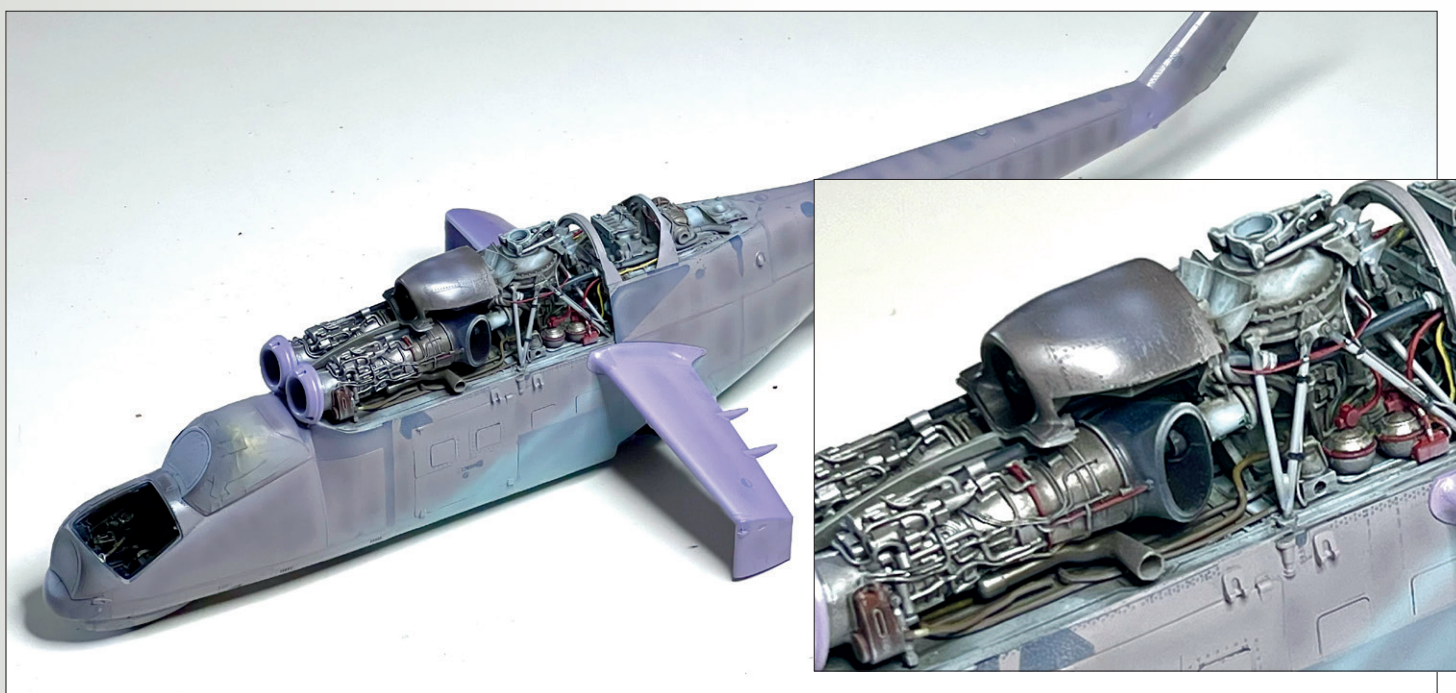
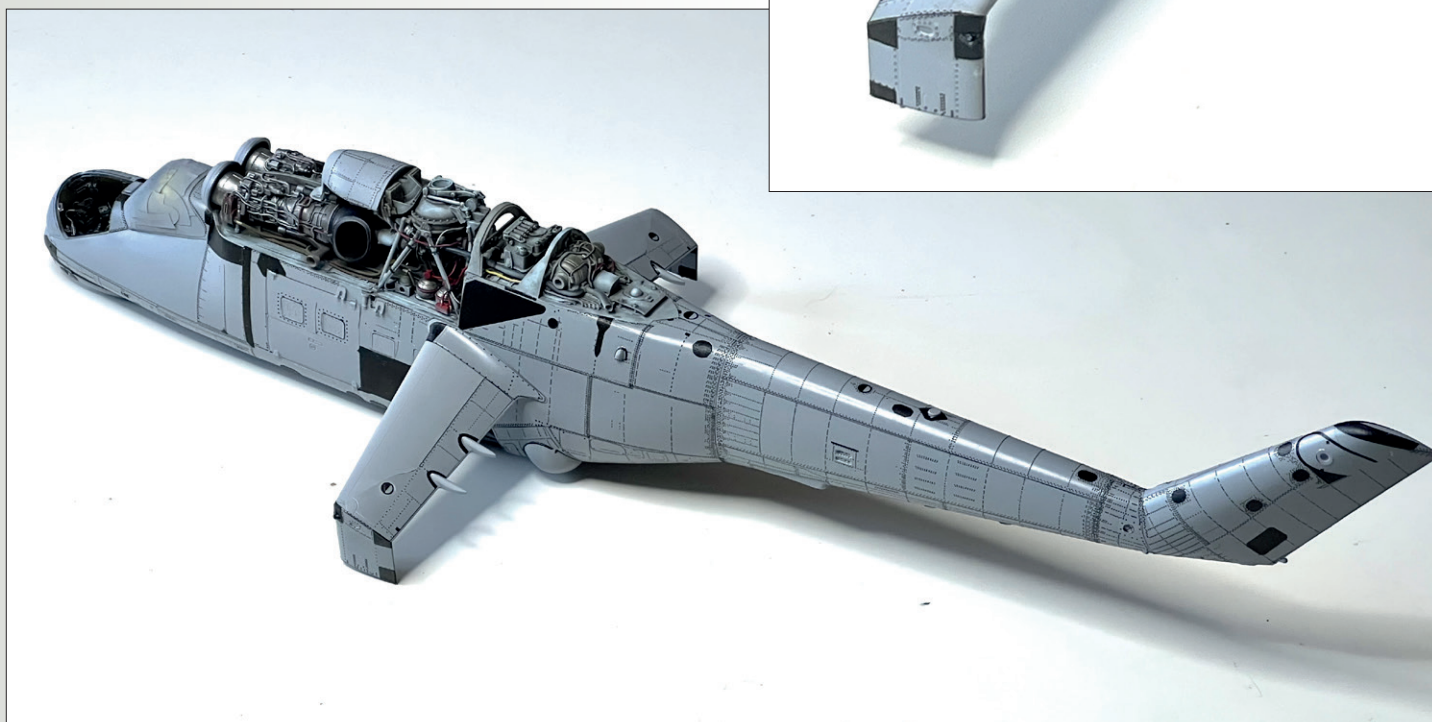
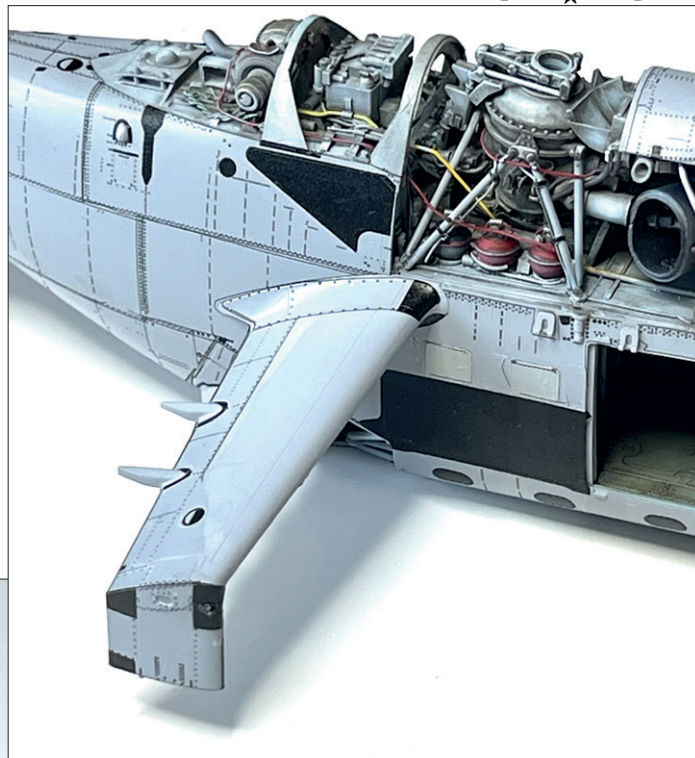
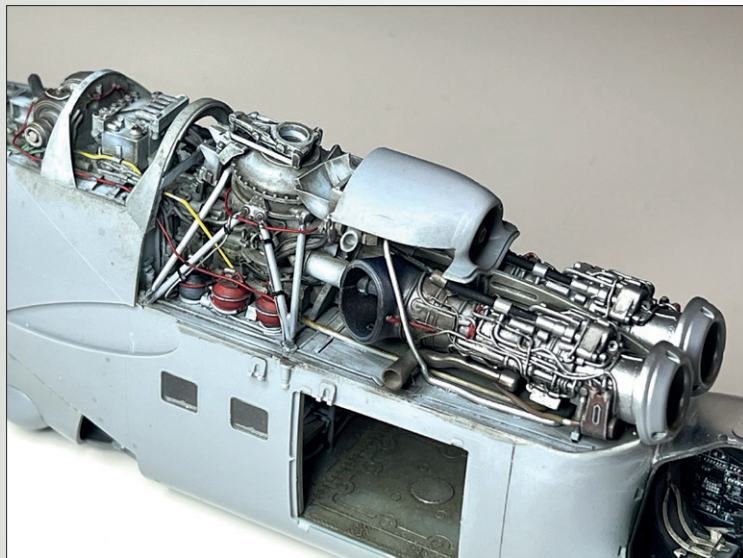
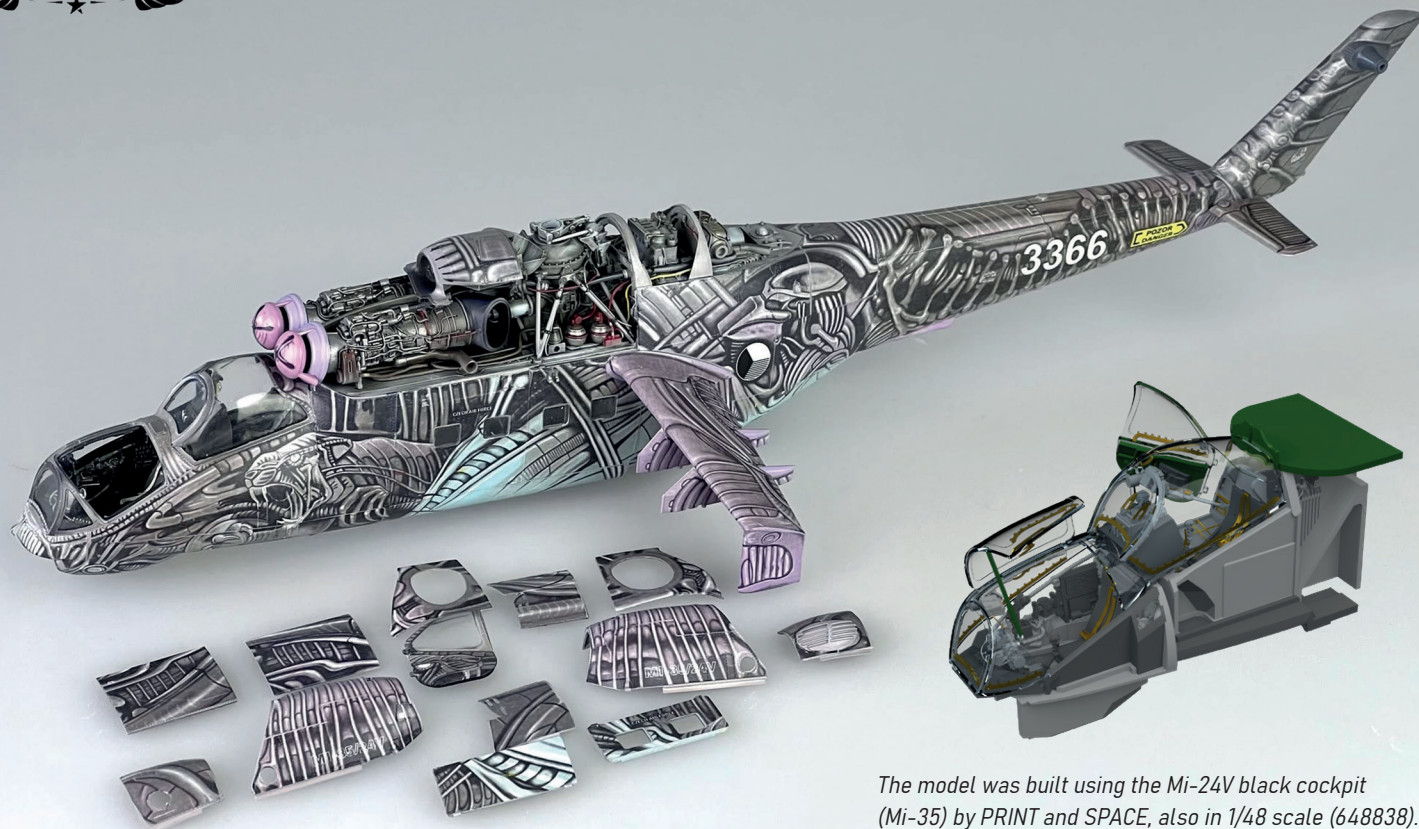


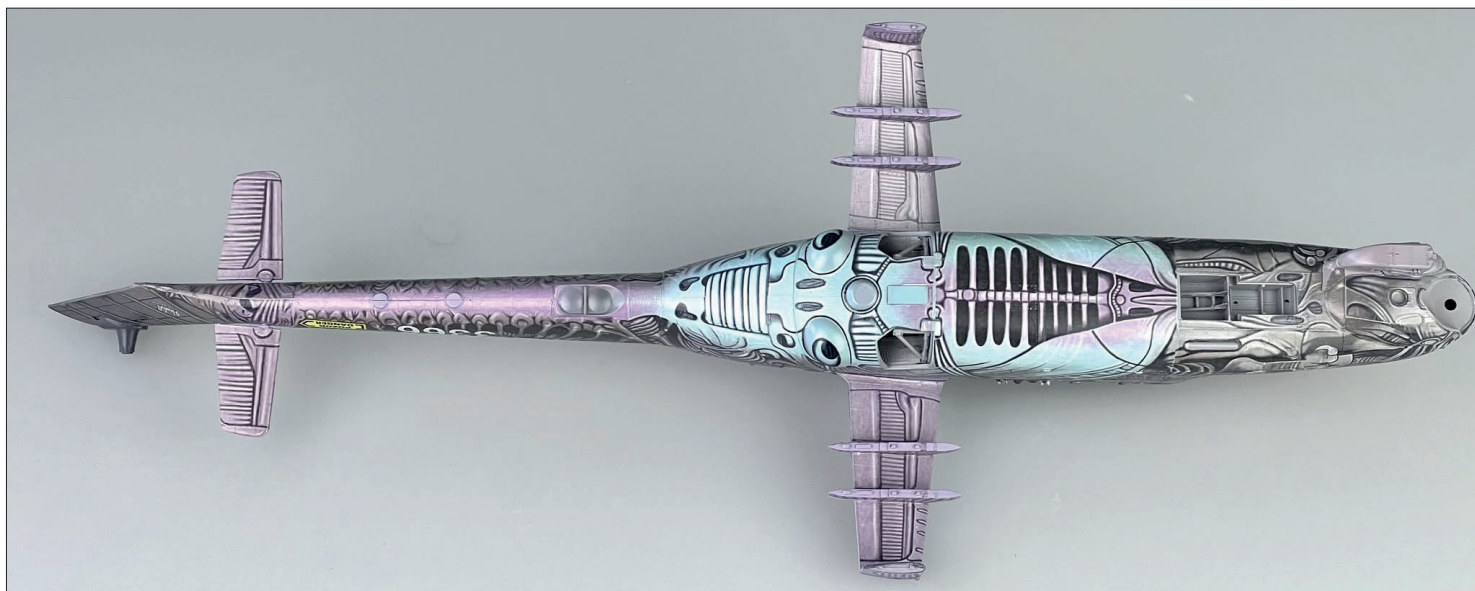
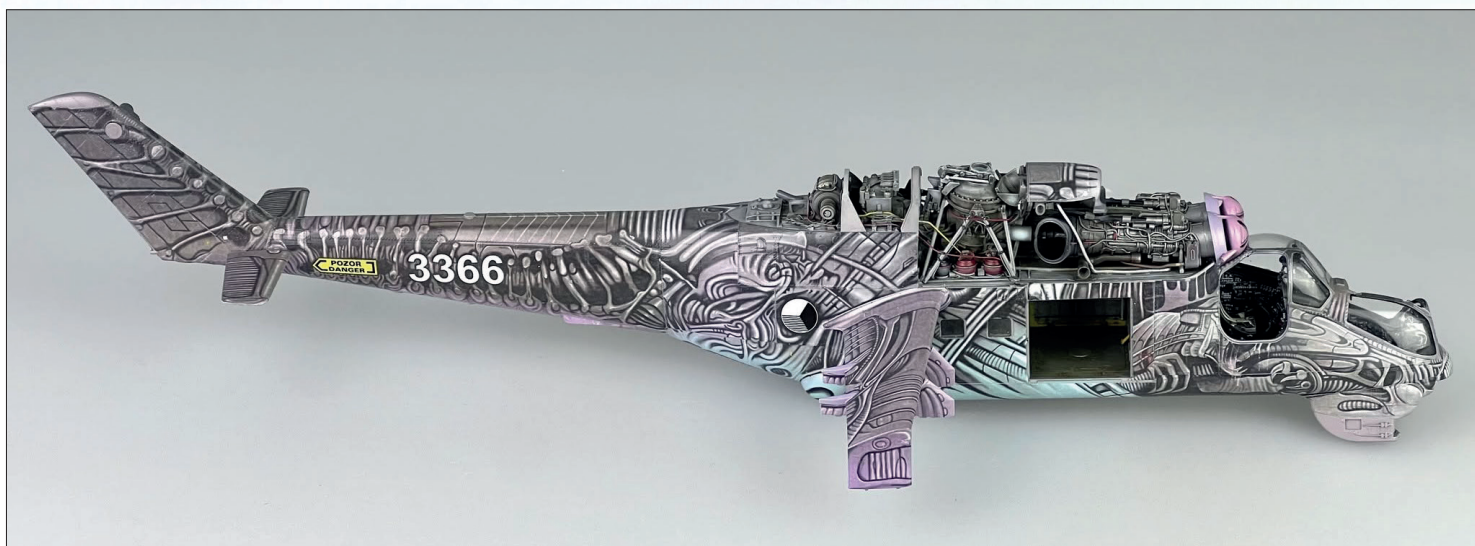
Photo-etched parts for the Mi-24P cargo interior in 1/48 scale (catalog no. 481067) were used in the construction of this model.

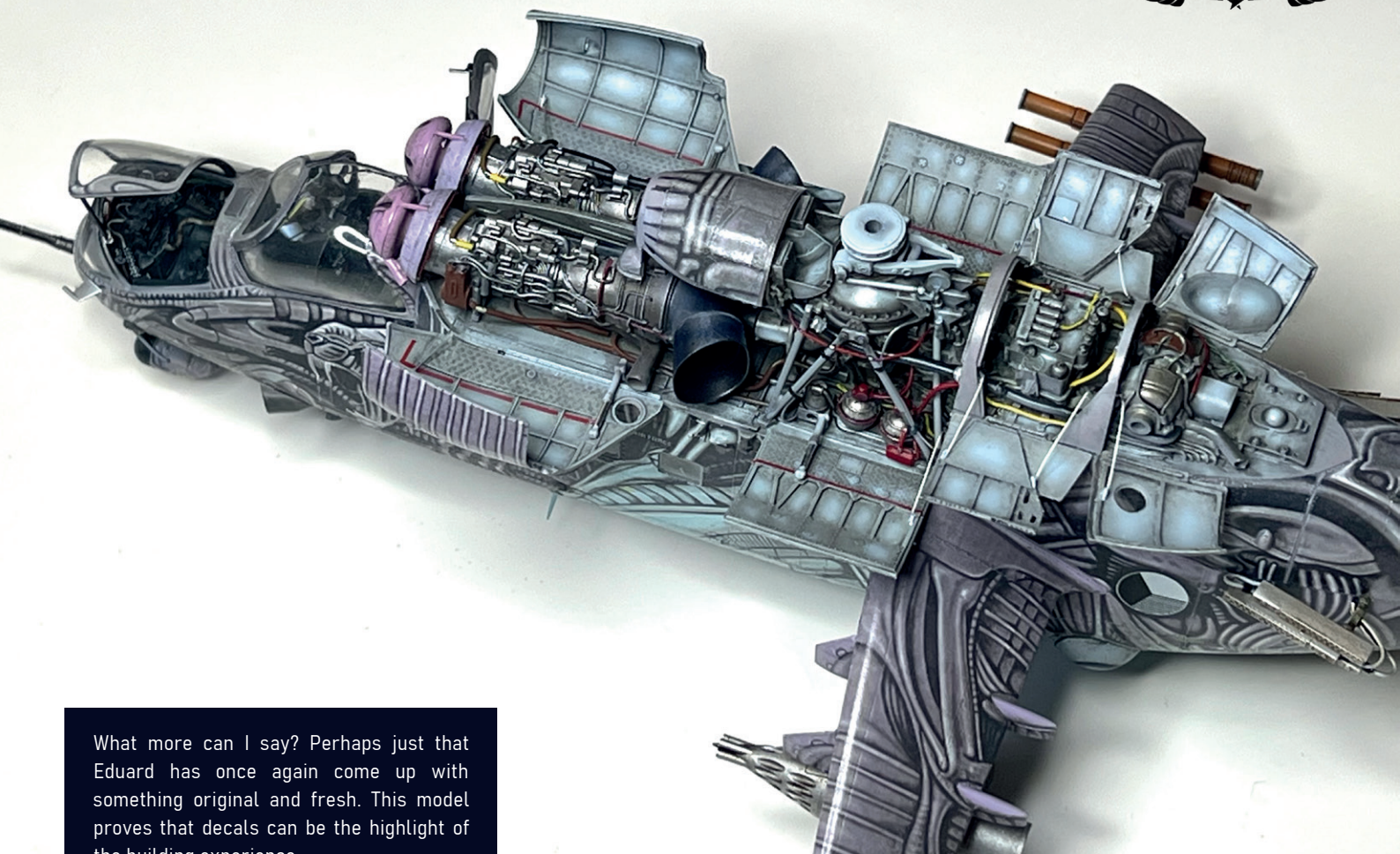






The model was built using the Mi-24V black cockpit (Mi-35) by PRINT and SPACE, also in 1/48 scale (648838).

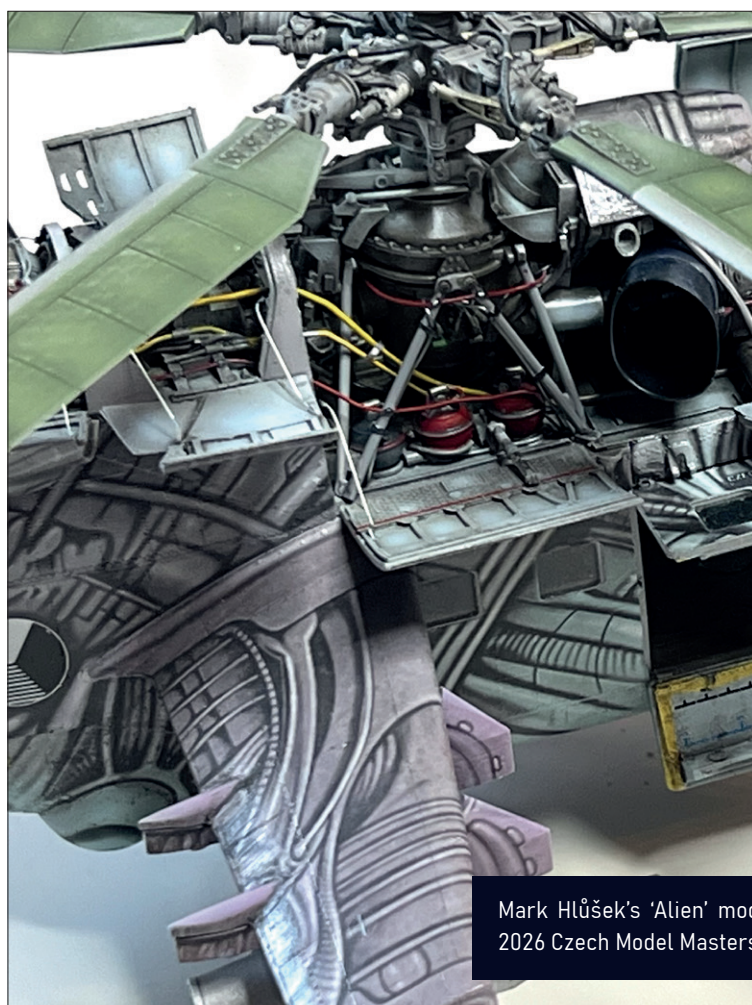
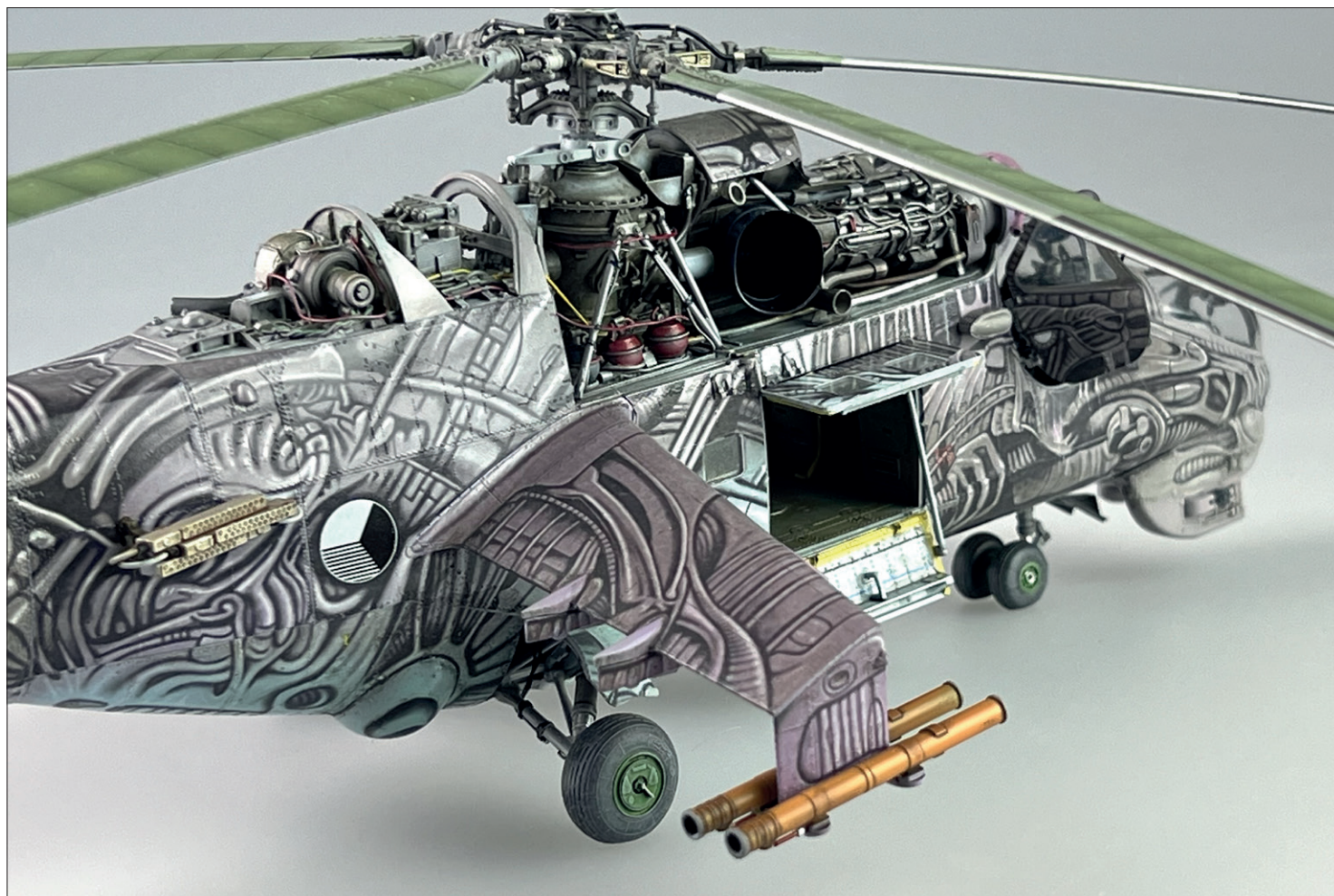




What more can I say? Perhaps just that Eduard has once again come up with something original and fresh. This model proves that decals can be the highlight of the building experience.

Finally, I'd like to thank the person who designed these extraordinary decals. They've done a brilliant job, and it's thanks to them that we have this unmissable model.





Mark Hlůšek's 'Alien' model won second place at the 2026 Czech Model Masters – E-Day competition.

P-51D-10 MUSTANG 1/48



s/n 44-14223, Lt. Col. Elwyn G. Righetti, CO of 55th FG, 8th AF, Wormingford, United Kingdom, December 1944–March 1945

Elwyn Guido Righetti, also known as "Eager El", was not only the 55th FG top fighter ace but also the most successful strafing ace in the whole ETO. Righetti joined the 338th FS, 55th FG in October 1944. At the age of 29, he was already a matured pilot, however he lacked the combat experience. Despite his age he was eager and aggressive, so he was able to boost morale of his rather tired group. One of Righetti's "hobbies" was destroying the locomotives. He also managed to shoot down

two Mistels and destroyed several Me 262 jets on the ground. Unfortunately, Righetti's outstanding achievements were cut short right before the end of war. On April 17, 1945, exactly on his 30th birthday, Righetti was shot down by flak while raiding the airfield near Dresden. He successfully performed the emergency landing and advised his friends over the radio "Tell the family I'm okay. Broke my nose on landing. It's been a hell of a lot of fun working with you, gang. Be seeing you a little

later." Since then no one ever heard about Righetti again. Supposedly he was murdered by the enraged German civilians. During his short combat career, he scored 7.5 kills and destroyed 35 enemy aircraft on the ground. He flew two personal Mustangs (44-14223 and 44-47222), both of them were decorated with the inscription KATYDID and grasshopper artwork on the port side of the fuselage.



The model was built by Paolo Portuesi as part of a project by Eduard and the Museum of the Air Battle over the Ore Mountains on 11 September 1944 in Kovářská, where it is now on display.

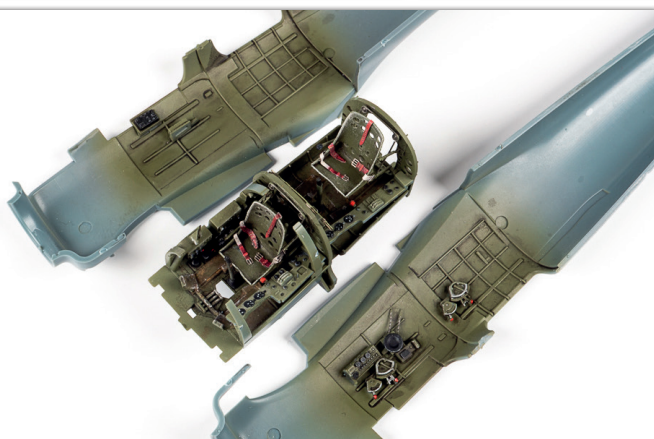
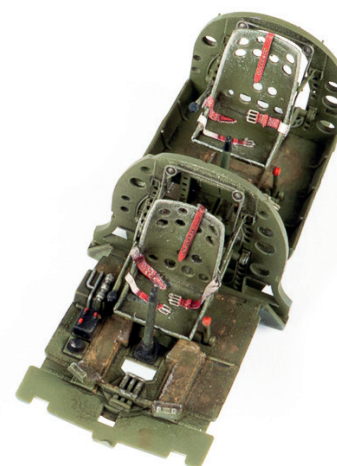
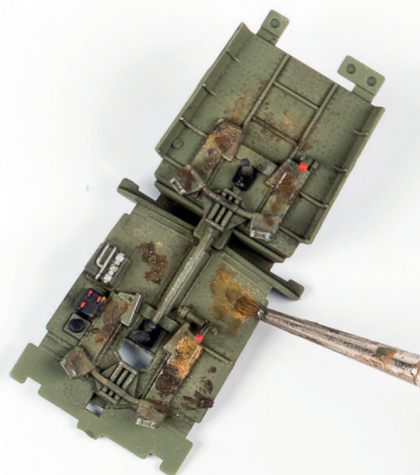
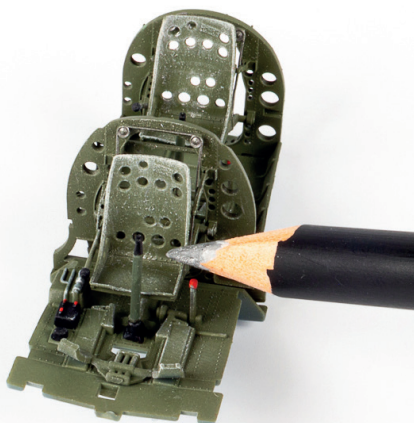
A6M2-K

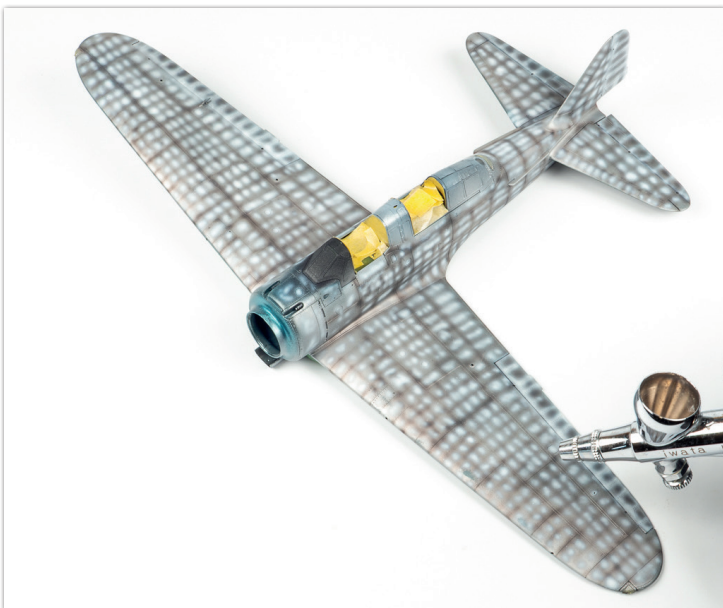
1/48

[Product Page](#)

#82218

MARKING A

built by **Karol Konwerski**





A6M2-K, Tsukuba Kōkūtai, Tsukuba Base, Japan, 1944

Tsukuba Kōkūtai training unit was separated from Kasumigaura Kōkūtai in December 1938. Over the time, the focus of training provided by the unit changed. In November 1944, Tsukuba Kōkūtai assigned experienced instructors to form a fighter squadron equipped with Zero and Shiden aircraft. This squadron engaged in combat with B-29 bombers and U.S. carrier-based aircraft as early as January

and February 1945. At the end of March 1945, Tsukuba Kōkūtai was ordered to form its own Kamikaze units, designated Tsukuba-tai No. 1 to No. 6. However, the last two Kamikaze units were staffed by Zero pilots from Kōkūtai 721. In July 1943, a regulation was issued that, among other things, mandated that training aircraft deployed in combat operations or based in areas where the enemy was active should be

painted like combat aircraft. In practice, this led to the repainting of already-produced A6M2-K trainers. One such aircraft was Tsu-415, which is known from a photograph showing it with a yellow-orange coating on all surfaces. However, in a later photograph, it appears camouflaged with dark green paint on the upper surfaces, while the original paint and markings on the tail remained unchanged.



BRASSIN (August)

644255	F-14B early LööK 1/48 Great Wall Hobby
674072	MiG-21R LööK 1/72 Eduard
635045	WWII German hammer PRINT 1/48
635046	WWII German axe PRINT 1/48
635047	WWII German NOTEK rear lights PRINT 1/48
635048	WWII German NOTEK head lights PRINT 1/48
635062	T-34 waffle tracks PRINT 1/35 Tamiya
635065	KV-2 tracks PRINT 1/35 Tamiya
6481172	MiG-21F wheel bays PRINT 1/48 Eduard
6481198	F-16l SUFA airbrakes PRINT 1/48 Great Wall Hobby
6481218	F/A-18A/C exhaust nozzles PRINT 1/48 Kinetic
672466	MiG-21R cockpit 1/72 Eduard

LööKPlus (August)

644357	Spitfire Mk.IXe LööKplus w/ fishtail exhausts 1/48 Airfix
644358	Spitfire Mk.IXe LööKplus w/ rounded exhausts 1/48 Airfix
674073	Spitfire Mk.Vb LööKplus 1/72 IBG Models

BIGSIN (August)

SIN67236	Bf 109K-4 1/72 Eduard
SIN67237	Spitfire Mk.Vb w/ rounded exhausts 1/72 Eduard
SIN67238	Spitfire Mk.Vb w/ fishtail exhausts 1/72 Eduard

644255**F-14B early LööK****1/48 Great Wall Hobby**

LööK set - Brassin pre-painted dashboards & side panels and STEEL seat belts for F-14B in 1/48 scale. Easy to assemble, replaces plastic parts. Recommended kit: Great Wall Hobby

Set contains:

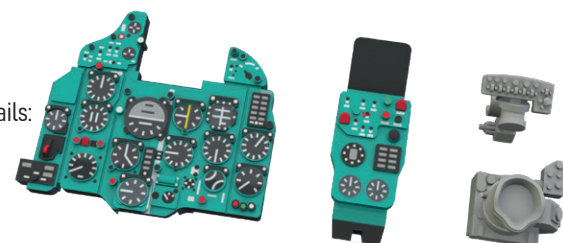
- resin: 16 parts
- 3D print: 1 part
- decals: no
- photo-etched details: yes, pre-painted
- painting mask: no

**674072****MiG-21R LööK****1/48 Eduard**

LööK set - Brassin pre-painted dashboard and STEEL seat belts for MiG-21R in 1/72 scale. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

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

**635045****WWII German hammer PRINT****1/48**

Brassin set - hammers for German WWII armoured vehicles in 1/48 scale. Set consists of 4 hammers. Made by direct 3D printing. Easy to assemble, replaces plastic parts.

Set contains:

- 3D print: 4 parts
- decals: no
- photo-etched details: no
- painting mask: no



635046

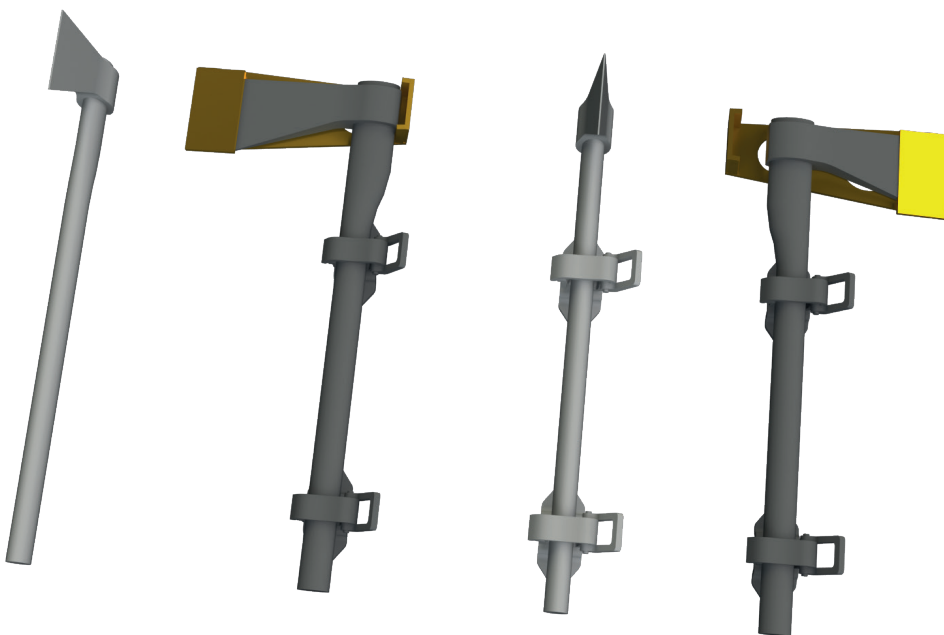
WWII German axe PRINT

1/48

Brassin set - axes for German WWII armoured vehicles in 1/48 scale. Set consists of 4 axes. Made by direct 3D printing. Easy to assemble, replaces plastic parts.

Set contains:

- 3D print: 4 parts
- decals: no
- photo-etched details: no
- painting mask: no



635047

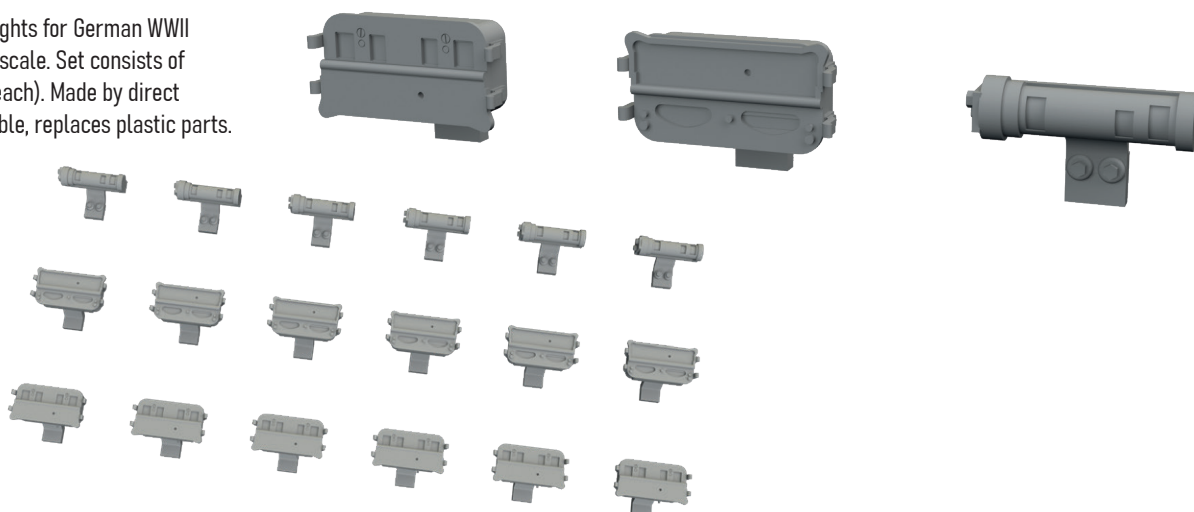
WWII German NOTEK rear lights PRINT

1/48

Brassin set - NOTEK rear lights for German WWII armoured vehicles in 1/48 scale. Set consists of 3 types of lights (6 pcs of each). Made by direct 3D printing. Easy to assemble, replaces plastic parts.

Set contains:

- 3D print: 18 parts
- decals: no
- photo-etched details: no
- painting mask: no



635048

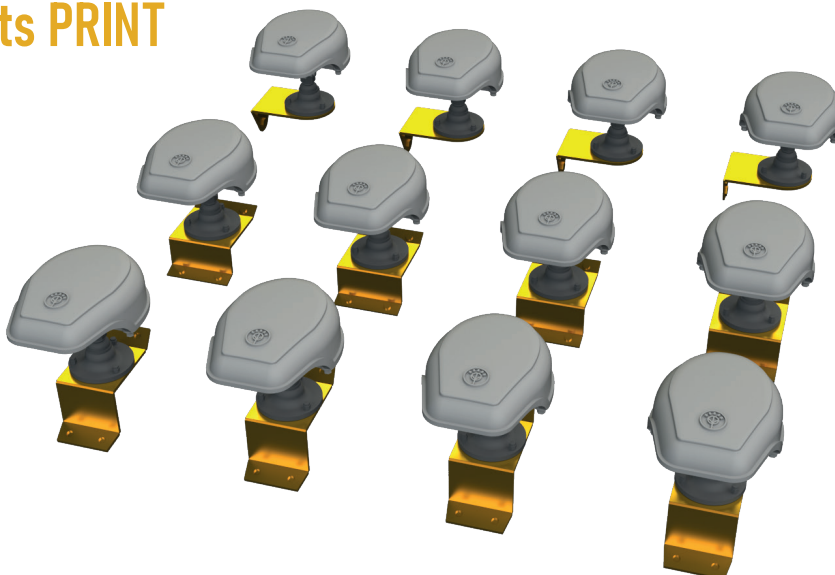
WWII German NOTEK head lights PRINT

1/48

Brassin set - NOTEK headlights for German WWII armoured vehicles in 1/48 scale. Set consists of 12 lights. Made by direct 3D printing. Easy to assemble, replaces plastic parts.

Set contains:

- 3D print: 24 parts
- decals: no
- photo-etched details: yes
- painting mask: no



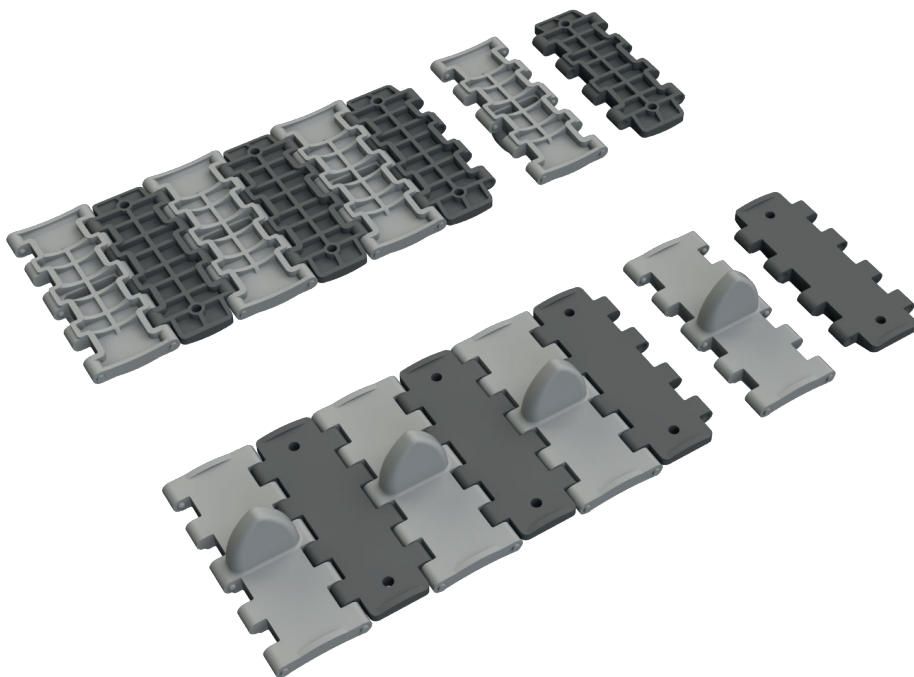
635062

T-34 waffle tracks PRINT**1/35 Tamiya**

Brassin set - workable track links for T-34 in 1/35 scale. Set consists if tracks for one model. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Tamiya

Set contains:

- 3D print: 160 parts
- decals: no
- photo-etched details: no
- painting mask: no



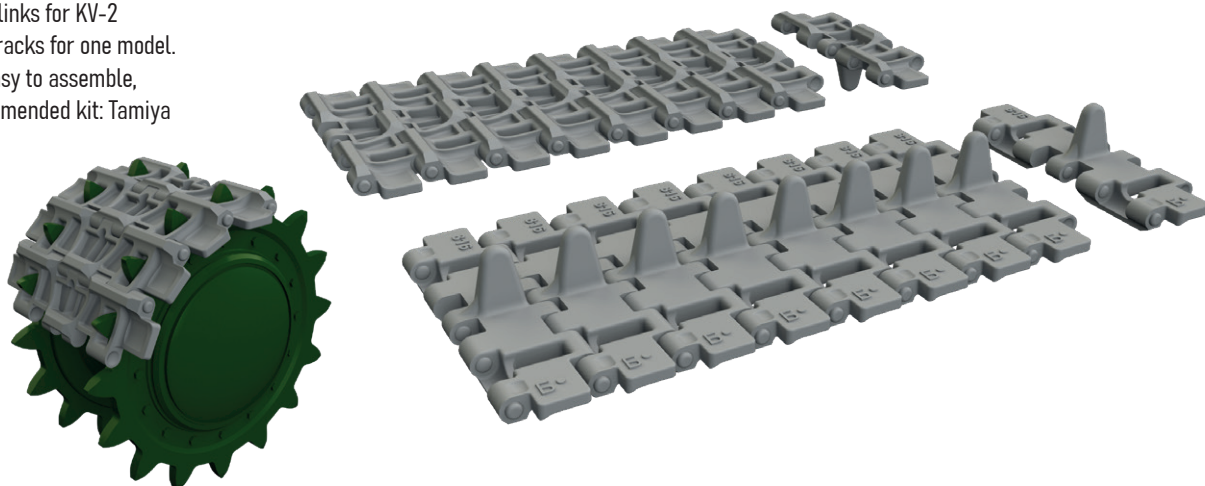
635065

KV-2 tracks PRINT**1/35 Tamiya**

Brassin set - workable track links for KV-2 in 1/35 scale. Set consists if tracks for one model. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Tamiya

Set contains:

- 3D print: 180 parts
- decals: no
- photo-etched details: no
- painting mask: no



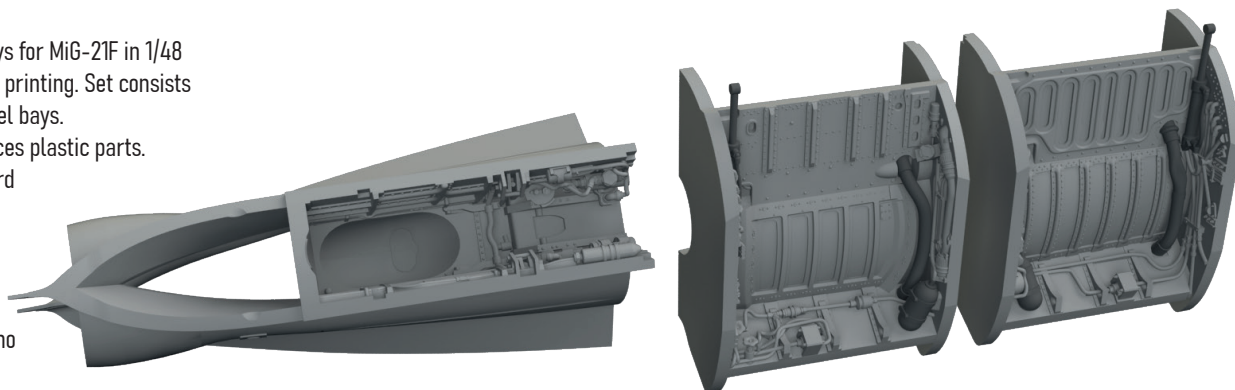
6481172

MiG-21F wheel bays PRINT**1/48 Eduard**

Brassin set - wheels bays for MiG-21F in 1/48 scale. Made by direct 3D printing. Set consists of a front and main wheel bays. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

- 3D print: 9 parts
- decals: no
- photo-etched details: no
- painting mask: no



6481198

F-16I SUFA airbrakes PRINT**1/48 Great Wall Hobby**

Brassin set - air brakes for F-16I SUFA in 1/48 scale.
Made by direct 3D printing. Easy to assemble, replaces plastic parts.
Recommended kit: Great Wall Hobby

Set contains:

- 3D print: 2 parts
- decals: no
- photo-etched details: no
- painting mask: no



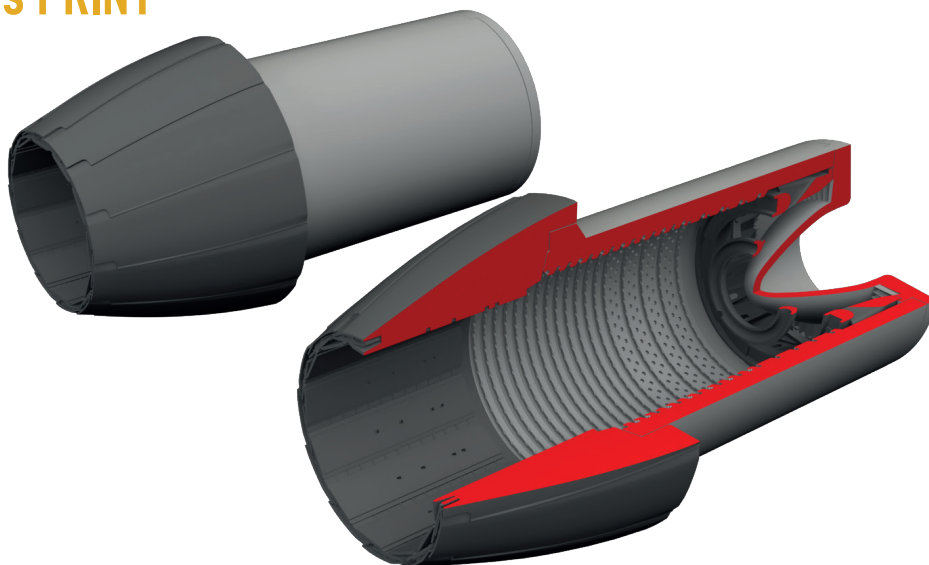
6481218

F/A-18A/C exhaust nozzles PRINT**1/48 KINETIC**

Brassin set - exhaust nozzles for F/A-18A/C
in 1/48 scale. Made by direct 3D printing.
Easy to assemble, replaces plastic parts.
Recommended kit: Kinetic

Set contains:

- 3D print: 8 parts
- decals: no
- photo-etched details: no
- painting mask: no



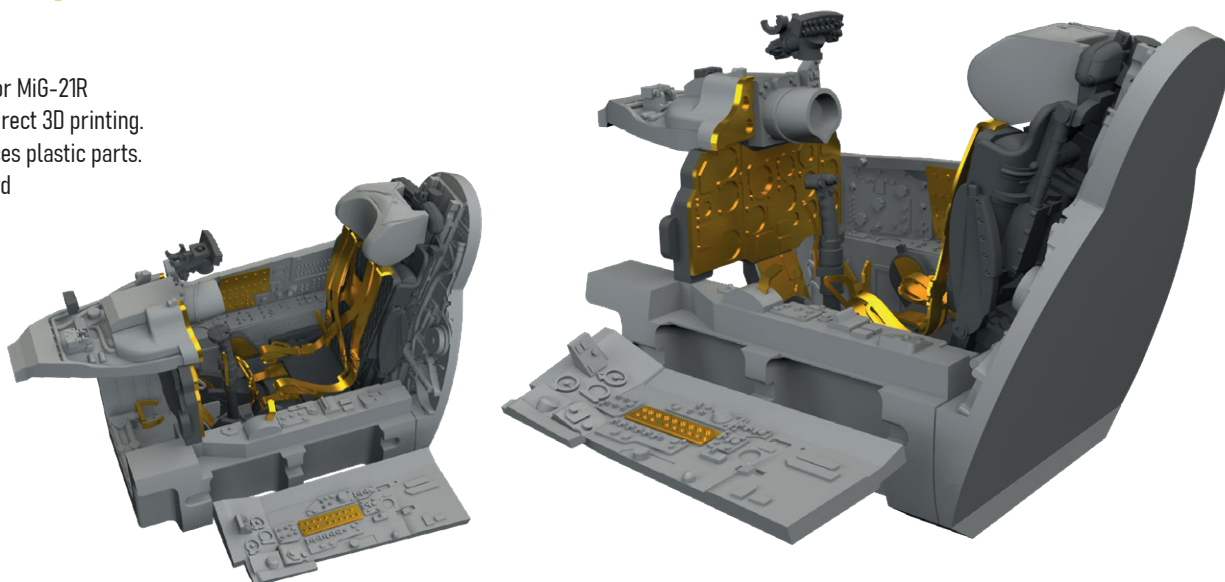
672466

MiG-21R cockpit**1/72 Eduard**

Brassin set - a cockpit for MiG-21R
in 1/72 scale. Made by direct 3D printing.
Easy to assemble, replaces plastic parts.
Recommended kit: Eduard

Set contains:

- resin: 10 parts
- 3D print: 2 parts
- decals: yes
- photo-etched details: yes, pre-painted
- painting mask: no





eduard



Katka
Borecká

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eduard
ON AIR



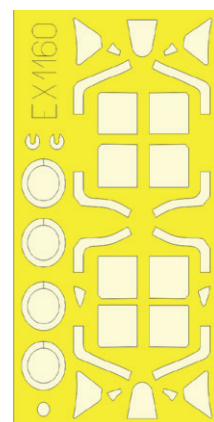
www.youtube.com/@EduardOnAirPodcast

644357

Spitfire Mk.IXe LööKplus w/ fishtail exhausts**1/48 Airfix**

Collection of 5 sets for Spitfire Mk.IXe in 1/48 scale.
Recommended kit: Airfix

- LööK set (pre-painted Brassin dashboard & Steelbelts)
- undercarriage wheels
- undercarriage legs
- exhaust stacks
- TFace mask

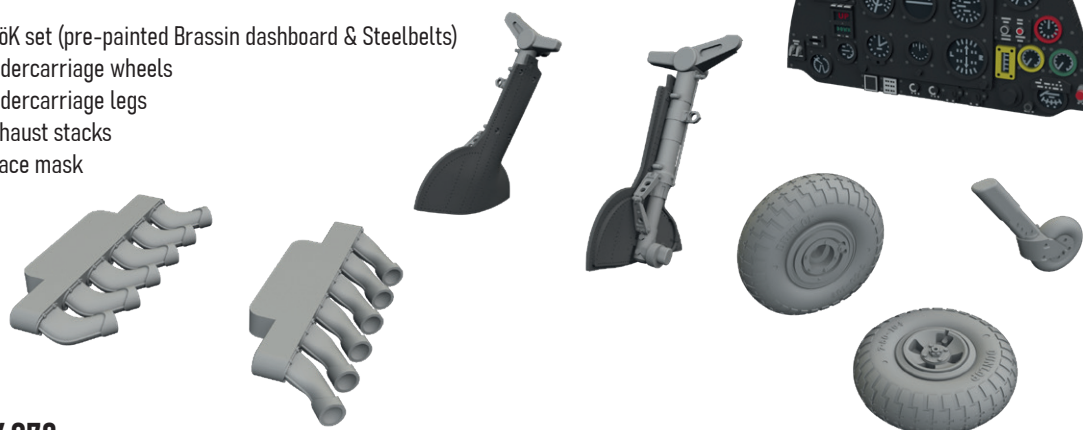
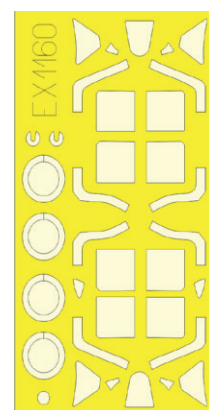
Löökt

644358

Spitfire Mk.IXe LööKplus w/ rounded exhausts**1/48 Airfix**

Collection of 5 sets for Spitfire Mk.IXe in 1/48 scale.
Recommended kit: Airfix

- LööK set (pre-painted Brassin dashboard & Steelbelts)
- undercarriage wheels
- undercarriage legs
- exhaust stacks
- TFace mask

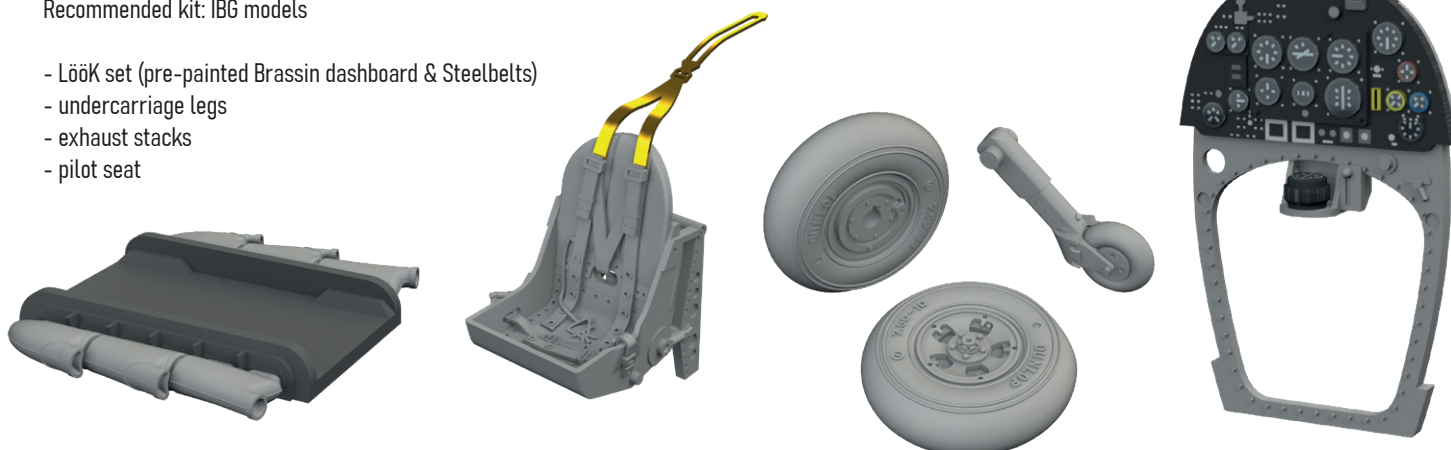
Löökt

674073

Spitfire Mk.Vb LööKplus**1/72 IBG Models**

Collection of 4 sets for Spitfire Mk.Vb in 1/72 scale.
Recommended kit: IBG models

- LööK set (pre-painted Brassin dashboard & Steelbelts)
- undercarriage legs
- exhaust stacks
- pilot seat

Löökt

SIN67236

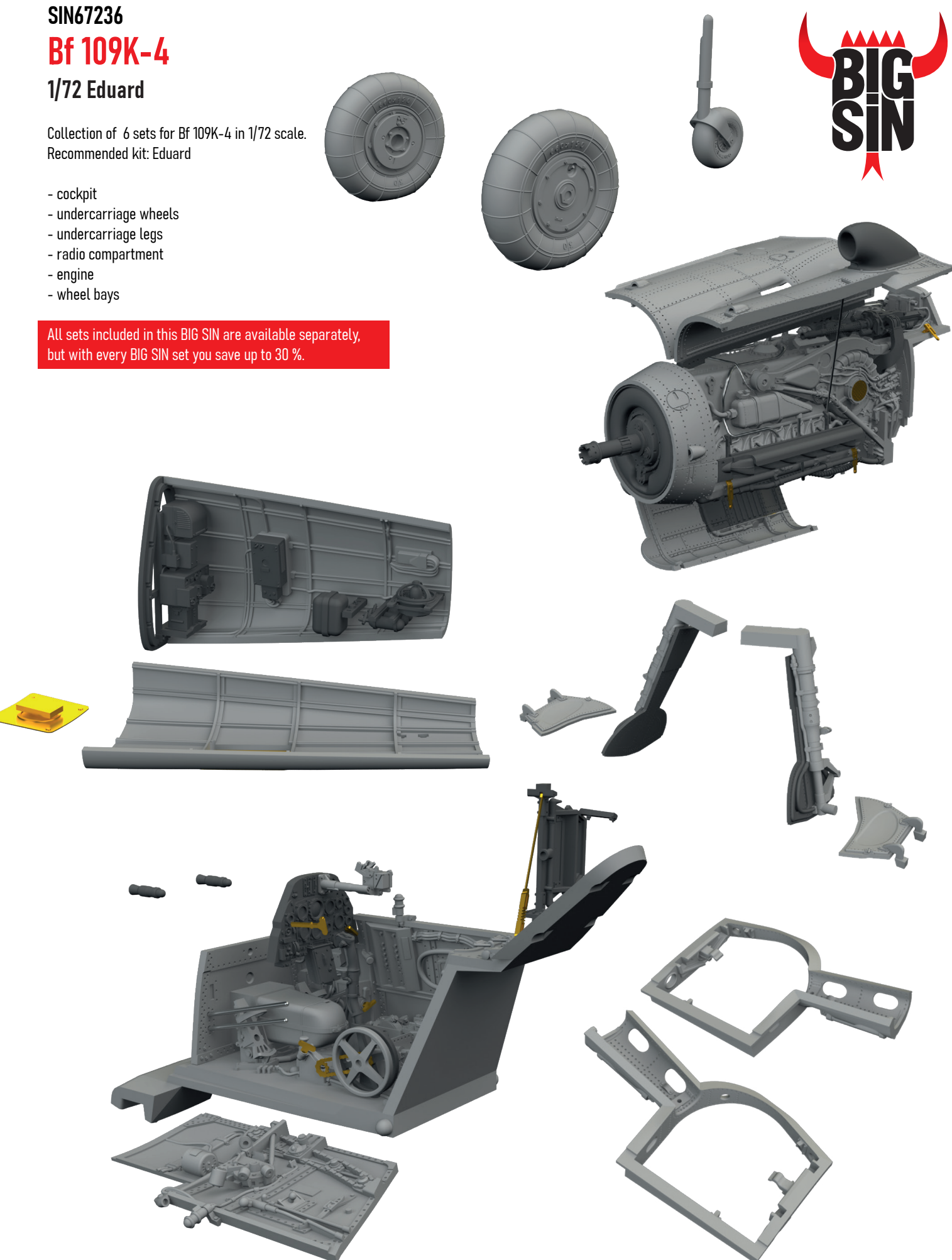
Bf 109K-4

1/72 Eduard

Collection of 6 sets for Bf 109K-4 in 1/72 scale.
Recommended kit: Eduard

- cockpit
- undercarriage wheels
- undercarriage legs
- radio compartment
- engine
- wheel bays

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



SIN67237

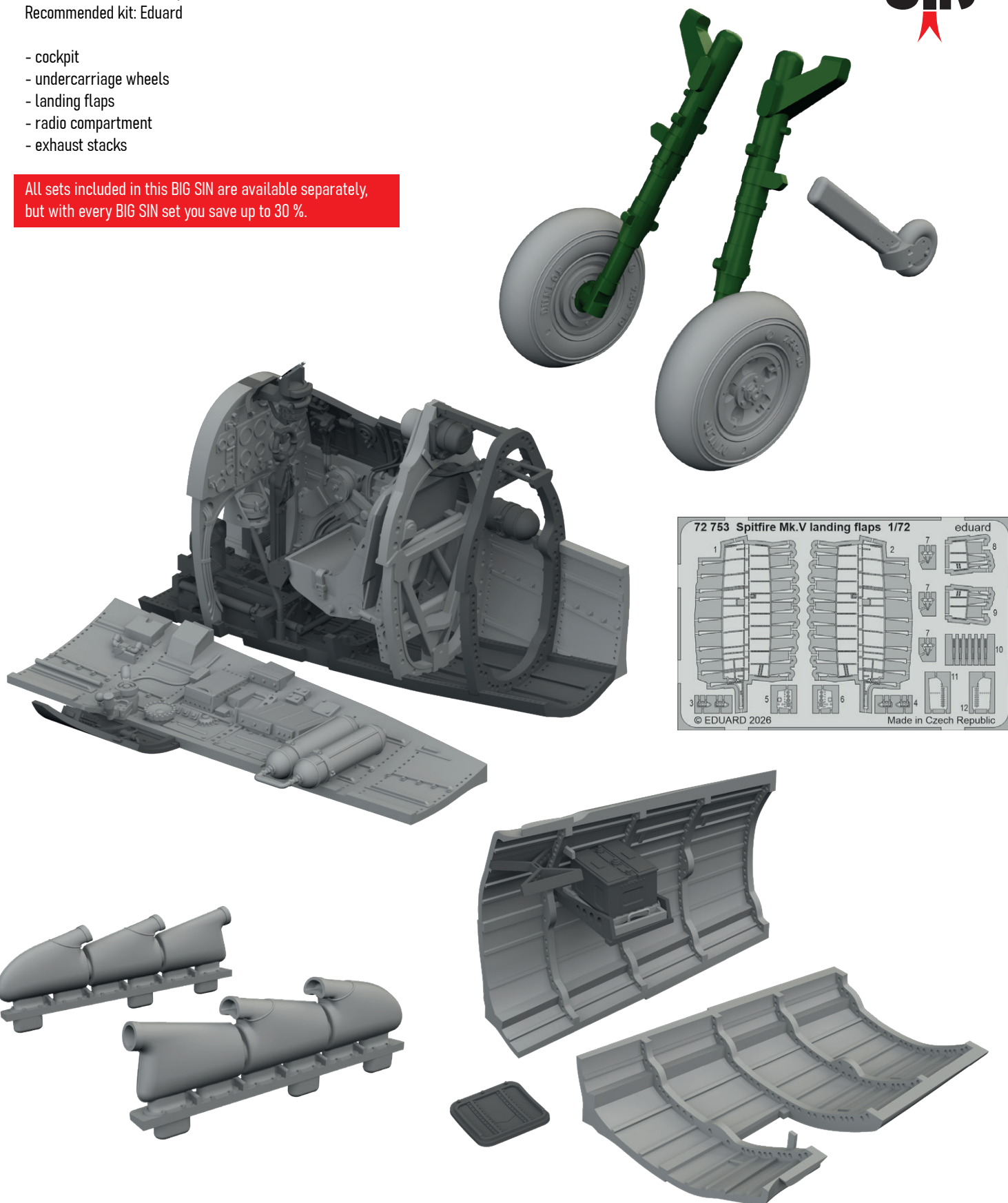
Spitfire Mk.Vb w/ rounded exhausts

1/72 Eduard

Collection of 5 sets for Spitfire Mk.Vb in 1/72 scale.
Recommended kit: Eduard

- cockpit
- undercarriage wheels
- landing flaps
- radio compartment
- exhaust stacks

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



SIN67238

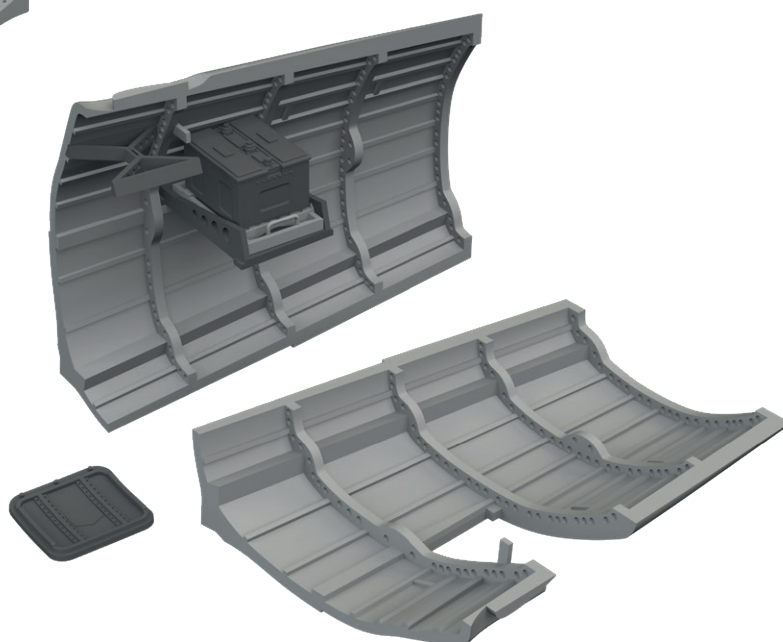
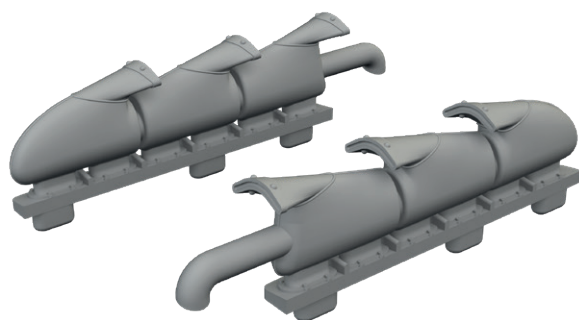
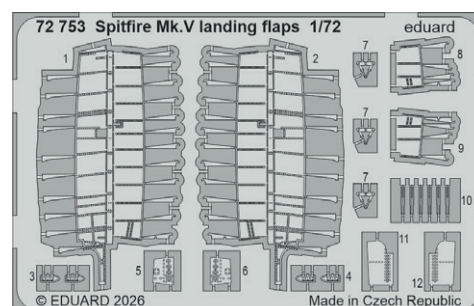
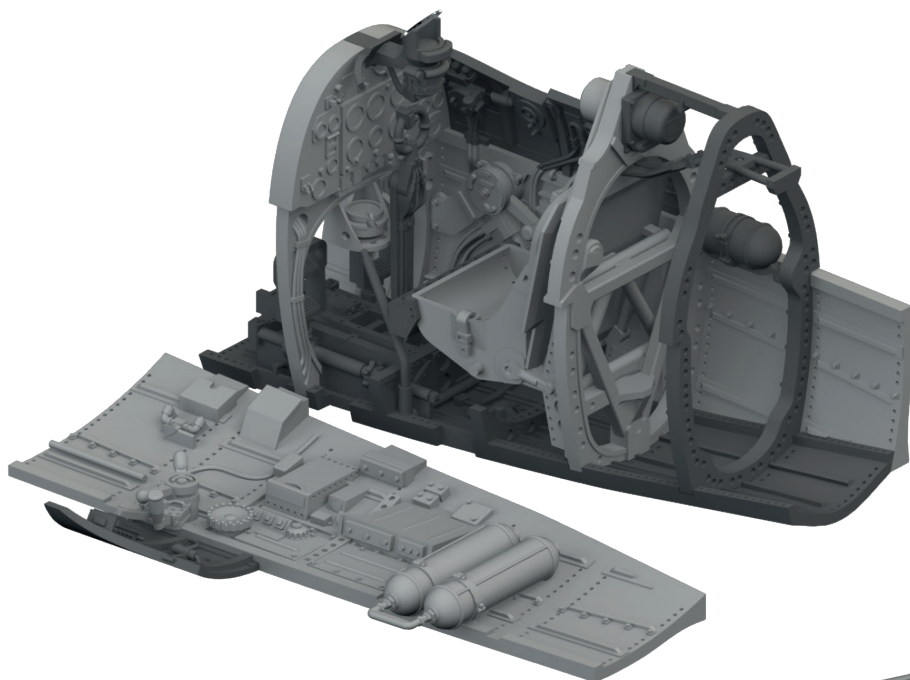
Spitfire Mk.Vb w/ fishtail exhausts

1/72 Eduard

Collection of 5 sets for Spitfire Mk.Vb in 1/72 scale.
Recommended kit: Eduard

- cockpit
- undercarriage wheels
- landing flaps
- radio compartment
- exhaust stacks

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



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PE-SETS

325004	Meteor F.8	1/32	Revell
325005	Meteor FR.9	1/32	Revell
481184	AH-6J guns	1/48	ICM
491598	MiG-17F	1/48	Kinetic
491599	MiG-17F (GDR - Lim 5)	1/48	Kinetic
73872	F4F-3	1/72	Arma Hobby
73873	P-51D Very Long Range	1/72	Arma Hobby

ZOOMS

33392	P-51B seatbelts STEEL	1/32	Eduard
FE1598	MiG-17F	1/48	Kinetic
FE1599	MiG-17F (GDR - Lim 5)	1/48	Kinetic
SS872	F4F-3	1/72	Arma Hobby

MASKS

JX355	Meteor F.8	1/32	Revell
JX356	Meteor F.8 TFace	1/32	Revell
EX1192	MiG-17F surface panels	1/48	Kinetic
EX1193	MiG-21F surface panels	1/48	Eduard

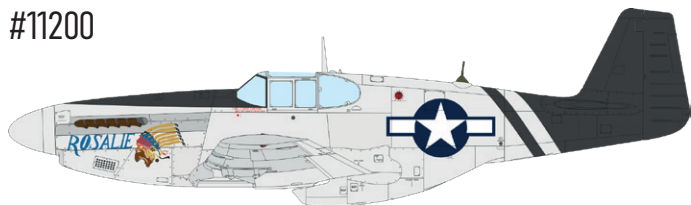
SPACE

3DL32050	P-51B SPACE	1/32	Eduard
3DL48300	MiG-17F SPACE	1/48	Kinetic
3DL48301	MiG-17F (GDR - Lim 5) SPACE	1/48	Kinetic
3DL48302	MiG-21 PFM / MF/ R canopy seal SPACE	1/48	Eduard
3DL48303	MiG-21bis canopy seal SPACE	1/48	Eduard
3DL72094	Yak-1b SPACE	1/72	Arma Hobby
3DL72095	F4F-3 SPACE	1/72	Arma Hobby
3DL72096	P-51D Very Long Range SPACE	1/72	Arma Hobby
3DL72097	Ju 290A-5 SPACE	1/72	Revell
3DL72098	Ju 290A-7 SPACE	1/72	Revell

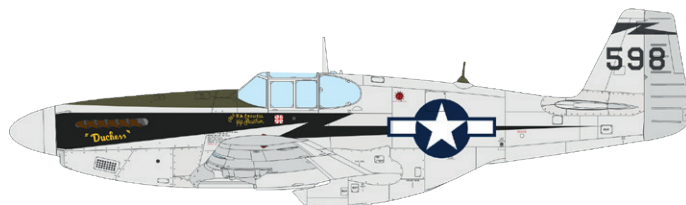
Sharks and Stallions **DUAL COMBO** 1/48



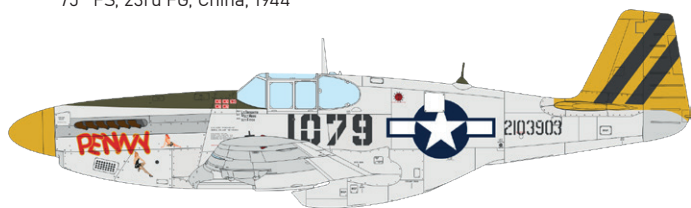
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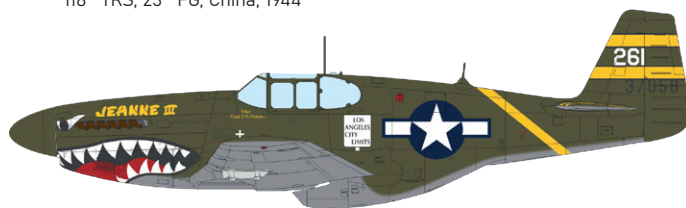
P-51B/C, Lt. Joshua D. Sanford,
75th FS, 23rd FG, China, 1944



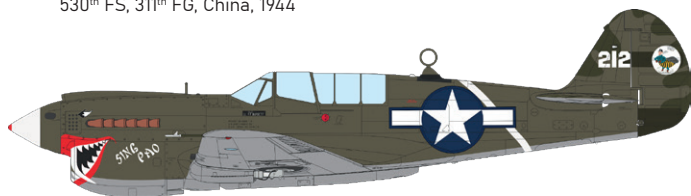
P-51C-10-NT, 44-11102, Capt. Raymond A. Crowell,
118th TRS, 23rd FG, China, 1944



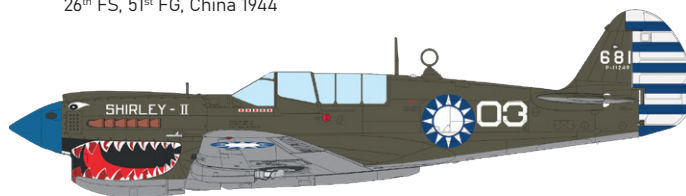
P-51C, 42-103903, Lt. Lester L. Arasmith,
530th FS, 311th FG, China, 1944



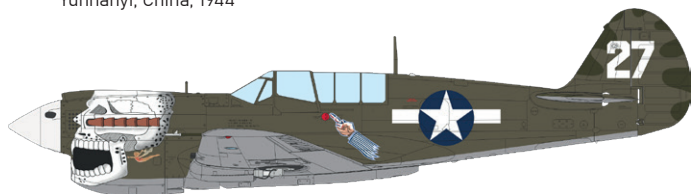
P-51B, 43-7058, Capt. Burton N. Rodier Jr.,
26th FS, 51st FG, China 1944



P-40N, Lt. Fred F. Burgett, 25th FS, 51st FG,
Yunnanyi, China, 1944



P-40N-15, Capt. Raymond L. Callaway,
8th FS, 3rd FG, Liangshan, China, August 1944



P-40N-5, 88th FS, 80th FG, India, 1944



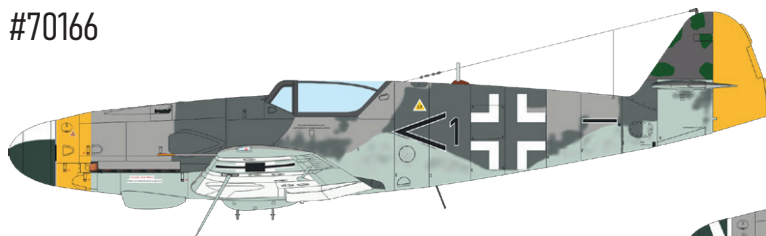
P-40N, Maj. Armit W. Lewis, 7th FS, 3rd FG, China 1944

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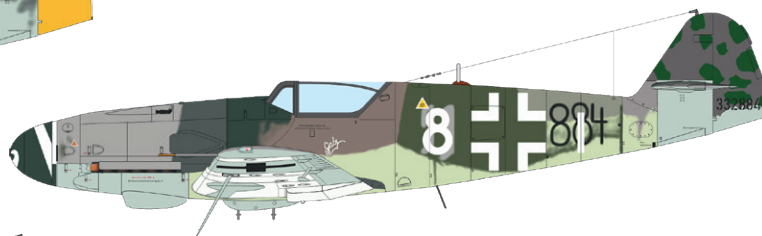
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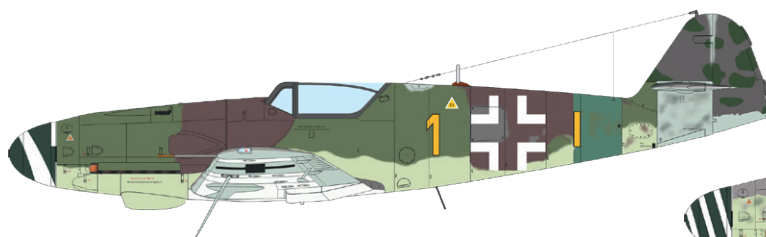
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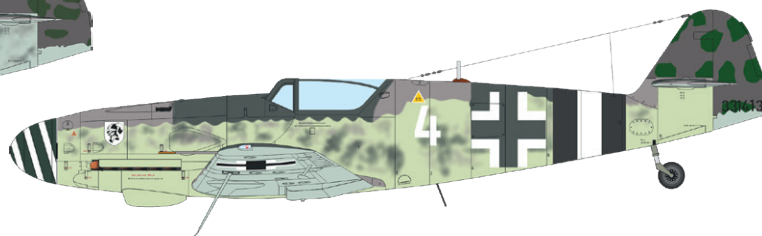
W.Nr. 335xxx, Lt. Willy van de Kamp, Stab II./JG 52,
Neubiberg, Germany, May 1945



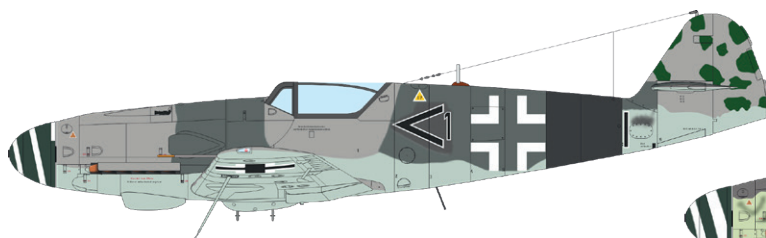
W.Nr. 332884, 9./JG 3, Leck, Germany, May 1945



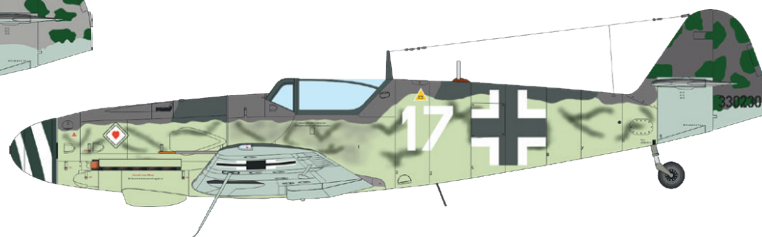
W.Nr. 334xxx, 11./JG 27, Goslar, Germany, April 1945



W.Nr. 331413, 1./JG 4, Berlin-Schönefeld, Germany,
February-March 1945



W.Nr. 335xxx, Lt. Ernst-Dieter Bernhard,
Stab III./JG 53, Kaufbeuren, Germany, April 1945



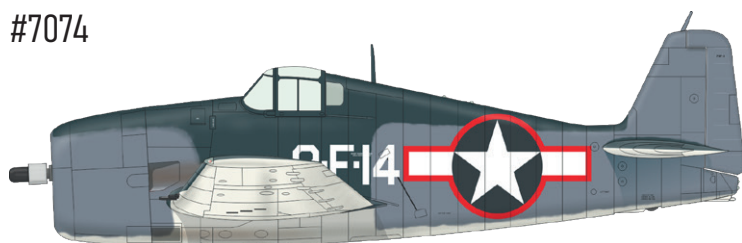
W.Nr. 330230, Uffz. Heinrich Munninger, 10./JG 77,
Neuruppin, Germany, November 1944

F6F-3 Hellcat RE-RELEASE

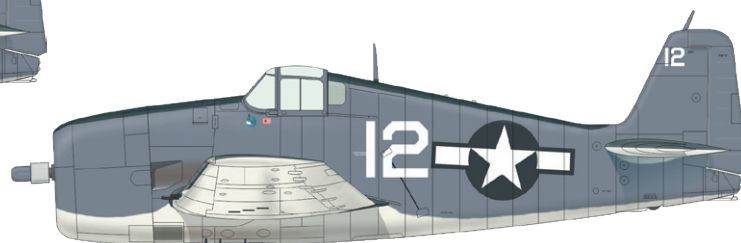
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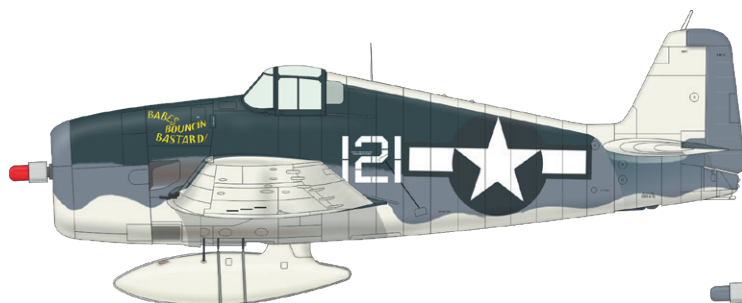
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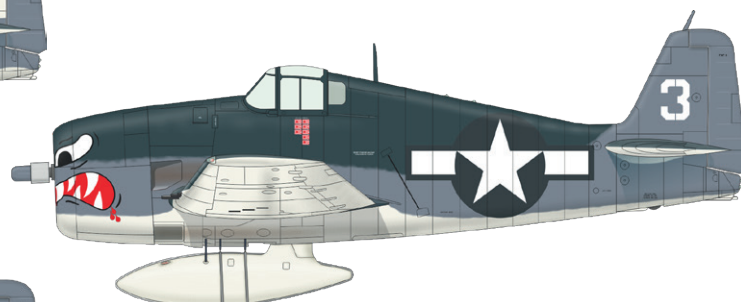
VF-8, USS Intrepid (CV-11), Summer 1943



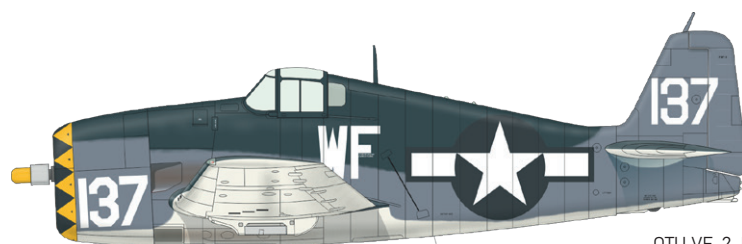
Lt. Hamilton McWhorter, USS Essex (CV-9), March 1944



Lt. L. A. Edmonston, VF-34, Nissan Island, May 1944



Ens. Gordon Arthur Stanley, VF-27, USS Princeton (CVL-23), October 1944



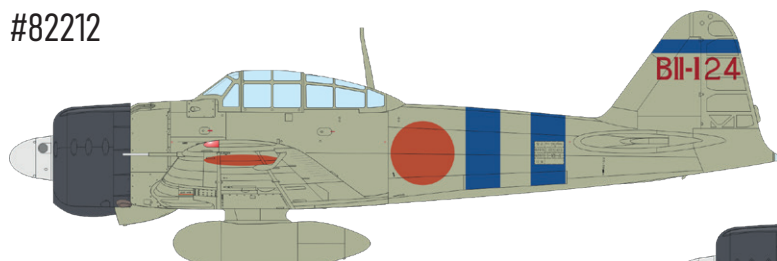
OTU VF-2, NAS Melbourne, United States, October 1944

A6M2 Zero Type 21 RE-RELEASE

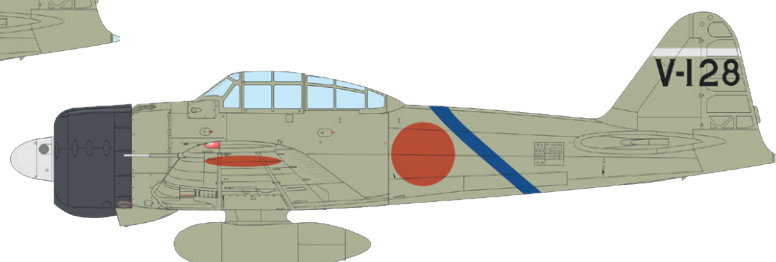
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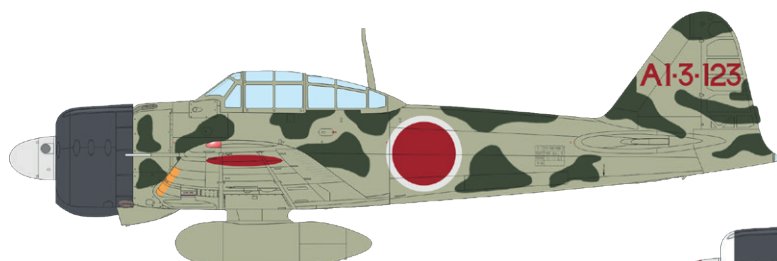
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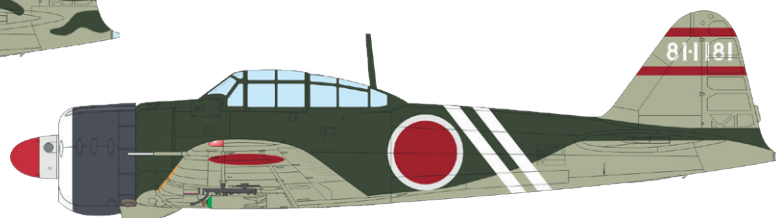
c/n 5379, P01c Tsuguo Matsuyama,
Hiryū Fighter Squadron, aircraft carrier Hiryū,
December 7, 1941



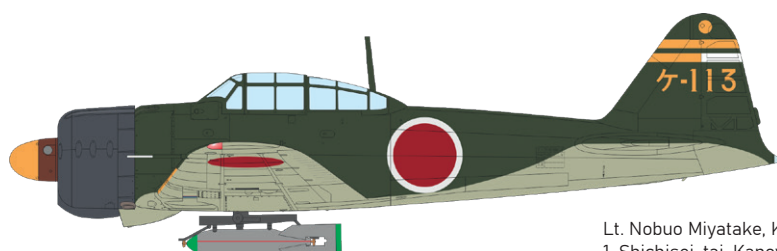
P01c Saburō Sakai, Tainan Kōkūtai, Lakunai airfield,
Rabaul, New Britain island, August 1942



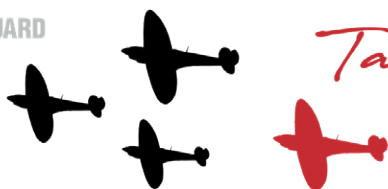
P02c Kōtarō Koyae, Zuihō Fighter Squadron,
Rabaul, New Britain island, April 1943



Lt. Kunio Kanzaki, CO of Hikōtai 311 of Kōkūtai 381,
Kendari airfield, Celebes island, May 1944



Lt. Nobuo Miyatake, Kamikaze Tokubetsu Kōgekitai,
1. Shichisei-tai, Kanoya airbase, Japan, April 1944



THE CARPET MONSTER

Text: Jan Bobek

You have almost certainly experienced it. You are working on a model or figure, holding a part in your tweezers, when suddenly – ping! – the part is gone. You may still hear a sound from somewhere in the room proving that it landed, but if you have a carpet, you will hear nothing at all. Occasionally, you manage to spot the part lying on the floor during those first few seconds. But take your eyes off it for just a moment, and by the time you bend down to retrieve it, the part has vanished! In all likelihood, it has been eaten by the creature known throughout the modelling community as the Carpet Monster. It is a truly cunning and malicious beast.

The loss of a part is followed by the usual ritual: the modeller crawls around the floor on all fours, desperately searching for it – often for tens of minutes – to the great amusement or disdain of family members and household pets.

The journeys taken by parts lost in this way are truly unpredictable. Sometimes they are discovered later that same day; at other times, they mysteriously reappear several years later. Quite often, however, they vanish without a trace.

A friend once told me that he eventually found a missing part on a shelf that was considerably higher than his workbench – and relatively far away from it as well. There were no elfs in the house, so the Carpet Monster was most likely the perpetrator.

Sometimes the Carpet Monster is not responsible; ordinary physics and chemistry are to blame. I once read about a modeller whose wife helped him find a missing part during dinner. It had stuck to the skin

beneath his eye, and he had not felt it at all. The Carpet Monster can nevertheless be an extraordinarily devious creature. According to theories proposed by some modellers, it employs wormholes in the fabric of the universe. How else could we explain a modeller who never wears socks finding a missing part inside a closed drawer among his socks?

In another almost unbelievable case, a part was found on the rear side of a car outside the house – but only after the modeller had driven the car the following day! He never discovered how the missing part had escaped from his modelling room, left the house and ended up on the car.

In other cases, a part has been found in the shower or has even reappeared inside a completed model – after the modeller had made and installed a replacement. That is outright sadism on the Carpet Monster's part.

So how can we fight this phenomenon? Playing the Muppets song with Kermit and Sandra Bullock will not help, but you will at least understand animal psychiatrist will not solve it.

Some people use a small vacuum cleaner. Unfortunately, this is of little help when a part follows a hyperbolic trajectory towards the chandelier and becomes lodged somewhere above floor level.

If using the household vacuum cleaner might cause complications, the recommended method is to stretch a nylon stocking over the nozzle. This catches the part before it disappears into the depths of a dust-filled bag perhaps containing all manner of unpleasant things.

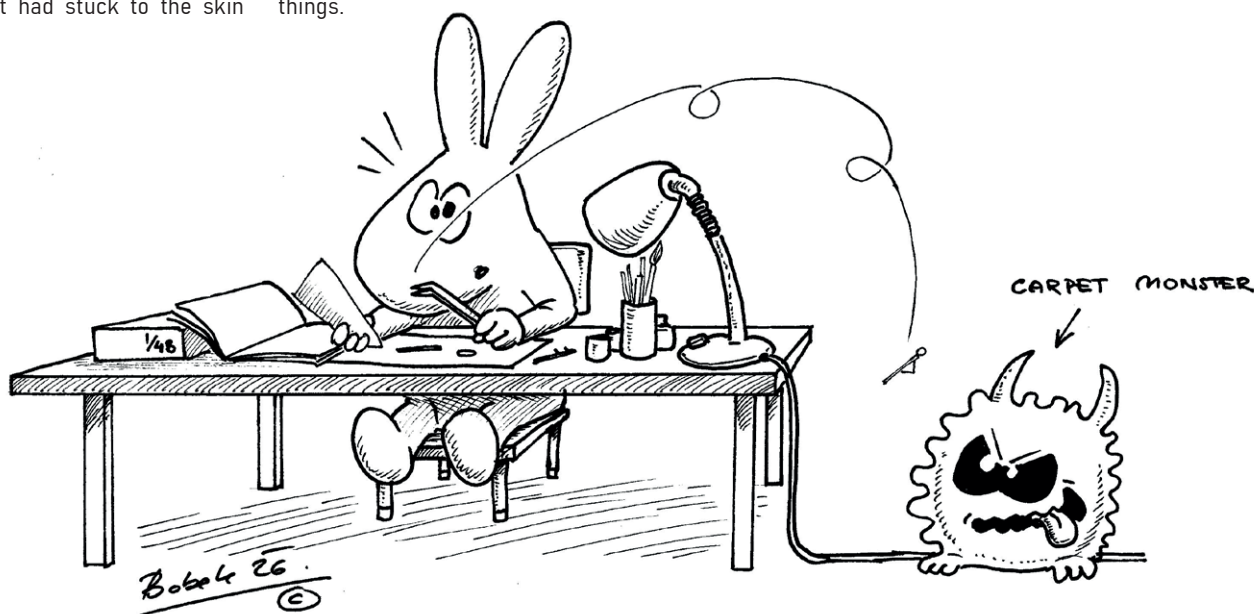
A clean floor around the workbench is generally a good starting point if you hope to recover missing parts. Modellers with tiled floors sometimes even polish them to make small pieces easier to see. One of my friends places a flashlight directly on the floor, allowing its horizontal beam to reveal missing parts more effectively.

Naturally, a missing part will reappear by miraculous means as soon as you purchase another kit or a replacement sprue. The Carpet Monster is understandably unhappy when this happens, so it retreats into a dark corner of the workshop and spitefully loosens the cap of your glue or filler, allowing it to dry out.

I believe that the best way to prevent the loss of parts is to use a high-quality pair of tweezers designed not to double as a launching device.

I hope the Carpet Monster leaves you alone as much as possible. I have included an illustration of this mythical creature that I produced a few months ago for my colleagues at Guideline Publications. I believe it may be the first illustration of this particular species, so if anyone wishes to create a Wikipedia page – or a page elsewhere – devoted to the Carpet Monster, you have my permission to use the drawing for that purpose.

No parts were lost and no Carpet Monster was sighted during the writing of this article, although I did listen to an album by the Czechoslovak underground band The Plastic People of the Universe.



KOVÁŘSKÁ 2026



5 SEPTEMBER
10:00 - 19:00



82ND ANNIVERSARY OF THE RUHLAND MISSION / AIR BATTLE OVER THE ORE MOUNTAINS

4 - 6 SEPTEMBER 2026 - PRIVATE PROGRAM FOR MUSEUM GUESTS

28TH INTERNATIONAL WWII AVIATION MEETING, HISTORICAL VEHICLES, CAMPS AND WWII REENACTMENT CLUBS, CEREMONY ON THE AIRMEN MEMORIAL, PARACHUTE JUMPS, TOUR FOR THE HISTORY - PUBLIC PEOPLE VISITING ONE OF CRASHSITES FROM SEPT. 11, 1944, SCALE PLASTIC MODELS SHOW AND COMPETITION, LIVE DIXIELAND MUSIC, FIELD KITCHEN, NEWS IN THE MUSEUM EXHIBITION, AVIATION CAFE, AND MANY OTHER EVENTS

MUSEUM OF AIR BATTLE OVER THE ORE MOUNTAINS
ON SEPTEMBER 11TH, 1944, TOWN OF KOVÁŘSKÁ,
100TH BOMB GROUP FOUNDATION

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CZECH REPUBLIC



21. KUP ZAGREB



SUBOTA / SATURDAY
05.12.2026.

OŠ JURE KAŠTELANA
VLADIMIRA RUŽDJAKA 2A, ZAGREB

POSEBNE KATEGORIJE:
SPECIAL CATEGORIES:

SHERMAN TANK
HRZ (CROATIAN AIRFORCE)

