

INFO | Eduard

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P-40E WARHAWK



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



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EDITORIAL

Dear Friends,

I just returned from Nuremberg. I left there in a rather gloomy mood, knowing that it was most likely my last time. I have always defended the Nuremberg Fair as a useful and beneficial event. But alas, its significance to our industry has steadily declined over the years, while the costs associated with participation in it have continuously done the opposite. Still, it has always brought us some benefit, despite of the expense involved. There wasn't a lot of new business to be made there, but we met with our distributors, reviewers and colleagues from other companies. And yes, it often brought opportunity for some new business and, for example, we negotiated a lot of the purchases of plastic for our Limited Edition releases at Nuremberg. It went on like this year after year, for twenty-five years until 2019. Then, along came covid and everything changed, and the fair was forced to skip a couple of years. The fact that the first post-covid event was extremely diluted was quite understandable, the second being very similar was frustrating, and that the third saw no improvement either was much more alarming. Not that the organizers did not put forth a major effort, but it seems that the participants developed some reservations about the benefits of participating in the fair. So they increasingly didn't. Neither the Americans nor the Japanese attend like they used to, and unfortunately neither do many Europeans, including Germans. We can speculate as to why. It is very likely that

two years without the fair have shown quite nicely that business can be done without it. After covid, the costs of everything increased, and the Nuremberg Fair has been begging for a long time to get on the list of costs to cut. On our list, Nuremberg holds a pretty high position now.

Nonetheless, our participation at the fair next year is not high on the list of events to skip in an effort to cut costs. The results can be surprisingly good in the end and there is a chance that this year's fair will paradoxically reflect on our business operations more than most fairs have in the past. In fact, this was also the case last year and the year before,

when agreements concluded at the Nuremberg Toy Fair practically doubled the volume of subcontracted work we were able to acquire through production for other manufacturing companies. Perhaps the paradox lies in the fact that, thanks to the smaller participation of our business partners, there was more time for meaningful and ultimately fruitful negotiations to take place. But I suspect that this is actually a reflection of the changes that are taking place in our industry and that are visibly changing it both in terms of production and business practices. While the production of model kits is dominated by technologies that push what is achievable to levels never seen before, the internet and modern distribution routes affect trade that yield corresponding benefits in terms of product diversity and speed of delivery. And the internet and the communication options it offers are changing the way we negotiate deals at the business-to-business level. The covid epidemic has clearly shown that, using current communication options, we can do quite well without expensive trade fairs. Tell me yourself, why would anyone travel halfway around the world in the winter, pay a fortune for flights, overpriced hotels and no less overpriced exhibition stands, then spend five days at an exhibition where two days would be more than enough to arrange all the meetings, when you can easily achieve pretty much the same result using your computer at your office or even at home sitting at your kitchen table? I fear that this will be the force that will increasingly push famous trade fairs from the center of trade to its outskirts. We will ultimately end up going to Nuremberg again next year, but to be honest,



the quality of the new Azerbaijani restaurant, which opened in the area of our Nuremberg hotel instead of the original German restaurant, has at least as much to do with the decision to attend as the exhibition itself. This also points to changes in which we are direct participants, all of us, from the manufacturers to the retailers and you, the modelers.

In order not to just give you abstract wisdom here, I will give you two examples of current progress. Last week, a new 3D printer arrived. We bought it as a test drive; we want to know exactly what to expect from it, because we want to expand our printer fleet based on this type. The goal is to increase the capacity and quality of our 3D printing, especially the elimination of the layering, which still remains on some parts and is the target of justified criticism from customers. The first tests show that it will be a good machine that will significantly advance us in solving both of these requirements. This is a new type of printer that arrived in Europe at the end of January, and we are probably the first to have it in the Czech Republic. When we took over the machine during training, the supplier pointed out that the current development of these printers is so rapid that a new type, replacing its predecessor, is often launched in the market to the tune of months and sometimes even weeks, and that this causes problems with the availability of spare parts, especially displays. We concluded from this that interesting times lie ahead.

The second example is from the store. On the very first day in Nuremberg, one of our valued business partners came up to me and told me that we were processing their orders too slowly, that customers needed faster service and that we had to try harder. I didn't put up much of a resistance, but in the evening I did some statistics on our deliveries. I found out that 51% of the 42 orders last year were shipped within two days, and a total of 86% of orders were shipped within four. I would say that before covid,

this would have been a great result, but not today. Today it's just not enough. I would like to relay one more story from this year's Nuremberg fair. It turns out that the mysterious IBG project they were working on is a series of Spitfires, from the Mk.I to the VI in 1:72 scale, and we have unfortunately been working on an almost identical project over the last year. As it stands, if we finish our molds according to plan, we will have our 1:72 scale Spitfire Mk.I on the market more or less at the same time as IBG. That's not the most optimal release schedule you can think of, and neither we nor they planned it like that. Neither of us see the need of going to war with each other with our Spits. We are not competitors with IBG as much as we are friends; we cooperate with one another. We are their suppliers and they are our customers. We don't need to harm each other. And therefore, since they already have the molds for the Spitfire Mk.I in progress, and we are only at the end of the design stage, with the intention of going to our tool makers this month, we have decided that we will not start our series of 72nd scale Spitfires with the Mk.I, but rather with the Mk.V. I think this is the best solution to this precarious situation for everyone involved. For manufacturers, distributors, retailers and customers.

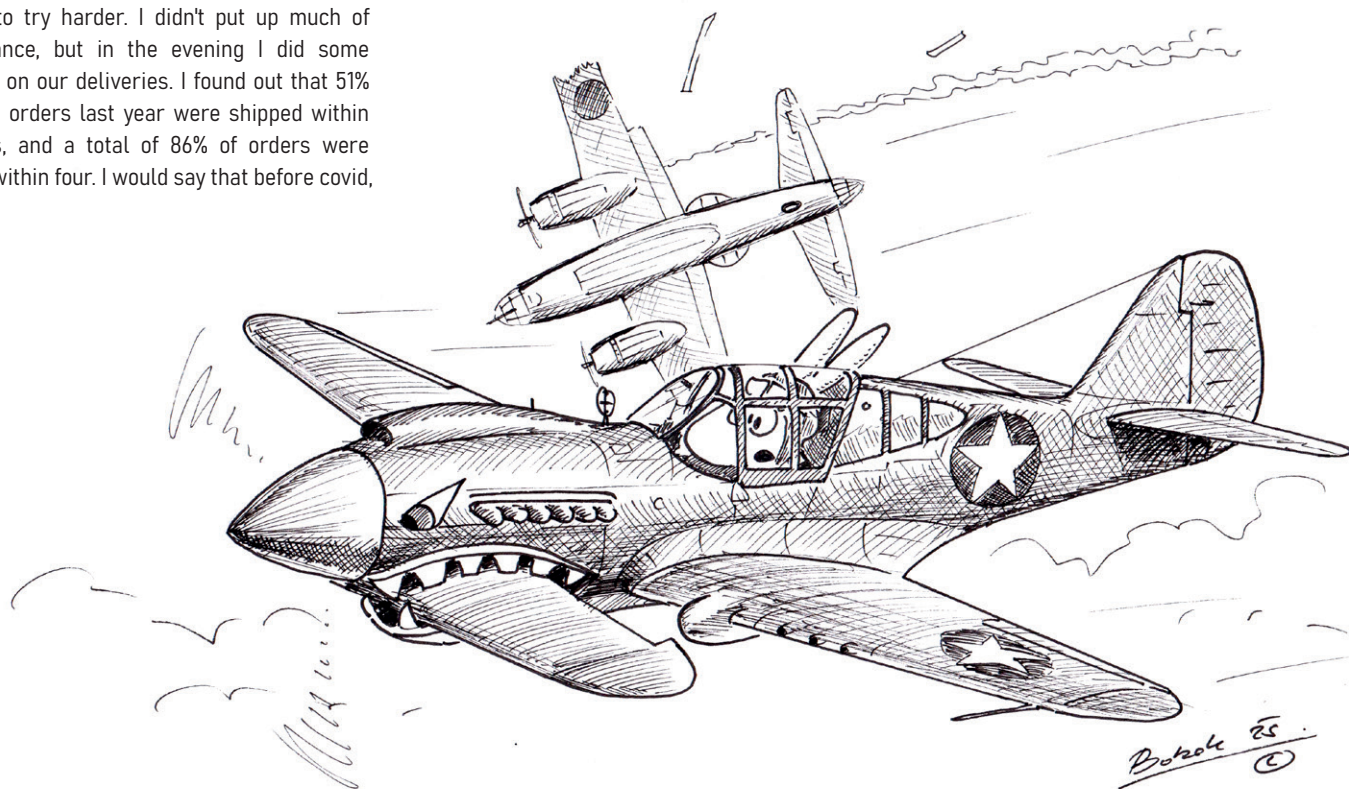
Now, a little something about February's new releases and this yields one major point of attention. That is the P-40E in the Royal Class series. As you know, we made this kit available for November pre-orders, producing the exact quantity for retailers based on those numbers, prompting a production run of 4000 kits, which we shipped to both online buyers and retailers over the course of January, and so, even

though it is a new item for February, we have nothing left in stock. So, friends, if you haven't bought the Royal Class P-40E yet and your heart is set on one, you have to look for it at your retailer's. We are completely out.

But that doesn't mean we don't have any Warhawks in our catalog. Right now we are working on completing the successor to the Royal Class, the Limited Edition 'Pacific Star' kit, dedicated to the Warhawk serving in the Pacific Theater. The kit will cover the P-40E and Kittyhawk Mk.I from the Aleutians, Australia, New Guinea, China, and so on. Details about this kit can be found among March releases, presented in this issue of our newsletter. You'll like it! I promise....

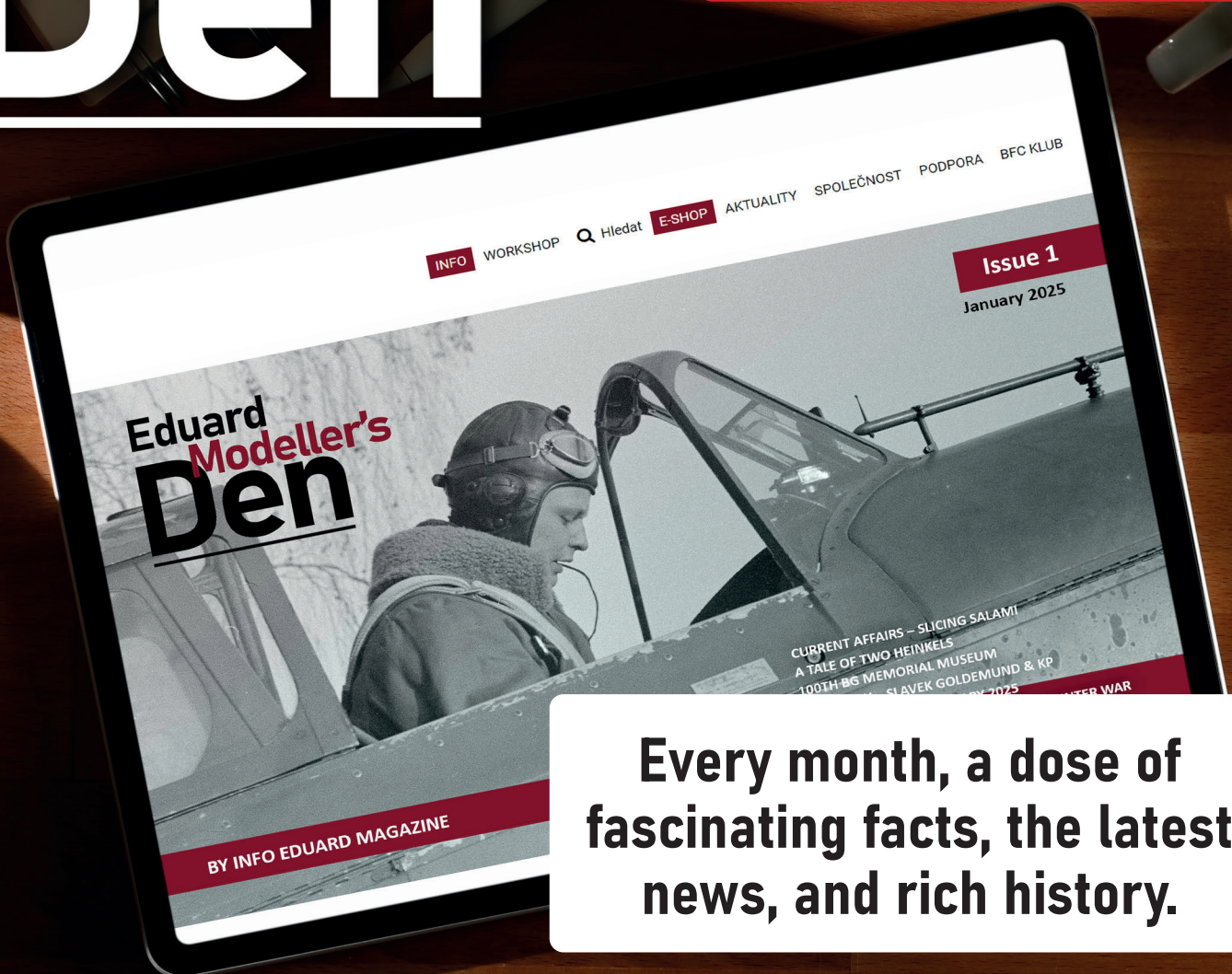
In January, we published the first issue of the online magazine Eduard Modeller's Den, abbreviated simply to EMD. As is customary among modelers who need to bitch about something....anything.... someone immediately criticized us for the abbreviation on Facebook, but I absolutely do not get why. Abbreviations are used everywhere you look, so why should we be banned from using them? Anyway, you can find the magazine [HERE](#). As expected, significantly fewer readers have paid for and downloaded it than the inaugural issue, which was free. It didn't throw us off, we were expecting this and we are continuing to prepare the second issue, which will be published...well, I would also like to know when. Probably February 21st, but the editor-in-chief has yet to confirm that.

Happy Modelling!!
Vladimír Šulc



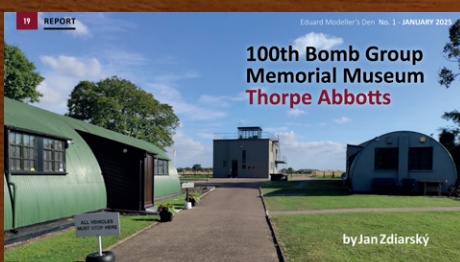
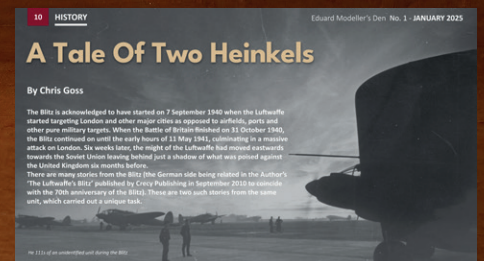
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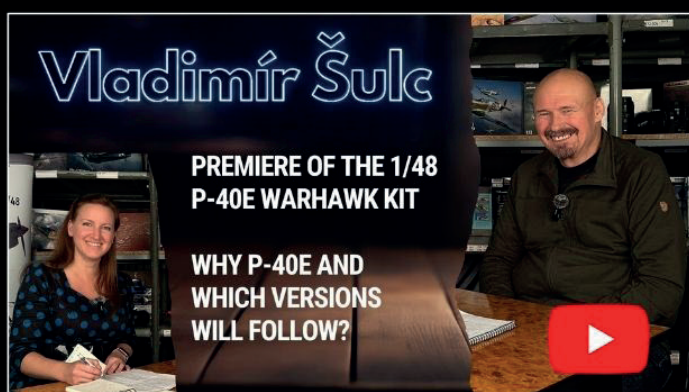
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WE HAVE JUST LAUNCHED A NEW YOUTUBE PODCAST CHANNEL

hosted by Katka Borecká!
Her guests will gradually introduce
the new 1/48 scale P-40E model kit
throughout November.

And that's just the beginning! You'll
get to join Katka and her guests on
this platform regularly!



www.youtube.com/@EduardOnAirPodcast

P-40E WARHAWK

By Carl Molesworth



"ROSE MARIE," aircraft No. 29 of the 16th FS/51st FG, was flown by 1/Lt. Robert H. Mooney in China during the second half of 1942. Mooney was killed in action flying another P-40E near Yunnanyi, Yunnan Province, on Dec. 26, 1942. (photo: NARA)

The story of the Curtiss H-87 with USAAF units

The Curtiss P-40 line of fighter aircraft stood out among American fighter types for having remained in front-line operations from the summer of 1941, before the U.S. entered World War II, through the end of the conflict four years later. Only Grumman's versatile F4F Wildcat naval fighter could match that record.

Product of a merger of the companies of aviation pioneers Glenn Curtiss and the Wright Brothers, The Curtiss-Wright Corp. in 1939 was the largest airplane manufacturer in the United States. Its products included not only a wide array of civilian and military airplanes but also the Wright engines to power them.

Design and Development

Of all the aircraft lines manufactured by Curtiss, none was more famous than the Curtiss Hawk fighters. From the initial PW-8 of 1924 through the Hawk III, which ceased production in 1938, Curtiss built more than 700 Hawk biplanes in 16 different models for the U.S. Army alone. The steady stream of

orders for Hawks from the American Army and Navy plus export customers was a significant factor in Curtiss' ability to stay afloat during the lean years of the Great Depression while also keeping pace with the technical advances of this period.

A more modern monoplane Hawk came along in 1935. In response to an Air Corps design competition in the fall of 1934 for a new aircraft that would usher in the modern era of single-seat military fighters, Curtiss produced the Hawk 75, which the Army designated the P-36. Chief designer Donovan R. Berlin created "stretch" in the 75's airframe that would allow it to accommodate high-horsepower engines that were not yet developed. Specifically,

he wanted to provide adequate wingspan and area to ensure combat effectiveness at 25,000 feet and above.

Though the P-36 exhibited excellent flying characteristics, its top speed barely topped 300 miles per hour. The Army considered this speed acceptable in 1937, but by the following year, the P-36 lagged the latest European fighters, particularly the British Spitfire I and German Bf 109E, by at least 50 mph. Curtiss decided to mate the 75 to the new Allison V-1710, a liquid-cooled V-12, to produce the Hawk 81, which the U.S. Army designated the P-40. Though the plane offered only modest performance improvements over the P-36, the Army issued a record-setting contract

to Curtiss on April 26, 1939, for 524 P-40s at a cost of nearly 13 million USD. Again, foreign customers came calling at Curtiss. France was first to order the export version of the P-40, tagged the Tomahawk by Curtiss, and Great Britain soon followed suit.

Curtiss built 525 Hawk 81s in three versions of the P-40 for the U.S. Army. Only a few of these saw combat in Hawaii, the Philippines and Iceland early in the war. More than twice as many export Hawk 81 Tomahawks were built. These 1,181 aircraft fought extensively with the British Commonwealth air forces in North Africa, the American Volunteer Group of Chinese Air Force in Burma and China; and with the Red Air Force on the Eastern Front.

There was no denying that the Hawk 81 was a commercial success for Curtiss, but a challenge was looming for the company's design staff. Thus far, Curtiss had been unable to wring sufficient performance from the Hawk 81 to match the best European designs, and one of the main problems was that the plane was underpowered. The output of the 1,090 HP Allison V-1710-33 engine, with its single-stage supercharger, was insufficient to propel the airframe to its maximum capabilities for speed and service ceiling. The U.S. would soon need fighters with more power than the current C-series V-1710 could deliver, so Allison designers went to work on the problem.

Unfortunately, the fix wasn't so simple as merely souping up the engine. The C-series V-1710 delivered power to the propeller via an internal spur reduction gearbox, but this de-



The 57th Pursuit Group, USAAC, flew P-40Es in the U.S. prior to deploying to North Africa in the summer of 1942. Capt. Phil Cochran, commanding officer of the 65th FS "Fighting Cocks," flew No. 50 from the airbase at Windsor Locks, Connecticut, during that period. (photo: author's collection)

vice was only able to handle 1,100 horsepower, and the engine already was pushing this limit.

The new Allison, and all F-series Allisons to follow, featured an external propeller reduction gearbox drive, which was beefed up sufficiently to absorb the 1,150 horsepower of the V-1710-39 (F3R) and more. The reduction ratio remained 2:1, but the new engine was 10.16 inches shorter than previous versions, and the thrust line was raised several inches so the gearbox could mount between the cylinder banks at the front of the engine.

The redesign of the V-1710 had major implications for Curtiss, because the new engine, with its shorter overall length and raised thrust line, did not conform to the nose contours of the Hawk 81. It not being practical to craft a new nose for the Hawk

81, Curtiss designers took this opportunity to draw up an entirely new fuselage. The change was considered sufficient to cause Curtiss to give the plane a new designation, the Hawk 87. The U.S. Army continued to call it a P-40, designating it the model D, while the Royal Air Force gave it a new name, the Kittyhawk.

On the way to better Hawks

The Hawk 87 incorporated a number of improvements over the Hawk 81. The fuselage was not only 6 inches shorter but also slightly shallower, top to bottom. Up front, the nose guns were eliminated, and a deeper cowl with a larger opening held the coolant and oil radiators under the engine. Because the propeller hub sat higher on the nose, landing gear legs could be shorter and still allow clearance for the propeller during takeoffs and landings.

To improve visibility for the pilot, the cockpit opening was deeper with a larger sliding canopy and an enlarged windshield with flat, bulletproof glass in the center panel. The rear-view coves behind the cockpit also were bigger. In addition, the airframe was stressed to carry one 500-pound bomb or a drop tank of 52 or 75 gallons under the belly.

The wing and tail designs were relatively unchanged from the Hawk 81. The new plane's guns were mounted in large bays in the wings and aimed so their fire would pass outside the arc of propeller, converging about 300 yards in front of the plane.

The Hawk 87 line was a superior warplane to the Hawk 81, but not by much. While the changes in armament made it more versatile, the new model's performance remained unimpressive. As a result of all the changes, the combat gross weight of the Hawk P-40D rose to 8,809 pounds. At the same time, the new V-1710-39 engine produced just 60 horsepower more than its predecessor. Despite having a slightly sleeker profile than the P-40C, the P-40D boasted a top speed just 5 miles



Col. Robert L. Scott was the first Commanding Officer of 23rd FG. He scored 13 aerial victories during the War making him one of five top scoring USAAF P-40 fighter pilots. A member of the ground personnel is pointing on the five victory marks on Scott's second P-40E. (photo: NARA)



Capt. Bill Hennon, a veteran of the Java campaign, flew P-40E No. 36 with the 7th FS/49th FG during the defense of Darwin and northern Australia during 1942. (photo: NARA)



After scoring two aerial victories in the defense of the Philippines and three more over Java, Capt. George "King" Kiser destroyed four more Japanese aircraft at Darwin, Australia, with the 8th FS/49th FG. All of his victories were scored in P-40Es. (photo: NARA)

per hour faster than the previous model, at 350 mph. Because the new engine retained a single-stage supercharger, the P-40D's service ceiling and peak performance altitude of 15,000 feet were virtually unchanged from the P-40C.

The U.S. Army placed an order with Curtiss for 23 P-40Ds in 1940 and took delivery of the new planes in mid-July 1941. Great Britain, meanwhile, took over a French order with modifications to RAF specifications. Designated Kittyhawk Is, these aircraft began rolling of the assembly lines in August 1941. The first 20 were four-gun equivalents of the P-40D, but the rest of the Kittyhawk Is in the 560-plane order mounted six guns, like the U.S. Army's 820 P-40Es that were built alongside. Deliveries of both continued through the end of the year, by which time the United States had entered the war. A very similar version, the P-40E-1/Kittyhawk IA, had beefed up wing structure to allow it to carry more external

stores. Curtiss built 1,500 of these and about one-third of them went to the Allies under Lend Lease.

Operational History

Curtiss produced its first Hawk 87s, 22 P-40Ds, for the U.S. Army in July 1941. Deliveries of 820 P-40Es, which was essentially the same airplane as P-40D but with the armament increased from four wing guns to six, began the following month and continued into May 1942.

Virtually every model of the Hawk 87 followed the P-40D into training duties around the United States. Initially, they were assigned to first-line combat squadrons preparing for overseas service while providing air defense for areas such as coastal cities deemed vulnerable to attack from the sea and industrial centers in the Midwest. As the war progressed and tour-expired combat veterans became available in mid-1943 to

provide operational training to new pilots just out of flight school, P-40Es did yeoman duty in replacement training units.

The P-40E made its combat debut in the skies over Luzon in the Philippine Islands on Dec. 8, 1941 (Pacific Time), the day that the United States entered World War II. Through no fault of the pilots or the P-40Es of the 24th Pursuit Group, the performance was anything but impressive.

Word of the Pearl Harbor attack was radioed to the headquarters of Gen. Douglas MacArthur in Manila shortly after Japanese bombs stopped falling on Battleship Row in Hawaii. It was 3:55 a.m. December 8 local time in the Philippine Islands, and within hours a Japanese triumph even greater than the destruction of the American fleet at Pearl Harbor would begin to unfold.

On paper, the fighter strength deployed by the Far East Air Force's 5th Interceptor Command on Luzon in early December 1941 looked substantial. Of approximately 100 P-40s in four squadrons, 75 percent were new E-models, while the 20th Pursuit Squadron flew P-40Bs and the 34th Pursuit Squadron had even more outdated Seversky P-35As. These squadrons made up the 24th Pursuit Group, but the unit was far from ready for war. The obsolete P-35As had been in service for nearly two years and were worn out. The P-40Bs at Clark Field, delivered in the summer of 1941, were in good condition, but their guns had never been fired due to a shortage of ammunition on Luzon for target practice. The P-40Es were brand new and subject to several teething problems, including engine fires.

Just as important, many of the pilots were fresh out of flying school and unfamiliar with their P-40s. Meanwhile, 300 miles north of Manila on the island of Formosa, Japan had amassed a force of nearly 200 A6M Zero naval fighters, 200 navy bombers and about 150 army aircraft. Many of the men who flew these planes were veterans of combat in China.

Tensions had been building in the Far East for several weeks prior to word of the Pearl Harbor attack. Still, despite ample warning of attack, U.S. Army air units in the Philippines were all but wiped out on December 8. A handful of P-40 pilots managed to engage enemy aircraft during the day, and each of them got a nasty shock when they experienced the climbing and turning performance of the heretofore unknown A6M Zero fighters firsthand. Nine victories were credited to five pilots (plus one in a P-35A), but several P-40s were shot down and nearly all suffered battle damage at the hands of the Zero pilots. Most American aircraft were destroyed on the ground.

Philippines and Java

P-40Es continued to fight in ever decreasing numbers in the Philippines for four excruciating months. The U.S. military's first ace of World War II, Lt Boyd "Buzz" Wagner of the 17th Pursuit Squadron, scored his fifth victory in a P-40E on December 16, 1941. The 37th and last confirmed victory by a P-40 pilot in the Philippines occurred on April 12, when Lt. John Brownell of the 17th Pursuit Squadron shot down a Japanese floatplane near Del Monte on Mindanao. The campaign ended on May 6, 1942, when starving American forces in the island fortress of Corregidor surrendered. Meanwhile, P-40Es also had been heavily engaged in the defense of Java, a six-week campaign that again ended badly for the United States and its allies. On January 25, 1942, 13 P-40Es of a new provisional pursuit squadron, also named the 17th, arrived in Soerabaja, Java, to provide air defense against the expected Japanese invasion of this oil-rich island. 1/Lt. George E. Kiser, one of several veterans of the early fighting over Luzon who flew in the 17th throughout the Java campaign, wrote this account: *"Soon after we arrived in Soerabaja, we moved to Blimbing, a newly constructed (and well camouflaged) field. ... We flew many missions from Blimbing Field. In fact, a lot of us flew about 150 hours during the short stay there. At all times we were outnumbered at the least 10 to 1, but still we managed to get official credit for in excess of 65 victories (author's note: the currently accepted total is 49) with only a loss of nine pilots killed or missing. ... On March 1, 1942, the Japanese landed on Java in force, and after attacking this huge armada of ships with only ten P-40s, it was decided that the situation was hopeless, so the entire squadron retreated, along with the 19th Bombardment Group, to Australia."*

Darwin

Australia suffered its own version of the Pearl Harbor attack on February 19, 1942, when JNAF land- and carrier-based aircraft struck the northern port city of Darwin in two devastating raids. A convoy of ships, loaded with equipment and troops bound for the defense of Timor Island, was caught in the harbor and mostly destroyed. Dock facilities, a nearby airfield and even a hospital were bombed as well, with a great loss of life incurred.

Ten P-40Es of the just-formed 33rd Pursuit Squadron (Provisional) were in Darwin at the time to escort the convoy while enroute to reinforce the 17th squadron in Java. But nine of these planes were destroyed in air and on the ground during the day. Only one American pilot was able to make a claim.

The first Darwin attack, followed on March 3 by a strafing attack on the west coast port of Broome and the fall of Java three days later, stirred a wave of invasion panic throughout Australia. Operational training of the green pilots of the USAAF 49th Pursuit Group, many of them recent graduates of flying school, was cut short so they could be deployed to provide air defense. The 49th had arrived by ship on January 28, 1942, and immediately began assembling 100 P-40Es while its pilots put the finishing touches on their training. Fortunately, a cadre of 12 pilots just back from Java, including George Kiser, was available to provide experienced flight leaders for the three squadrons of the 49th.

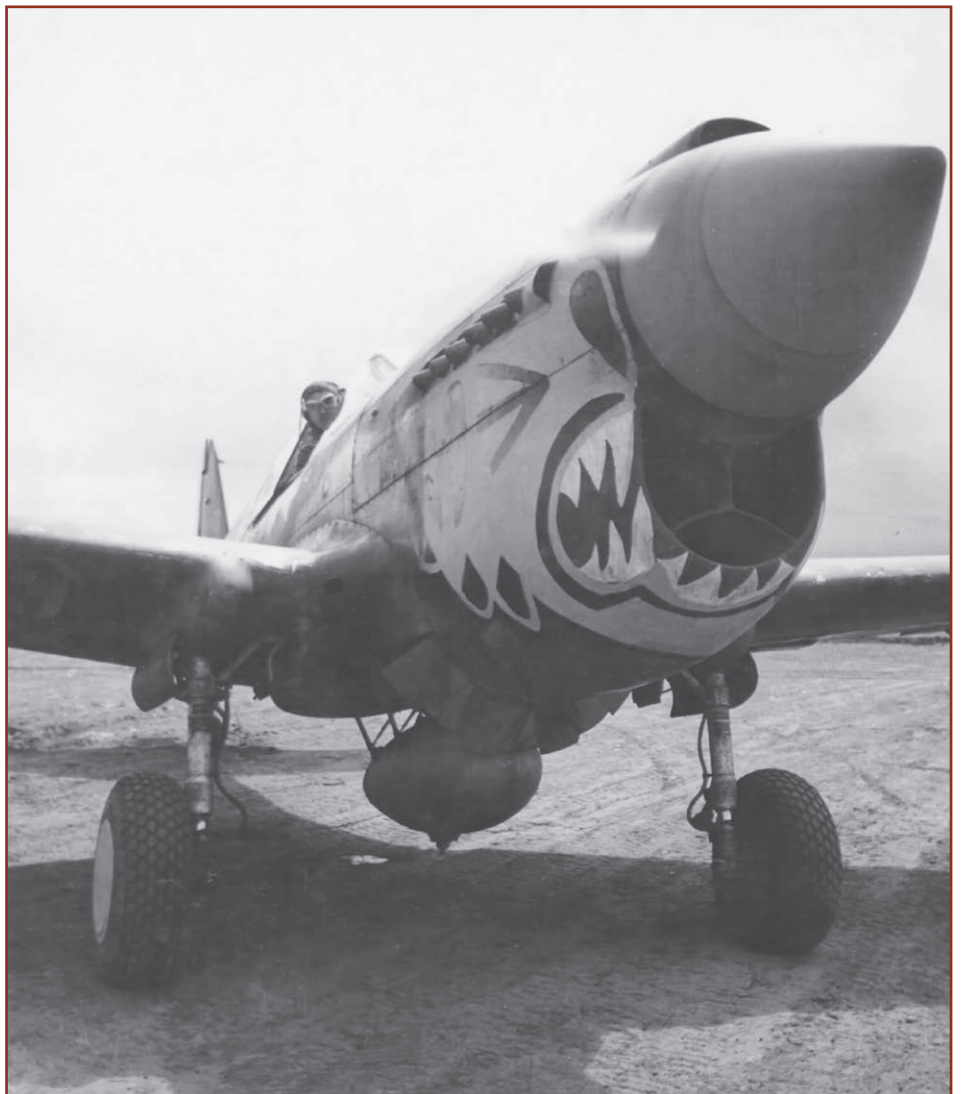
Japanese air attacks on northern Australia continued sporadically throughout the spring and summer of 1942. The last air raid against Darwin opposed by the 49th (redesignated as a fighter group in May) came on August 23. In this combat, aces George Kiser and Jim Morehead scored their final victories before completing their tours in the Pacific. The

total of 15 kills on the day brought the 49th's final tally during the defense of Darwin to 78 confirmed victories, eight probables and four damaged.

New Guinea and Aleutian Islands

In September, with RAAF fighter squadrons now available to assume air defense duties at Darwin, the 49th FG began the next chapter in its remarkable history. The fight for Port Moresby was approaching its climax, and the 7th Fighter Squadron was ordered up from Darwin to fight alongside No. 75 and No. 76 squadrons RAAF in New Guinea.

Under the command of Java veteran Capt. Bill Hennon, the 7th Fighter Squadron arrived at 14-mile Drome outside Port Moresby on September 14 and immediately began flying fighter-bomber missions in support of the Australian troops fighting along the Kokoda Trail. These missions, which included strafing, dive-bombing and escort duties, were very effective at helping the Aussies halt the enemy advance.



At the start of its operations, the 343rd FG was led by Lt. Col. John Stephen Chennault, the son of legendary "Flying Tigers" leader Col. Claire Lee Chennault. The "Aleutian Tigers" adopted the tiger motif and adorned noses of their aircraft with stylized tiger heads. (photo: NARA)

The longest service of the P-40E was far north in the Aleutian Islands, where P-40s flew in combat from the attack on Dutch Harbor in June 1942 through the capture of Kiska in August 1943. After that, the three squadrons of P-40s, including the 344th with P-40Es, continued to provide air defense for bomber bases in the Aleutians through the end of the war.

China

On March 22, 1942, the first P-40Es that would see action in the China-Burma-India Theater touched down at Kunming, China, after a long ferry flight from Africa. Ground crews of the 1st American Volunteer Group, which had been in action against the Japanese in Burma and China since the previous December with Hawk 81s, set to work on the P-40Es, replacing their USAAF markings with Chinese sun roundels, painting the AVG's distinctive sharkmouth design on their noses, and repairing various minor problems. Eventually, the AVG would receive 33 P-40Es.

The first combat for AVG P-40Es came on April 8, 1942, when three of them at Loiwing, China, scrambled alongside Tomahawks to intercept a Japanese air raid on the field. Flight Leader Robert L. Little of the 1st Pursuit Squadron, flying one of the P-40Es, was credited with shooting down a Ki-43 Oscar among the 12 victories claimed that day, the first claim in a P-40E by the AVG.

The AVG P-40Es were heavily engaged during the final three months of the unit's existence. Their most notable actions were a series of raids against Japanese army forces in the Salween Gorge on the China-Burma border in May 1942, when AVG pilots used the P-40E's dive-bombing capability to devastating effect to halt the enemy advance. Sadly, Bob Little was killed flying one of those missions.

When the AVG disbanded on July 4, 1942, its P-40Es and Tomahawks were turned over to the 23rd Fighter Group of the USAAF, which was activated in Kunming that day to carry on the fight in China under legendary commander Claire Lee Chennault. Meanwhile, a second USAAF P-40 group, the 51st, had arrived in India and was taking up positions in Assam. These two groups, flying from their bases at either end of the air route from India into China, would have the responsibility for protecting transport planes flying "The Hump" from interception by Japanese fighters. By the summer of 1943, most P-40Es in the 23rd and 51st groups had been replaced by later model P-40s.



P-40E No. 127 was one of 33 P-40Es sent to China in the spring of 1942 to replace Tomahawks lost in combat by the American Volunteer Group. The plane displays the blue tail band of the 2nd Pursuit Squadron. (photo: author's collection)



Pilots of the 72nd PS/15th PG pose with "Squirt," the P-40E that squadron c.o. Jim Beckwith named for his child, in Hawaii during early 1942. In 1945, Beckwith, by then a colonel, commanded the 15th FG flying Very Long-Range missions over Tokyo. (photo: NARA)



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The US Navy's experience in the Korean War showed the need for a new long-range strike aircraft with high subsonic performance at very low altitude that could penetrate enemy defences and find and destroy small targets in any weather. The Grumman A-6 Intruder was designed with these needs in mind and was a true *bomb truck*. From the jungles of Vietnam to the deserts of Iraq the Intruder proved its worth, able to carry a plethora of weaponry and pack a mighty punch. From the Intruder airframe the KA-6D tanker variant was derived, along with the specialised EA-6A Intruder and then the EA-6B Prowler, a sophisticated four-seat electronic warfare variant, packed with jamming equipment and electronics. Like the A-6, the Prowler was used by both the Navy and Marine Corps. After nearly thirty-seven years and with 693 airframes constructed, on February 28, 1997, VA-34 the *Blue Blasters*, retired the Navy's last operational A-6E Intruders. The Navy retired its Prowlers in 2015, however, the Marines Corps carried on flying the EA-6B into the early months of 2019. *Warpaint 146* is packed full of all the usual historical and reference material, with walkarounds of both Prowler and Intruder, colour artwork by Sam Pearson, and a well-paced narrative that places this essential aircraft in context and showcases its role in US naval operations over nearly sixty years.

New
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Warpaint series No.145

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Hunting-Percival Pembroke, Prince & Sea Prince



The Pembroke originated as a development of an idea sponsored by Lord Brabazon towards the end of World War II, when he chaired a committee whose brief was to assess the civil aviation requirements after the end of hostilities, and recommended several specifications for civil aircraft required to keep Britain ahead for both home and export sales. A twin-engined transport emerged from Percival called the Merganser in 1947. This was refined and in 1950 the Prince was born, being immediately snapped up by companies as there was nothing similar on the market at the time. The Royal Navy were quick to order the type as a communications aircraft and could see the potential for it as a navigation trainer. With an extended nose for radar and other equipment, Percival were quick to assess that as being suitable. Named the Sea Prince, the Royal Navy ordered three of the early short-nosed variant as the Sea Prince C1 for communications, forty-one of the T.1 version built for navigation and anti-submarine training, and four C.2s as a transport version of the Sea Prince T1. The RAF, seeing this interest, finally ordered forty-five of the type naming it 'Pembroke', the last of which was completed in February 1958. The Pembrokes were used for light transport and communications, and were also used as pilot trainers and flying classrooms. Overseas, ten countries ordered the type for similar roles in their Air Forces in Australia, Belgium, Denmark, Finland, Germany, Sudan, Sweden, Rhodesia, Thailand and Zambia. This is another Warpaint by author Adrian Balch, comprehensively illustrated with over 100 top quality photographs from his extensive archives, once again being illustrated by accurate quality colourful profile drawings by artist Sam Pearson including 5-view line drawings/plans making this a must for the aviation historian and modeller.

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The MW 50 System as an Alternative to the GM-1 in the Bf 109G and K



Pavel Raška



Bf 109 G-10 W.Nr 490 617 'Blue 2', Uffz. Gerhard Reiher, 8./JG 3, Alperstedt, 1944. Behind the circular antenna on the spine, a triangular label is visible adjacent to the MW 50 filling point [Martin Reiher]

This technical discussion supplements the article describing the GM-1 system in the Messerschmitt Bf 109 in the [November, 2024 newsletter](#).

Even before World War II, Dr. Otto Lutz (1906-1974) came up with the idea of injecting nitrous oxide into an engine to increase performance. He later published (as late as 1942) a scientific paper on the subject "Über Leistungssteigerung von Flugmotoren durch Zugabe von Sauerstoffträgern", or roughly translated, 'On increasing the performance of aircraft engines through the addition of oxygen compounds'.

Just before World War II, BMW engineers Dietrich Singelmann (1903-1989) and Helmut von Zborowski (1905-1969, a native of Terezin) began to independently experiment with the injection of a mixture of water and methanol. They discovered that by mixing water with methanol and adding a drop of an anti-corrosion additive, they obtained a problem-free liquid that, unlike nitrous oxide, could be stored in ordinary canisters at an airfield. Although it was not recommended as a drink, it does not normally burn or explode and generally exhibits benevolent properties. The 1:1 ratio of water to methanol proved to be the most advantageous not only in terms of engine performance, but also against the risk of the mixture freezing. The injection of water and methanol was first tested in 1939 on the Bramo 323-A engine.

Later, both gentlemen devoted themselves to the development of rocket engines.

The GM-1 system described in our previous article was not very popular among fighter pilots, it could not be used at lower altitudes and it was deemed just 'dead weight' which worsened flight performance. The situation was better for high-altitude reconnaissance units. Readers of Clostermann's 'The Big Show' will certainly remember the duel between Spitfires and the Bf 109 at high altitude. The Bf 109 was equipped with the GM-1 system, but its pilot made the mistake of trying to save himself by diving. However, just above sea level, the GM-1 could not be used and the reconnaissance Bf 109 ended up being shot down over the ocean.

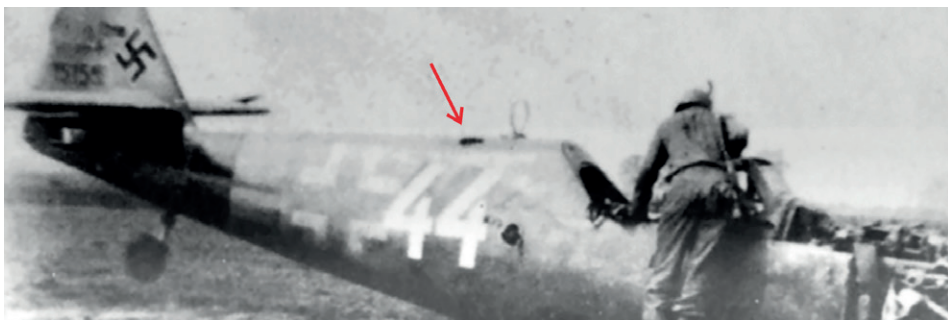
The new system, which was supposed to eliminate the shortcomings of the GM-1, was

designated MW 50. The original thermally insulated tanks for the GM-1 were initially produced by the Büssing-NAG company in relatively small numbers at about fifty per month. The GM-1 installation used in the Bf 109G could be used for injection in the MW 50, but problems arose with valve corrosion. By installing a modified valve, the entire system could be used for one or the other mixture (GM-1 or MW 50).

The developmental experiments that were conducted yielded a second, simplified version of the MW 50 system. It no longer required the use of nitrous oxide, eliminating the need for thermal insulation of the tank. In addition, the compressed air bottles in the wings were eliminated and replaced with compressed air from the compressor. This resulted in a further

weight saving. The injection nozzle was replaced with a different type, because the pressure from the compressor was lower. This simplified type of MW 50 was apparently standard equipment on the Messerschmitt Bf 109 G-14 and G-10. A characteristic modification of the design, visible even to modelers, is the square 'box' behind the pilot's head, covering the battery. In the later development variant of the Bf 109 K, the internal equipment was redesigned and although the MW 50 was standard, the aforementioned box behind the pilot's head disappeared, because the battery was moved to another place within the fuselage. The MW 50 tank could also be used as an additional fuel tank in the K version. There was a MW 50/Kraftstoff switch on the instrument panel and depending on its setting, the relevant valve switched either to inject the mixture into the compressor or to pump the contents into the main fuel tank. Of course, it was important to pay attention to the position of the switch depending on the contents of the tank.

At this point, it is necessary to take a detour and discuss the Messerschmitt fuel system. The aircraft were equipped with an L-shaped fuel tank with a capacity of 400 liters located under and behind the pilot's seat. The Bf 109 E version had a sheet metal tank, while a new special rubberized self-sealing SB Sackbehälter tank was developed for the F version. This SB was also developed for C2 fuel used with the DB 601N engine, but in normal operation, C3 gasoline was used, which caused unexpected problems with the DB 601N. Finally, after a long time, it was discovered that in the rubberized SB tank, C3 gasoline chemically reacted with the tank material, which degraded the gasoline used. Therefore, the SB tank had to be modified so that this reaction did not occur. Some Messerschmitt Bf 109s of the F version were still equipped with the older sheet metal tank on the production line. The additional three-hundred-



The wreckage of Bf 109G-10 WNr. 151556 from JG 300 and Bf 109G-14AS WNr. 784998 from IV/JG 53 after emergency landings in early 1945. Both aircraft show open MW 50 fuel tank filler ports on their spines.

liter droptanks were not equipped with a fuel pump and compressed air from a compressor was blown into the auxiliary tank to move fuel from it into the main tank. When the tank for the MW 50 was filled with fuel, the valve was set to pump its contents into the main fuel tank and the pumping was again done with compressed air. With the droptanks and the MW 50 filled with fuel, the Messerschmitt Bf 109 could double its range. In the Czechoslovak Avia S-199, the MW 50 tank was used exclusively as a fuel tank.

Notes and clarifications to the [November, 2024 article](#):

- The code word MONA used for the very first version of the GM-1, refers to, according to Baumgartl, da Vinci's Mona Lisa. It would appear that the model inhaled some nitrous oxide gas, resulting in her mysterious smile, once and for all solving an age-old riddle at last!

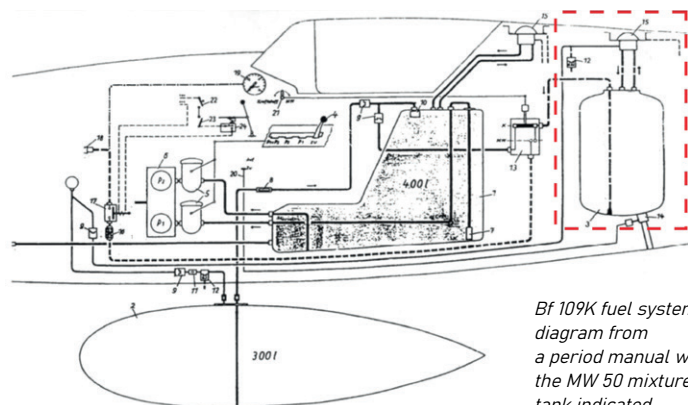
- I had some reservations about the circular tank of the GM-1 for the F-4/Z version of the Bf 109. Baumgartl states that there really was a GM-1 tank made of thin sheet metal wrapped with piano wire, but he doubts that it would have made it into production aircraft. Those who remember will certainly recall the glass siphon bottles with metal mesh popular under socialism, filled with carbon dioxide cartridges - the principle is the same and the container withstands internal pressure well.

A little bit of a glossary:

Sonderstoff = A special material (used specifically with the GM-1 or MW 50 systems)
Kraftstoff = Fuel
Sauerstoff = Oxygen
Behälter = Tank
Leistung = Performance



The protrusion on the access hatch to the battery and additional storage compartment allowed for the former's relocation forward, which freed up space for the MW 50 tank in the fuselage behind the cockpit. Bf 109G-14, Oblt. Rolf Schlegel 10./Jagdgeschwader 4, March 1945 [JG 4 Archive - Museum of the Air Battle over the Ore Mountains on September 11th, 1944 in Kovarska]



Bf 109K fuel system diagram from a period manual with the MW 50 mixture tank indicated.

Aerial War in Ukraine

A Russian missile shot down a civilian aircraft. Again...

Miro Barič

The battles over Ukraine often involve friendly fire incidents. Russian air defense has already destroyed numerous Russian aircraft and helicopters. Similar incidents have occurred on the Ukrainian side. Several civilian aircraft have also been hit in Russia, though without fatal consequences—until now.

On the morning of Wednesday, December 25, Azerbaijan Airlines flight 8243 took off from Baku, Azerbaijan. The Embraer 190AR, registered as 4K-AZ65, carried 62 passengers and five crew members. Its destination was Grozny, Chechnya, in southern Russia. However, 40 minutes into the flight, the aircraft's GPS and other navigation systems stopped functioning. It is likely that the aircraft fell victim to electronic GPS signal jamming, an action prohibited by international telecommunications and civil aviation organizations.

The Russians likely activated the jamming due to the presence of Ukrainian drones over Chechnya. The crew of flight 8243 requested guidance via radio. However, Grozny was covered in thick fog, and after three holding

patterns, the pilots decided to return to Baku. As the aircraft departed Grozny, it was struck by a missile from a Russian Pantsir-S1 air defense system. The missile exploded near the rear left section of the aircraft, with shrapnel damaging mainly the tail surfaces.

As a result of the damage, the Embraer's hydraulic system failed, making it extremely difficult to control. Russian air traffic controllers denied it permission to land at Mineralnye Vody or Makhachkala airports due to bad weather. Instead, the crippled aircraft (while still experiencing GPS signal interference) was directed over the Caspian Sea toward Aktau, Kazakhstan. Available data show that the aircraft exhibited extreme altitude and course fluctuations. Despite this, the pilots managed to keep it airborne

for one hour and 14 minutes after the missile strike. During the attempt to land in Aktau, the aircraft crashed three kilometers from the airport. The crash was captured on video, showing the aircraft descending with its landing gear extended but tilting heavily to the right. The pilots were unable to correct the descent or the bank. The Embraer first struck the ground with its right wing, followed by the fuselage, which broke apart and exploded. The front section burned completely, while the rear section remained relatively intact, though overturned. This allowed 29 of the 67 people on board to survive, albeit with injuries. However, 38 people lost their lives, including both pilots and one flight attendant.

Posthumously, the two pilots and the deceased flight attendant were awarded the



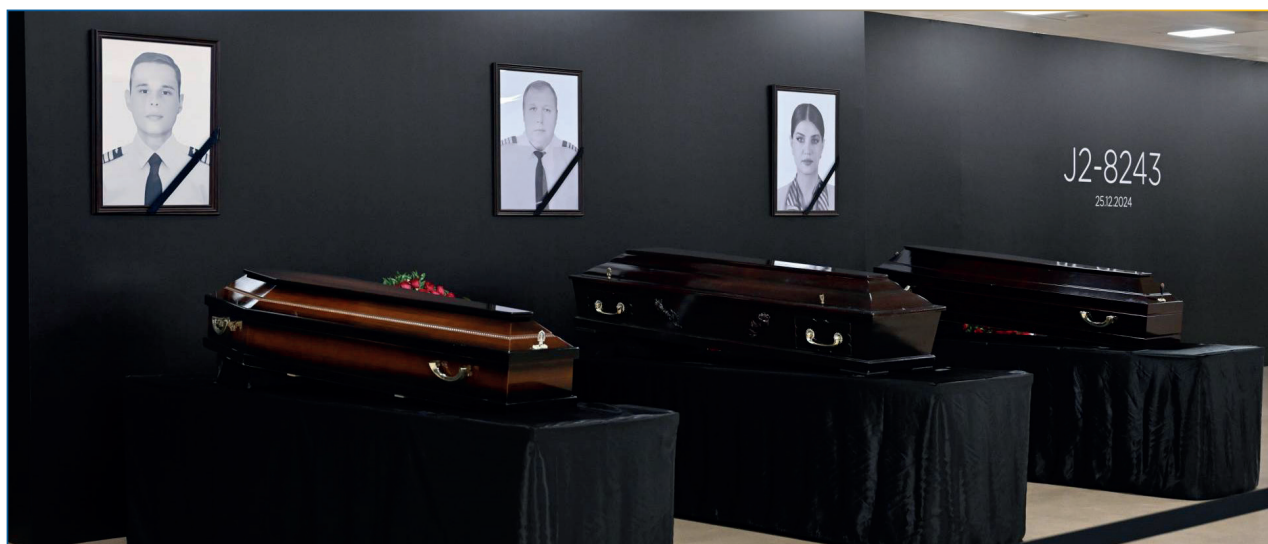
The rear section of the Azerbaijani Embraer was riddled with shrapnel.



Photos of the wreckage were published by Kazakh rescue services.



A photo of the ill-fated Embraer 190AR, registration 4K-AZ65, taken in 2016 by Mehmet Mustafa Celik.



The three deceased crew members were buried as heroes—from left to right, the coffins of Aleksandr Kalyaninov, Igor Kshnyakin, and Hokuma Aliyeva. The photo from the farewell ceremony was published by the office of the President of Azerbaijan.

title of National Hero of Azerbaijan. Steward Zulfikar Asadov and flight attendant Aydan Rahimli, who survived with injuries, were honored with the Order of Courage First Class.

Heroes of Flight 8243

Let's take a moment to honor the heroes who fought until the very end to save the aircraft and its passengers. The captain was 62-year-old Igor Kshnyakin, an incredibly experienced pilot. He began his career in 1982 at the age of 20, flying the An-2 biplane. Over the years, he served as a co-pilot or captain on various aircraft, including the Yak-40, Tu-134, An-140, and ATR-42/72. In 2013, he became a captain on Embraer 170/190 aircraft for Azerbaijan Airlines. He accumulated 15,000 flight hours, with 11,200 as a captain. He is survived by two daughters. Seated beside him as the co-pilot was 32-year-old Aleksandr Kalyaninov. He successfully graduated in 2021 from the National Aviation University in Kyiv, Ukraine. The third crew member who lost her life was 33-year-old flight attendant Hokuma Aliyeva. Alongside her work, she was pursuing a law degree and was in the final year of her doctoral studies. She had planned to switch careers and become a lawyer, a dream that, unfortunately, she never got to fulfill. In her final moments, she tried to calm the passengers. All three were buried together in Baku at the Second Alley of Honor, a cemetery reserved for Azerbaijan's most distinguished figures and heroes.

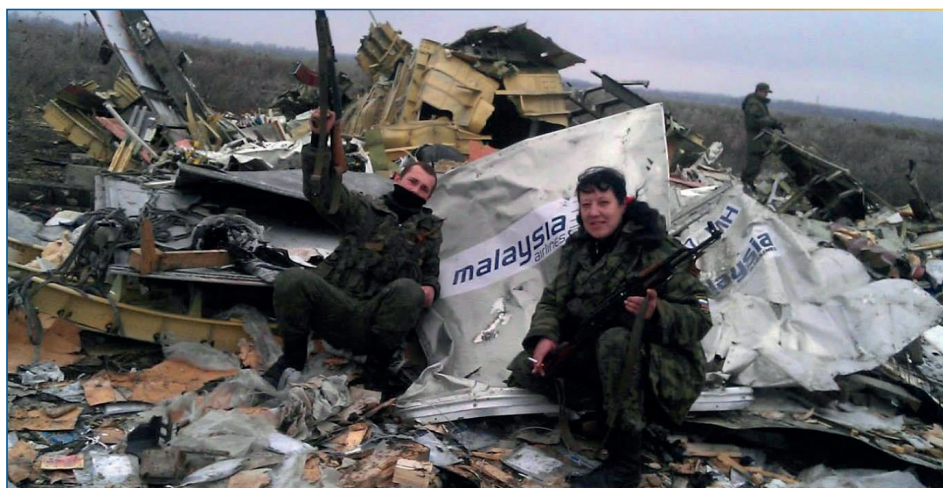
Russia has not admitted to shooting down the aircraft, even a month after the incident. Initially, Moscow outright denied any involvement, and Russian propaganda channels spread multiple alternative theories about what might have happened. For instance, they claimed that the shrapnel holes visible in the intact rear section of the aircraft were caused by gravel upon impact with the ground. Azerbaijani President Ilham Aliyev, just days

after the tragedy, stated that preliminary investigation results indicated Russian air defense was responsible. He acknowledged that the shootdown was likely unintentional but accused Moscow of attempting a cover-up. Aliyev demanded an admission of guilt, punishment for those responsible, and compensation for the victims' families. However, none of these demands had been met a month after the tragedy. Azerbaijani officials also pointed out that Russia's refusal to allow the damaged aircraft to land at any Russian airport, instead directing it toward Aktau, may have been an attempt to erase evidence. Simply put, they may have been hoping the aircraft would crash into the Caspian Sea...

Revived Memories of flight MH17

The downing of the Azerbaijani civilian aircraft has revived memories of the tragedy which took place on July 27, 2014. On that day, Malaysia Airlines flight MH17 crashed near Hrabove in Ukraine's Donetsk region. The Boeing 777, registered as 9M-MRD, was en route from Amsterdam to Kuala Lumpur but never reached its destination. At the time, Russia had provoked an uprising in eastern

Ukraine and was supplying the separatists with heavy weaponry. Among the equipment transferred was a Buk surface-to-air missile system from the 53rd Anti-Aircraft Missile Brigade, based in Kursk. This system was secretly moved into Russian-controlled territory in eastern Ukraine. Mistaking the target for a Ukrainian military aircraft, the crew launched a missile at the civilian flight MH17. The Boeing 777 was cruising at 33,000 feet (10,060 meters) at a speed of 915 km/h when the warhead of the radar-guided missile exploded just above its cockpit. Shrapnel instantly killed the flight crew and tore through the fuselage, causing it to break apart just behind the cockpit. The aircraft went into a steep dive, and aerodynamic forces completely disintegrated it before impact. The fall lasted a minute and a half, scattering debris across 50 square kilometers. All 298 people on board perished—15 crew members and 283 passengers. Two-thirds of the victims were Dutch citizens, including 80 children under the age of 18. Once Russian forces realized what they had done, the Buk system was quietly transported back across the Russian border, and multiple conflicting versions of events



A 2014 image of Russian fighters posing with the wreckage of the downed MH17 flight.

were spread. This tactic—immediately flooding the public with contradictory explanations—is a hallmark of Russian propaganda, designed to dilute and obscure the truth. The MH17 case was no exception, with one absurd theory following another.

One claim suggested that a Ukrainian Su-25 attack aircraft had shot down the Boeing. However, anyone with basic aviation knowledge knows that the Su-25 lacks the speed, altitude capability, and weaponry to accomplish such a feat. Another false narrative involved a supposedly "authentic" satellite image showing a Ukrainian Su-27 firing a missile at MH17 at close range. The image was, in reality, a crude forgery. The most bizarre theory suggested that the entire event was staged and that the plane had been filled with corpses that had already been dead for some time.

Multiple Western investigative teams, however, concluded—based on substantial evidence—that MH17 was hit by a missile from a Buk system fired from Russian-controlled territory. They also identified the Russian military unit responsible: the same 53rd Anti-Aircraft Missile Brigade. These findings were confirmed by a Dutch court, which, in November 2022, sentenced three men—Igor Girkin, Sergey Dubinsky, and Leonid Kharchenko—to life in prison for their roles in the downing of MH17. All were sentenced in absentia, as Russia refused to hand them over.

Ironically, only one of them, Igor Girkin, is currently in a Russian prison—not for the deaths of 298 innocent people, but for "extremism." His crime? Insulting Vladimir Putin, whom he accused of weak and incompetent leadership in the war against Ukraine.

Girkin, also known as Strelkov, was a Russian intelligence operative who played a key role in igniting the separatist conflict in eastern Ukraine. He once boasted that without him, there would have been no war in Donbas, as the local population had little interest in taking up arms. This statement alone undermines the Kremlin's long-standing narrative that the conflict was a "civil war" rather than Russian aggression.

Ukrainian Losses

During the observed period, from December 1 to December 31, military aircraft, helicopters, and unmanned aerial vehicles were continuously conducting operations. Consequently, losses were suffered. However, the shooting down of a civilian aircraft is such an exceptional event that most of this report was dedicated to it. The only confirmed loss of Ukrainian equipment occurred on Saturday, December 14, in the Kherson region. A Russian S-400 air defense system hit a Su-25 from



Ukraine's 40th Tactical Aviation Brigade released a series of photos of MiG-29 fighter jets.



An image of a Ka-52 helicopter, published by the Russian Ministry of Defense. Since the beginning of the war, Russia has lost at least 63 helicopters of this type. One was also lost in December 2024, as covered in this latest update of the series.



On December 14, the Ukrainian military intelligence set fire to a Su-27P at the Krymsk base

Головне управління розвідки



A few days later, Russia released an image of the same aircraft. The photo was taken from an angle that conceals possible damage to the rear section, where the fire occurred.



Images appeared on social media showing a Russian Su-25SM3 that collided mid-air with a Zala reconnaissance drone.



Images appeared on social media showing a Russian Su-25SM3 that collided mid-air with a Zala reconnaissance drone.



A Russian Mi-24 helicopter got stuck in the mud, presumably at an advanced base. The photo surfaced during the monitoring period, but details remain unknown.

the 299th Tactical Aviation Brigade. Its pilot, Captain Vladyslav Solop, was killed. Another casualty was Captain Mykola Karpov, a ground aviation technician from the 40th Tactical Aviation Brigade. He was killed on Tuesday, December 31, during a Russian missile attack on Vasytkiv Air Base in the Kyiv region. The extent of the damage to the base is not yet known. Karpov was posthumously promoted to the rank of Major.

Russian Losses

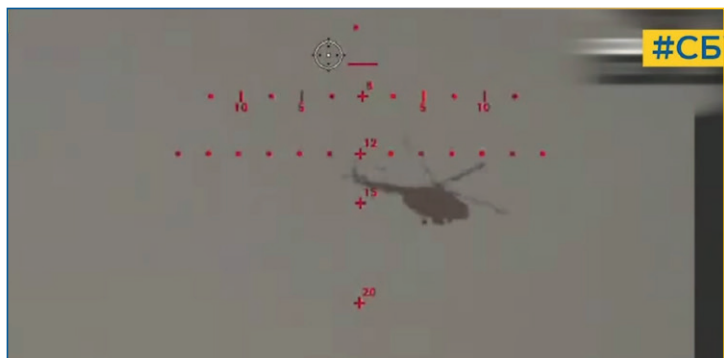
The first confirmed Russian loss during the observed period also occurred on Saturday, December 14, at Krymsk Air Base in the Krasnodar region. Ukrainian military intelligence set fire to and damaged a Su-27P with a bort number "Red 16" and registration RF-92406, which belonged to the 3rd Mixed

Aviation Regiment. On Friday, December 20, Ukrainian intelligence reported damage to another aircraft—a military transport An-72—at an airfield near Moscow. On Wednesday, December 18, a Kamov Ka-52 helicopter was hit and shot down by friendly fire. Both Russian pilots were killed. The helicopter commander was Lieutenant Daniil Chepurinov. His obituary mentioned only that he died while carrying out a combat mission in the "special military operation" zone.

Naval Drones Strike Back

The worst day for Russian aviation came at the very end of the month. On Tuesday, December 31, Ukrainian Magura V5 naval drones were operating in the Black Sea. Russia has long deployed helicopters and aircraft against them, so Ukraine has started equipping these

unmanned boats with anti-aircraft weapons. Ukraine claims to have hit several helicopters in the past, but until now, no confirmed kills had been recorded. Near the Tarkhankut Peninsula in western Crimea, Ukrainian drones hit two Mi-8 helicopters with R-73 missiles. According to Ukraine, one crashed immediately, while the other was damaged and attempted to return to the shore. Later, Russia confirmed that the second helicopter also crashed. Each helicopter carried eight personnel, and none survived. This indicates that, in addition to the standard crew of three aviators, each aircraft also carried five additional soldiers—machine gunners and electronic systems operators. During December, a video emerged showing Ukrainian naval drones firing machine guns at helicopters (and even a Sukhoi fighter jet). At least one helicopter was seriously damaged



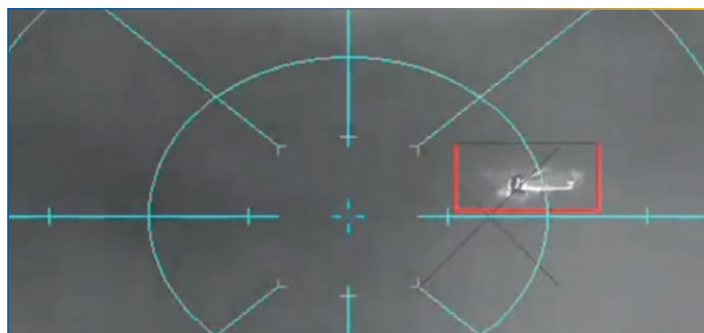
A still from a video showing a Ukrainian Sea Baby naval drone firing a machine gun at a Russian Mi-8 helicopter.



A Ukrainian naval drone also dared to fire a machine gun at a fighter jet.



Footage from another video capturing the shootdown of a Russian Mi-8 helicopter with an R-73 missile launched from a Magura V5 naval drone.



by gunfire, but a confirmed kill was only reported later with the use of R-73 missiles. Additionally, footage surfaced of an incident in which a Russian Su-25SM3 collided mid-flight with a Zala reconnaissance drone. The aircraft, with bort number "Red 07" and registration RF-94678, suffered significant damage to the front fuselage and shattered side cockpit glass. Despite this, the pilot managed to land the plane at its base. The collision reportedly occurred somewhere in the Donetsk region, though the exact date remains unknown.

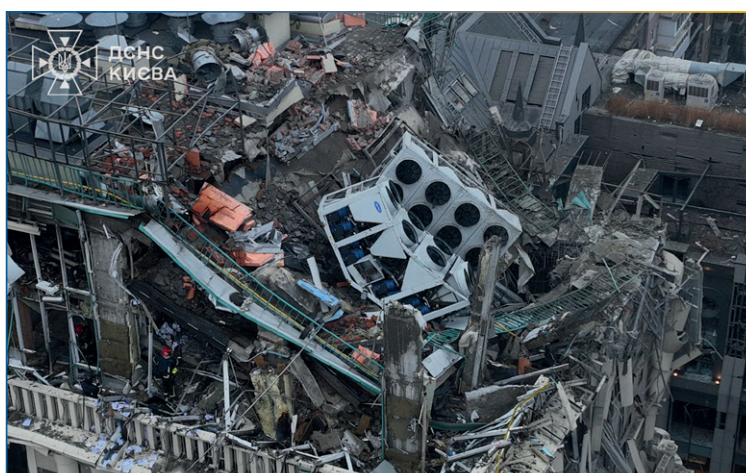
Attacks During Christmas

Russian airstrikes on Ukrainian cities continued almost every night. Here are a few notable incidents:

On the night of Thursday, December 12, to Friday, December 13, a massive attack targeted Ukraine's energy infrastructure.

Four regions, including Kyiv, were hit, and two experienced power outages—an act which, in winter, translates into terrorizing the civilians. Russia launched a total of 192 kamikaze drones and 94 missiles, including cruise missiles. Ukrainian defenses shot down 80 drones, while another 105 were disabled by electronic warfare systems. Additionally, 81 cruise missiles were destroyed, 11 of which were taken down by Ukrainian fighter jets. One pilot, in particular, distinguished himself by shooting down six missiles: two with long-range AMRAAM missiles, two with short-range Sidewinder missiles, and the last two with his onboard cannon after running out of missiles. This highlights the advantage of the F-16 over older Soviet-made jets previously used by Ukraine. Thanks to its advanced sensors and electronic systems, an F-16 pilot has better situational awareness and can identify

and engage multiple targets more quickly and efficiently, even in high-density combat environments. Another major attack occurred cynically on Christmas itself, from the night of Tuesday, December 24, to Wednesday, December 25. Most Ukrainians now celebrate Christmas on the same date as the Western world, rather than according to the Orthodox calendar. On this holiday, Russia launched 106 kamikaze drones and 78 missiles, including cruise missiles, at Ukraine. Ukrainian defenses intercepted 59 missiles and 54 drones, while electronic warfare systems disabled another 52 drones. Despite these efforts, nearly 20 missiles broke through the defenses. Kharkiv alone reported 11 explosions. In one of the targeted power plants, a civilian technician was killed, and half a million people were left without heating on Christmas. The city of Kherson, located directly on the front line,





The aftermath of a massive Russian attack on Ukrainian cities during Christmas.

faces terrifying attacks daily. Russian drone operators engage in what they themselves describe as "human safari"—targeting individual civilians, civilian vehicles, and public transport with drones, boasting about it afterward. Amid this brutal routine, one attack stood out even more: just before Christmas, Russian airstrikes hit an oncology clinic—and then bragged about it.

A Ukrainian Connection in Syria?

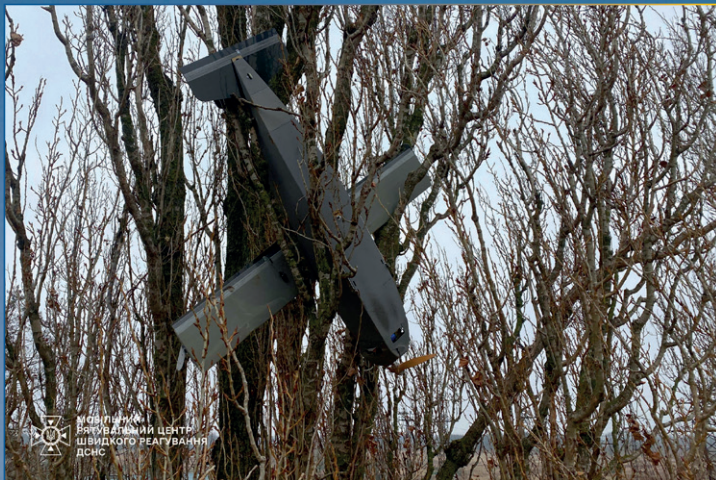
Finally, a brief mention of an event that is only indirectly related to the war in Ukraine. In Syria, after 13 years, the bloody civil war has come to an end. As recently as mid-November, there was no indication of an imminent conclusion. However, in just 12 days of offensive operations, the rebel coalition known as CMO seized Damascus, the capital, on the night of Saturday, December 7, to Sunday, December 8—virtually without a fight. The Syrian government army collapsed along with the regime it was meant to protect. Why mention this in connection with Ukraine? Aside from Iran, Bashar al-Assad's regime was primarily supported by Russia, which had deployed both troops and air forces to Syria. However, after the start of the war in Ukraine, Russia had to weaken its Syrian military presence. Rumors suggest that Ukraine aided the CMO rebels by supplying them with FPV drones, along with a small number of operators (reportedly around 20). At the beginning of the offensive, these drones targeted and eliminated key Syrian government army personnel and objectives. As for Assad, the fallen Syrian dictator has fled to Russia, where he and his family have been granted asylum.



The disabling of Russian projectiles that missed their targets.



Ukrainian bomb disposal specialists recovered a Russian drone that had been trapped in a tree.



Ukraine's 40th Tactical Aviation Brigade released a series of photos of MiG-29 fighter jets.





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Esau

Text: Jan Bobek

Illustration: Antonis Karydis



Heinz "Esau" Ewald was one of the renowned aces of JG 52, a Luftwaffe fighter unit that operated on the Eastern Front from June 1941 until the end of the war. Born in Zoppot (Sopot), near present-day Gdańsk, he joined Fliegerausbildungsregiment 23 in December 1941 and completed pilot and fighter training. His training continued with JG 106 at Lachen-Speyersdorf, and later with Ergänzungs-Jagdgruppe Ost in La Rochelle, France, where he was prepared for combat.

At 21, Ewald, an NCO, was assigned to II./JG 52 led by Hptm. Gerhard Barkhorn in autumn 1943. The unit had recently withdrawn from Anapa, Kuban, and operated from various airfields in Ukraine before moving to Bagerowo in Crimea in November. Ewald was transferred to II./JG 52's 6th Staffel, led by Lt. Helmut Lipfert, who already had over 40 victories.

As a complete novice, Ewald achieved his first victory during his fourth combat flight. This milestone occurred during a "free hunt" mission on November 12, 1943 over the Kerch Strait. Ewald was flying as a wingman for Fw. Ellendt of the 5th Staffel. After about twenty minutes of flying beneath a low-lying, continuous cloud layer, the German duo received a report of Soviet aircraft operating south of their position. They immediately headed toward the designated area at maximum speed, maintaining an altitude of about 100 meters above sea level.

Suddenly, four Soviet Yaks emerged from the clouds roughly a thousand meters ahead of them, and Ellendt quickly pointed them out. What followed happened in mere seconds. The formations flew directly at each other, and Ewald instinctively opened fire on one of the enemy aircraft. Moments

later, Ellendt radioed in, confirming a successful shootdown. A confused Ewald asked who had brought down the enemy plane, only to be surprised when Ellendt informed him that it had been Ewald's shot. The Soviet aircraft spiralled down, crashing on the coast and exploding upon impact.

After landing, Heinz Ewald received numerous congratulations but also found himself on the receiving end of warnings. Fellow pilots repeatedly reminded him that shooting at the enemy head-on was a dangerous tactic that wouldn't allow him to live long. Over the next few weeks, as Ewald displayed remarkable luck and quickly accumulated several victories, these comments became more frequent.

In German, expressions referring to a large dose of luck often include the words *Schwein* (pig) or *Sau* (swine). It was fitting, then, that Ewald earned the nickname "Esau," coined by his comrades in the 6th Staffel. Ofw. Kuhn, acting as the spokesman for the group, formally announced the nickname to Ewald. Kuhn reminded him of the unit's superstition: a rookie who rapidly racks up victories typically doesn't live long. Kuhn playfully advised Ewald to go ahead and write a farewell letter to his parents—just in case.

As a supposed candidate for an early death, Ewald received especially generous portions of food from Obergefreiter Prümmer, the chief cook of II./JG 52. After a few weeks, "Esau" found himself often thinking that he would indeed soon fall in battle. This mindset was a result of his colleagues' remarks, which were likely well-intentioned and meant to temper his enthusiasm, encouraging him to take fewer risks during combat.

The teasing from the pilots of the 6th Staffel eventually subsided when Ewald was selected by Hptm. Gerhard Barkhorn, the commander of II./JG 52, to be his wingman. Ewald went on to fly over a hundred combat sorties alongside his new leader.

Between late 1943 and spring 1944, Ewald achieved 17 aerial victories during the battles in Crimea. Aviation historian Ivan Lavrinenko's suggests in his book about JG 52's top aces in Crimean campaign that Ewald likely destroyed between three and nine enemy aircraft. Multiple Luftwaffe pilots often claimed responsibility for the same Soviet aircraft, a common occurrence during intense air battles.

The box art by Antonis Karydis depicts one of Ewald's two victories over Hungary on February 4, 1945, against fighters from the 848th IAP. Both Soviet airmen remain missing. Details of this engagement, along with other battles involving Ewald, can be found in Daniel and Gabor Horvath's book, which provides an in-depth analysis of the Luftwaffe's ace air victories over Hungary in late 1944 and early 1945.

Lucky Ewald survived a dogfight with American fighters on June 24, 1944 over Romania, bailing out after being shot down and sustaining injuries. In early March 1945, he was accidentally shot down by an SS anti-aircraft unit, and a month later, he rejoined his unit after making an emergency landing in a front-line area. "Esau" Ewald was indeed "lucky as a pig." For a detailed description of these incidents, refer to the article on "Heino" Sachsenberg in [INFO magazine 11/2010](#) and the article [The end of the war at the Danube](#).

Old Habits Die Hard

Text: Jan Bobek

Illustration: Piotr Forkasiewicz



Many Luftwaffe pilots were accustomed to flying the Bf 109 E since the Spanish Civil War and had literally grown attached to these machines. As a result, transitioning to the Bf 109 F-1 and F-2 variants—equipped with weaker armament compared to the E-7 version—proved unpopular for many of them. Old habits die hard. Even more difficult was the transition to an entirely new type of fighter aircraft with significantly different flight characteristics and a radial engine instead of an inline one: the Focke-Wulf Fw 190.

The first unit to operate the new Fw 190 A-1 was II./JG 26 "Schlageter," equipped with Bf 109 Es. Around the beginning of August 1941, Erprobungsstaffel 190, led by Oblt. Otto Behrens, was transferred from the test center in Rechlin to the Paris-Le Bourget airfield. Behrens' unit had successfully completed its operational tests and was now tasked with passing on its findings to II./JG 26, commanded by Hptm. Walter Adolph.

Without Behrens' experience and dedication, the entire project would, in all likelihood, have been abandoned, as it was plagued with persistent issues—mainly concerning the BMW 801 C-1 powerplant—that would have discouraged less determined individuals.

Part of II./JG 26 trained on Focke-Wulf aircraft in Paris, the rest of the unit flew combat sorties with old planes in Belgium at the Moorsele airbase. This practice became standard for other units transitioning to the Fw 190 A. The first successful deployment of the Fw 190 A took place on August 14, 1941.

In November 1941 III./JG 26 began rearming with the Fw 190 A-1, however, problems with

the power units persisted. Mechanics had to make modifications to the exhaust manifolds in field conditions, and the unit independently sourced some spare parts from across Germany. A testament to the engine's reliability issues is the fact that BMW awarded Oblt. Borris, the commander of 8./JG 26, a gold watch after the engine of his Fw 190 surpassed 100 hours of operating time.

By early 1942, the first Fw 190 A-2s, equipped with the improved BMW 801 C-2 powerplant, were documented in service with III./JG 26. Notably, the first aircraft of this version was recorded with II./JG 26 as early as December 1941. In the same month, I./JG 26 took delivery of its first Fw 190 A-1s.

In 1941, Stab JG 26, under the command of Adolf Galland, continued to operate Messerschmitt Bf 109 F-4s. By this time, this version of the Bf 109 had become popular among many pilots. When Maj. Gerhard Schöpfel took over command of JG 26, his Stab began rearming with the Fw 190 A-2 in January 1942, followed by the A-3 version in April.

The fighter-bomber unit, 10./JG 26, transitioned from the Bf 109 F-4/B to the, then, already proven Fw 190 A-2 and A-3 models only in June and July of 1942. The A-3 variant was equipped with the BMW 801 D-2 powerplant, which by then had become relatively trouble-free.

Jagdgeschwader 2 "Richthofen" received their Fw 190s significantly later than their JG 26 counterparts. The Messerschmitt Bf 109 F-2 and F-4 remained in use by Stab JG 2 until July 1942, with at least one E-7 still in service! Under the command of Obstlt. Walter Oesau, the Stab of JG 2 took delivery of its first Fw 190 A-3 in May 1942, followed by additional A-2 and A-3 versions in the

subsequent months. The first Gruppe within JG 2 to begin rearmament with the Fw 190 was II./JG 2, which received the A-2s in March 1942. One of its pilots recalled that very few aircraft were equipped with four wing-mounted guns. This shortage was reportedly due to insufficient gun production capacity, and aircraft with the full armament were usually reserved for unit commanders. The Messerschmitt Bf 109 F-2, F-4, and even one E-4 were gradually phased out of II./JG 2 until May 1942.

Next in line was III./JG 2, commanded by Hptm. Hans "Assi" Hahn. His unit gradually retired the Bf 109 F-2 and F-4 variants by July 1942, starting receiving the Fw 190 A-2 and A-3 models in May. Hahn's brand-new aircraft is depicted on box art by Piotr Forkasiewicz, with additional details available in the historical text included in the kit's instructions. I./JG 2 was the last to transition to the Fw 190, doing so between June and July 1942. The same timeline applied to the fighter-bomber unit 10./JG 2, which also began rearming during this period.

The Fw 190 was an ideal fighter aircraft for medium- and low-altitude combat, where it held an advantage of its powerful armament and ability to escape in steep dives. However, the operational needs of Luftwaffe fighter units gradually evolved, especially after the arrival of American forces in the UK. As a result, during 1943, some aforementioned units were rearmed with Bf 109s, which were better suited for high-altitude combat. In the spring, II./JG 2 received the G-3, G-4, and G-6 variants. Later, in the autumn, III./JG 26 transitioned to the G-3, G-5, and G-6 models.

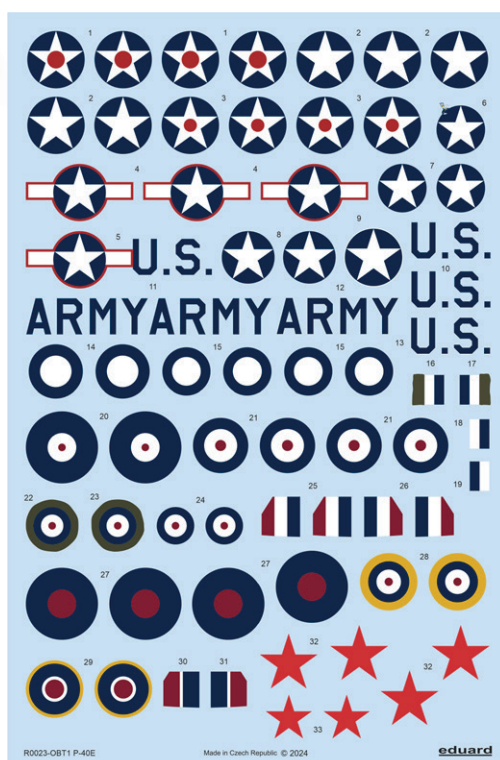
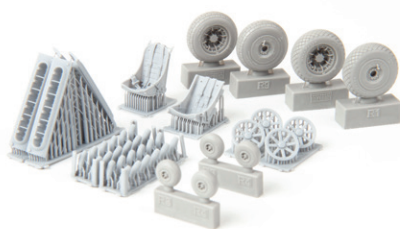
P-40E Warhawk

#R0023

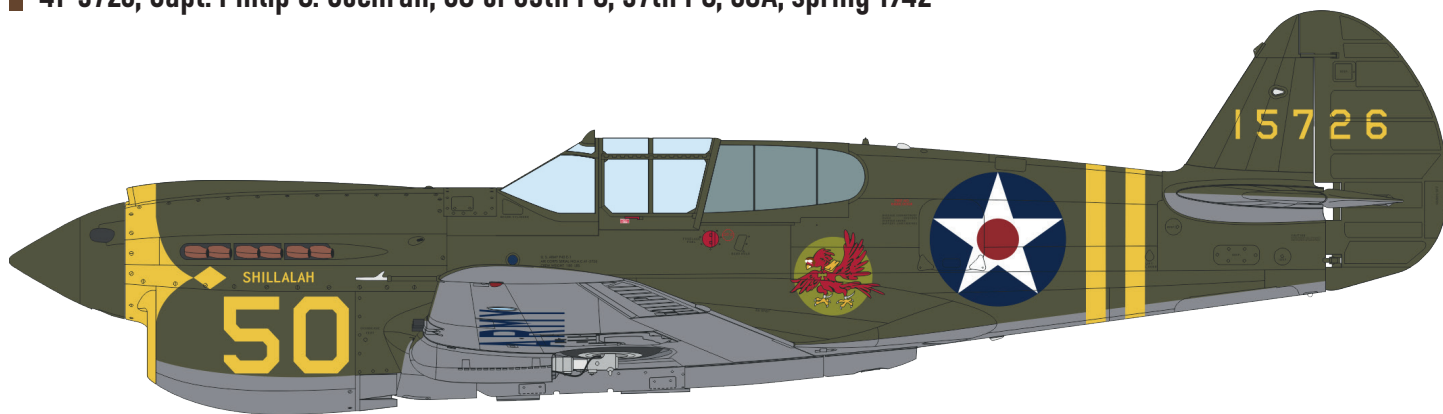
The Royal Class edition kit of the US fighter aircraft P-40E Warhawk in 1/48 scale. The kit offers markings for 12 aircraft. The box contains plastic sprues for two complete kits, from which it is possible to build aircraft flying in USAAF, RAF, RAAF and VVS RKKA (Soviet Air Force).

- plastic parts: Eduard
- marking options: 12
- decals: Eduard
- PE parts: yes, pre-painted
- painting mask: yes
- resin parts: yes (exhausts; undercarriage wheels - two types, two seats with harness - two types)
- bonus: wheel wells plugs (Omask)

1/48



■ 41-5726, Capt. Philip G. Cochran, CO of 65th PS, 57th PG, USA, spring 1942

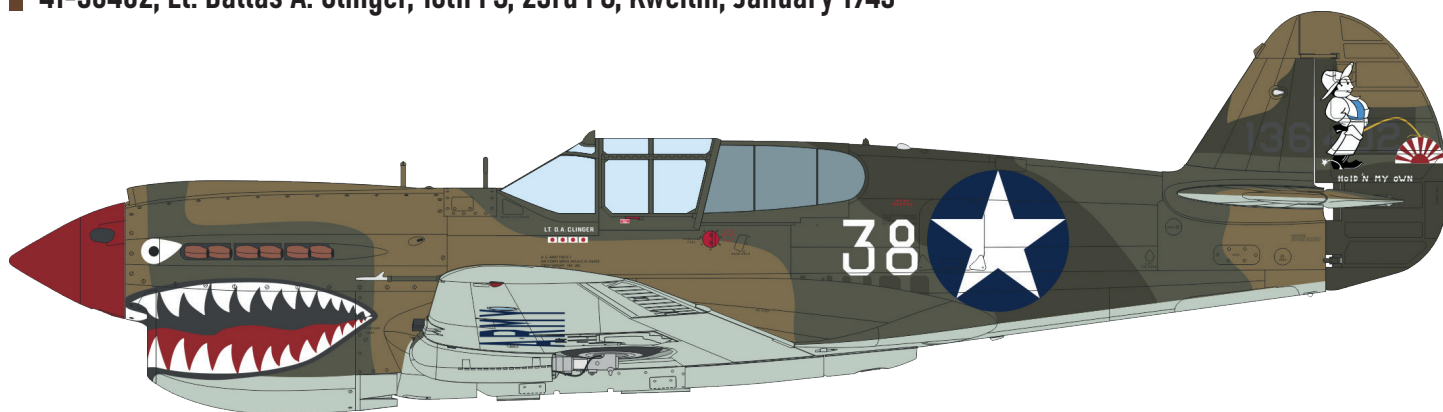


Philip Gerald Cochran was born on January 29, 1910, in Erie, Pennsylvania, and died on August 26, 1979. He joined the ranks of the USAAC in 1935 and gradually worked his way up to become one of the best P-40 pilots. As a Major, he commanded the 33rd FG in North Africa. Later, at the rank of Lieutenant Colonel, he became commander of the 1st Air Commando Group in India. The unit carried out a wide range of missions from fighter escort of transport and bomber

aircraft to supply flights, including very daring missions to supply British Long Range Penetration Groups operating in enemy territory. For his aggressiveness and willingness to take risks on supply missions, Cochran earned the respect of the troops. He scored two aerial victories during the war and retired after the end of hostilities. He returned to Erie, Pennsylvania, and joined his brother's company, Lyons Transportation Lines, where he became

chairman of the board. He died of a heart attack while fox hunting in 1979. His P-40E from spring of 1942 carried the standard Olive Drab and Neutral Grey livery, complete with yellow nose decorations and squadron emblem behind the canopy (both of which were carried by other squadron aircraft as well). There was also a Shillalah inscription on both sides of the nose.

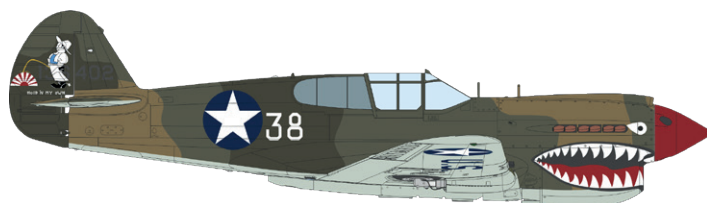
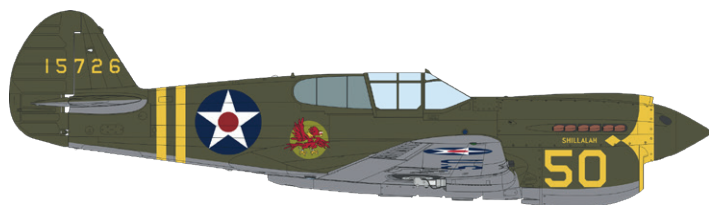
■ 41-36402, Lt. Dallas A. Clinger, 16th FS, 23rd FG, Kweilin, January 1943



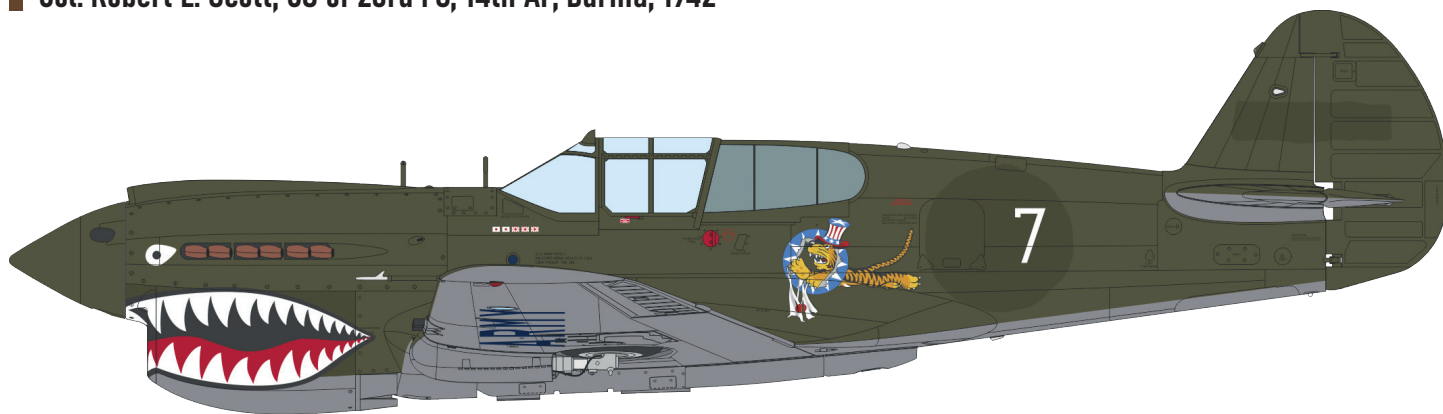
Dallas Adellon Clinger was born on June 2, 1916, in Saint Anthony, Idaho. After completing training in 1941, he was transferred to the 16th FS. He achieved his first victory in aerial combat on July 31, 1942, when he shot down an A6M. He followed this up by shooting down a same type aircraft on November 12 of that year and concluded his score with the 16th FS on December 26, 1942, shooting down a Zero again. He scored two more confirmed kills during the war. Clinger remained in the service after the

war and retired in 1953 at the rank of Major. He died on December 16, 1988 (aged 72). This P-40E was originally intended to be part of a supply for the RAF and was therefore painted in American Du Pont colors similar to the British shades of Dark Earth (No. 71-035), Dark Green (No. 71-013) and Sky (No. 71-021). The camouflage was retouched on the fuselage sides and tail surfaces with another green paint, probably Olive Drab. The pilot's personal symbol, the peeing cowboy, was painted on

both sides of the rudder. Another Clinger's P-40 bore a similar design. It is not entirely certain whether this aircraft had the inscription "Holdin' my Own" on both sides of the rudder, it is only documented on the starboard side while there are photographs of the port side without the inscription. However, it may have been added later. The 16th FS P-40s had their wheel discs decorated with a blue field with white star and probably with a red circle in the middle.



■ Col. Robert L. Scott, CO of 23rd FG, 14th AF, Burma, 1942

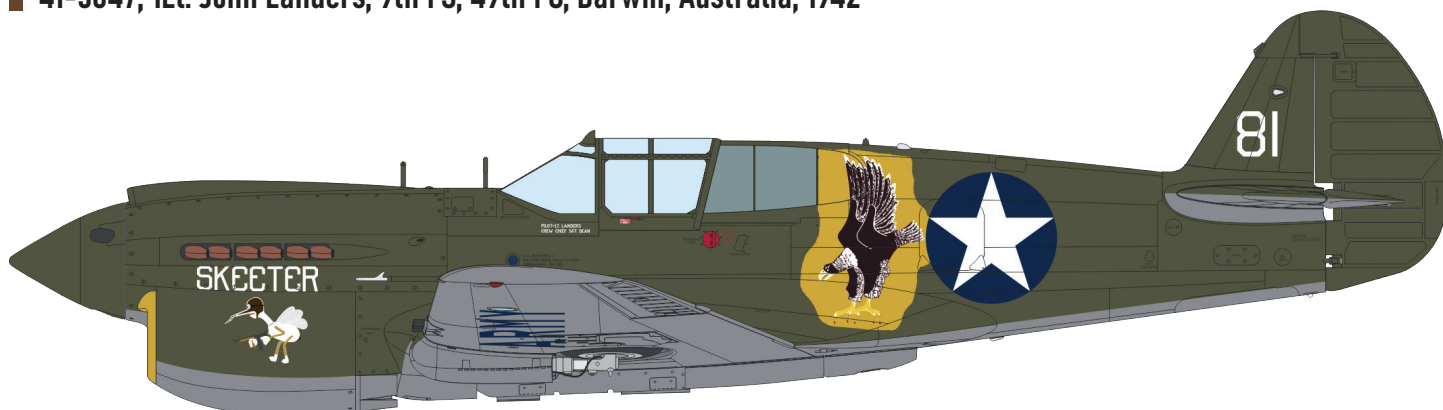


Robert Lee Scott was born on April 12, 1908, in Waynesboro, Georgia, and graduated from West Point in 1932. He flew air mail, then commanded a fighter squadron in Panama and served as an instructor in Texas and later in California. By the time the U.S. entered the war, he was considered too old to be a fighter pilot at the age of 33, so he converted to B-17s to join Task Force Aquilla, which was intended to bomb Japanese soil. He flew one B-17 to India but found out there that the plan was cancelled. He became Ops Officer of the ABC Ferry

Command group, flying transport aircraft, but also made a few flights with Chennault's Flying Tigers on P-40. He then managed to confiscate one P-40E intended for AVG and named it Exterminator. This is not the aircraft shown, however, as the one pictured here was his second P-40E, this one officially assigned to him, as Scott had since become commander of the 23rd FG. Sometimes the serial number 11456, i.e., 41-1456, is used in drawings of this one, but no such P-40 existed, yet it has been painted in several profiles because Scott

mentioned it himself in his memoirs. He was probably mistaken, but in any case he related this number to the confiscated P-40E. During the flight in which he scored his fourth and fifth kills, the Exterminator was badly damaged and never flew again. The symbols of the five kills were therefore not carried until Scott's second P-40E, also of unknown serial number (which was probably overpainted anyway according to local custom). In total, Scott achieved 13 kills during the war. He died on February 26, 2006, at the age of 98.

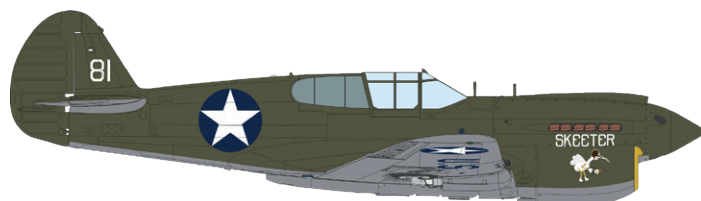
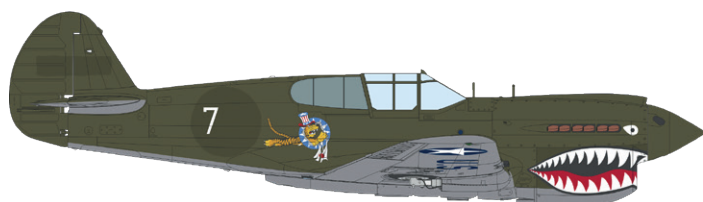
■ 41-5647, 1Lt. John Landers, 9th FS, 49th FG, Darwin, Australia, 1942



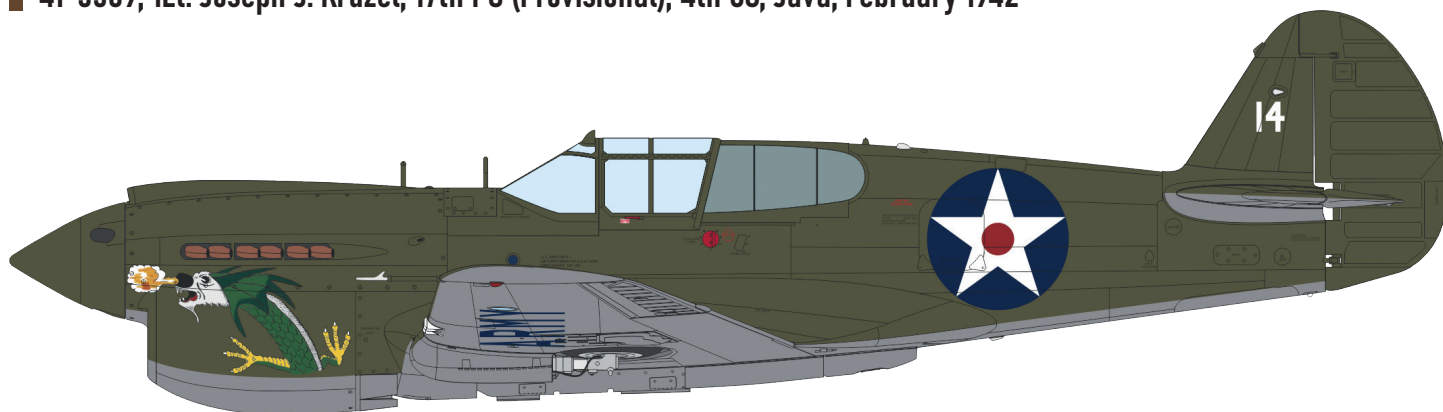
John Dave Landers was one of the fighter pilots who achieved victories in two different theatres of war during WW II. He scored his first six kills in the Pacific and added the rest to his total of 14.5 kills in Europe. Born in Oklahoma on August 23, 1920, he moved to Texas at the age of eighteen. He entered the Army Air Cadet program in April 1941, was commissioned as a First Lieutenant on December 12 and shipped to Australia as early as January 1942. He joined the 9th FS/49th FG after delivering one P-40E

to Darwin on April 3. He scored two kills the very next day, then added two more victories on June 14 and July 30 before taking off on December 26 for his last combat flight in the Pacific. That day he firstly scored two kills, then was shot down over New Guinea and had to find his way through the jungle. In February 1943 he returned to the USA and was sent on his second operational tour, this time in Europe (where he later completed a third tour as well). The first of Lander's P-40s is portrayed here.

On the left side of the fuselage behind the cockpit, it bore a drawing of a hawk in a yellow field, as a mark of affiliation with the Andy Reynolds Flight, who was the first to use this decoration. The decals provide the Hawk in black and dark brown version, as it is not sure which color was used. On the nose, Skeeter inscription and the drawing of a mosquito holding a machine gun were painted. It is not sure the mosquito was painted on the starboard side as well.



■ 41-5509, 1Lt. Joseph J. Kruzel, 17th PS (Provisional), 4th CG, Java, February 1942

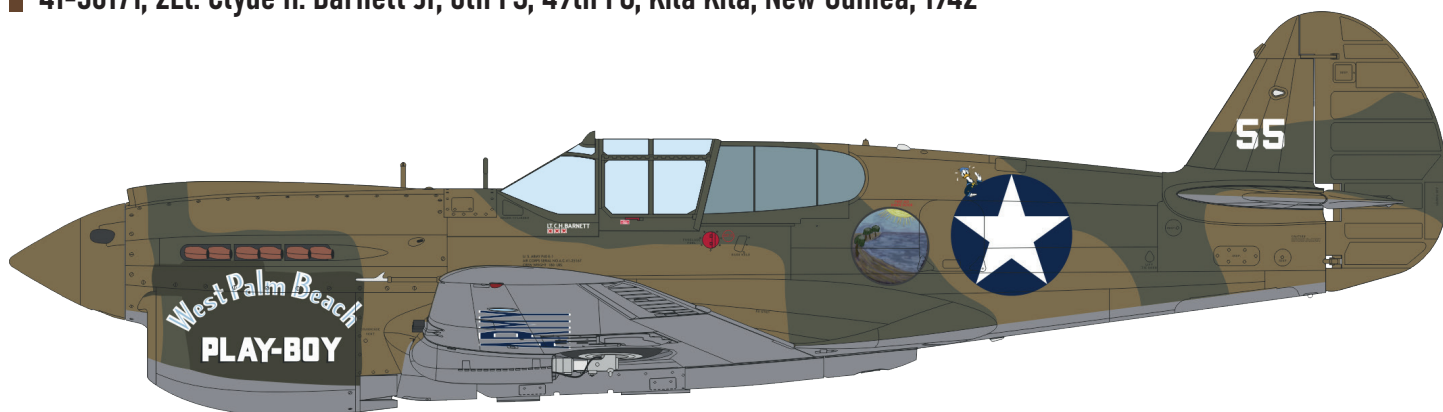


Joseph John Kruzel was born on February 17, 1918, in Pennsylvania. He entered the Air Force in May 1940 and was assigned to the 2nd Observation Squadron in the Philippines in December of that year. He was then transferred to the 17th PS in September 1941. After the Japanese attack on Pearl Harbor and the invasion of the Philippines, the 17th PS moved to Australia and Kruzel subsequently took part in the fighting in the Dutch East Indies. He achieved his first kill on February 17, 1942, when he shot down a Ki-27

over Palembang. This was followed by two A6M kills on February 19 and 20. In March he joined the 9th FS in Australia, where his wingman was George Preddy. He served with the unit until his return home in December 1942. In November 1943, he moved with the 361st FG to England to Bottisham Base, where the group received its P-47Ds. In Europe, Kruzel achieved three more kills plus one shared. This brought his total to 6.5 kills and one damaged aircraft. He returned to the US in January 1945 and held a number

of important positions postwar, achieving the rank of Major General. He retired on August 1, 1970 and died on July 10, 2002 at the age of 84. His P-40 from when he was still with the 17th PS sported the drawing of a dragon breathing fire on both sides of the nose. A similar drawing then adorned another P-40E that Kruzel used in Australia. This one, however, was camouflaged in British colors, and Kruzel's Flight was named "Dragon Flight" after it.

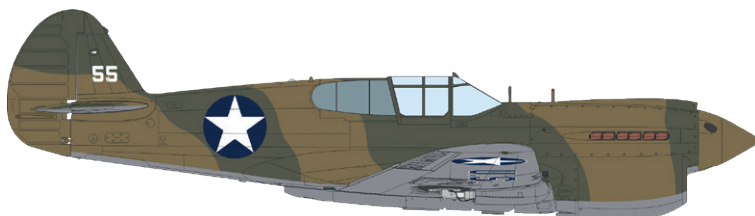
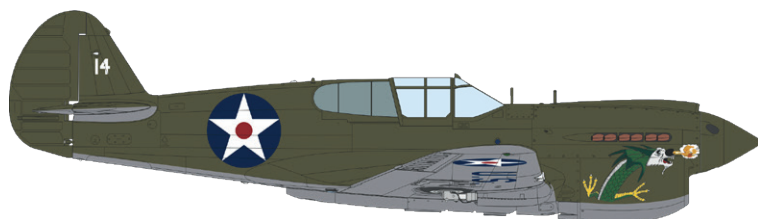
■ 41-36171, 2Lt. Clyde H. Barnett Jr, 8th FS, 49th FG, Kila Kila, New Guinea, 1942



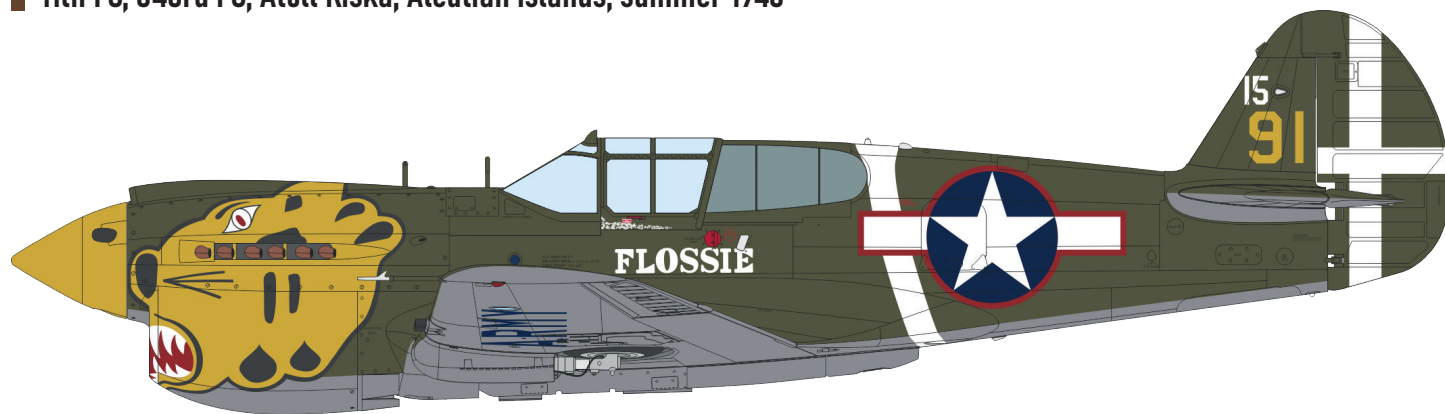
Clyde Haygood Barnett Jr was born on 23 June 1916 in West Palm Beach, Florida. He scored a total of four kills, two of them in the defense of Darwin. During his time with the 49th FG he took a number of photographs, many of which are well known today. Like a true patriot, he named his P-40 West Palm Beach Playboy.

This is the second aircraft of that name, and of interest is the drawing of the West Palm Beach scenery on the left side of the fuselage, as well as the mischievous drawing of Donald Duck on the national insignia on the same side of the fuselage. Although this P-40E was finished in British colors, the lower surfaces

were repainted in Neutral Grey. Presumably this repainting also created the non-standard white borders around the US Army lettering and the emblem. Clyde H. Barnett died on April 24, 2002, at the age of 85.



11th FS, 343rd FG, Atoll Kiska, Aleutian Islands, summer 1943

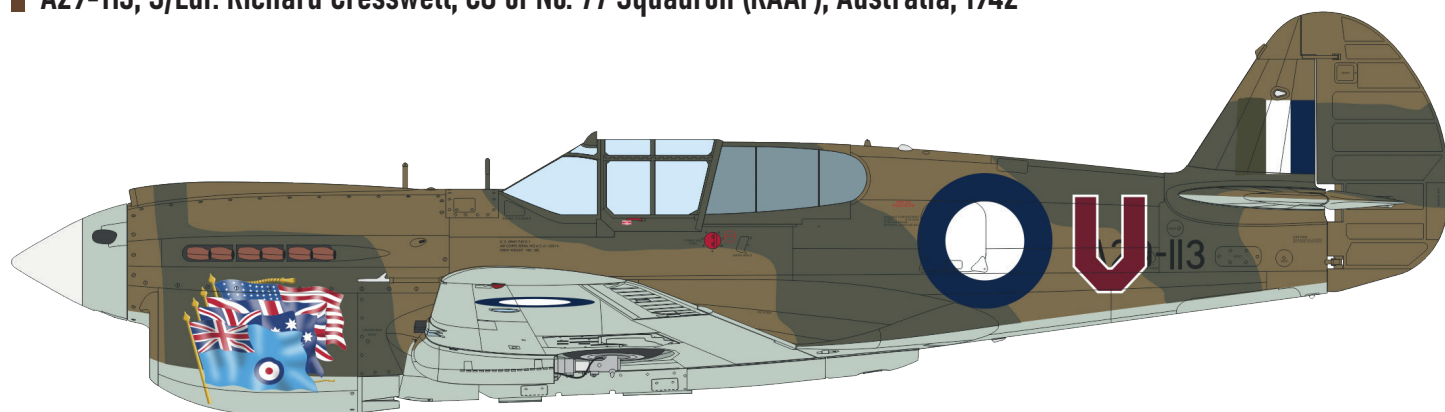


The Aleutian Tigers represent some of the most attractively colored P-40s, thanks to the tiger head that adorned the nose of most aircraft of this type. The 343rd FG was founded on September 3, 1942, at Alaskan base Elmendorf Field. Initially, the group consisted of the 11th FS and 18th FS, both armed with P-40s, and the 54th FS, which used P-38s and operated out of Adak. The pilots of the 11th FS went operational almost immediately after moving to Umnak Island in the Aleutian Islands. In

October 1942, the 344th FS joined the group, also with P-40s. The group provided air defense of the Aleutian Islands and also bombed or strafed Japanese targets on Kiska Island itself. Its pilots flew their last combat mission in October 1943, and subsequently conducted patrol and reconnaissance flights until the end of the war, with the exception of high-altitude flights in early 1945, during which the pilots engaged Japanese balloons with incendiary charges. All units were already using P-38s for this

purpose, but the P-40s remained in service alongside them. The Tiger Heads were a reminiscence of the AVG, the Flying Tigers of Claire Chennault, since the 343rd FG was initially led by his son Lt Col John S. Chennault. The aircraft depicted here received a name, in this case Flossie, as one of the few Aleutian P-40s. The insignias had short-lived red lining.

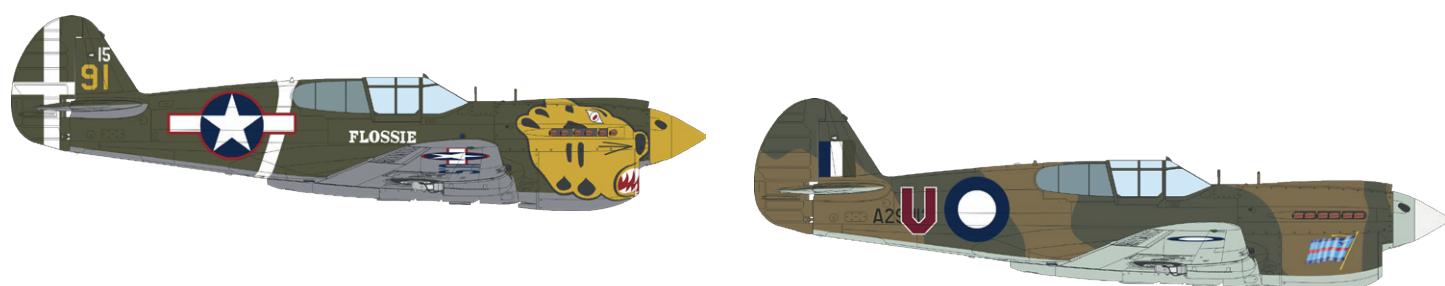
A29-113, S/Ldr. Richard Cresswell, CO of No. 77 Squadron (RAAF), Australia, 1942



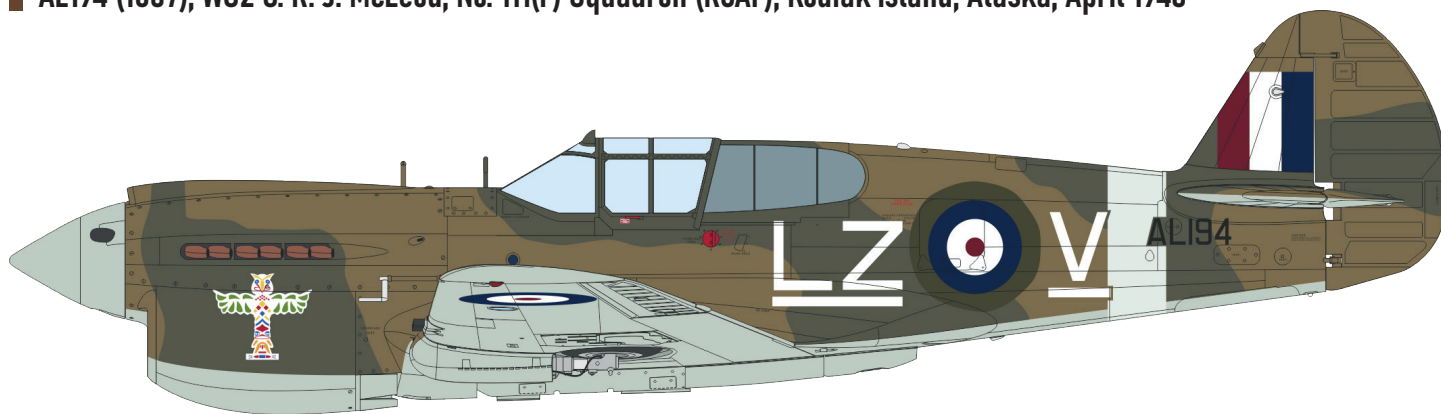
Richard Cresswell was born on July 27, 1920, in Franklin, Australia, and was an electrician apprentice before he joined the RAAF ranks in June 1938. He began his career with No. 1 Flying Training School as an air cadet in July 1938 and spent the next 12 months learning to fly. He was discharged from the school as a Pilot Officer and joined No. 3 Army Cooperation Squadron. He then served as an instructor and after the Japanese bombing of Darwin on February 19, 1942, he was assigned to the US 9th FS as a Liaison Officer. When the RAAF

formed three new squadrons (Nos. 75, 76 and 77) armed with Kittyhawks, Cresswell, as a fresh Squadron Leader, was appointed on April 20 as Commander of No. 77 Sqn. At 21 years of age, he was younger than most of his subordinates. In the early hours of November 23 he scored his first kill, which was also the first kill by an Australian unit over Australian territory and the first night kill over Australia as well. No. 77 Sqn. was led by Cresswell until August 1943, when he was appointed CO of No. 81 Wing in New Guinea from May 1944 to March 1945,

concurrently leading No. 77 Sqn. for a second time between September and December 1944. In September 1950 he assumed command of that unit for a third time, now in Korea, where he also supervised the conversion from P-51Ds to Gloster Meteors. His P-40E of the period when he first commanded No. 77 Sqn. is interesting for the distinctive drawings of flags on either side of the nose. On the left side flew the RAAF, RAF, Union Jack and American flags. On the right side there was the Squadron Leader's flag.



■ AL194 (1087), W02 S. R. J. McLeod, No. 111(F) Squadron (RCAF), Kodiak Island, Alaska, April 1943

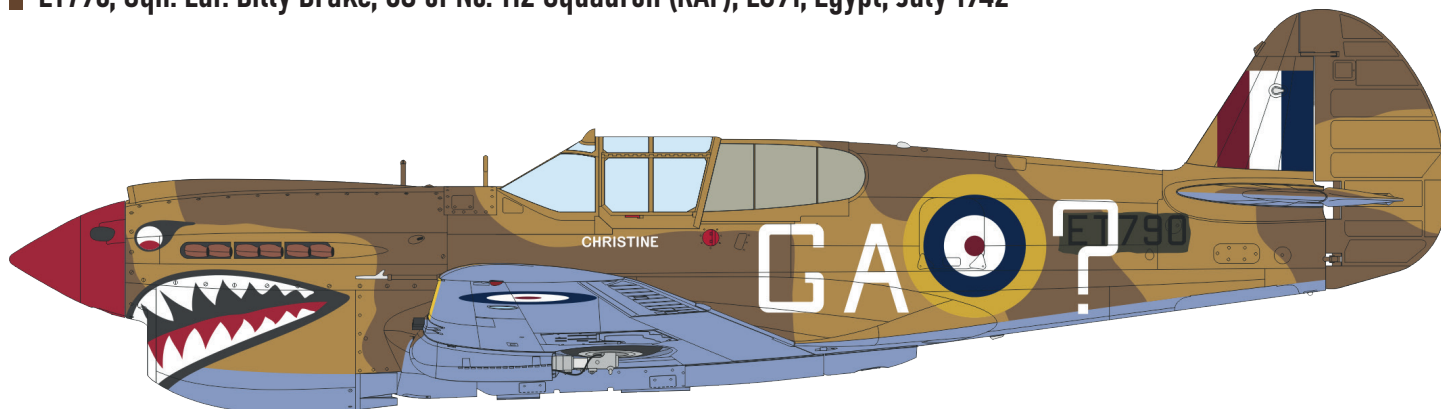


No. 111 Squadron was formed in 1932 as the Coastal Artillery Cooperation Squadron. With the outbreak of World War II in September 1939, it was redesignated from No. 111 (CAC) Sqn. to No. 111 (F) Sqn. which signified the change to a fighter squadron. In January 1941 the unit was disbanded, and a new squadron of the same designation was subsequently formed. On November 3, 1941, the unit received its first P-40Es. These were then dismantled and transported to Vancouver Island. In March 1942, the unit was presented with a thunder totem

from the Chief of the Saanich First Nation, which became its emblem. The unit also used, unofficially, the name Thunderbird Squadron. Due to the assumption of a Japanese attack on the U.S. base at Dutch Harbor on Unalaska Island (which indeed occurred on June 3), an airfield was built at Umnak. From there, No. 111(F) Sqn. moved in June 1942 to Elmendorf Base, Anchorage, where it remained until October 30 of that year. At the same time in June an X Wing was formed from this unit and No. 8 (BR) Sqn. flying with the Bristol

Bolingbroke. In October 1942, No. 111 (F) Sqn was moved to Kodiak Island, where it remained until August of that year. The aircraft shown here was damaged on belly landing due to a landing gear malfunction. The nose bore the unit's emblem, the thunder totem, which is often drawn in white only. However, it is likely that it was colored to match the unit's emblem. The cockade on the fuselage had overpainted yellow part, while the cockades on the upper wing had an unusually small red center and a thicker blue border.

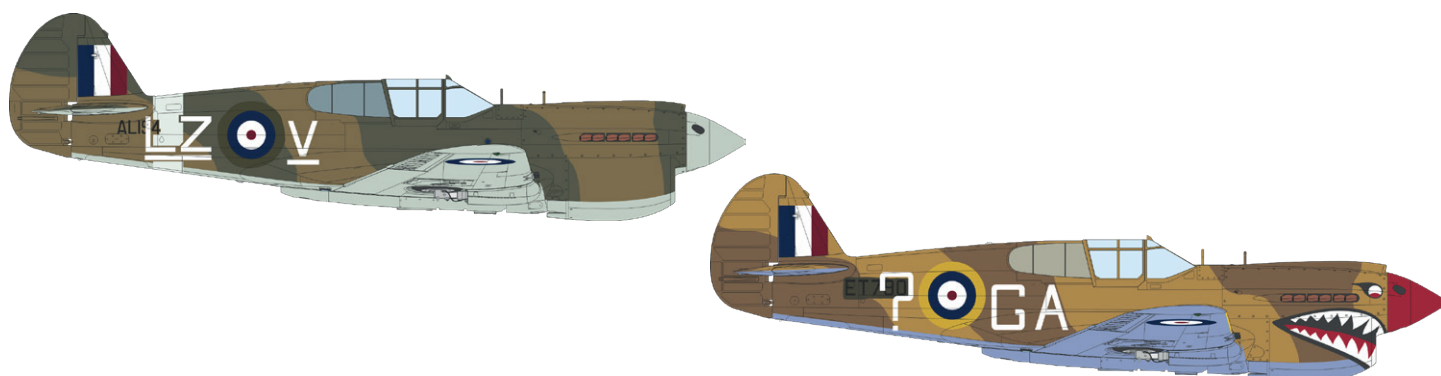
■ ET790, Sqn. Ldr. Billy Drake, CO of No. 112 Squadron (RAF), LG91, Egypt, July 1942



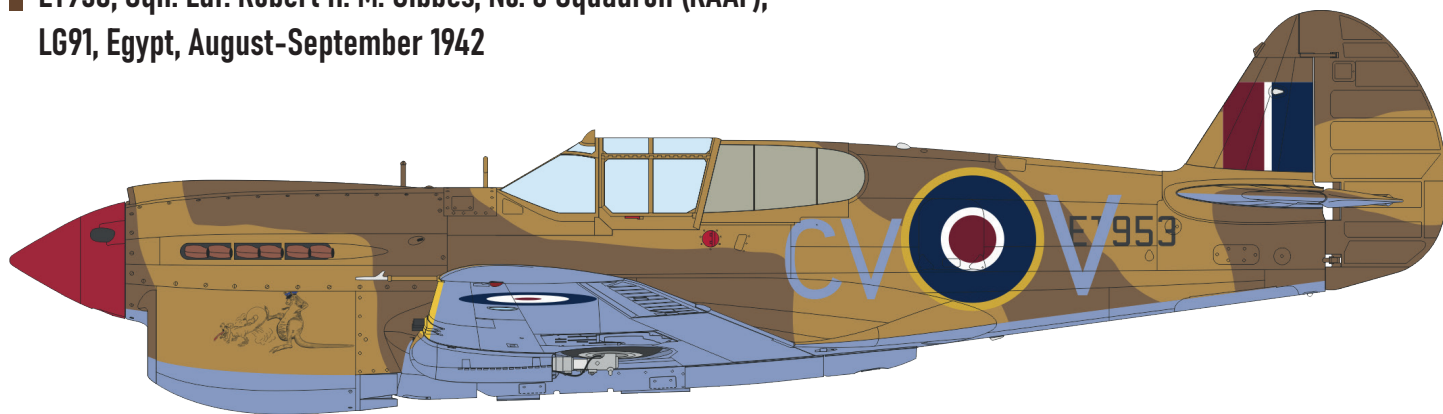
Billy Drake was born on December 20, 1917, and ranked among Britain's most successful fighters with 20 confirmed and six probable kills. In addition, he damaged nine more enemy aircraft. He fought successively in France, England, Africa and Malta and became the most successful British pilot with the P-40 (13 kills) and second in the Commonwealth after

Clive Caldwell (20 kills). He was sent to Africa in December 1941 with the task of forming No. 128 Squadron, armed with Hurricanes. At the end of May 1942, he took over the command of No. 112 Sqn. From Clive Caldwell. In November 1943 he returned to the UK and flew Typhoons. After the war he became deputy commander of Biggin Hill base. Billy Drake died in August 2011

at the age of 94. His P-40E bore the distinctive No. 112 Sqn. emblem, a shark's mouth on the nose. Drake chose a question mark instead of a code letter as his personal marking, and his machine bore the name Christine on the left side under the cockpit.



■ ET953, Sqn. Ldr. Robert H. M. Gibbes, No. 3 Squadron (RAAF),
LG91, Egypt, August-September 1942

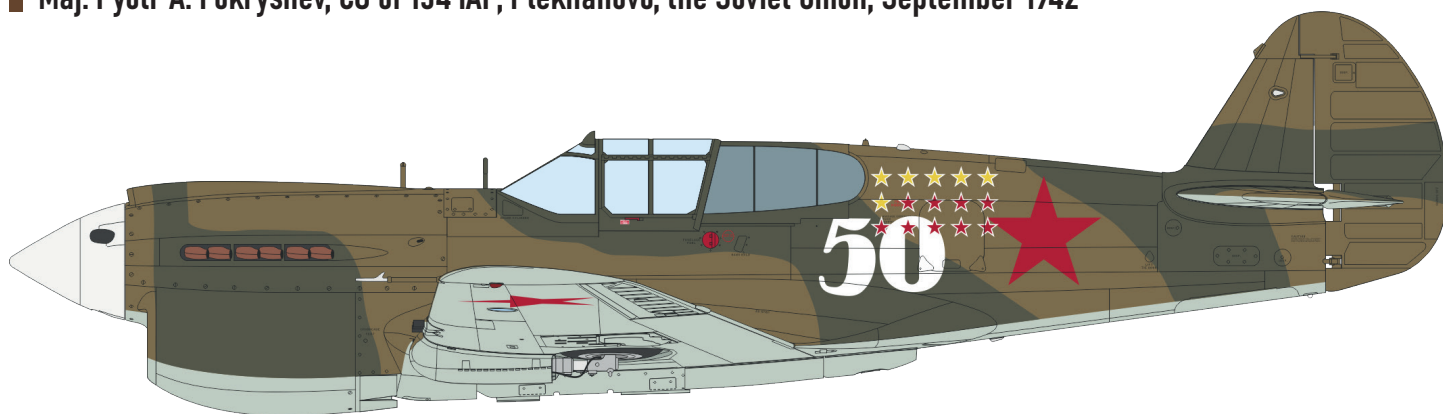


Robert Henry Maxwell Gibbes was born on May 6, 1916 and joined the ranks of the RAAF in February 1940. After completing his training, he was commissioned on June 28, 1940 and assigned to No. 23 Sqn. flying CAC Wirraways and Lockheed Hudsons. In April 1941 he was transferred to No. 450 Sqn. in the Middle East, but just a month later he moved to No. 3 Sqn. Another month later this unit rearmed from Hurricanes to Tomahawks and began operations in Syria and Lebanon. Gibbes was credited with

one probable kill of a Ju 88 near Beirut on June 13 and achieved his first confirmed kill on July 11. His victim was a Vichy D.520. In September No. 3 Sqn. was moved to Africa. Gibbes shot down two Fiat G.50s and damaged three others plus one Bf 109 on November 25. He then served at Darwin (Australia) at No. 80 Wing as Caldwell's deputy. In all, he scored 12 confirmed kills, five probable ones and 16 damaged aircraft during the war. After the war he built a network of hotels and coffee plantations and kept flying

until the age of 85, dying in April 2007 (aged 90) of a heart attack. His P-40E carried a drawing of a dachshund, symbolizing a German, being kicked in the butt by a kangaroo. The drawing is photographically documented on this aircraft in both unpainted and painted versions, but these drawings differ in detail. It is possible that it was done repeatedly after the engine covers were replaced.

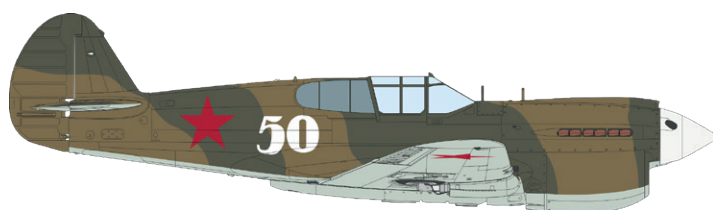
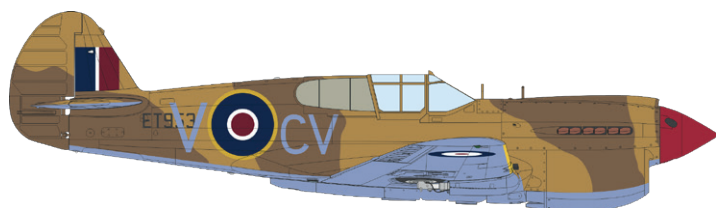
■ Maj. Pyotr A. Pokryshev, CO of 154 IAP, Plekhanovo, the Soviet Union, September 1942



Pyotr Afanasevich Pokryshev was born on August 24, 1914, in Hola Pristani, Ukraine. Before the war, he worked in shipyards and after graduating from trade school in 1932 he worked as a mechanic. In 1934 he completed pilot training at the aeroclub and joined the army. A year later he graduated from the Odessa Military Aviation School and was subsequently assigned to the 13 Independent Fighter Squadron. In 1938 he was transferred to the 38 Fighter

Aviation Regiment (IAP) as a Flight commander. During the Winter War he flew with the 7 IAP on the I-16 and was credited with two kills. He was himself shot down on December 20, 1939. In January 1941, he transferred to the 158 IAP as squadron commander. In October 1942 he was transferred to 154 IAP as deputy commander. His first victim after retraining on the P-40 was a Bf 109. On August 24, 1943, he was awarded the title Hero of the Soviet Union for the second

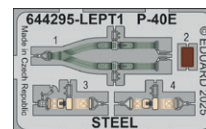
time and also crashed heavily during a training flight. In total, he scored 18 (some sources say 22) confirmed and six shared kills. After the war, he served at the Monin Military Academy and rose through several command and staff positions to become Chief of Staff of the Air Force. He flew the MiG-15s and MiG-17s. He died on August 22, 1967, when he drowned while on vacation.



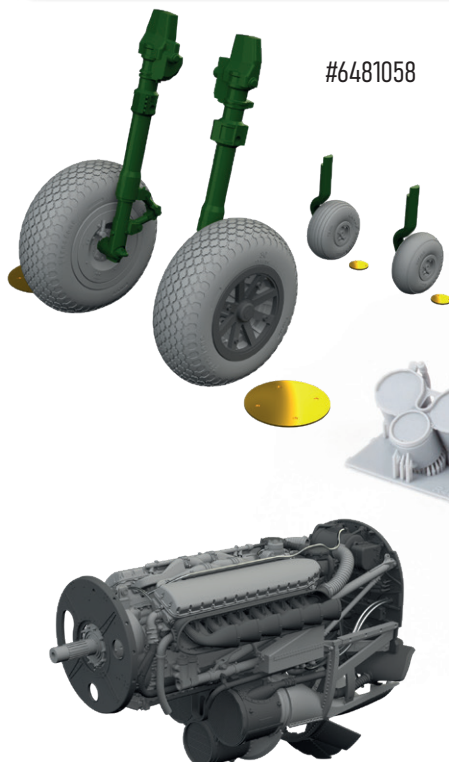
Recommended for P-40E Warhawk 1/48

- 481155 P-40E landing flaps (PE-Set)
- FE1498 P-40E seatbelts STEEL (PE-Set)
- 644295 P-40E LööK (Brassin)
- 648086 US 250lb bombs (2 pcs) (Brassin)
- 6481058 P-40E wheels cross tread (Brassin)
- 6481060 P-40 exhaust stacks rounded PRINT (Brassin)
- 6481061 P-40 exhaust stacks fishtail PRINT (Brassin)
- 6481069 P-40E engine PRINT (Brassin)
- 3DL48208 P-40E SPACE (3D Decal Set)
- EX1088 P-40E (Mask)
- EX1089 P-40E TFace (Mask)

#644295



#6481058



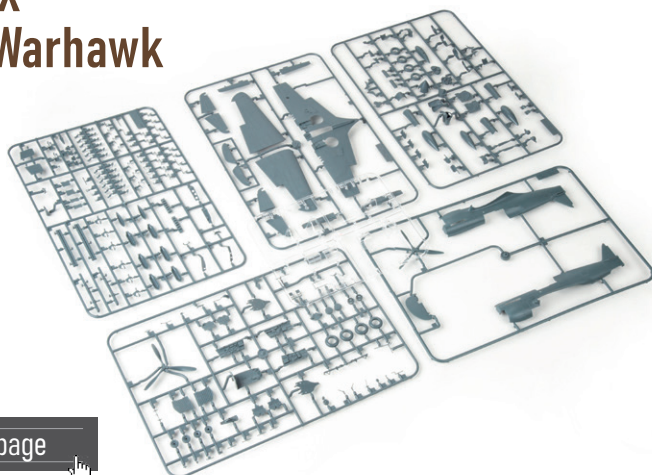
#6481069



OVERTREES

#82241X

P-40E Warhawk
1/48

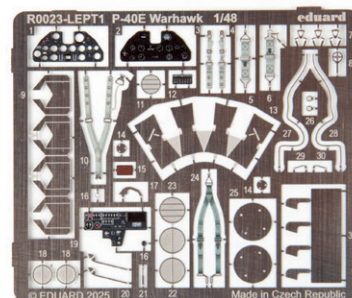


[Product page](#)

OVERLEPT

#R0023-LEPT1

P-40E Warhawk
1/48



[Product page](#)

HIGHLIGHTS P-40E 1/48

#R0023



Jakub Nademlejnský

Here we go! The new P-40 is ON and in the past weeks it has already filled the kit shelves of many modelers. If you didn't manage to buy it in our pre-order promotion and therefore don't own it yet, I recommend you to browse the following pages, where I show different features the kit offers. And if you later decide to own the kit, it will be available for purchase from our worldwide distributors. And for those of you who already own this new kit, please read this article as well. You will discover things in your kit that you may not have noticed before.

The year 2025 will be a P-40-year for Eduard, the model will be released in other limited editions, in ProfiPACK and Weekend editions. And, of course, in versions other than the current E, so there will certainly be plenty to look forward to.



The whole kit has a sophisticated system of sprue-part joints. Bottom joints are used where appropriate. The solution allows them to be easily removed as they are located at the contact surface of the parts and do not interfere with the surfaces.



Bottom joints are designed on both fuselage and wing parts.



The joints are extra thin to make them as easy to remove as possible, with the least interference with the parts.



A so-called slider is used for the rudder part. This allows the rudder to be made in one piece, thus thin and hollow, without the risk of depression on the part's surface.



When designing the fuselage and wing parts, the designers also thought about the future installation of Brassin accessories, so they prepared these plastic parts to be thinner in the areas where the modeler will make the cuts when installing Brassin sets. This is for example the area where the engine assembly will be glued...



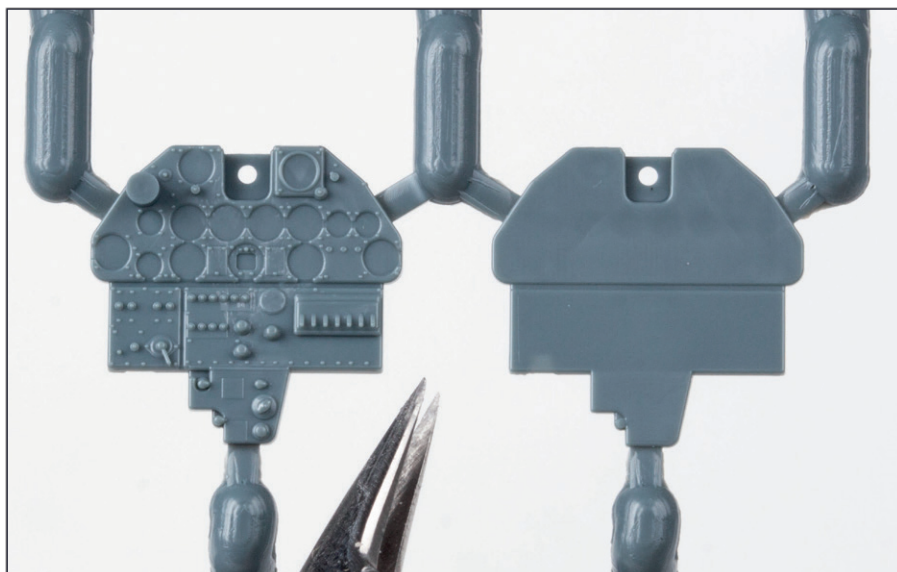
...and also the radio access hatch.



There are positive and negative rivets of various sizes all over the surface of the model, even on parts where this is not quite common.



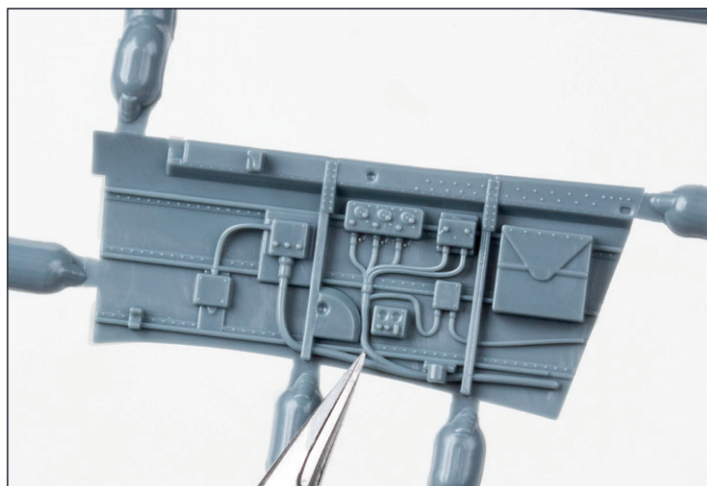
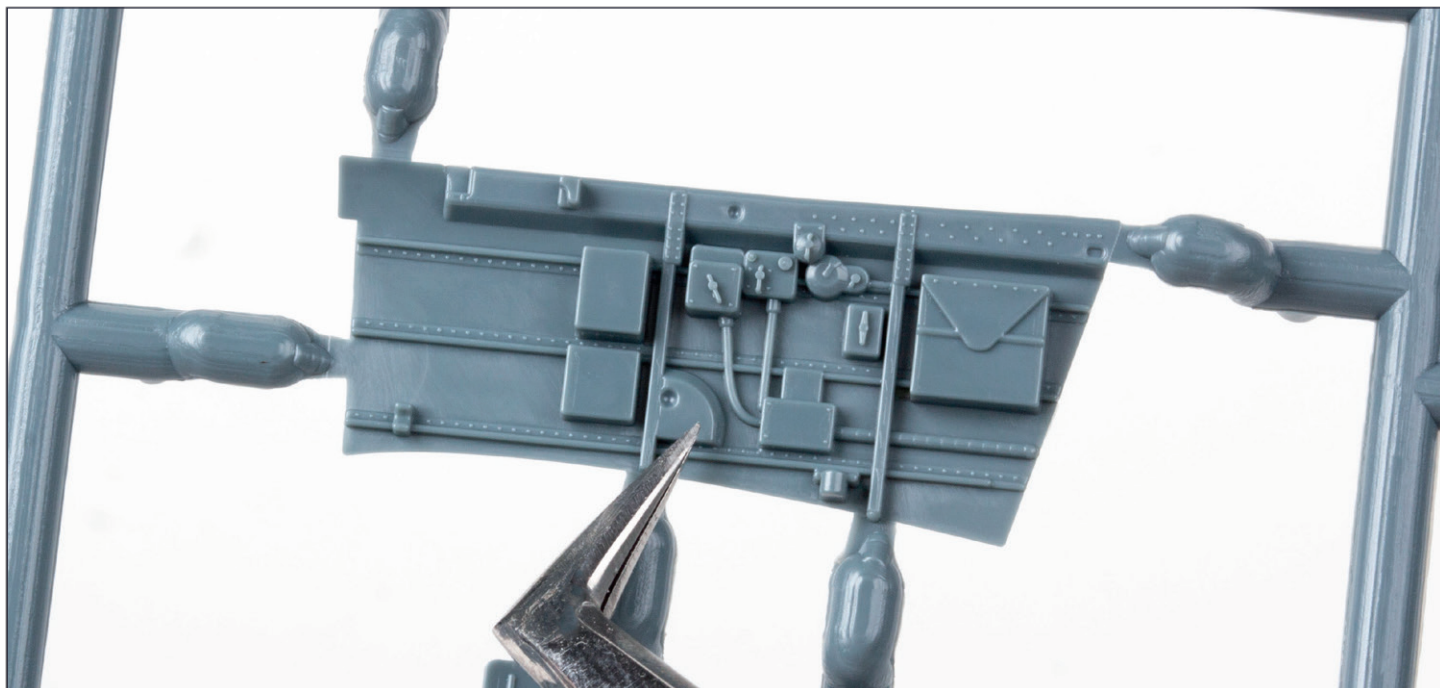
On the wing tips we can find a combination of positive and negative rivets, just like on a real plane.



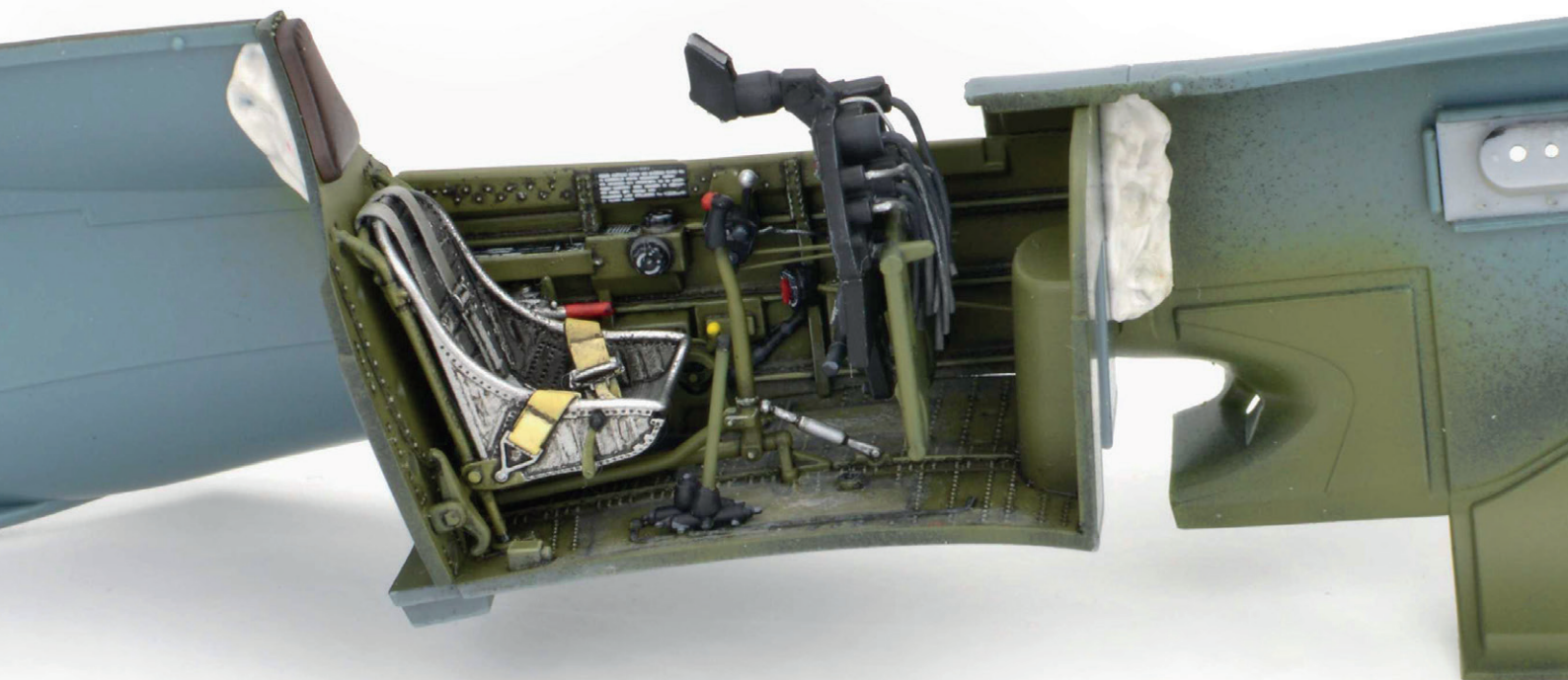
The parts of the instrument panels are always designed in flat and embossed variants. Flat is for modelers who prefer a simpler solution of its representation using colored photo-etched parts. While the embossed plastic variant is to be used with applied decal.

For instance, the embossed plastic variant with decal was used by Jan Baranec in the construction of his P-40, the result is excellent.

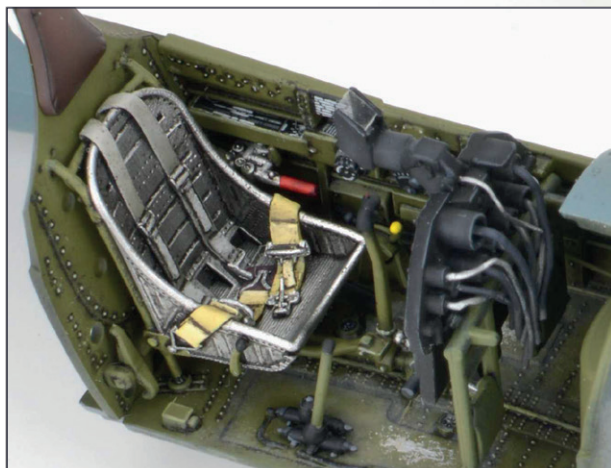
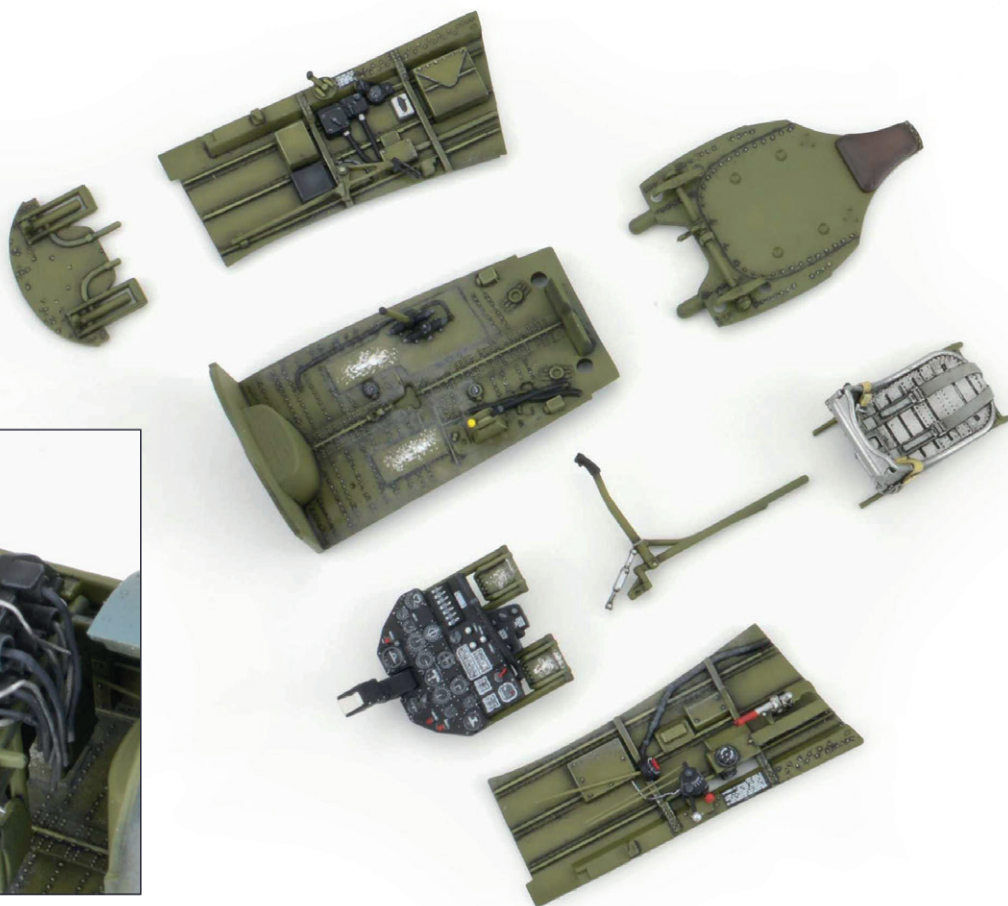




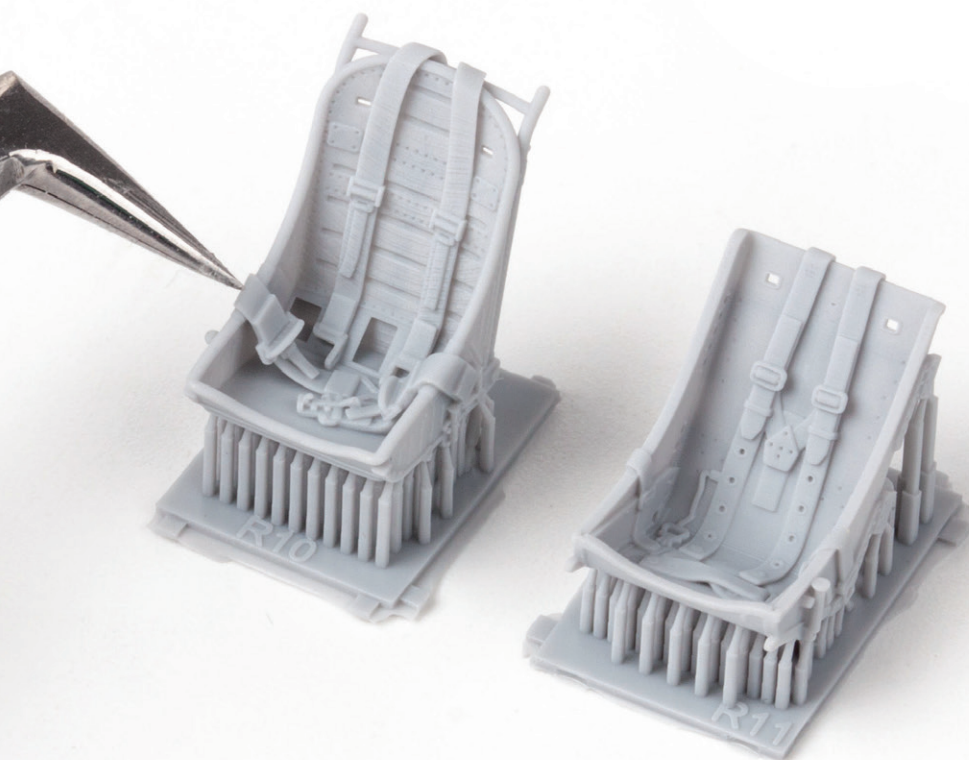
The cockpit interior sidewalls are very detailed, the right sidewall is designed in 2 types.



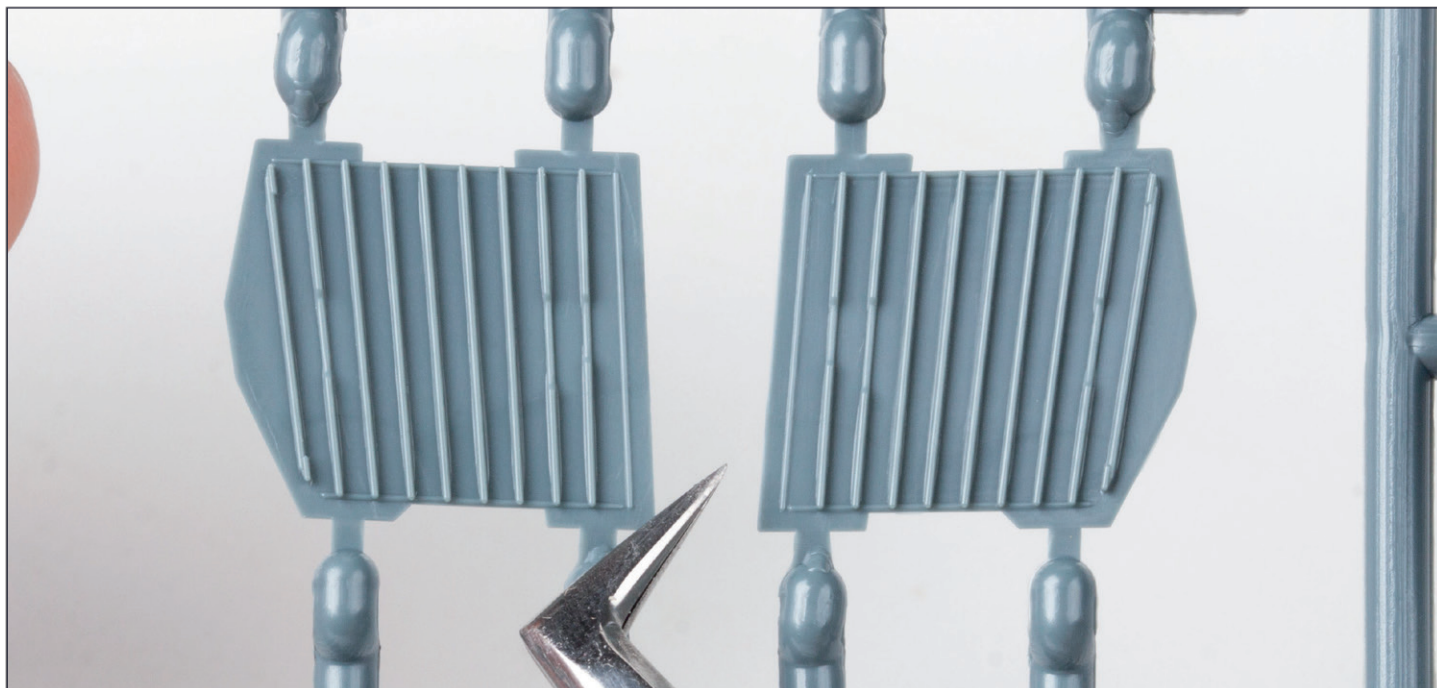
The entire cockpit is designed with the highest attention to detail and simplicity of assembly at the same time. Its assembly is simple, consisting of several sub-assemblies.



The Royal Class kit also includes two types of 3D printed seats. The seats include integrated seatbelts.



The entire seat can be removed from the supports and painted.



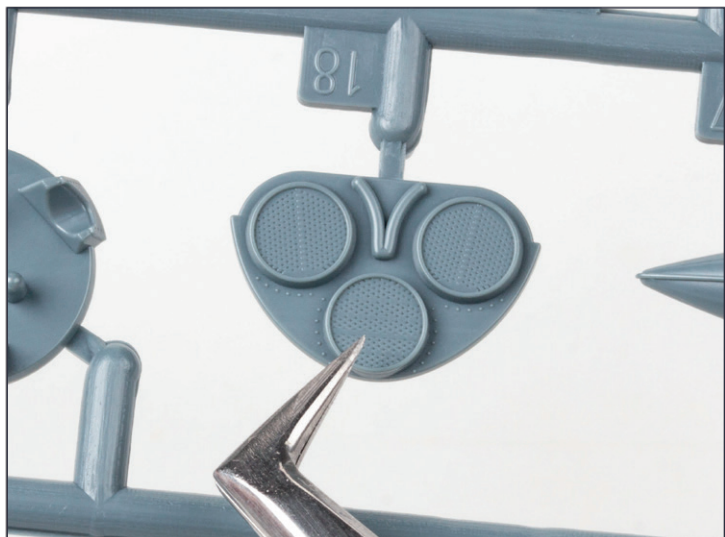
There are 2 types of undercarriage bays in the kit. Uncovered bay..



...and a covered one, which was typical of war time planes.



The covering of the tail wheel shaft is also very realistic.



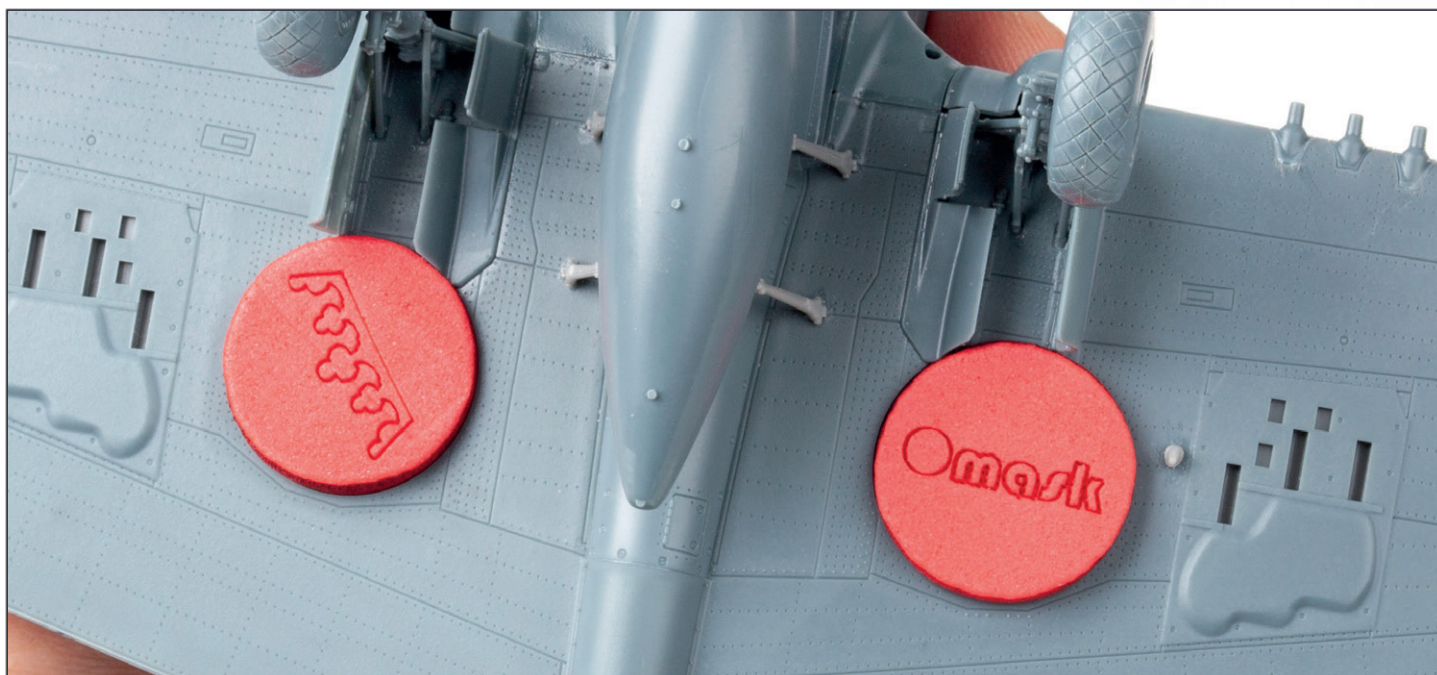
The grilles in the radiators are already very finely rendered in plastic



Most of the frame E consist of the armament, of which there are several types in the kit. It also contains a large number of different thin armament racks.



Part of the Royal Class kit are also masking plugs from Omask...



...these fit exactly into the undercarriage shafts of the kit and make painting the kit much easier. They also have the advantage that they can be removed and reapplied to the painted model in process or used for multiple P-40 models.

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2025



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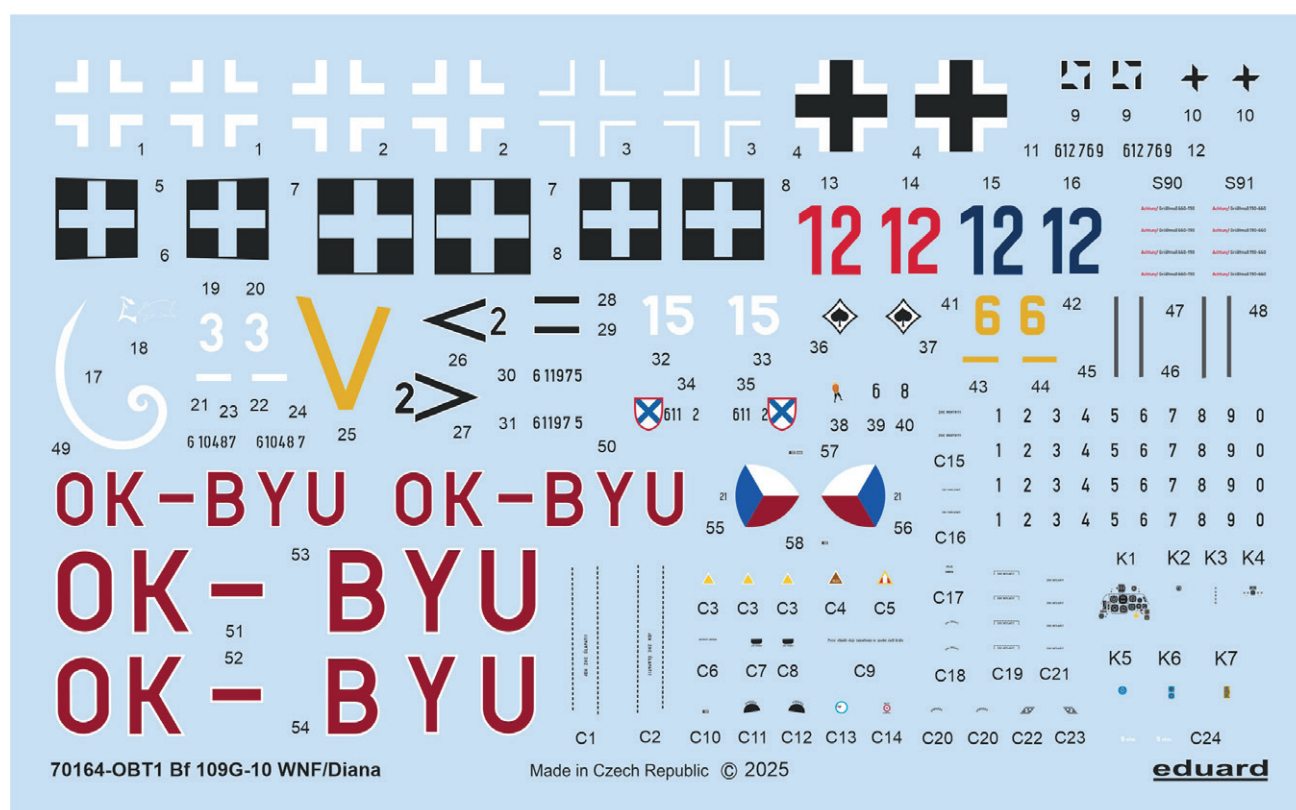


1/72

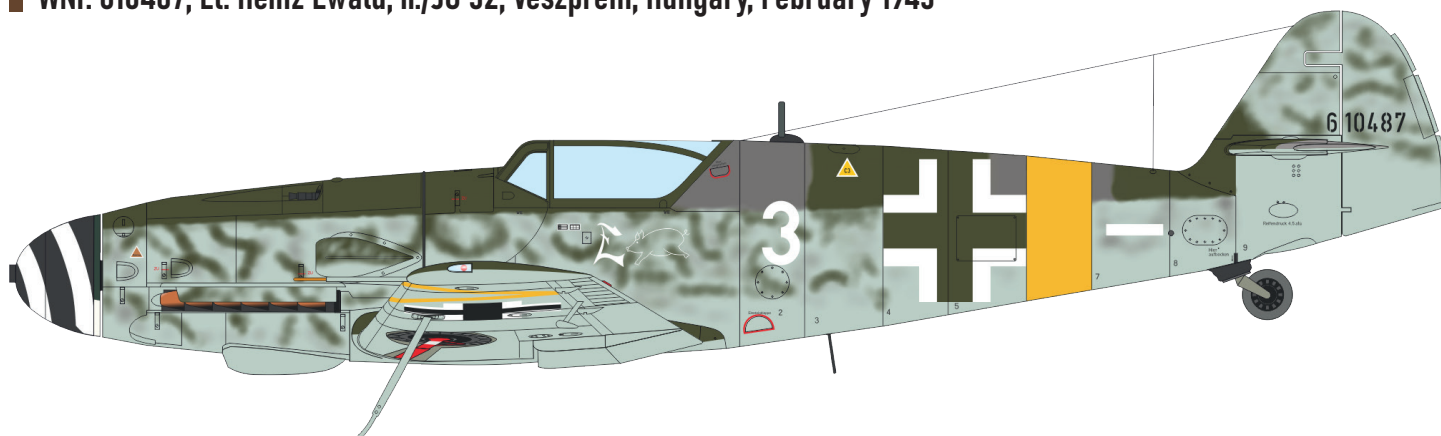
ProfiPACK edition kit of German WWII fighter aircraft Bf 109G-10 in 1/72 scale. The kit is focused on 109s produced by Wiener Neustädter Flugzeugwerke/Diana.

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

Product page



WNr. 610487, Lt. Heinz Ewald, II./JG 52, Veszprém, Hungary, February 1945



Heinz Ewald was born on September 1, 1922, in Zoppot (Sopot), Free City of Danzig (Gdańsk). On December 1, 1941, he volunteered for military service and, after basic training with Fl.Ausb. Rgt. 23, underwent pilot training. In the fall of 1943, he was assigned to 6./JG 52 on the Eastern Front, where he often flew as a wingman to Gerhard Barkhorn. On November 12, 1943,

he achieved his first aerial victory. On June 24, 1944, he suffered serious injuries, after downing a B-24 bomber near Ploiești, he was himself shot down by escorting fighters. Following his recovery, he returned in October 1944 to II./JG 52, which was then stationed in Hungary. He recorded his 50th aerial victory on January 2, 1945, and achieved five more victories the

following day. In the final months of the war, he was involved in the defence of Vienna. His 84th and last victory was achieved on April 16, 1945. Four days later, Ewald was awarded the Knight's Cross. Throughout his career, he was shot down several times and earned a reputation as a lucky pilot.

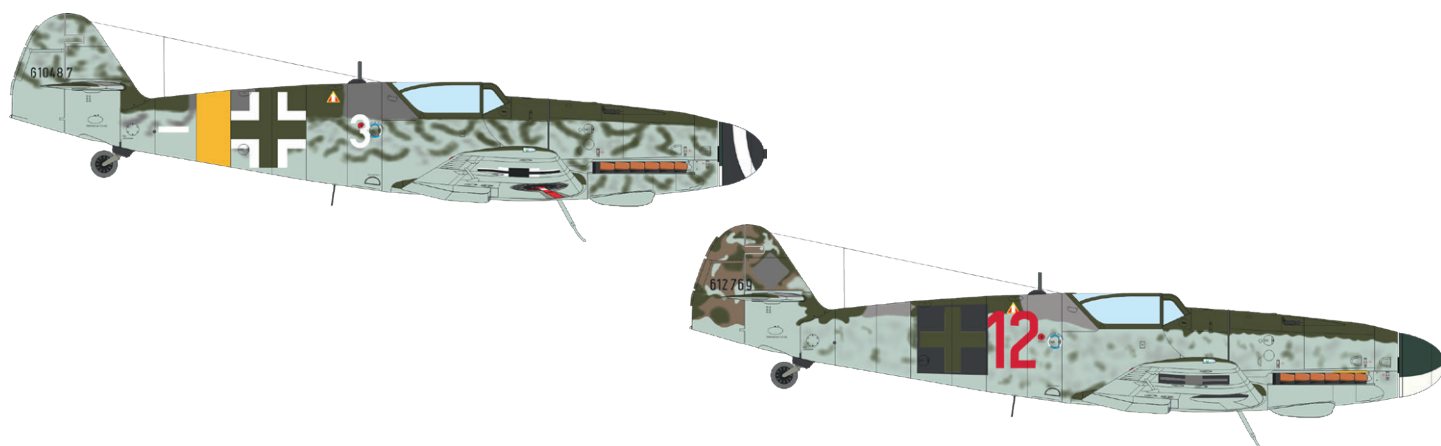
WNr. 612769, 101. vadászszred, Neubiberg, Germany, May 1945



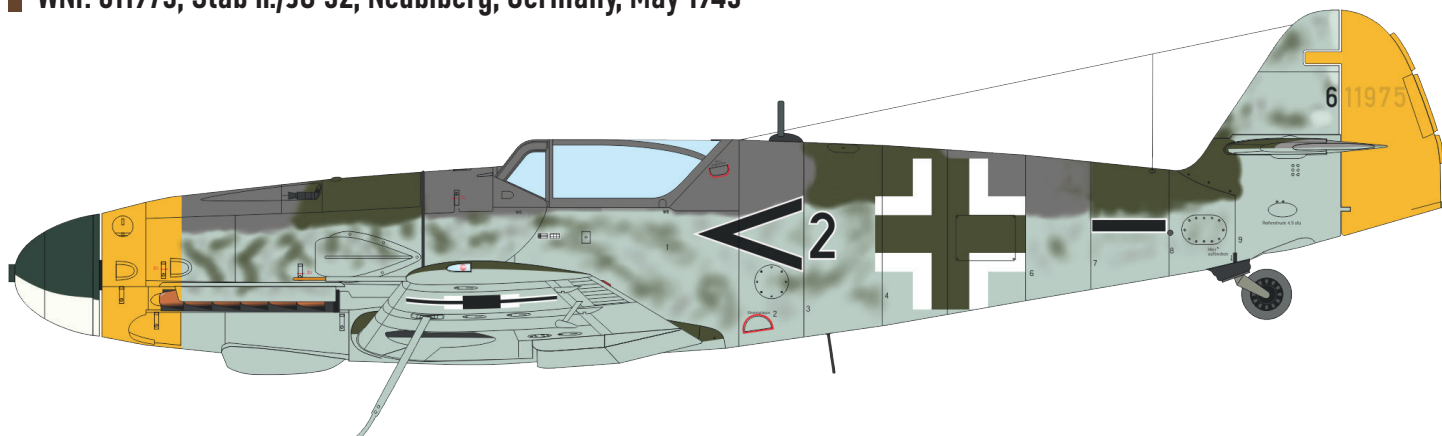
In the end of March 1945, the remaining Hungarian units were concentrated at Tulln airport in Austria from where they flew sorties to the areas of Vienna and Brno. After the front approached Tulln on April 5, 1945, they relocated to Raffelding airport, from where they continued in the air support of the land forces in the vicinity of Vienna. At the end of

the war, the Hungarian airmen, same as their German comrades-in-arms, better surrendered to the American Army than to Soviet one, therefore the 101. vadászszred pilots flew over to the Bavarian Neubiberg with their remaining aircraft. Airframes manufactured in Diana plant were camouflaged in the same colors as the airframes from Wiener Neustadt plant.

From the photographs of Red 12 it is obvious that the Hungarian national markings were spray-painted directly on the factory camouflage. The German markings were not applied at all. Part of the wing undersurfaces remained in the natural metal color.



■ WNr. 611975, Stab II./JG 52, Neubiberg, Germany, May 1945

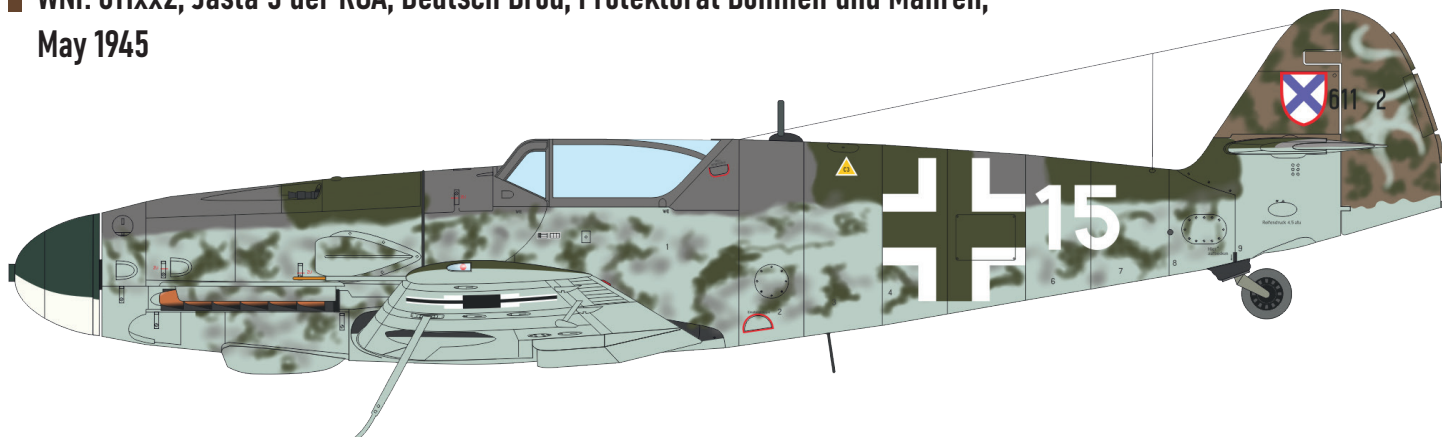


The markings on this aircraft identify it as the wingman of the commander of II./JG 52, Maj. Wilhelm Batz. Batz was assigned to the staff of II./JG 52 on the Eastern Front in February 1943. He achieved his first victory on March 11, 1943, and was appointed commander of 5./JG 52 in May. By March 1944, he had achieved his 100th victory and was made commander of III./JG 52

in April. In early February 1945, he assumed command of II./JG 52, which at the time was fighting in Hungary. His final 237th victory was recorded on April 16, 1945. Five days later, he was awarded the Swords to the Knight's Cross with Oak Leaves. On May 8, 1945, Batz and his unit flew into captivity, transferring from Zeltweg in Austria to Bad Aibling in Bavaria, accompanied

by a formation of Thunderbolts during the final leg of the journey. This particular aircraft was photographed at Neubiberg airfield near Munich. The pilot who flew this plane into captivity was Uffz. Anton Kellmayer (3 victories) of 7./JG 52.

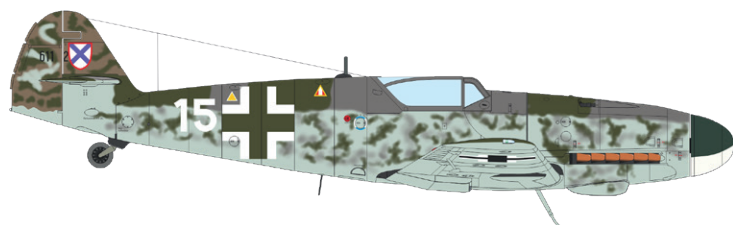
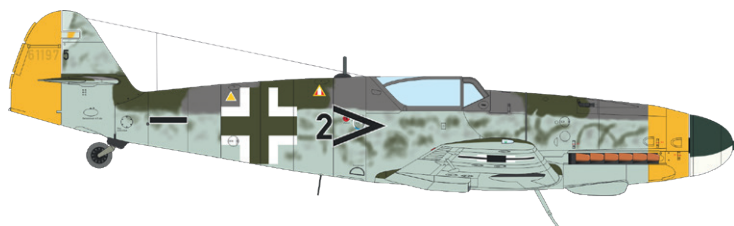
■ WNr. 611xx2, Jasta 5 der ROA, Deutsch Brod, Protektorat Böhmen und Mähren, May 1945



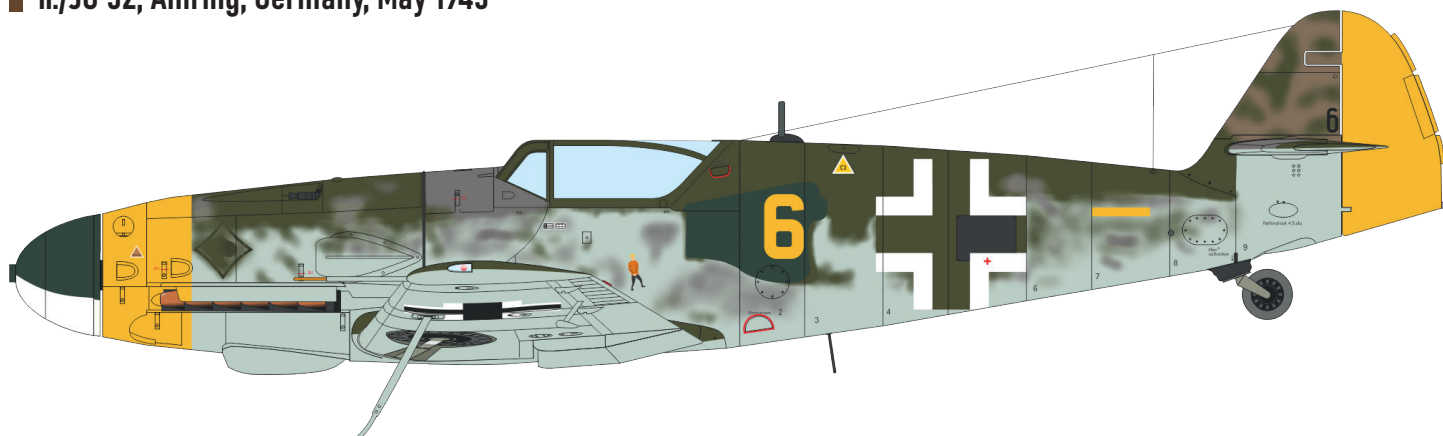
Jasta 5 of the Russian Liberation Army (ROA) was stationed at the base in Deutsch Brod (now Havlíčkův Brod) in occupied Bohemia at the beginning of March 1945. Along with Ju 87D-5 dive bombers of Nachtschlachtstaffel 8 der ROA, the Jasta 5 der ROA participated in the retreat battles of German forces during the Battle of Brno in April 1945. The unit was commanded by Major Semyon Trofimovich Bychkov, a former

Soviet pilot. Flying Hurricane, Yak-7, and La-5 planes, he achieved 15 victories, completed 230 combat missions, and was awarded the prestigious title of Hero of the Soviet Union. While serving with the 482nd IAP, he was shot down by flak and captured on December 10, 1943. Initially cooperating with the Luftwaffe as ferry pilot, he later took part in anti-partisan aerial operations in the Baltic region and ultimately

became the commander of the Jasta 5 fighter unit, nicknamed Oberst Kazakov. At the end of the war, he surrendered to Americans but was later handed over to the Soviets and executed on November 4, 1946. This Bf 109, in the typical camouflage pattern of machines produced at the WNF factory, bore the ROA markings on the tail in the form of a St. Andrew's cross.



■ II./JG 52, Ainring, Germany, May 1945

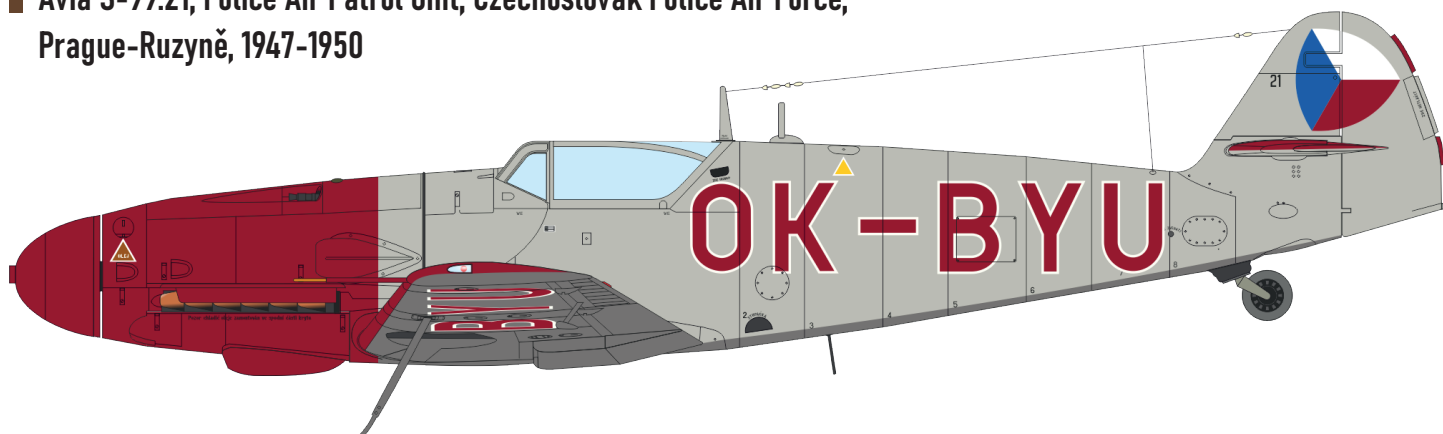


This Bf 109 was delivered to I./JG 53 at the end of December 1944. There it received the unit's insignia on the nose, a spade ace, along with a yellow band. The fuselage was marked with Stab designations, and the rudder was painted yellow, with the first digit 6 of the serial number visible on the left side of the

fin and the last digit 8 on the right side. Likely in April 1945, after the dissolution of I./JG 53, the aircraft was transferred to II./JG 52. Here, the markings of the previous unit were painted over with camouflage paint. The primary focus of operations conducted by II./JG 52 in 1945 was combat against Red Army forces in Hungary and

Austria. In April 1945, II./JG 52 briefly operated from the territory of the Protectorate of Bohemia and Moravia, conducting missions in support of German forces against the Soviet offensive during the battles for Brno. A photograph captured the aircraft marked as Yellow 6 on May 8, 1945, at Ainring airfield in Bavaria.

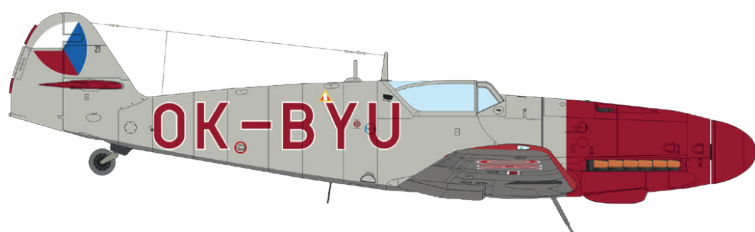
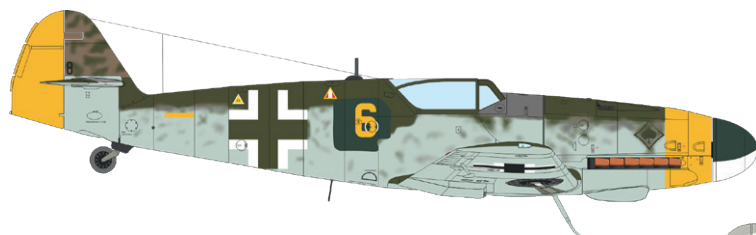
■ Avia S-99.21, Police Air Patrol Unit, Czechoslovak Police Air Force, Prague-Ruzyně, 1947-1950



This aircraft was the last unit assembled in the spring of 1947 at the Avia factory in Čakovice. After test flights and inspections, it was located at Ruzyně Airport in mid-July 1947, where it served with the Czechoslovak Police (SNB) Air Force until the summer of 1950 (with a one-and-a-half-year break for repairs following a crash). From mid-December 1947, the Czechoslovak Police Air Force was renamed to the Aviation

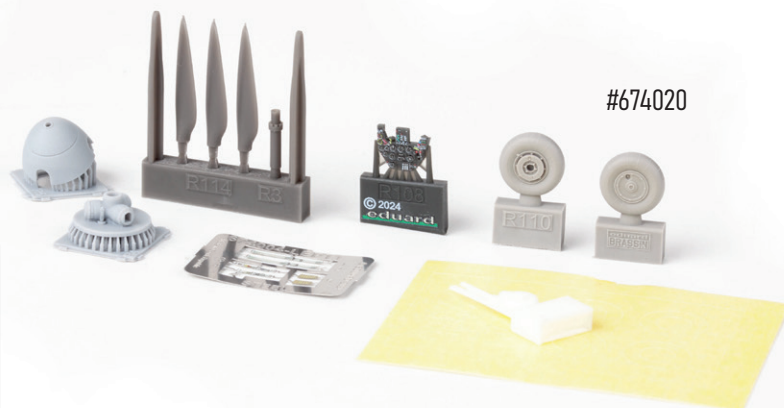
Security Corps of the Ministry of the Interior (BL, Bezpečnostní letectvo ministerstva vnitra). The aircraft was painted steel gray on the upper and side surfaces, with the undersides coated in a darker gray color. The aircraft operated by the SNB/BL patrols had engine cowlings, wing leading edges, and horizontal stabilizers, including elevators, painted scarlet red. Registration markings on the sides of the

fuselage and on the upper and lower wing surfaces were applied in the same red color with a white outline. The national insignia took the shape of a rounded triangle, which was standard for Police Air Patrol Unit. On this particular Avia, the insignia lacked the white outline.



Recommended for Bf 109G-10 WNF/Diana 1/72

674018	Bf 109G-10 LööK (Brassin)
674020	Bf 109G-10 LööKplus (Brassin)
672338	Bf 109G undercarriage legs BRONZE (Brassin)
672344	Bf 109G radio compartment PRINT (Brassin)
672383	Bf 109G-10/K-4 propeller (Brassin)
672385	Bf 109G-10 wheels (Brassin)
672388	Bf 109G-10 cockpit PRINT (Brassin)
672399	Bf 109G-10 WNF engine PRINT (Brassin)
D72048	Bf 109G stencils (Decal Set)
D72049	Bf 109G Balkenkreuze (Decal Set)



#672344

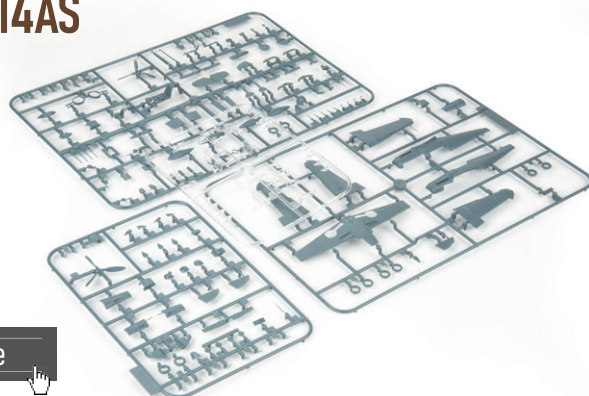


#672399

OVERTREES

#70164X

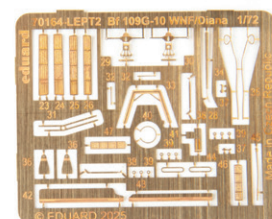
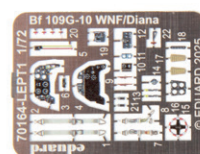
Bf 109G-10 Mtt. Regensburg
/Bf 109G-14AS
1/72


[Product page](#)

OVERLEPT

#70164-LEPT1

Bf 109G-10 WNF/Diana
1/72


[Product page](#)

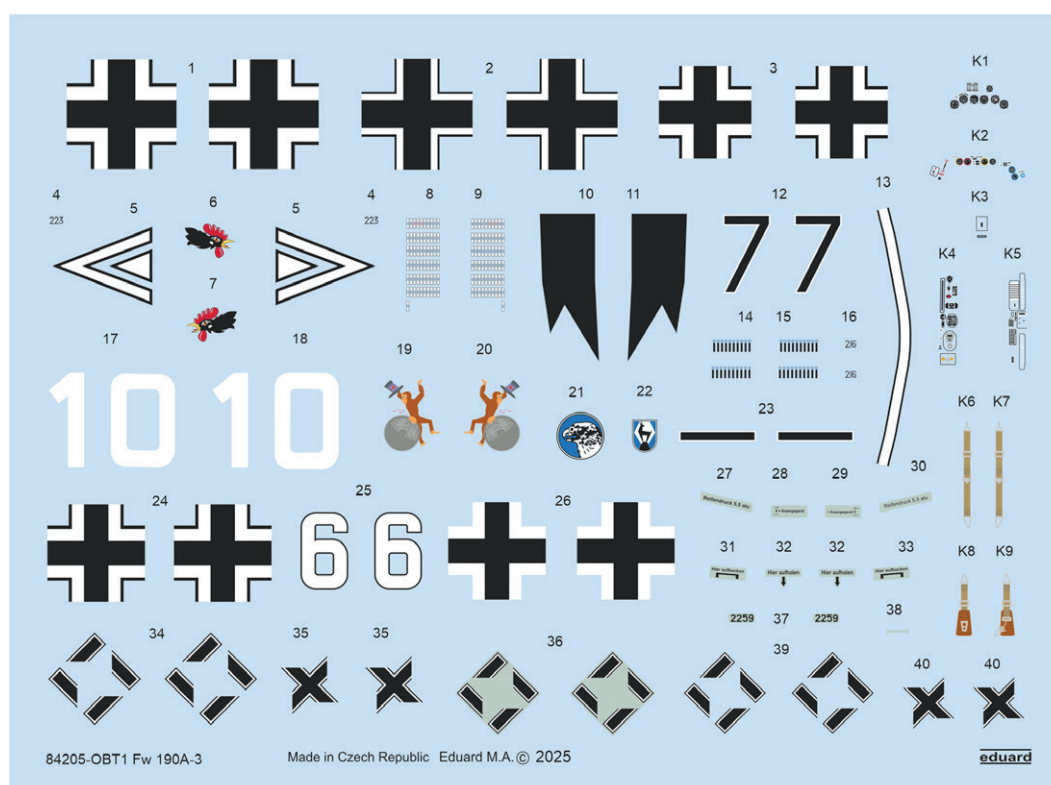
Fw 190A-3

1/48

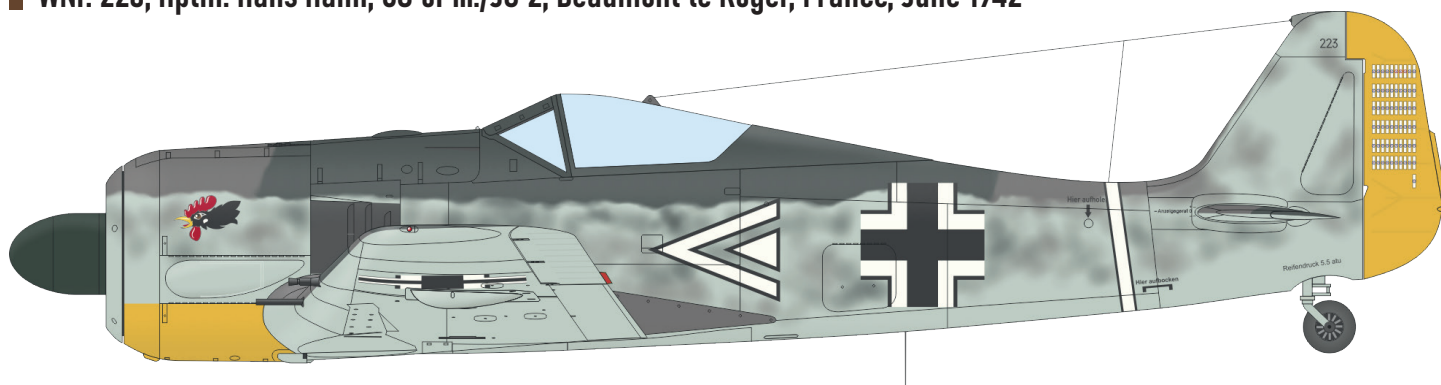
#84205

The Weekend edition kit of the German WWII fighter plane Fw 190A-3 in 1/48 scale. The kit offers the aircraft with four-cannon wings.

- plastic parts: Eduard
- marking options: 4
- decals: Eduard
- PE parts: no
- painting mask: no
- resin parts: no

[Product page](#)

■ WNr. 223, Hptm. Hans Hahn, CO of III./JG 2, Beaumont le Roger, France, June 1942

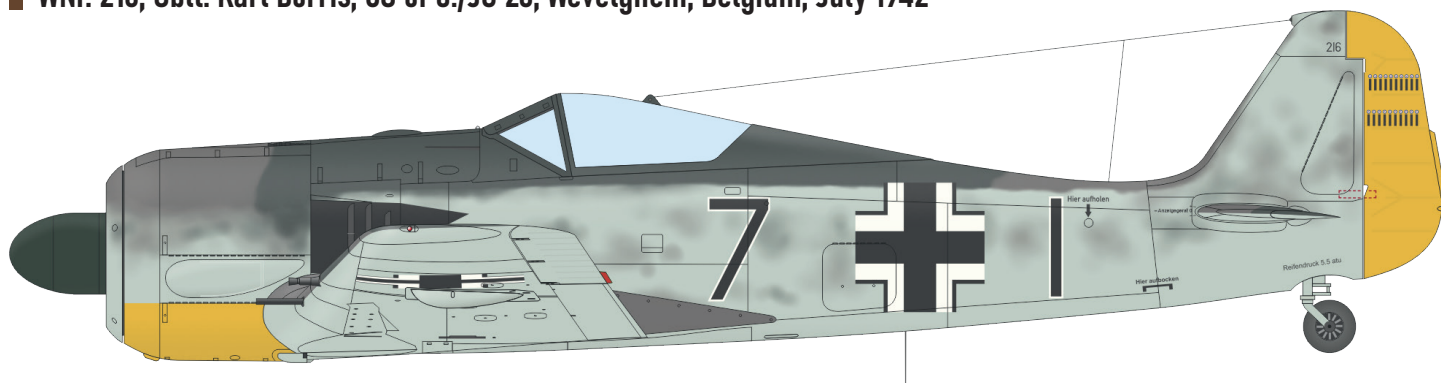


Hans "Assi" Hahn, a fighter ace and recipient of the Knight's Cross with Oak Leaves, led the 4./JG 2 from December 1939 and the III./JG 2 from October 29, 1940. "Assi's" rudder was adorned with 61 victory marks reflecting his activities on the Western Front. During a British raid on the power plant in Caen on May 6, 1942, as part of Operation Circus 159, Hahn achieved his 60th and 61st victories by shooting down two Spitfires. During May,

his unit was re-equipped from Bf 109Fs to Fw 190As. It is likely that with the aircraft depicted, Hahn achieved three more victories over Spitfires on June 6, 1942. Beginning on November 1, 1942, he took command of II./JG 54 and led this Gruppe until February 21, 1943, when he was shot down and captured by Soviet forces. Hahn was not released from captivity until 1950, during which he wrote a book about his experiences in prison titled *Ich*

spreche die Wahrheit! (I speak the truth!). Before his capture, he had achieved 108 victories, 66 of which were on the Western Front. The rooster's head painted on his aircraft symbolized the III. Gruppe JG 2's HQ planes and was derived from Hahn's surname, as "Hahn" means rooster in German. Hans Hahn passed away in 1982, and his wife later remarried the night fighter pilot Wolfgang Falck.

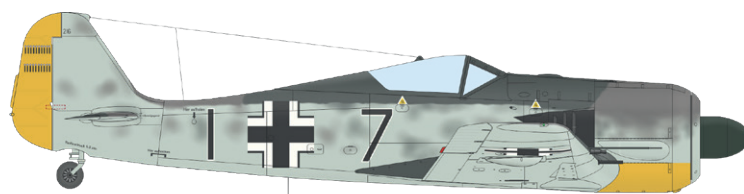
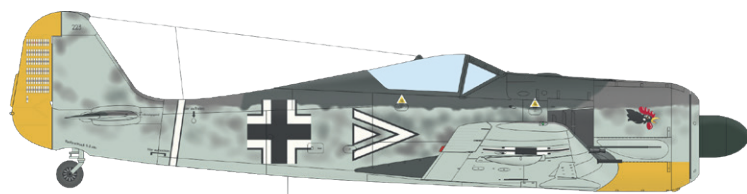
■ WNr. 216, Oblt. Karl Borris, CO of 8./JG 26, Wevelghem, Belgium, July 1942



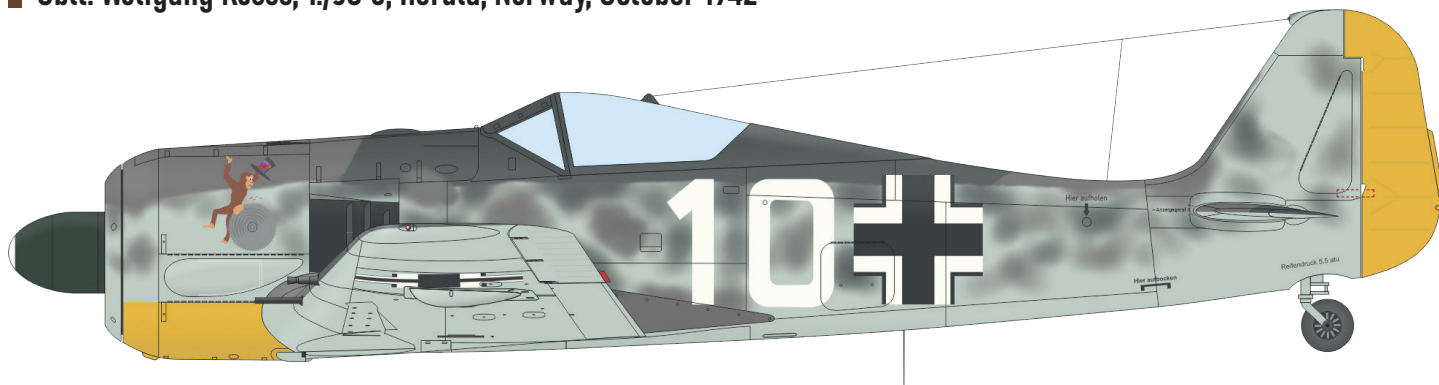
Karl Borris was the only pre-war pilot who flew with JG 26 until the end of the war. He was born on March 3, 1916, in Heinsdorf. He joined the Luftwaffe in November 1935 and underwent command training at LKS 1 Dresden. Before the war, he served with I./JG 130 in Jesau and from September 1939 until the end of the year he was assigned to JFS 1 in Schleissheim. In December 1939, he was transferred to II./JG 26. As part of this unit, he participated in the French

campaign but was shot down in combat with the RAF on May 13, 1940. However he managed to return to his unit four days later. He achieved his first victory on June 1, 1940, and by the end of the war, he had achieved 42 more victories. In September 1940, he assumed the position of Technical Officer for II./JG 26 and participated in operational testing of the Fw 190A. In November 1941, he was appointed *Staffelkapitän* of 8./JG 26 and from June 1943 until the end of the

war he commanded I./JG 26. He was awarded the Knight's Cross on November 25, 1944, after achieving his 41st victory. He passed away on August 18, 1981, in Bornum. Borris's aircraft, featuring RLM 74, 75, and 76 camouflage with yellow quick-identification elements for the Western Front, had 20 victories marked on its rudder.



■ **Oblt. Wolfgang Kosse, 1./JG 5, Herdla, Norway, October 1942**

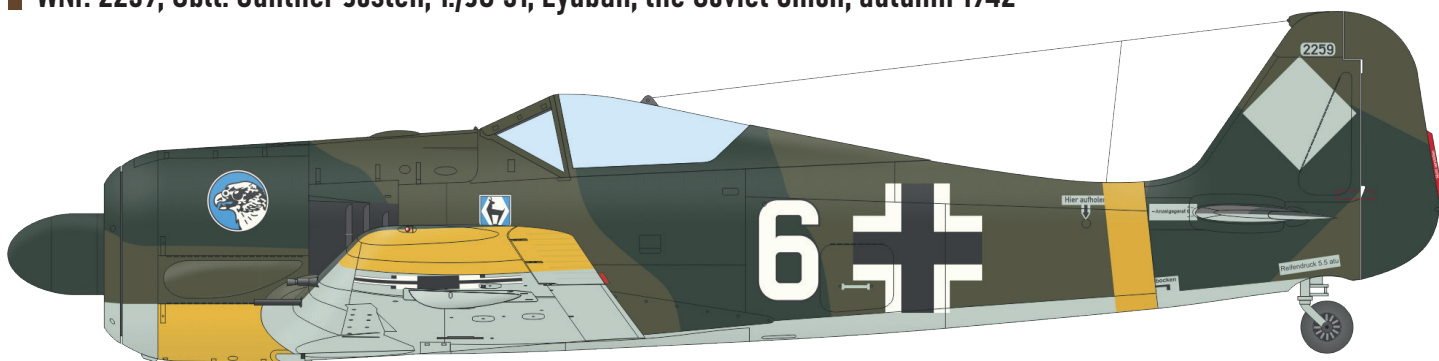


Wolfgang Kosse was born on September 27, 1918, in Berlin. In May 1940, he was assigned to 6./JG 26 and was appointed as the CO of 5./JG 26 in August of the same year. Within the ranks of JG 26, he achieved a total of 11 victories, including a Spitfire from the Tangmere Wing, which might have been piloted by Douglas Bader. From May 1942, Kosse served as the CO of 1./JG 5 in Norway. At the end of 1943, he was stripped of his command due to an aerial

indiscipline and aircraft damage and was demoted from the rank of Hauptmann to Flieger. In early 1944, he volunteered for Sturmstaffel 1 flying Fw 190As. In June 1944, holding the rank of Oberleutnant, he became the CO of 5./JG 5 flying Bf 109s in France. In August, he was transferred to IV.(Sturm)/JG 3, equipped with heavily armored Fw 190As. He was assigned to its 14 Staffel, which was formed from Sturmstaffel 1. In October, he was appointed CO of 13.(Sturm)/

JG 3 and regained the rank of Hauptmann. Kosse was killed in action on December 24, 1944, during a dogfight with RAF fighters near Liège, Belgium. Some sources state he scored 28 victories. His personal aircraft, featuring camouflage in RLM 74, 75, and 76 with yellow quick-identification elements for the Western Front, bore an emblem on its nose depicting a monkey sitting on a circular saw, holding a top hat with a British flag.

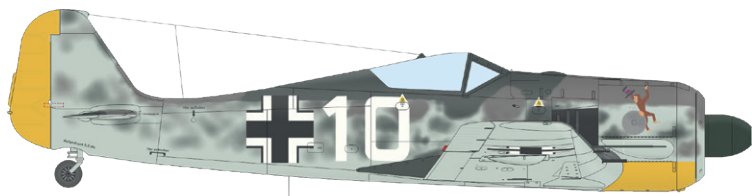
■ **W.Nr. 2259, Oblt. Günther Josten, 1./JG 51, Lyuban, the Soviet Union, autumn 1942**



Eighteen-year-old Günther Josten joined the ranks of the Luftwaffe in January 1940 and began fighter pilot training with JGr. Drontheim in Norway in November 1941. At the end of August 1942, he was transferred to 3./JG 51 on the Eastern Front, achieving his first victory on February 23, 1943. A year later, after achieving 84 victories, he was awarded the Knight's Cross. He became the commander of 3./JG 51 on July 18, 1944, and two days later scored his 100th

victory. After achieving 161 aerial victories, out of a total of 178, he was awarded the Oak Leaves to the Knight's Cross on March 28, 1945. During the last two weeks of the war, he led IV./JG 51. He joined the Bundesluftwaffe on April 4, 1956, and in 1962 was appointed commander of JG 71. Josten retired on March 31, 1981, with the rank of Oberst as deputy commander of the 4 Luftwaffe Division. He passed away on July 7, 2004. His brother, Reinhard, serving with

I./JG 51, was killed in action on April 21, 1942. Günther Josten's aircraft was painted with non-standard camouflage consisting of two shades of dark green, complemented by yellow markings, i.e., yellow tips on the lower half of the wing and a yellow fuselage band, both quick-identification elements for the Eastern Front. The engine cowling displayed the emblem of JG 51, while the windshield frame bore the emblem of I./JG 51.



644295

P-40E LööK**1/48 Eduard**

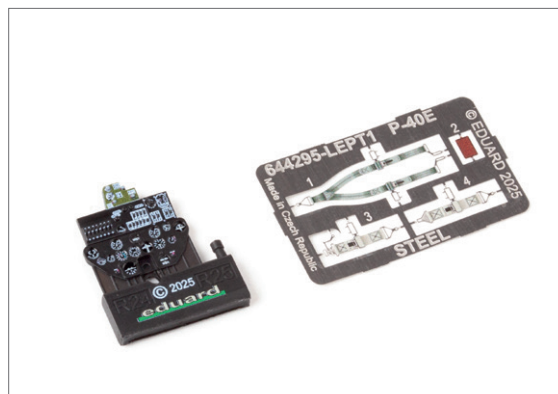
LööK set - Brassin pre-painted dashboard and STEEL seatbelts for P-40E in 1/48 scale.

Easy to assemble, replaces plastic parts.

Recommended kit: Eduard

Set contains:

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

[Product page](#)


LööK

674024

Bf 109G-6 LööK**1/72 Tamiya**

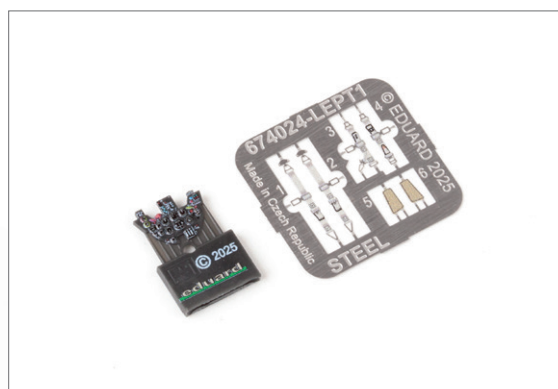
LööK set - Brassin pre-painted dashboard and STEEL seatbelts for Bf 109G-6 in 1/72 scale.

Easy to assemble, replaces plastic parts.

Recommended kit: Tamiya

Set contains:

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

[Product page](#)


LööK

644296

Bf 109E-4 LööKplus

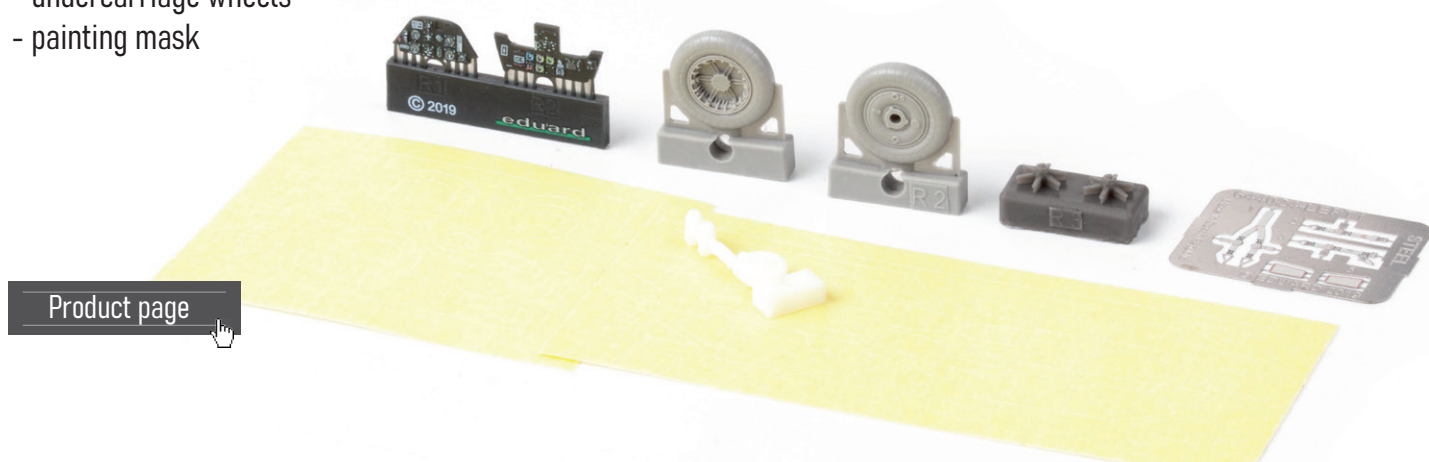
1/48 Eduard

Löökt

Collection of 3 sets for Bf 109E-4 in 1/48 scale.

Recommended kit: Eduard

- LööK set (pre-painted Brassin dashboard & Steelbelts)
- undercarriage wheels
- painting mask



644297

Bf 109F LööKplus

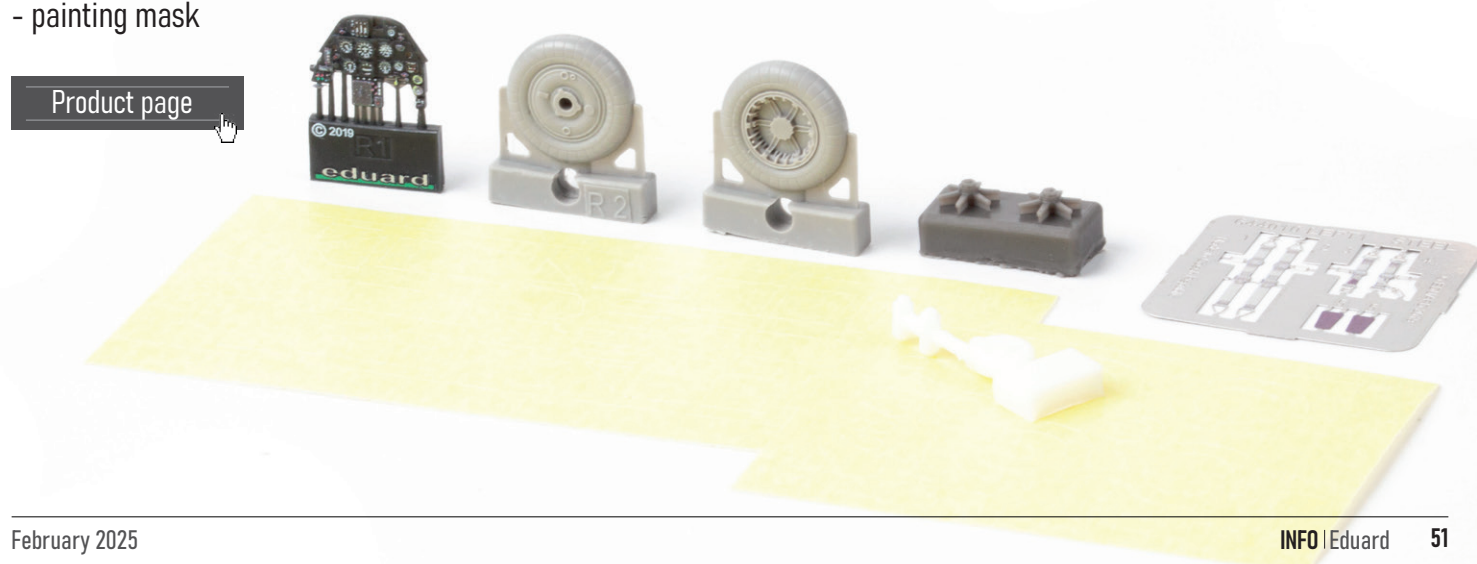
1/48 Eduard

Löökt

Collection of 3 sets for Bf 109F in 1/48 scale.

Recommended kit: Eduard

- LööK set (pre-painted Brassin dashboard & Steelbelts)
- undercarriage wheels
- painting mask



6481058

P-40E wheels cross tread

1/48 Eduard

Brassin set - the undercarriage wheels for P-40E in 1/48 scale. The set consists of the main wheels and a tail wheel. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

- resin: 4 parts
- 3D print: 2 parts
- decals: no
- photo-etched details: yes
- painting mask: yes

[Product page](#)



6481060

P-40 exhaust stacks rounded PRINT

1/48 Eduard

Brassin set - exhaust stacks for P-40E in 1/48 scale. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

- 3D print: 14 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product page](#)



6481061

P-40 exhaust stacks fishtail PRINT

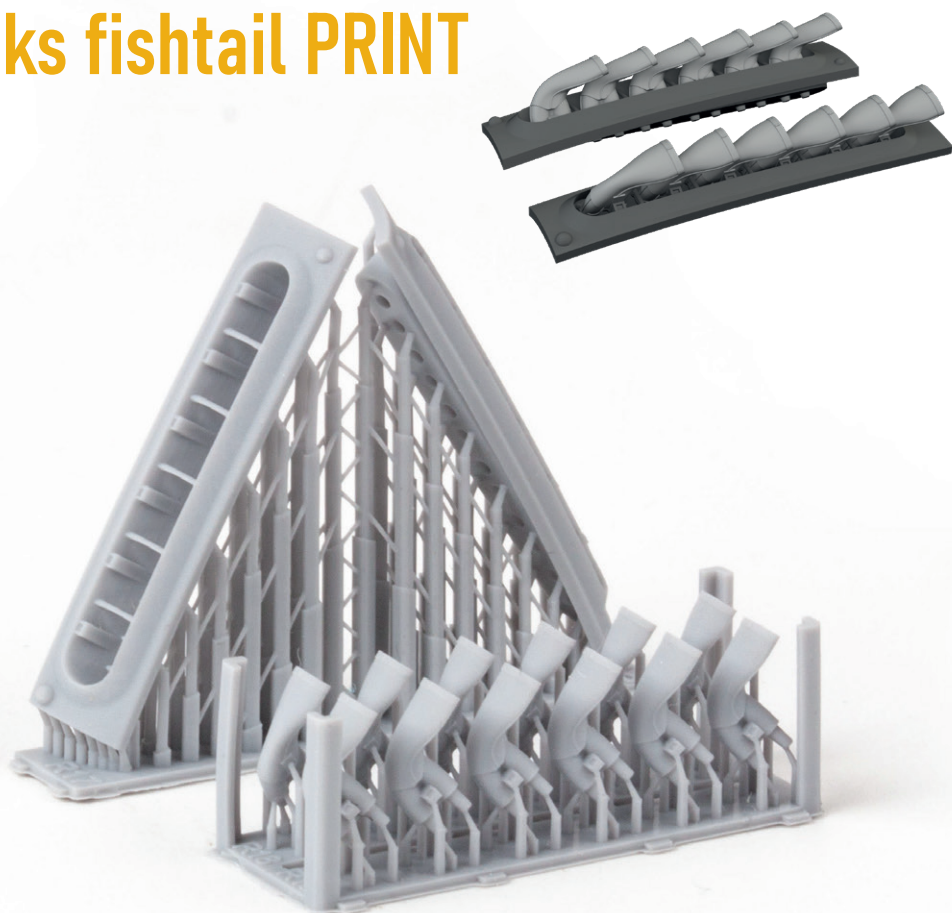
1/48 Eduard

Brassin set - exhaust stacks for P-40E in 1/48 scale. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

- 3D print: 14 parts
- decals: no
- photo-etched details: no
- painting mask: no

Product page



6481068

P-40 wheel bays with canvas PRINT

1/48 Eduard

Brassin set - main wheel bays for P-40E in 1/48 scale. Made by direct 3D printing. Recommended kit: Eduard

Set contains:

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

Product page



6481069

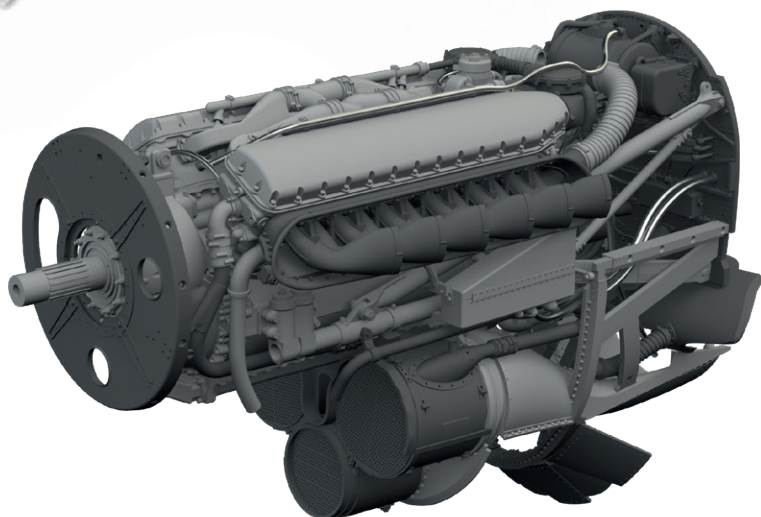
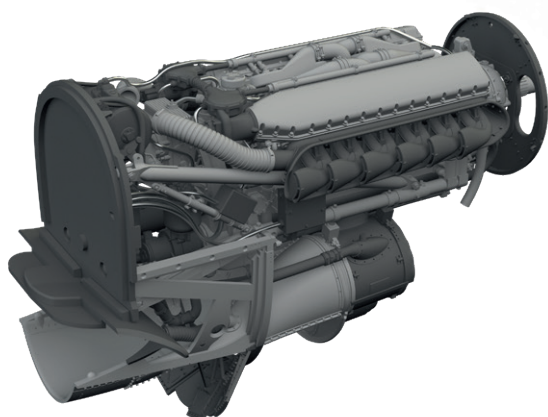
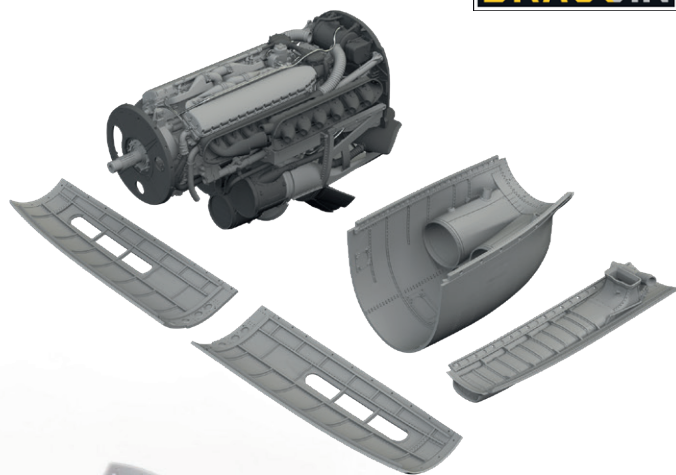
P-40E engine PRINT

1/48 Eduard

Brassin set - engine for P-40E in 1/48 scale.
Cowlings are included. Made by direct 3D printing.
Recommended kit: Eduard

Set contains:

- 3D print: 45 parts
- decals: no
- photo-etched details: no
- painting mask: no

[Product page](#)

672401

MG 15 magazines & case catchers PRINT

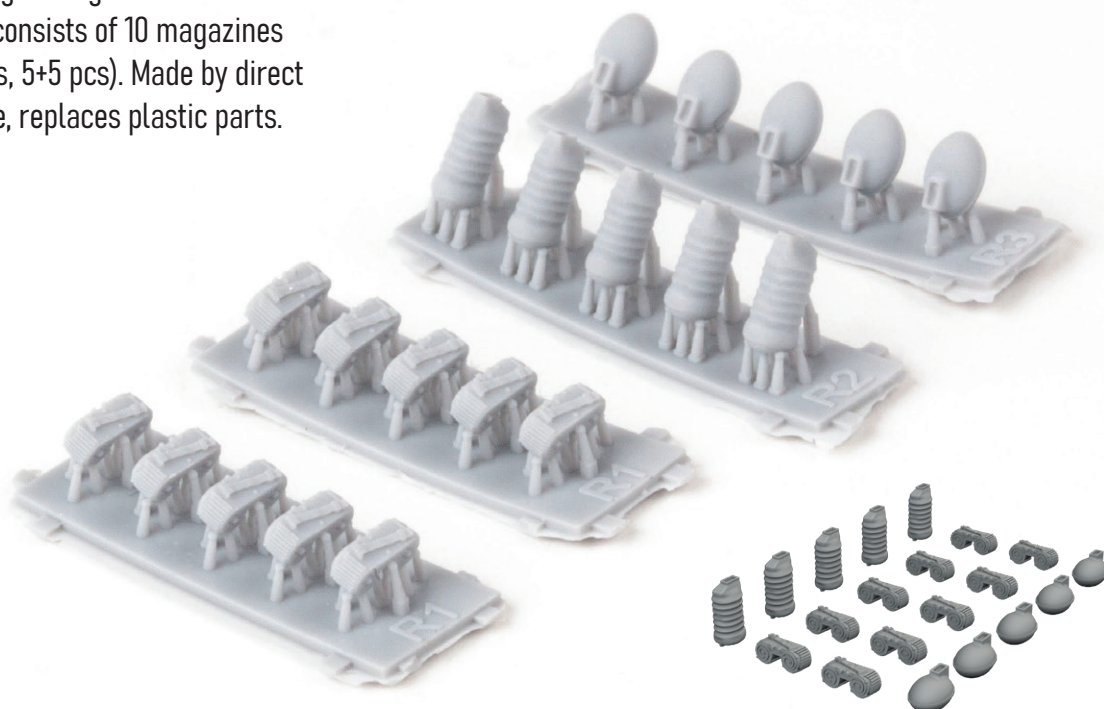
1/72

Brassin set - MG 15 machine gun magazines and case catchers in 1/72 scale. Set consists of 10 magazines and 10 case catchers (2 types, 5+5 pcs). Made by direct 3D printing. Easy to assemble, replaces plastic parts.

Set contains:

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

[Product page](#)



672402

Bf 109G-10 Erla engine PRINT

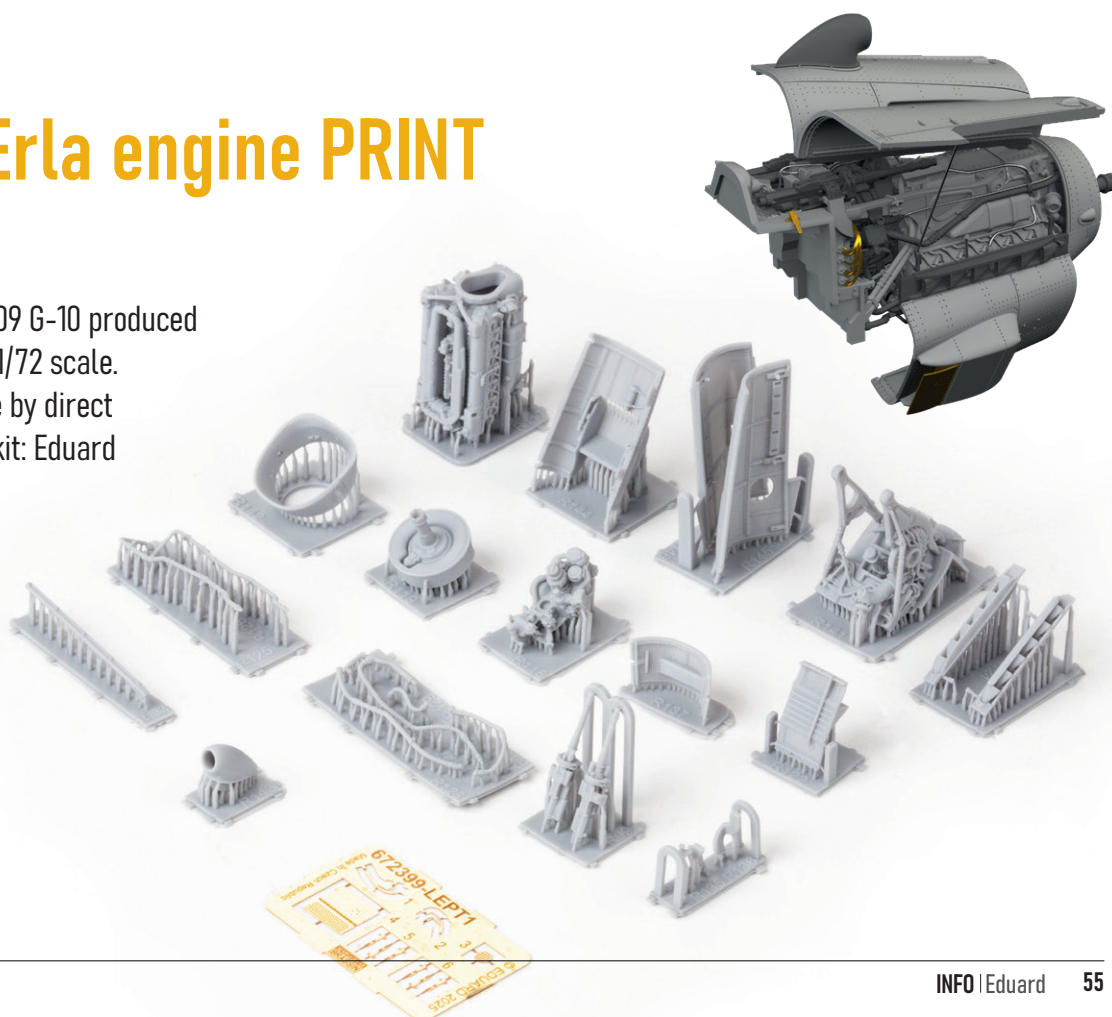
1/72 Eduard

Brassin set - engine for Bf 109 G-10 produced by Erla factory in Leipzig in 1/72 scale. Cowlings are included. Made by direct 3D printing. Recommended kit: Eduard

Set contains:

- 3D print: 26 parts
- decals: no
- photo-etched details: yes
- painting mask: no

[Product page](#)



SIN67228

P-51D-15+ ESSENTIAL

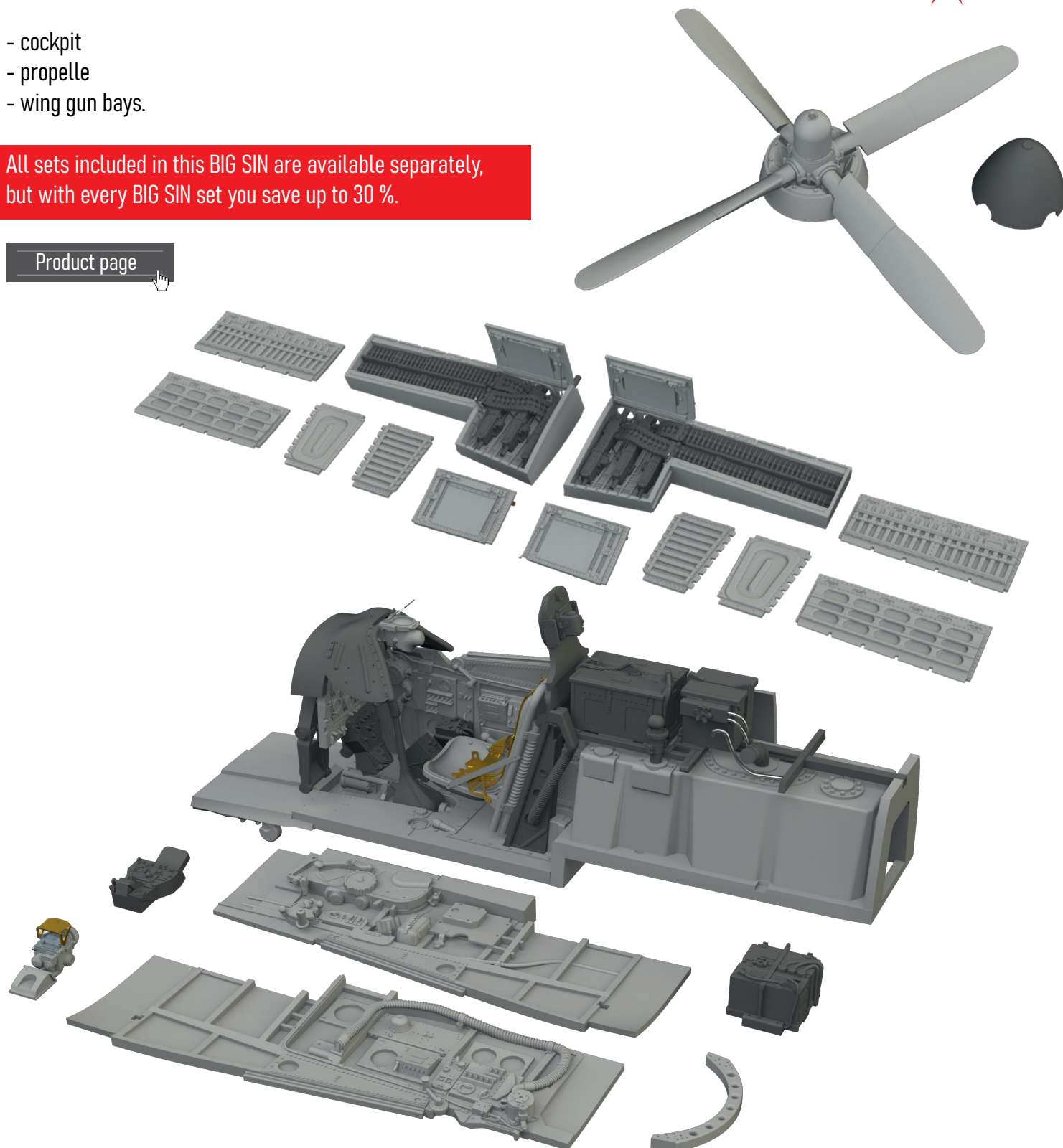
1/72 Eduard

Collection of 3 sets for P-51D-15+ in 1/72 scale.

Recommended kit: Eduard

- cockpit
- propelle
- wing 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](#)

SIN67229

P-51D ADVANCED

1/72 Eduard

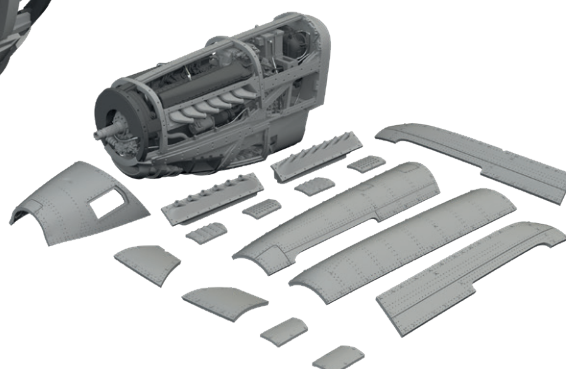
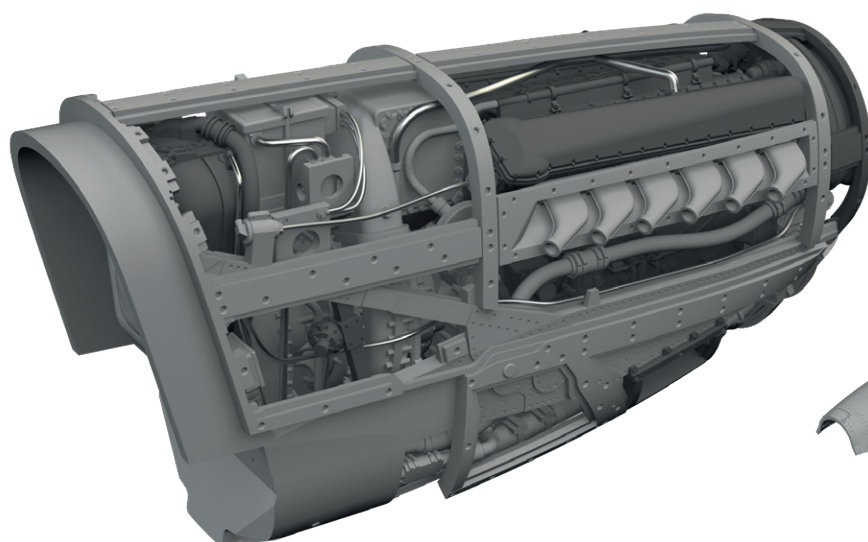
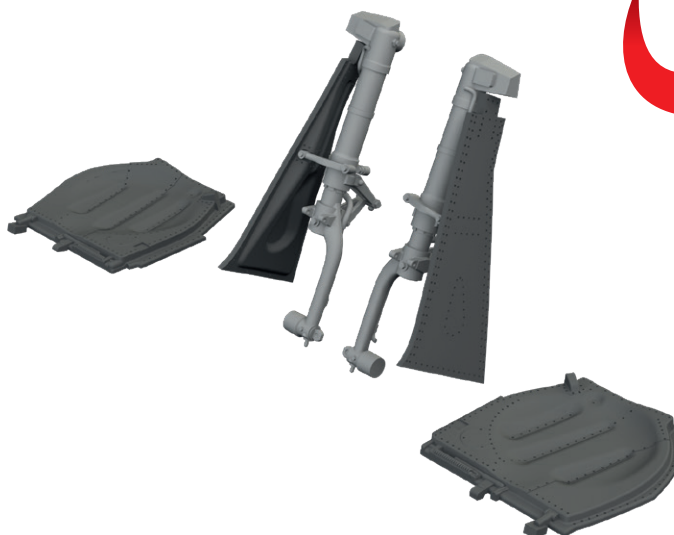
Collection of 4 sets for P-51D in 1/72 scale.

Recommended kit: Eduard

- engine
- wheel bay
- undercarriage wheels
- undercarriage legs

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

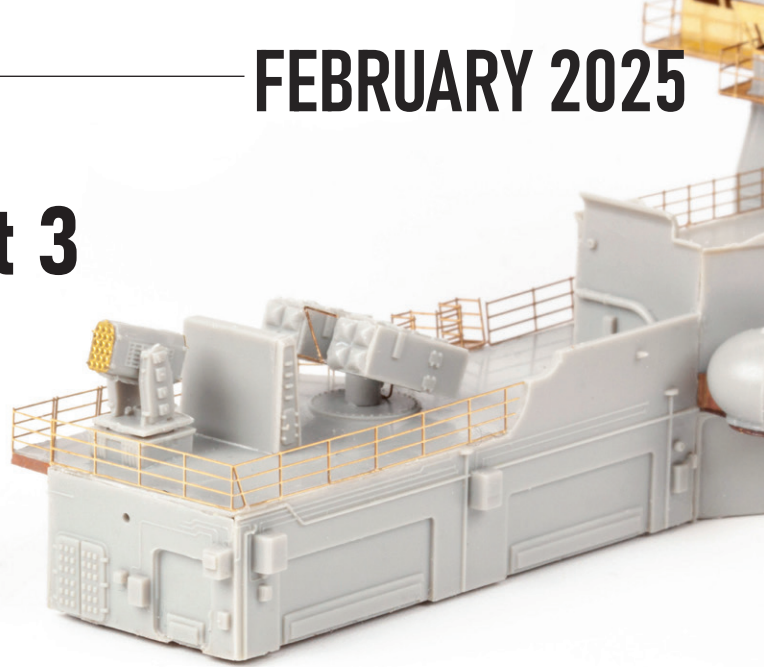
Product page



USS Wasp LHD-1 part 3

1/350 Trumpeter

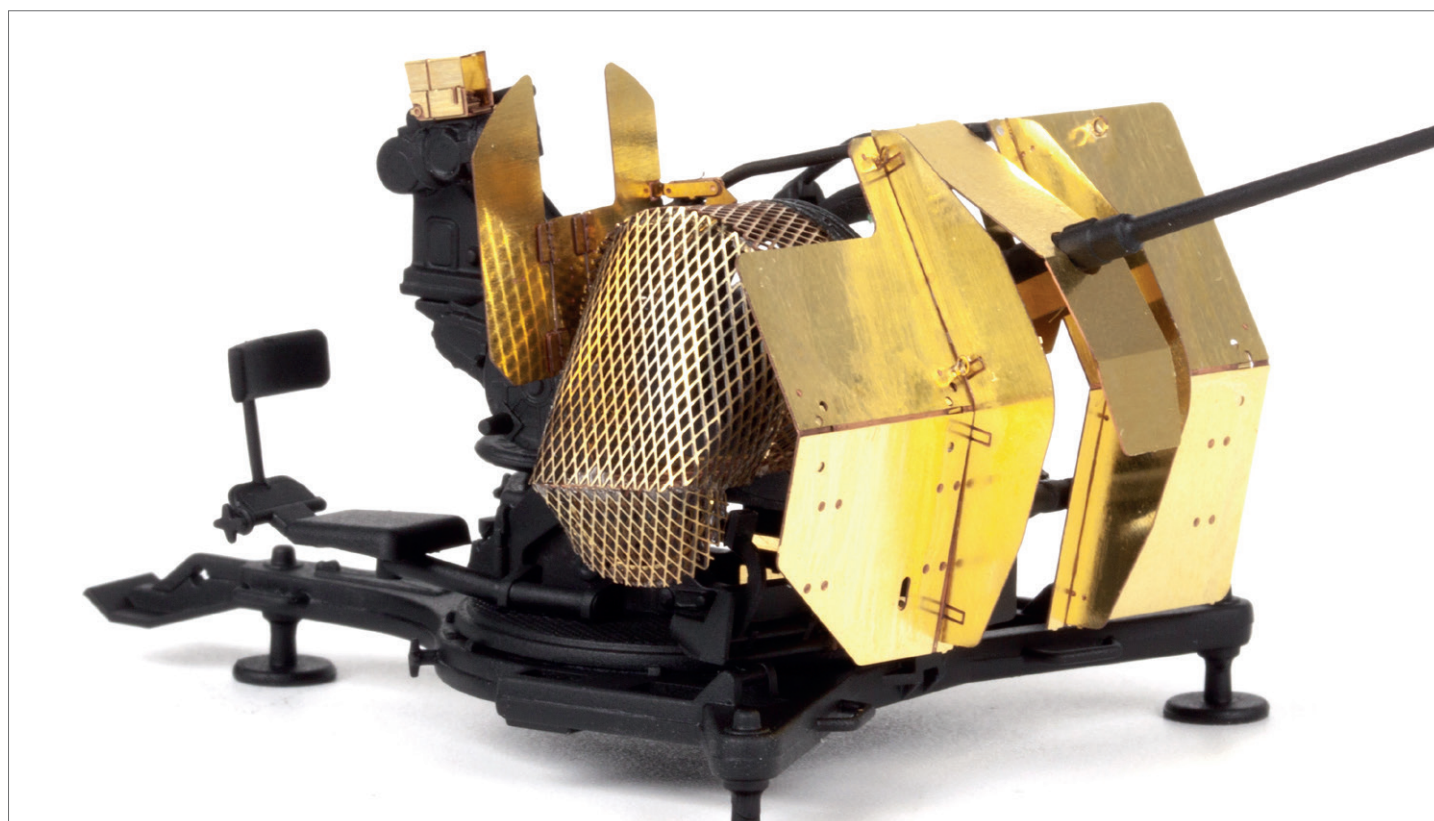
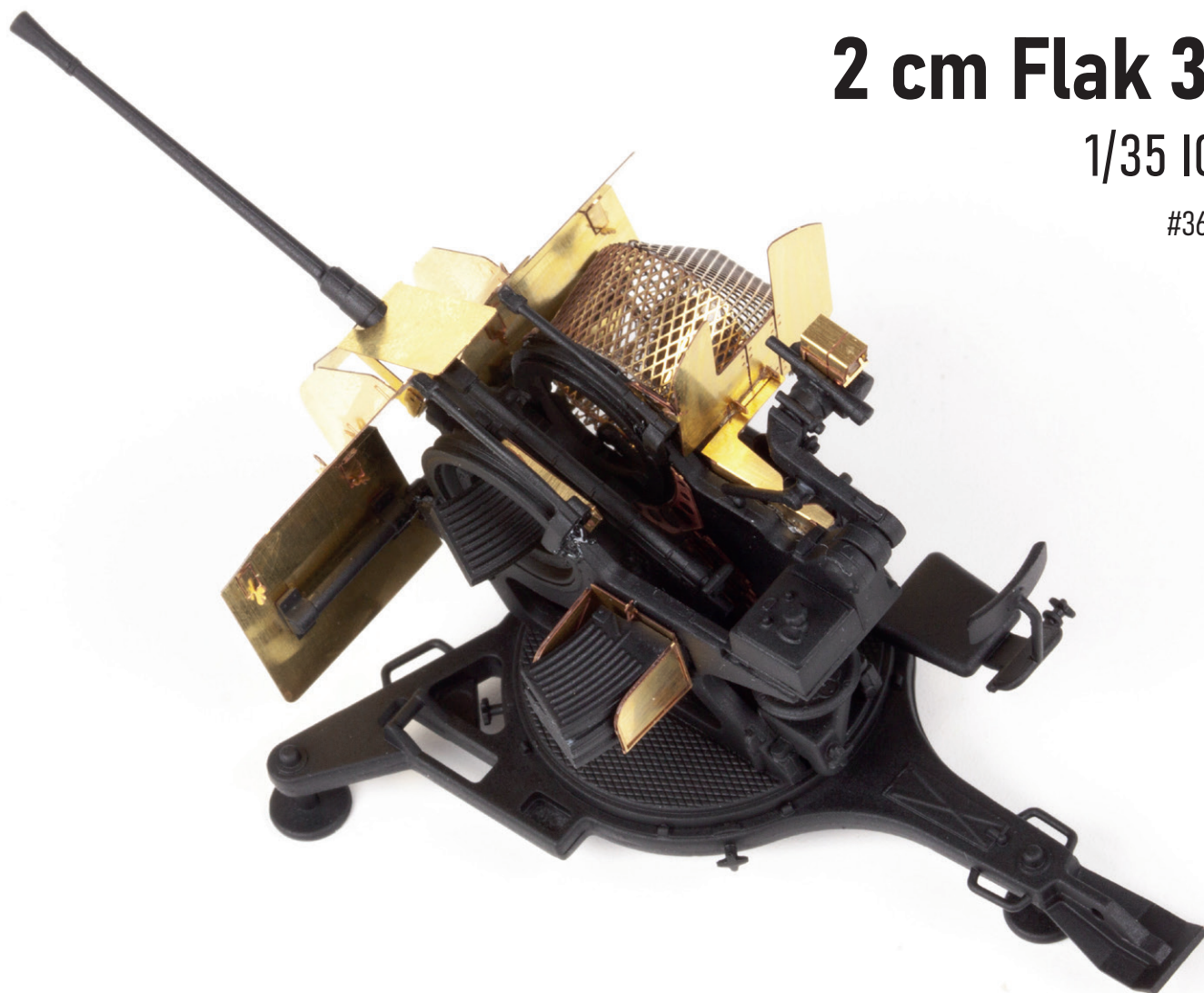
#53320



2 cm Flak 38

1/35 ICM

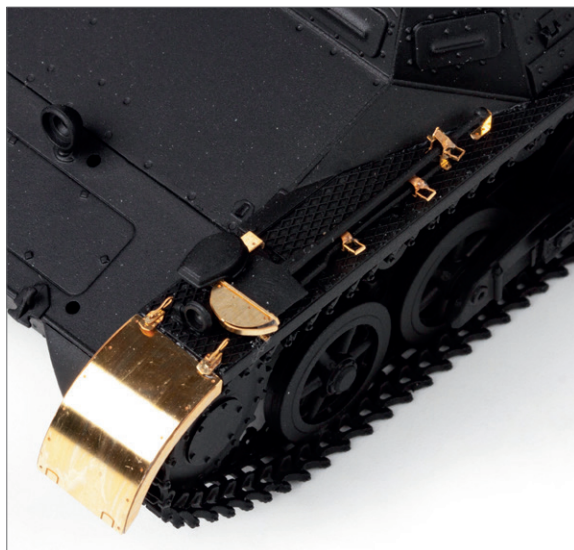
#36531



Panzerkampfwagen I Ausf. B

1/35 Tamiya

#36532



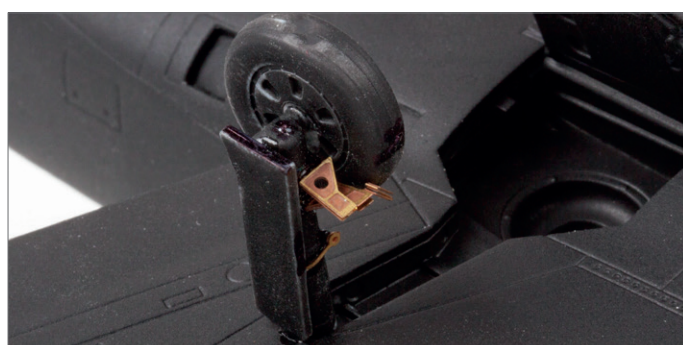
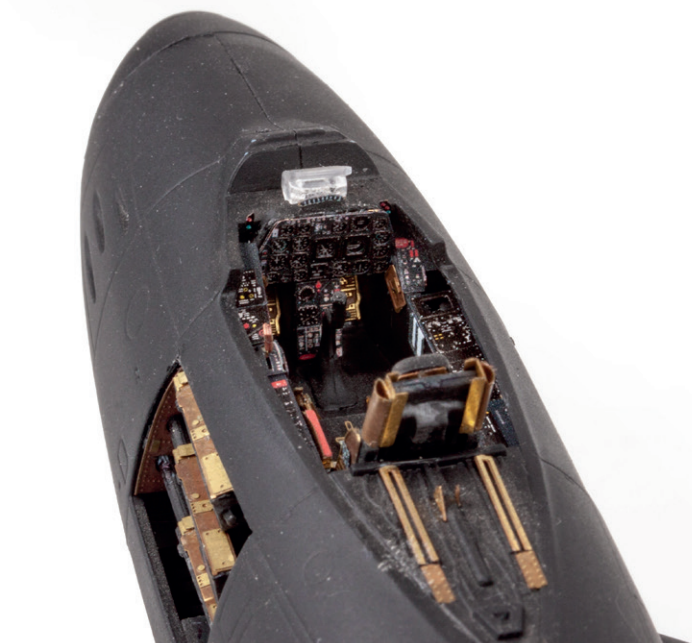
F-86F-25/30

1/48 Airfix

#491499

#FE1499

#FE1500



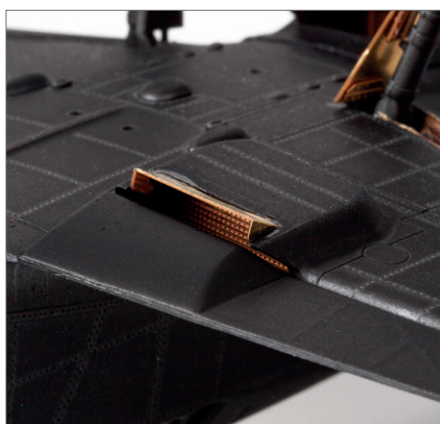
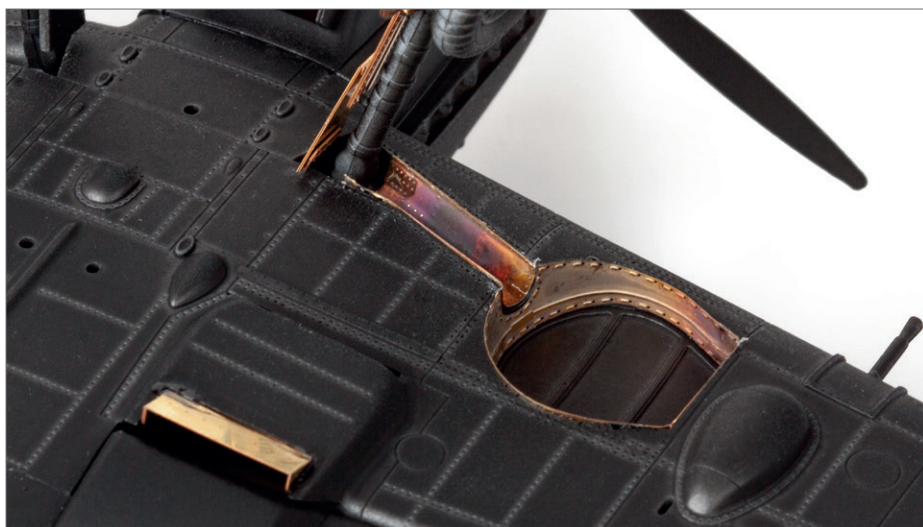
Bf 109E-3

1/48 Hobby Boss

#491501

#FE1501

#FE1502



Bf 109F-4

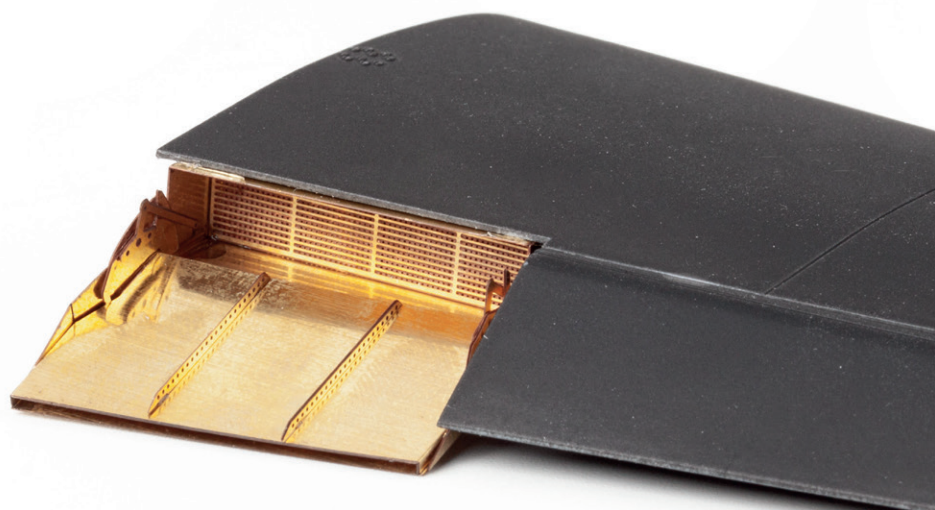
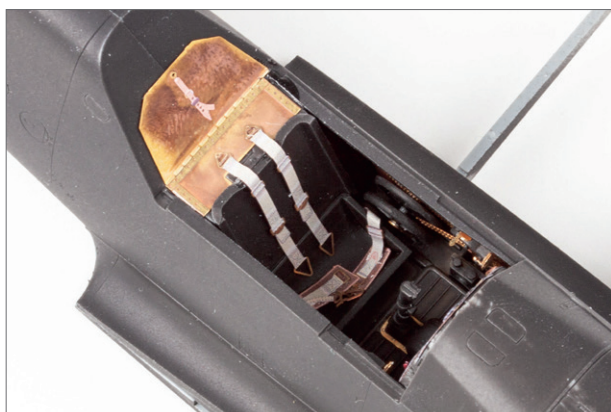
1/32 Hobby 2000 / Hasegawa

#32493

#321023

#33376

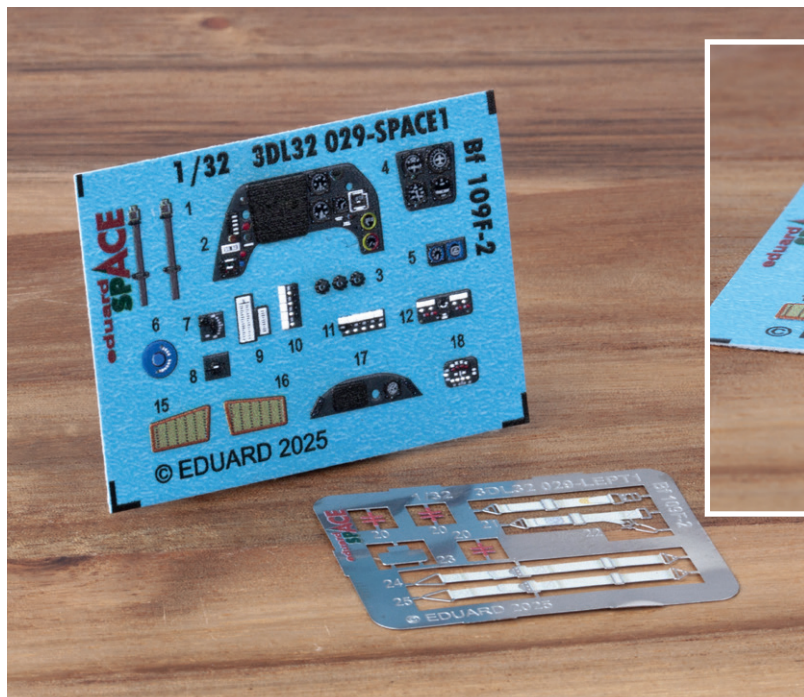
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3DL32029 **Bf 109F-2 SPACE** 1/32 Hobby 2000 / Hasegawa

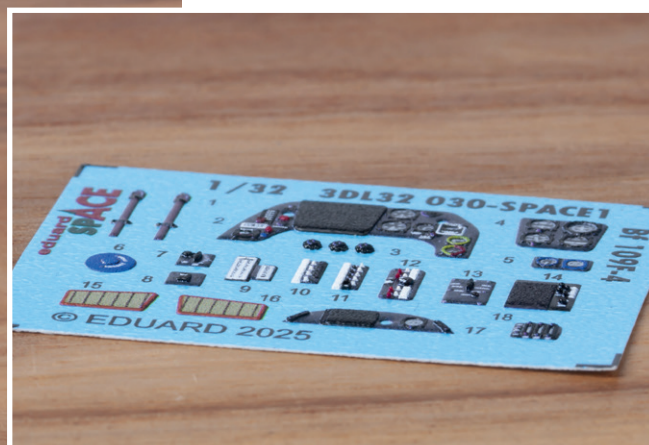
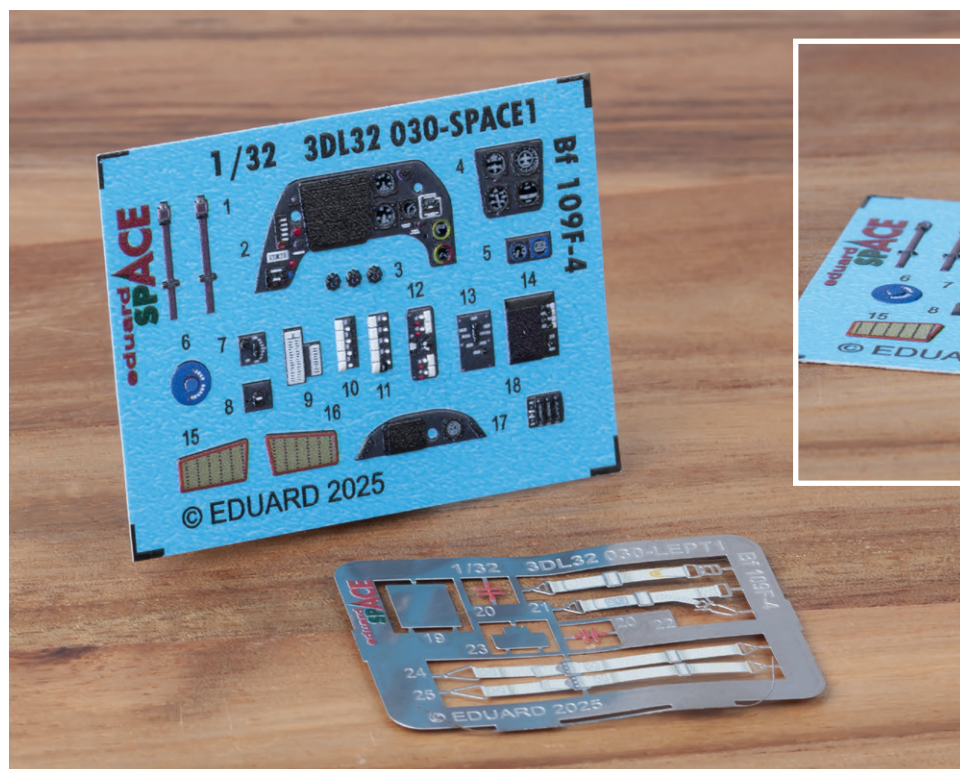
*EASY
APPLICATION*

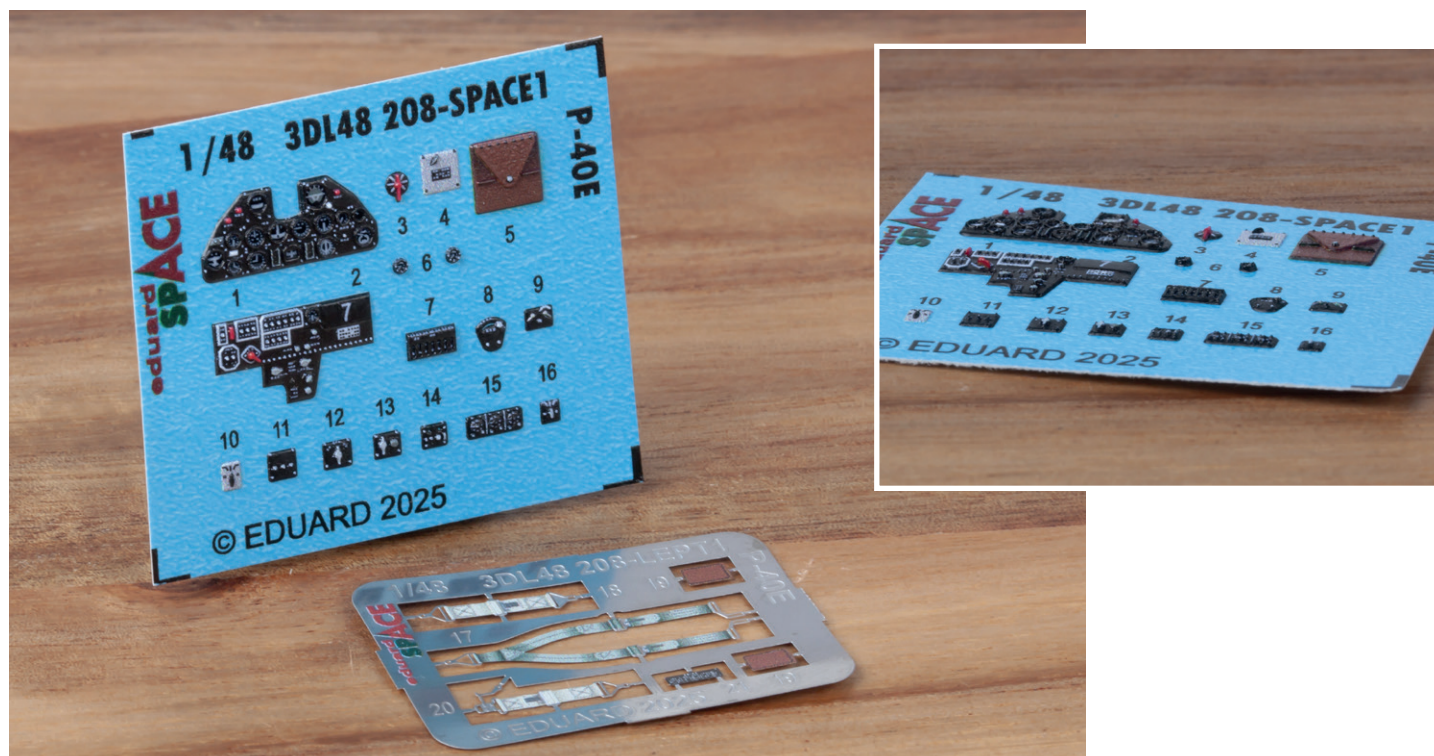
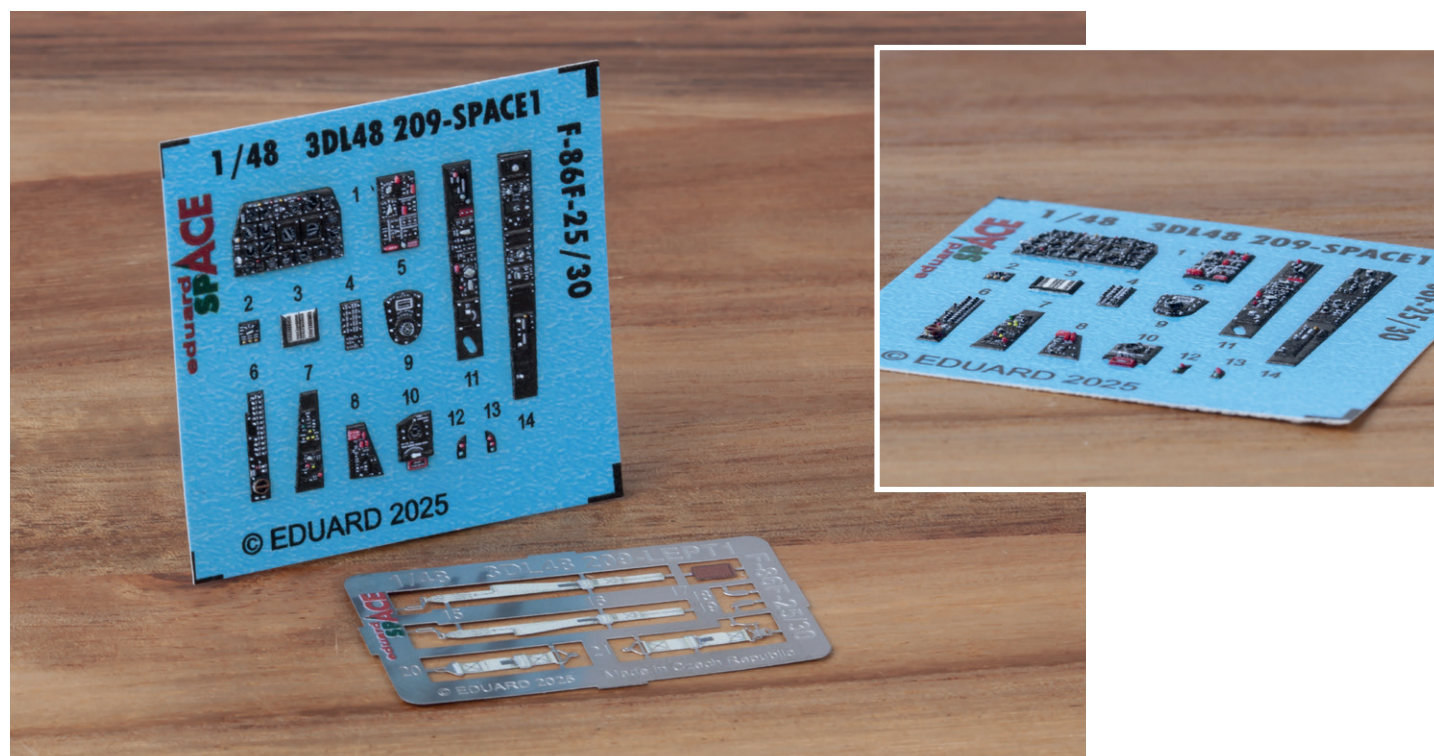
Product page



3DL32030 **Bf 109F-4 SPACE** 1/32 Hobby 2000 / Hasegawa

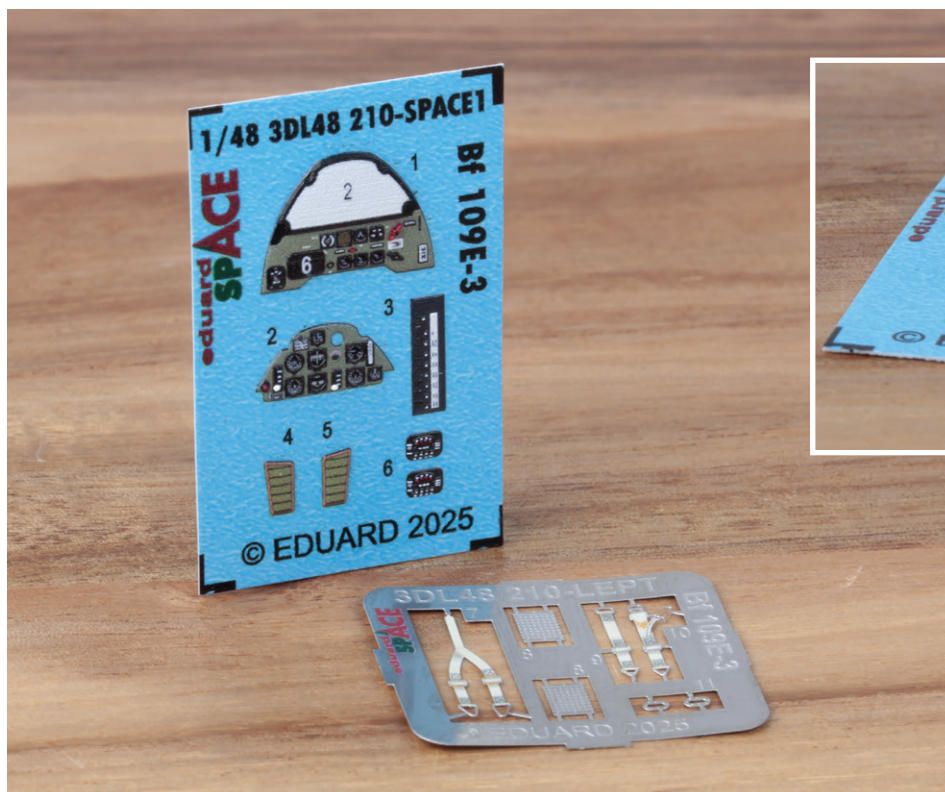
Product page



3DL48208 **P-40E SPACE** 1/48 Eduard
[Product page](#)
3DL48209 **F-86F-25/30 SPACE** 1/48 Airfix
[Product page](#)


3DL48210 **Bf 109E-3** 1/48 Hobby Boss

Product page



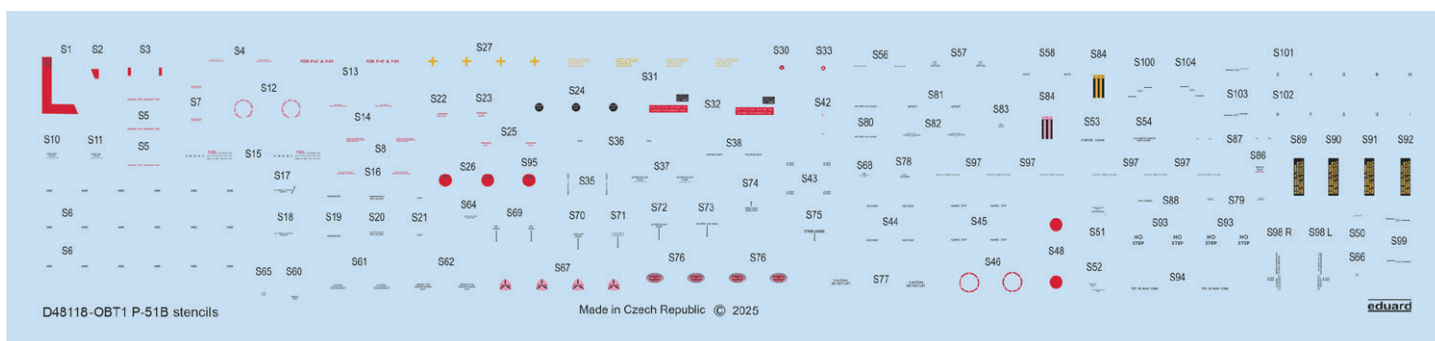
DECALS

D48118

P-51B stencils

1/48 Eduard

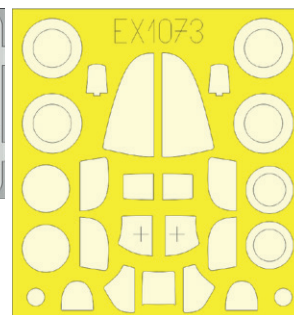
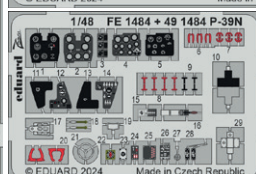
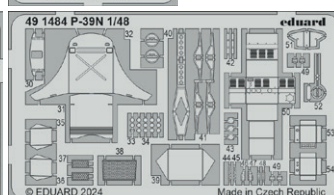
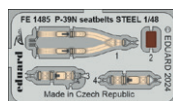
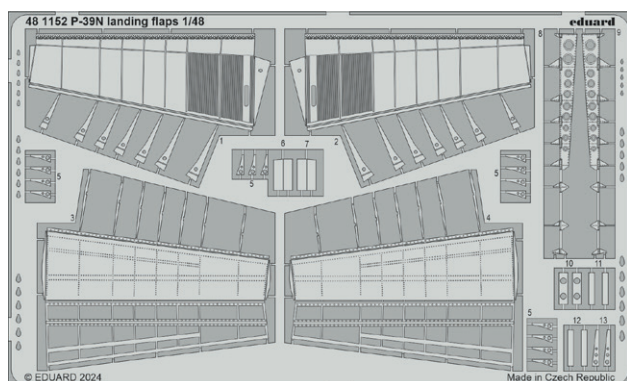
Product page



BIG49436 **P-39N** 1/48 Arma Hobby

481152 P-39N landing flaps
491484 P-39N
FE1485 P-39N seatbelts STEEL
EX1073 P-39N

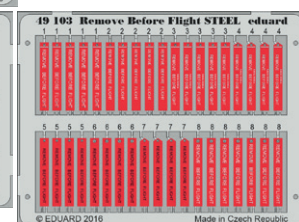
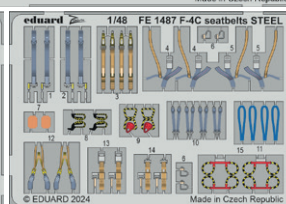
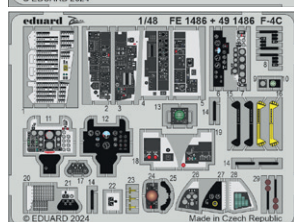
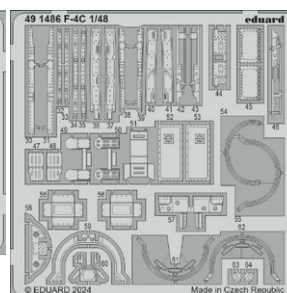
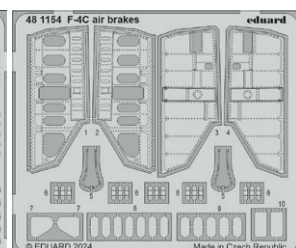
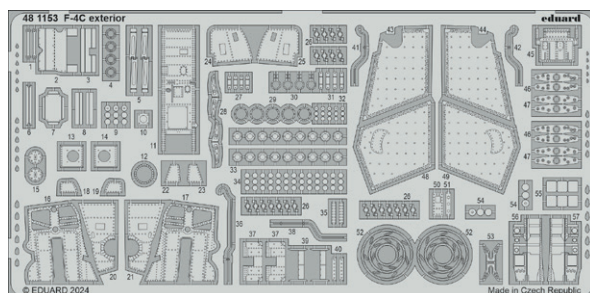
Product page



BIG49437 **F-4C** 1/48 Hobby 2000 / Academy

49103 Remove Before Flight STEEL
481153 F-4C exterior
481154 F-4C air brakes
491486 F-4C
FE1487 F-4C seatbelts STEEL
EX414 F-4C

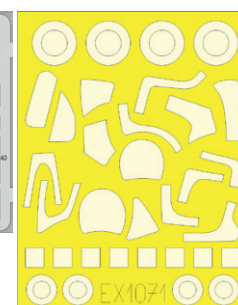
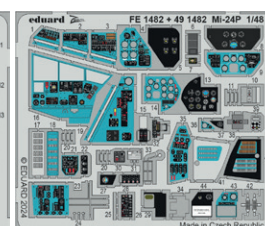
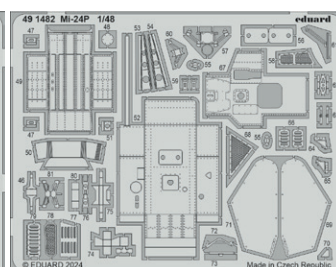
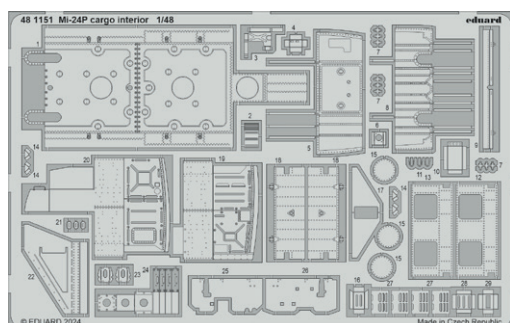
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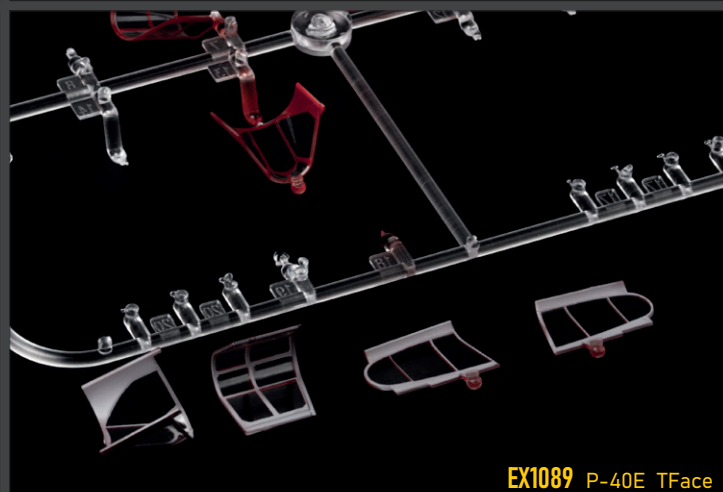
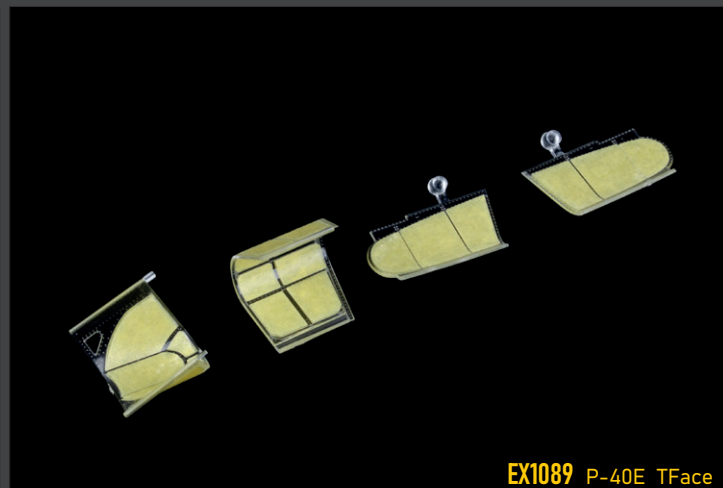
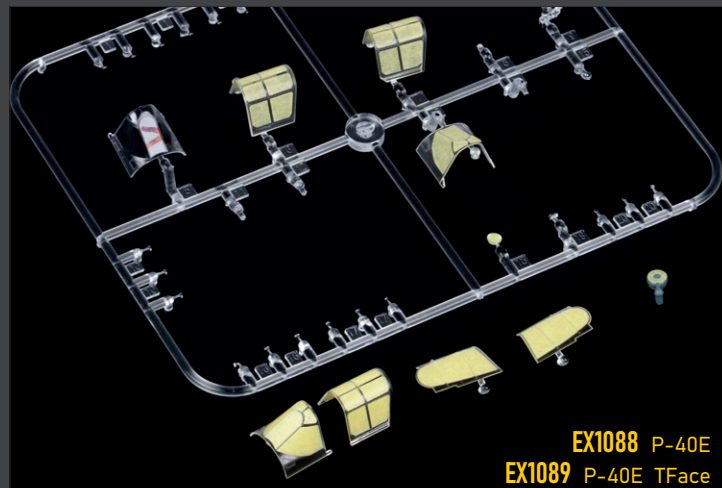
BIG49438 **Mi-24P** 1/48 Trumpeter

481151 Mi-24P cargo interior
491482 Mi-24P
FE1483 Mi-24P seatbelts STEEL
EX1071 Mi-24

Product page



JX329 Bf 109E TFace
 1/32 Eduard
JX330 Bf 109F-2
 1/32 Hobby 2000 / Hasegawa
JX331 Bf 109F-2 TFace
 1/32 Hobby 2000 / Hasegawa
JX332 Bf 109F-4
 1/32 Hobby 2000 / Hasegawa
JX333 Bf 109F-4 TFace
 1/32 Hobby 2000 / Hasegawa
EX1088 P-40E
 1/48 Eduard
EX1089 P-40E TFace
 1/48 Eduard
EX1090 F-86F-25/30
 1/48 Airfix
EX1091 F-86F-25/30 TFace
 1/48 Airfix
EX1092 Bf 109E-3
 1/48 Hobby Boss
EX1093 Bf 109E-3 TFace
 1/48 Hobby Boss

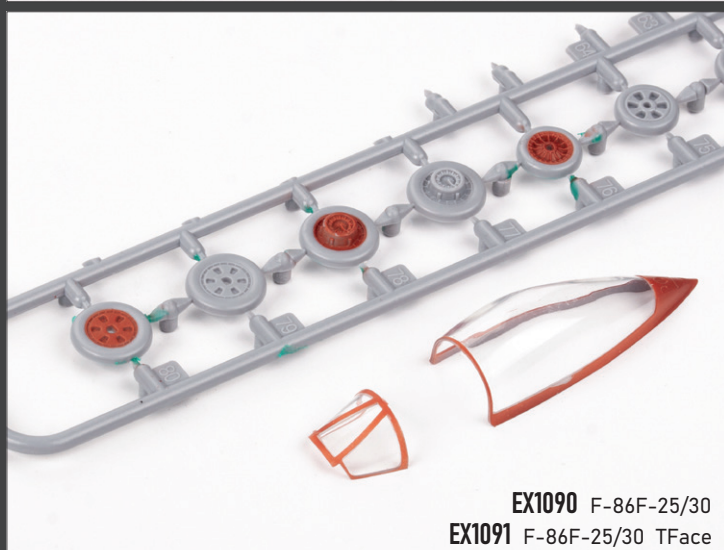




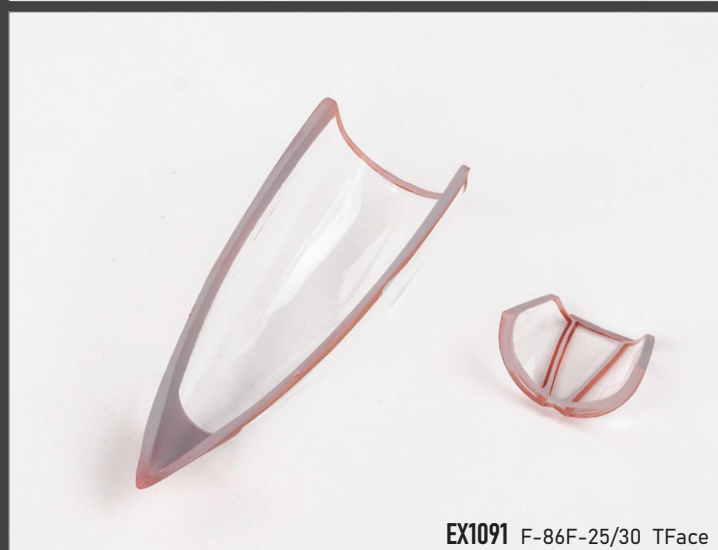
EX1090 F-86F-25/30
EX1091 F-86F-25/30 TFace



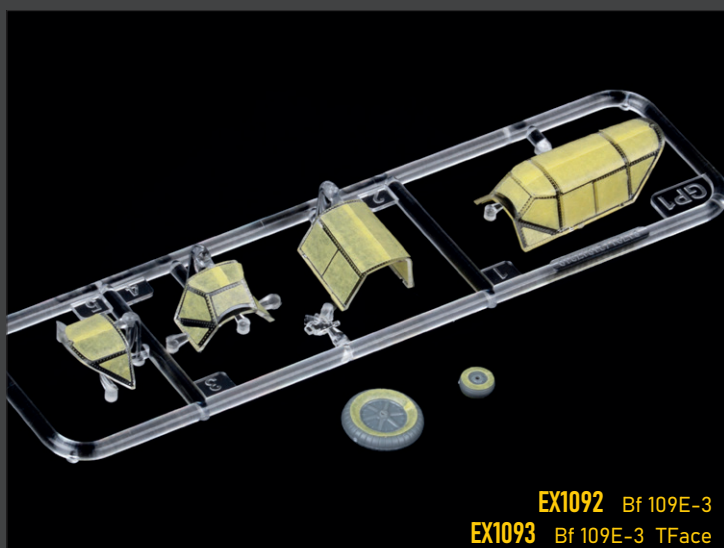
EX1091 F-86F-25/30 TFace



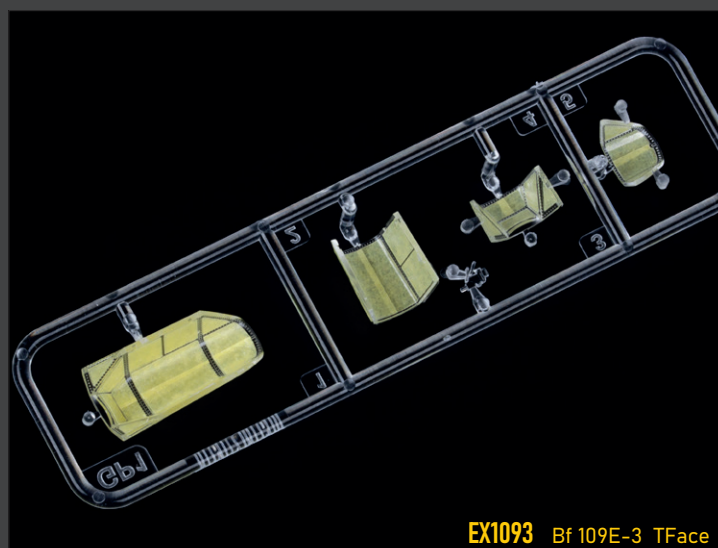
EX1090 F-86F-25/30
EX1091 F-86F-25/30 TFace



EX1091 F-86F-25/30 TFace



EX1092 Bf 109E-3
EX1093 Bf 109E-3 TFace



EX1093 Bf 109E-3 TFace

KITS

R0023	P-40E Warhawk DUAL COMBO	1/48	Royal Class
70164	Bf 109F-10WNF/Diana	1/72	ProfiPACK
84205	Fw 190A-3	1/48	Weekend

PE-SETS

53320	USS Wasp LHD-1 part 3	1/350	Trumpeter
32493	Bf 109F-2/4 exterior	1/32	Hobby 2000 / Hasegawa
321022	Bf 109F-2	1/32	Hobby 2000 / Hasegawa
321023	Bf 109F-4	1/32	Hobby 2000 / Hasegawa
36531	2 cm Flak 38	1/35	ICM
36532	Panzerkampfwagen I Ausf.B	1/35	Tamiya
481155	P-40E landing flaps	1/48	Eduard
491499	F-86F-25/30	1/48	Airfix
491501	Bf 109E-3	1/48	Hobby Boss

ZOOMS

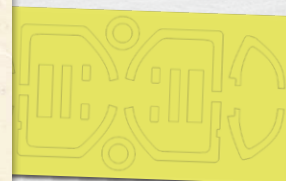
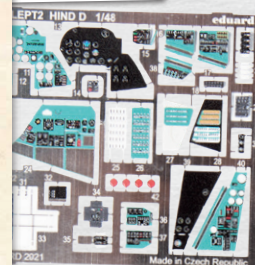
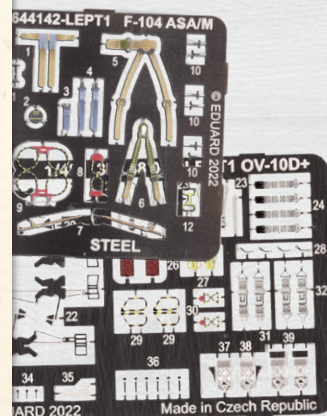
33375	Bf 109F-2	1/32	Hobby 2000 / Hasegawa
33376	Bf 109F-4	1/32	Hobby 2000 / Hasegawa
33377	Bf 109F-2/4 seatbelts STEEL	1/32	Hobby 2000 / Hasegawa
FE1498	P-40E seatbelts STEEL	1/48	Eduard
FE1499	F-86F-25/30	1/48	Airfix
FE1500	F-86F-25/30 seatbelts STEEL	1/48	Airfix
FE1501	Bf 109E-3	1/48	Hobby Boss
FE1502	Bf 109E-3 seatbelts STEEL	1/48	Hobby Boss

MASKS

JX329	Bf 109E TFace	1/32	Eduard
JX330	Bf 109F-2	1/32	Hobby 2000 / Hasegawa
JX331	Bf 109F-2 TFace	1/32	Hobby 2000 / Hasegawa
JX332	Bf 109F-4	1/32	Hobby 2000 / Hasegawa
JX333	Bf 109F-4 TFace	1/32	Hobby 2000 / Hasegawa
EX1088	P-40E	1/48	Eduard
EX1089	P-40E TFace	1/48	Eduard
EX1090	F-86F-25/30	1/48	Airfix
EX1091	F-86F-25/30 TFace	1/48	Airfix
EX1092	Bf 109E-3	1/48	Hobby Boss
EX1093	Bf 109E-3 TFace	1/48	Hobby Boss

BIG ED

BIG49436	P-39N	1/48	Arma Hobby
BIG49437	F-4C	1/48	Hobby 2000 / Academy
BIG49438	Mi-24P	1/48	Trumpeter



BRASSIN

644295	P-40E LööK	1/48	Eduard
674024	Bf 109G-6 LööK	1/72	Tamiya
6481058	P-40E wheels cross tread	1/48	Eduard
6481060	P-40 exhaust stacks rounded PRINT	1/48	Eduard
6481061	P-40 exhaust stacks fishtail PRINT	1/48	Eduard
6481068	P-40 wheel bays with canvas PRINT	1/48	Eduard
6481069	P-40E engine PRINT	1/48	Eduard
672401	MG 15 magazines & case catchers PRINT	1/72	
672402	Bf 109G-10 Erla engine PRINT	1/72	Eduard

LööKPLUS

644296	Bf 109E-4 LööKplus	1/48	Eduard
644297	Bf 109F LööKplus	1/48	Eduard

BIG SIN

SIN67228	P-51D-15+ ESSENTIAL	1/72	Eduard
SIN67229	P-51D ADVANCED	1/72	Eduard

SPACE

3DL32029	Bf 109F-2 SPACE	1/32	Hobby 2000 / Hasegawa
3DL32030	Bf 109F-4 SPACE	1/32	Hobby 2000 / Hasegawa
3DL48208	P-40E SPACE	1/48	Eduard
3DL48209	F-86F-25/30 SPACE	1/48	Airfix
3DL48210	Bf 109E-3	1/48	Hobby Boss

DECALS

D48118	P-51B stencils	1/48	Eduard
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eduard
BRASSINeduard
BRASSIN
*Print**LööK**LööK+*BIG
SINeduard
SPACE

1/48

P-40E Warhawk



#R0023
MARKING G
built by **Josef Choren**

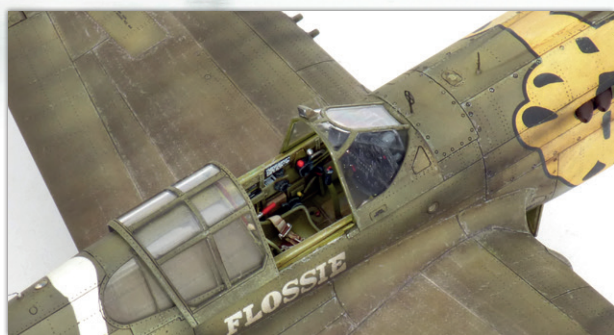


11th FS, 343rd FG, Atoll Kiska, Aleutian Islands, summer 1943

The Aleutian Tigers represent some of the most attractively colored P-40s, thanks to the tiger head that adorned the nose of most aircraft of this type. The 343rd FG was founded on September 3, 1942, at Alaskan base Elmendorf Field. Initially, the group consisted of the 11th FS and 18th FS, both armed with P-40s, and the 54th FS, which used P-38s and operated out of Adak. The pilots of the 11th FS went operational almost immediately after moving to Umnak Island in the Aleutian Islands. In October 1942, the 344th FS joined the

group, also with P-40s. The group provided air defense of the Aleutian Islands and also bombed or strafed Japanese targets on Kiska Island itself. Its pilots flew their last combat mission in October 1943, and subsequently conducted patrol and reconnaissance flights until the end of the war, with the exception of high-altitude flights in early 1945, during which the pilots engaged Japanese balloons with incendiary charges. All units were already using P-38s for this purpose, but the P-40s remained in service alongside

them. The Tiger Heads were a reminiscence of the AVG, the Flying Tigers of Claire Chennault, since the 343rd FG was initially led by his son Lt Col John S. Chenault. The aircraft depicted here received a name, in this case Flossie, as one of the few Aleutian P-40s. The insignias had short-lived red lining.

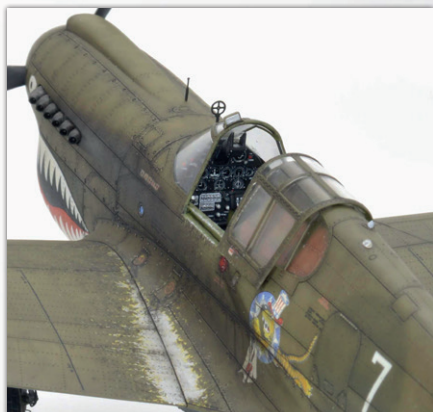


1/48

P-40E Warhawk



#R0023
MARKING C
built by **Jan Baranec**

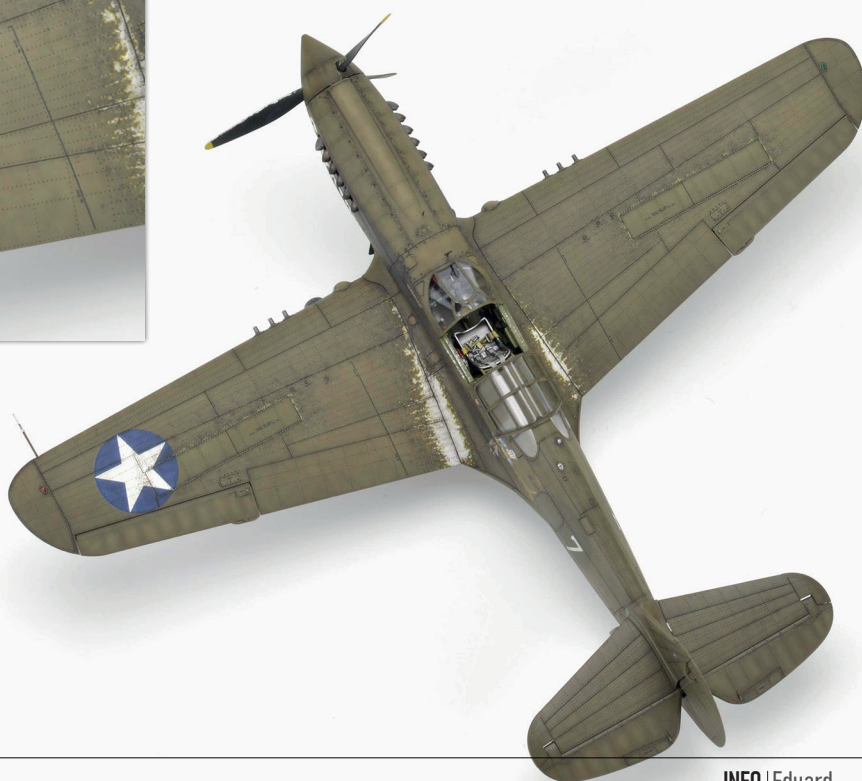
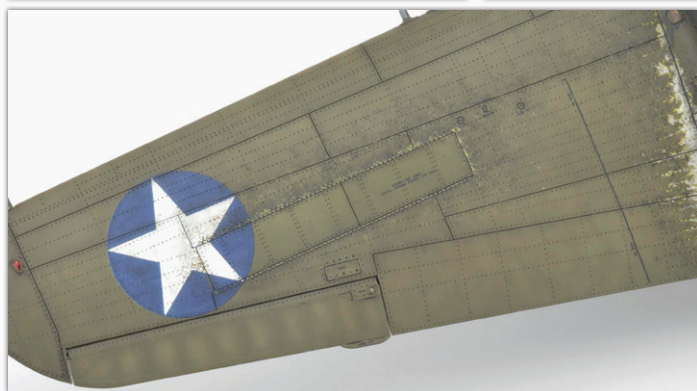
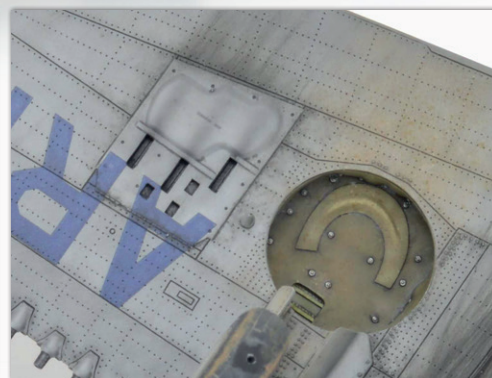
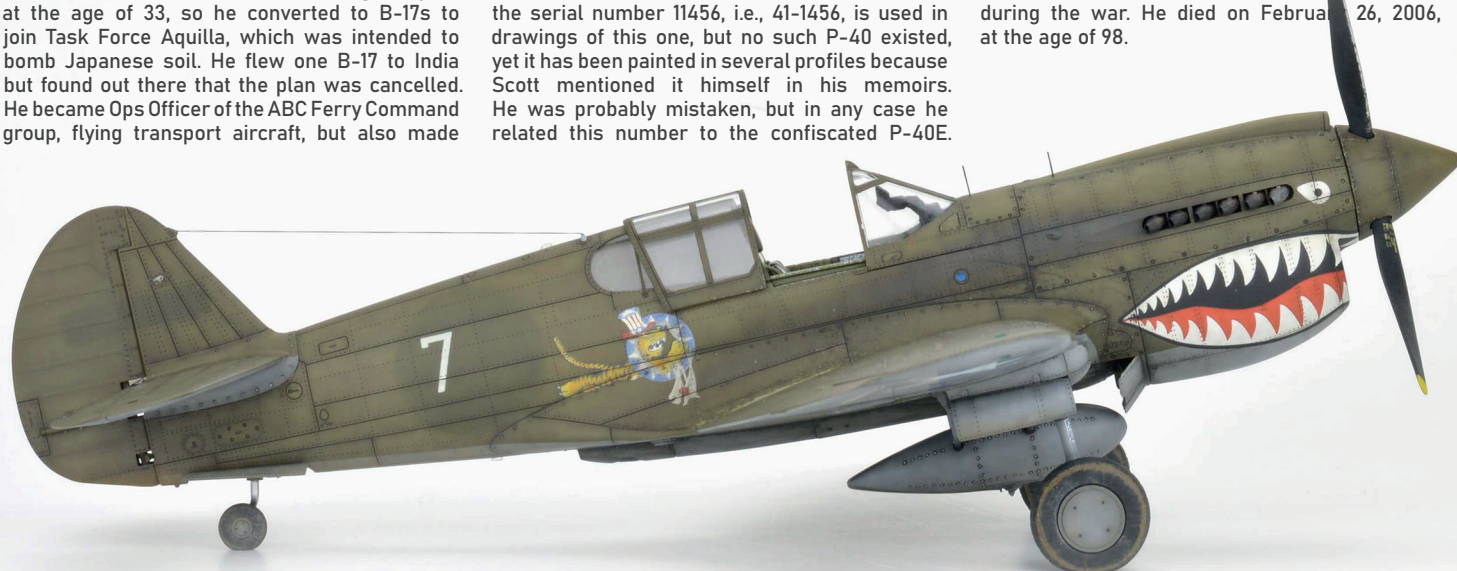


Col. Robert L. Scott, CO of 23rd FG, 14th AF, Burma, 1942

Robert Lee Scott was born on April 12, 1908, in Waynesboro, Georgia, and graduated from West Point in 1932. He flew air mail, then commanded a fighter squadron in Panama and served as an instructor in Texas and later in California. By the time the U.S. entered the war, he was considered too old to be a fighter pilot at the age of 33, so he converted to B-17s to join Task Force Aquila, which was intended to bomb Japanese soil. He flew one B-17 to India but found out there that the plan was cancelled. He became Ops Officer of the ABC Ferry Command group, flying transport aircraft, but also made

a few flights with Chennault's Flying Tigers on P-40. He then managed to confiscate one P-40E intended for AVG and named it Exterminator. This is not the aircraft shown, however, as the one pictured here was his second P-40E, this one officially assigned to him, as Scott had since become commander of the 23rd FG. Sometimes the serial number 11456, i.e., 41-1456, is used in drawings of this one, but no such P-40 existed, yet it has been painted in several profiles because Scott mentioned it himself in his memoirs. He was probably mistaken, but in any case he related this number to the confiscated P-40E.

During the flight in which he scored his fourth and fifth kills, the Exterminator was badly damaged and never flew again. The symbols of the five kills were therefore not carried until Scott's second P-40E, also of unknown serial number (which was probably overpainted anyway according to local custom). In total, Scott achieved 13 kills during the war. He died on February 26, 2006, at the age of 98.



P-40E Warhawk

1/48



#R0023
MARKING B
built by **Robert Szwarc**



41-36402, Lt. Dallas A. Clinger, 16th FS, 23rd FG, Kweilin, January 1943

Dallas Adellon Clinger was born on June 2, 1916, in Saint Anthony, Idaho. After completing training in 1941, he was transferred to the 16th FS. He achieved his first victory in aerial combat on July 31, 1942, when he shot down an A6M. He followed this up by shooting down a same type aircraft on November 12 of that year and concluded his score with the 16th FS on December 26, 1942, shooting down a Zero again. He scored two more confirmed kills during the war. Clinger remained in the service after the war and retired in 1953 at

the rank of Major. He died on December 16, 1988 (aged 72). This P-40E was originally intended to be part of a supply for the RAF and was therefore painted in American Du Pont colors similar to the British shades of Dark Earth (No. 71-035), Dark Green (No. 71-013) and Sky (No. 71-021). The camouflage was retouched on the fuselage sides and tail surfaces with another green paint, probably Olive Drab. The pilot's personal symbol, the peeing cowboy, was painted on both sides of the rudder. Another Clinger's P-40 bore a similar

design. It is not entirely certain whether this aircraft had the inscription "Holdin' my Own" on both sides of the rudder, it is only documented on the starboard side while there are photographs of the port side without the inscription. However, it may have been added later. The 16th FS P-40s had their wheel discs decorated with a blue field with white star and probably with a red circle in the middle.



GRÜNHHERZ FW 190A-5/A-8 1/72



#2122
MARKING D
built by **Steven Baker**



Fw 190A-8, 14./JG 54, Mörtitz, Germany, November 1944

14. Staffel JG 54 was established in August 1944 on the basis of 11. Staffel of the same squadron. During the military operation Market Garden, the whole of the IV. Gruppe, the 14. Staffel was part of this squadron, was sent to combat and there it was decimated. Its residuals were then sent to the German base in Mörtitz where the fleet was restored. On November 21st, 1944 the fleet was transferred to the Vörden base where

it further served as the German Empire defence unit. This Gruppe later supported the German counter-offensive in Ardennes and that not only in a role of fighter plane squadron, but also in a role of fighter-bombers supporting the ground tank storm troops. The Fw 190A-8, painted in a standard camouflage, bears the symbol of the IV. Gruppe underneath the cockpit – green heart and coat of arms of the City of Königsberg (the

name of the city stayed till July 4th, 1946, later the city was renamed to Kaliningrad). The marking of the aircraft is complemented by blue stripe on the tail of the aircraft; this marking of the aircraft, belonging to JG 54, symbolized the planes, which were part of Defence of the Reich. The aircraft also bears the sign of black wave line lined with white colour. The wave line marked the aircraft belonging to IV. Gruppe of the Geschwader.



Jabo

Fw 190A-5/U3-U8

1/48



#11131
MARKING A
built by **Robert Szwarc**



Fw 190A-5/U8, W. Nr. 152596, flown by Uffz. Werner Öhne, 1./SKG 10, Poix, France, June 1943

During the night of July 19th -20th, 1943, 1./SKG 10 engaged in the bombing raid against the city of Ramsgate. During the flight Uffz. Öhne lost the radio contact, moreover he soon got lost in the thick clouds. Through the gap in the cloud cover he spotted he was flying over the sea and he noticed the coast in the South. He believed it was the French coast, he headed

in that direction and released the bomb on the way. In the reality he was over the wide mouth of the river Thames and further flight brought him to Manston airport when he landed without any damage. Consequently, RAF utilized this aircraft to develop the combat tactics against Focke Wulfs. The aircraft of this unit, used mostly for the night bombing raids, had the lower

and partially the side surfaces overpainted in the black color including the crosses on the wing lower surfaces, swastika and the rudder, originally painted yellow. To extend their range the drop tank attachments were installed under the wing, initially developed for the use on Ju 87 aircraft.



Accessories used:

- 648150 Fw 190 wheels late (Brassin)
- 648381 Fw 190A exhaust stacks (Brassin)



Spitfire F Mk.IX

1/48



Accessories used:

- 648098 Spitfire wheels - 5 spoke (Brassin)
648380 Spitfire Mk.VIII / IX cockpit door (Brassin)



EN286, F/Lt Eric Robinson, No. 1 SAAF Squadron, Pachino, Sicily, July 1943

The pilot with the full name McClellan Eric Sutton Robinson, usually called „Robbie“, was born in Johannesburg on February 26, 1919. He achieved ace status by shooting down five enemy aircraft plus one probable and one damaged. His first operational unit was No. 1 SAAF Sqn with Hurricanes, which he joined in August 1942 and stayed there for one year. He achieved his first combat success on November 2, 1942, when he shared one Ju 87 and after switching to Spitfire Mk.V he added five

victories between January and April 1943. After that, Robinson was unlucky for first time, as he was shot down by friendly USAAF P-38 and had to bail out over the Mediterranean Sea on July 14, 1943. He was lucky to be rescued by Greek destroyer. Robinson was awarded DFC at the end of his combat tour in September 1943 and sent to the UK to become instructor at No. 11 OTU. There he was unlucky for second time on November 14, 1944, as he collided with one of the trainees when flying Kittyhawk and crashed to his death.

His Spitfire EN286 was one of the aircraft which were taken over from Polish Fighting Team. The original codes were overpainted by Dark Earth color and then new ones of No. 1 Sqn painted. The inscription Cirecooks is the combination of his given name being spelt backwards and the surname of his fiancée. The number III indicates it was his third aircraft of this name. Robinson did not achieve any aerial victory flying it.



BIG ED (March)

BIG5375	USS Midway CV-41 1/350 Trumpeter
BIG2406	Spitfire Mk.VIII 1/24 Airfix
BIG49439	F-86A 1/48 Clear Prop
BIG49440	F4U-2 1/48 Hobby Boss
BIG49441	MiG-35 1/48 Hobby Boss

BRASSIN (March)

644299	F-35C LööK 1/48 Tamiya
674025	P-47D Bubbletop LööK 1/72 Tamiya
674026	P-51D LööK 1/72 Tamiya
674027	Spitfire Mk.V LööK 1/72 Tamiya
6481057	P-40E wheels diamond tread 1/48 Eduard
6481059	P-40E wheels block tread 1/48 Eduard
6481064	P-40 seat w/ integral belts Type 1 PRINT 1/48 Eduard
6481065	P-40 seat w/ integral belts Type 2 PRINT 1/48 Eduard
6481066	P-40E radio compartment PRINT 1/48 Eduard
6481067	P-40 wheel bays PRINT 1/48 Eduard
6481072	A-10C rotary cannon bay PRINT 1/48 Academy
6481076	P-40 1000lb US bomb 1/48 Eduard
6481084	P-40 75gal drop tank PRINT 1/48 Eduard
6481086	F-35C seat PRINT 1/48 Tamiya
672403	Mosquito wheels 1/72 Tamiya
672404	Mosquito exhaust stacks PRINT 1/72 Tamiya
672405	Bf 109G-6 wheels 1/72 Tamiya
672406	Bf 109G-6 exhaust stacks PRINT 1/72 Tamiya

LööKPlus (March)

634050	Spitfire Mk.VIII LööKplus 1/24 Airfix
644298	P-40E w/ rounded exhaust stacks LööKplus 1/48 Eduard

BIGSIN (March)

SIN648136	P-38F ENGINES 1/48 Tamiya
SIN648137	F-35C armament 1/48 Tamiya

644299

F-35C LööK

1/48 Tamiya

LööK set - Brassin pre-painted dashboard and STEEL seat belts for F-35C in 1/48 scale.
Easy to assemble, replaces plastic parts.
Recommended kit: Tamiya

Set contains:

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



LööK

674025

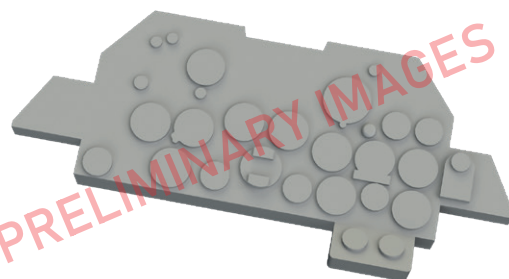
P-47D Bubbletop LööK

1/72 Tamiya

LööK set - Brassin pre-painted dashboard and STEEL seat belts for P-47D Bubbletop in 1/72 scale.
Easy to assemble, replaces plastic parts.
Recommended kit: Tamiya

Set contains:

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



LööK

674026

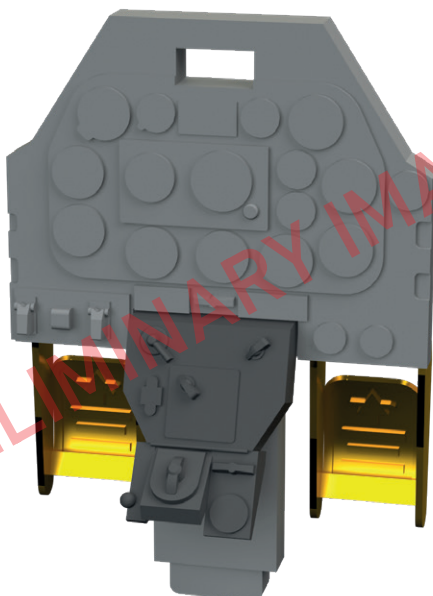
P-51D LööK

1/72 Tamiya

LööK set - Brassin pre-painted dashboard and STEEL seat belts for P-51D in 1/72 scale.
Easy to assemble, replaces plastic parts.
Recommended kit: Tamiya

Set contains:

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



LööK

674027

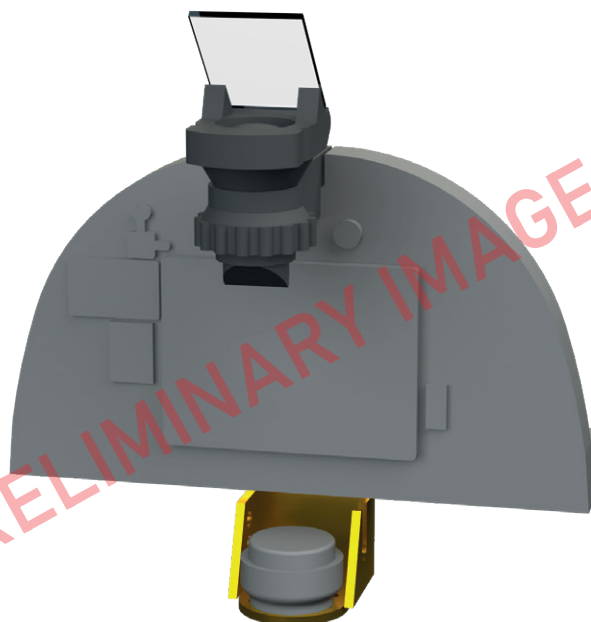
Spitfire Mk.V LööK

1/72 Tamiya

LööK set - Brassin pre-painted dashboard and STEEL seat belts for Spitfire Mk.V in 1/72 scale. Easy to assemble, replaces plastic parts. Recommended kit: Tamiya

Set contains:

- resin: 2 parts
- 3D tisk: 1 part
- decals: no
- photo-etched details: yes, pre-painted
- painting mask: no



LööK

6481057

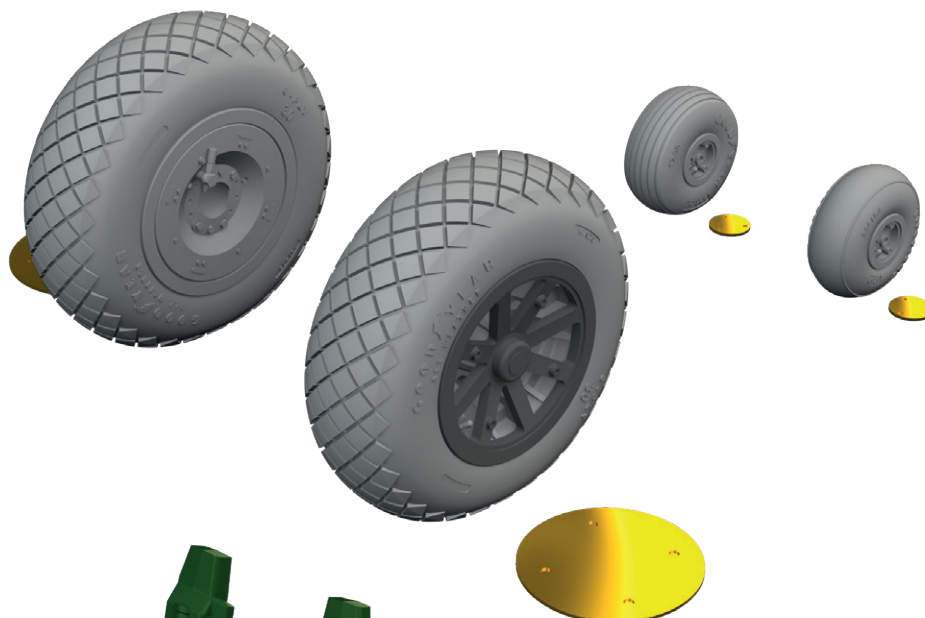
P-40E wheels diamond tread

1/48 Eduard

Brassin set - the undercarriage wheels for P-40E in 1/48 scale. The set consists of the main wheels and a tail wheel. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

- resin: 4 parts
- 3D print: 2 parts
- decals: no
- photo-etched details: yes
- painting mask: yes



6481059

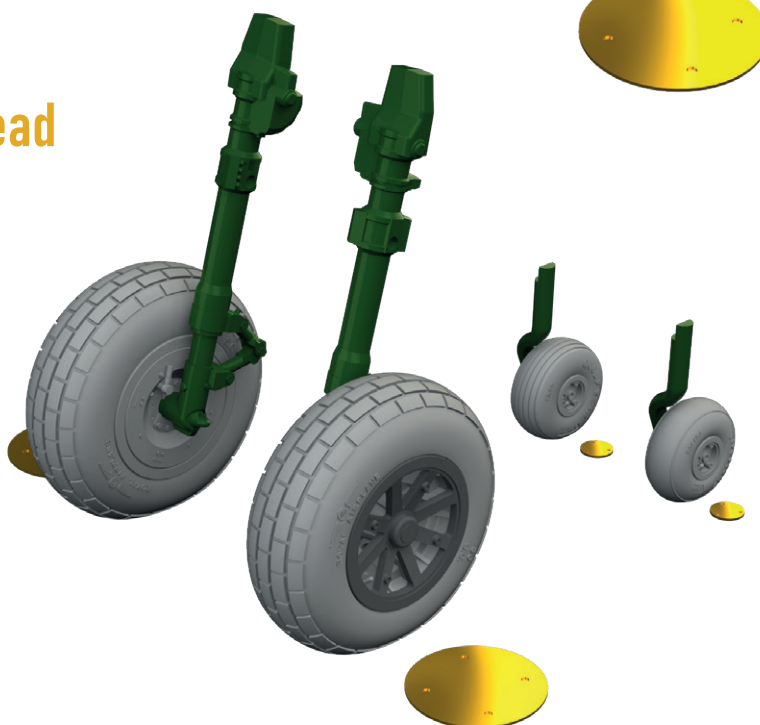
P-40E wheels block tread

1/48 Eduard

Brassin set - the undercarriage wheels for P-40E in 1/48 scale. The set consists of the main wheels and a tail wheel. Easy to assemble, replaces plastic parts. Recommended kit: Eduard

Set contains:

- resin: 4 parts
- 3D print: 2 parts
- decals: no
- photo-etched details: yes
- painting mask: yes



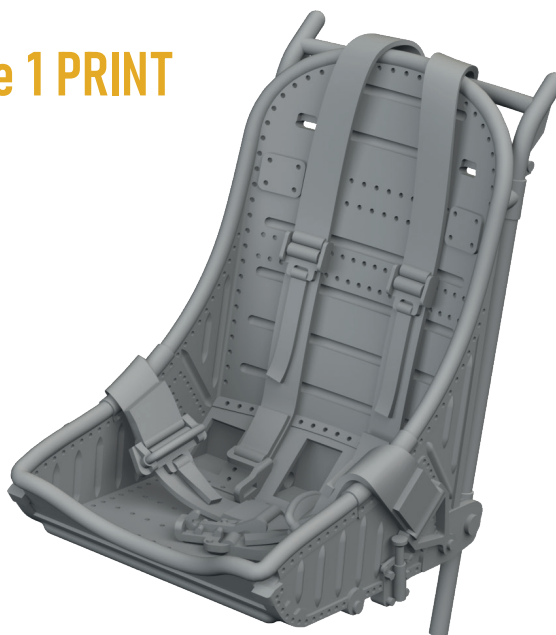
6481064

P-40 seat w/ integral belts Type 1 PRINT**1/48 Eduard**

Brassin set - pilot seat with seat belts designed as a integral part of the seat for P-40E in 1/48 scale. Made by direct 3D printing. Recommended kit: Eduard

Set contains:

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



6481065

P-40 seat w/ integral belts Type 2 PRINT**1/48 Eduard**

Brassin set - pilot seat with seat belts designed as a integral part of the seat for P-40E in 1/48 scale. Made by direct 3D printing. Recommended kit: Eduard

Set contains:

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



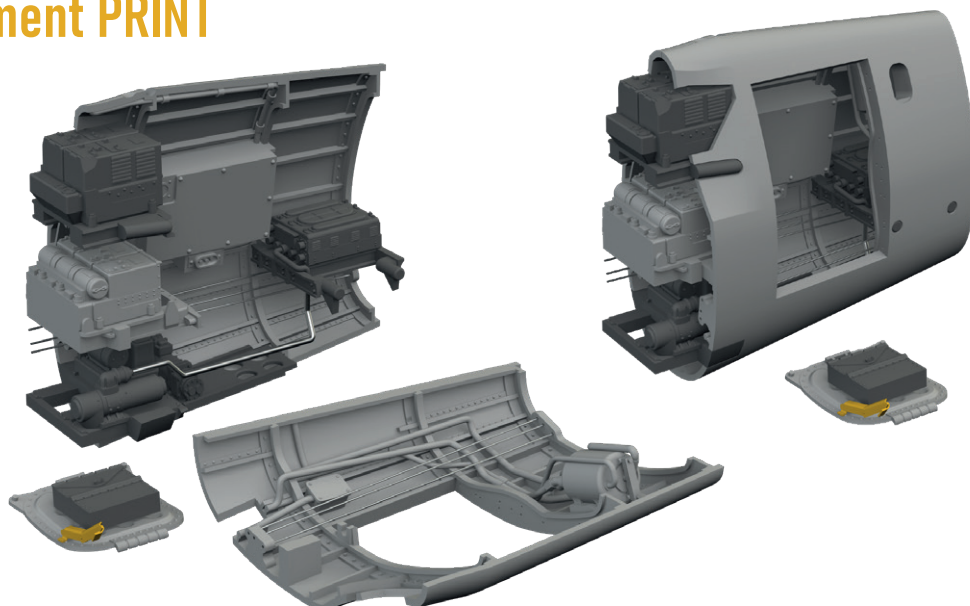
6481066

P-40E radio compartment PRINT**1/48 Eduard**

Brassin set - radio compartment for P-40E in 1/48 scale. Made by direct 3D printing. Recommended kit: Eduard

Set contains:

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



6481067

P-40 wheel bays PRINT**1/48 Eduard**

Brassin set - main wheel bays for P-40E
in 1/48 scale. Made by direct 3D printing.
Recommended kit: Eduard

Set contains:

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



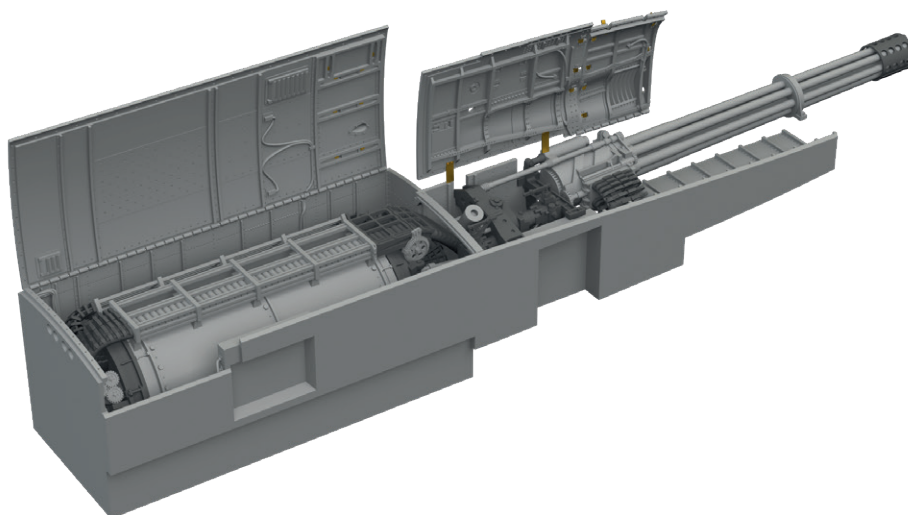
6481072

A-10C rotary cannon bay PRINT**1/48 Academy**

Brassin set - gun bay for rotary cannon for A-10C
in 1/48 scale. Set consists of the gun with ammo drum,
gun bay and bay covers. Made by direct 3D printing.
Recommended kit: Great Wall Hobby

Set contains:

- 3D print: 23 parts
- decals: no
- photo-etched details: yes
- painting mask: no



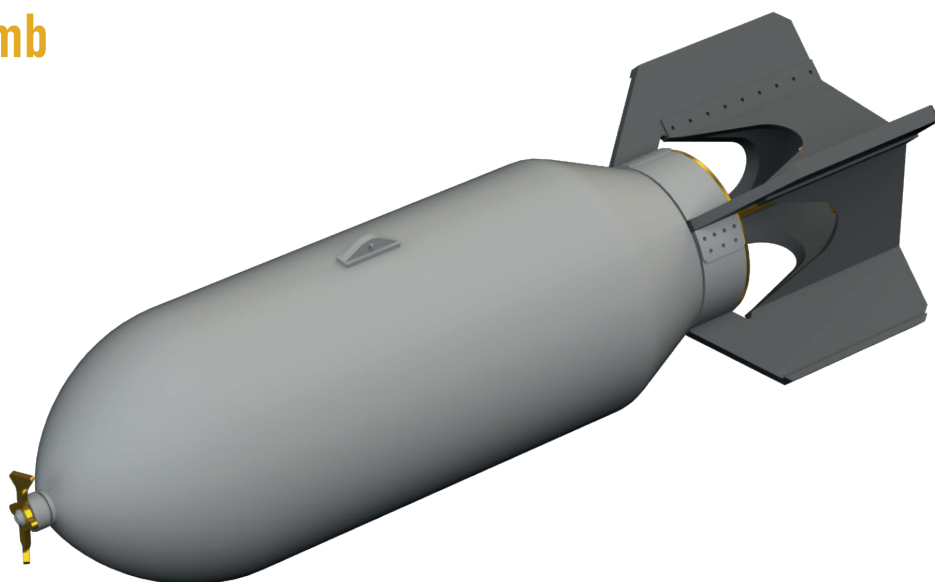
6481076

P-40 1000lb US bomb**1/48 Eduard**

Brassin set - 1000lb US bomb for P-40E
in 1/48 scale. Set consists of 1 bomb.
Easy to assemble, replaces plastic parts.
Recommended kit: Eduard

Set contains:

- resin: 2 parts
- decals: yes
- photo-etched details: yes
- painting mask: no



6481084

P-40 75gal drop tank PRINT**1/48 Eduard**

Brassin set - 75gal fuel drop tank for P-40E in 1/48 scale. Set consists of 1 tank.

Easy to assemble, replaces plastic parts.

Made by direct 3D printing.

Recommended kit: Eduard

Set contains:

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



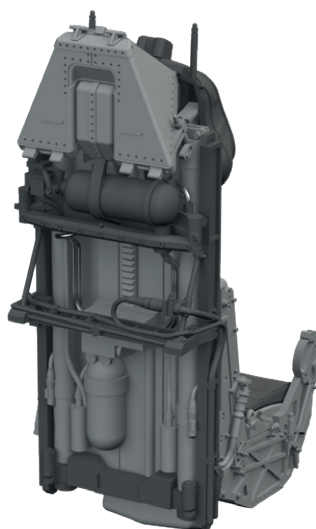
6481086

F-35C seat PRINT**1/48 Tamiya**

Brassin set - ejection seat for F-35C in 1/48 scale. Easy to assemble, replaces plastic parts. Recommended kit: Tamiya

Set contains:

- resin: 9 parts
- decals: yes
- photo-etched details: yes, pre-painted
- painting mask: no



672403

Mosquito wheels**1/72 Tamiya**

Brassin set - the undercarriage wheels for Mosquito in 1/72 scale. The set consists of the main wheels and a tail wheel. Easy to assemble, replaces plastic parts. Recommended kit: Tamiya

Set contains:

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



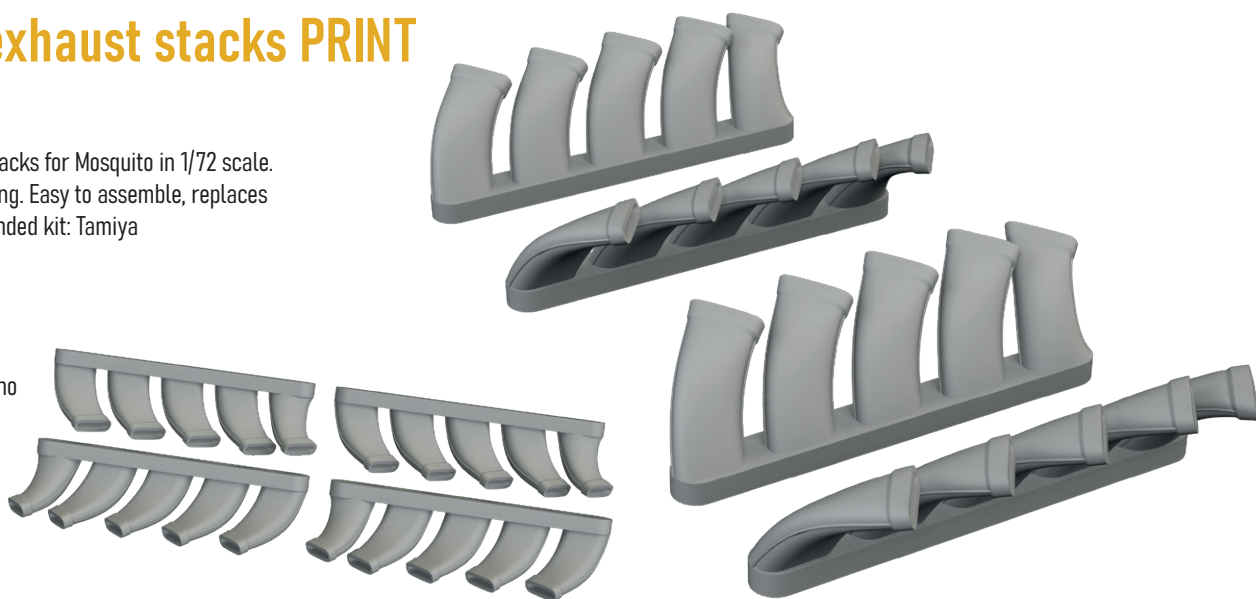
672404

Mosquito exhaust stacks PRINT**1/72 Tamiya**

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

Set contains:

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



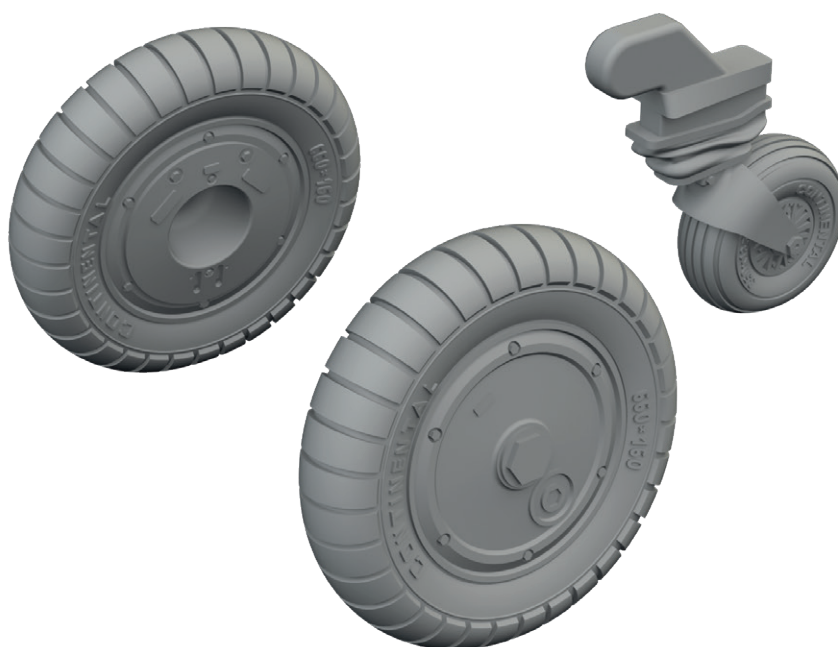
672405

Bf 109G-6 wheels**1/72 Tamiya**

Brassin set - the undercarriage wheels for Bf 109G-6 in 1/72 scale. The set consists of the main wheels and a tail wheel. Easy to assemble, replaces plastic parts. Recommended kit: Tamiya

Set contains:

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



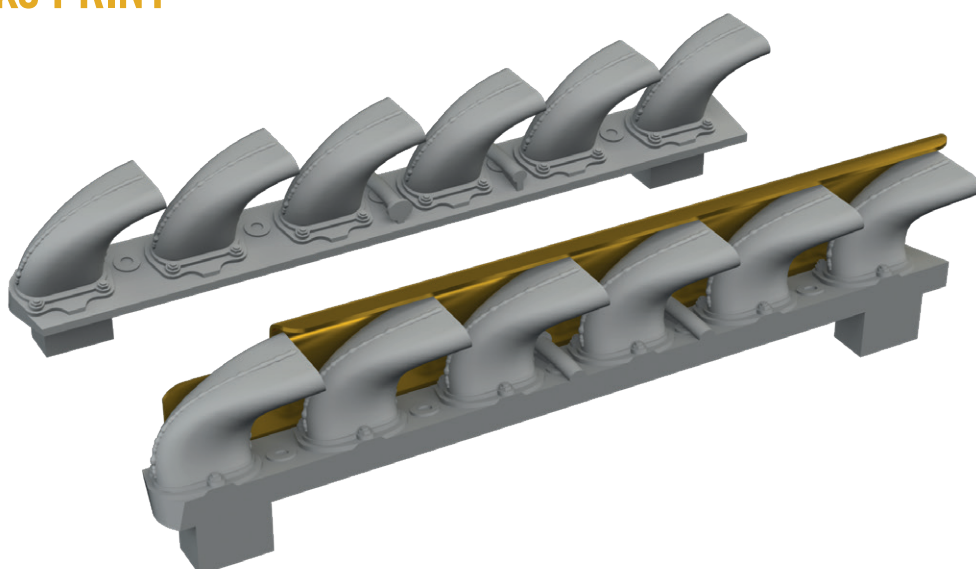
672406

Bf 109G-6 exhaust stacks PRINT**1/72 Tamiya**

Brassin set - exhaust stacks for Bf 109G-6 in 1/72 scale. Made by direct 3D printing. Easy to assemble, replaces plastic parts. Recommended kit: Tamiya

Set contains:

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



634050

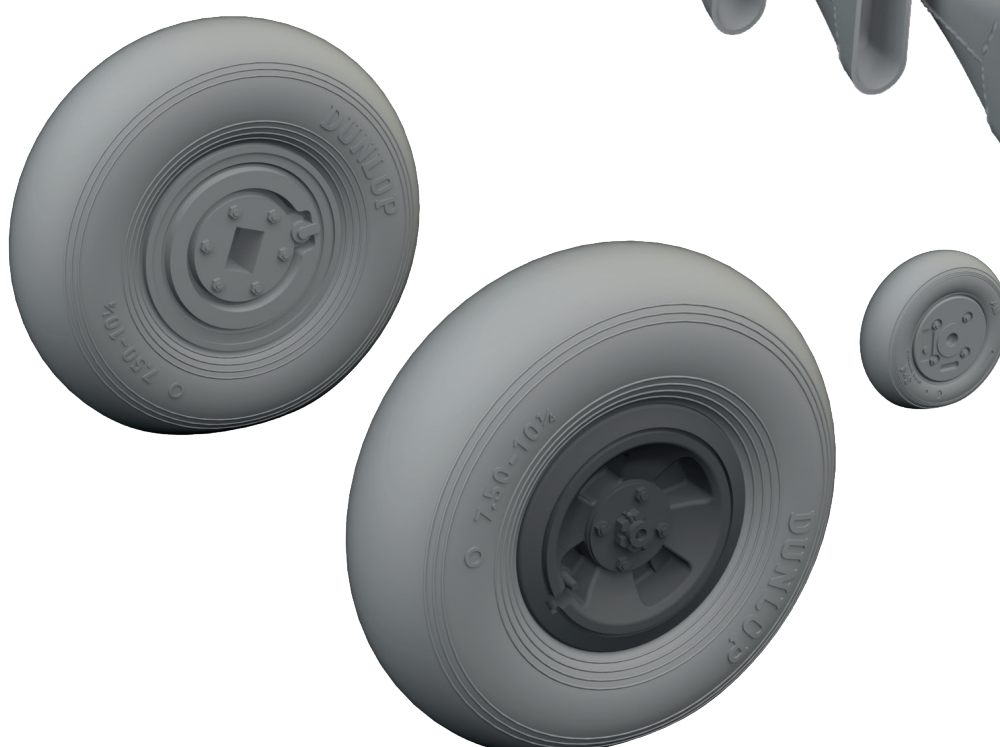
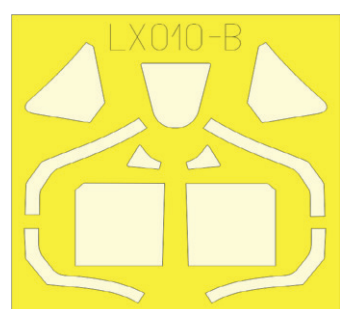
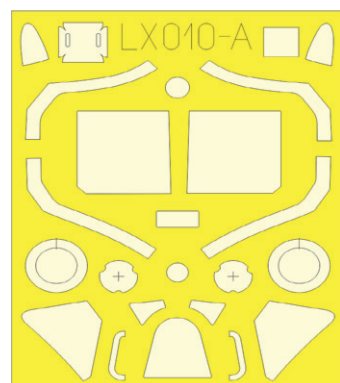
Spitfire Mk.VIII LööKplus

1/32 Airfix

Löökt

Collection of 4 sets for Spitfire Mk.VIII in 1/24 scale.
Recommended kit: Airfix

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



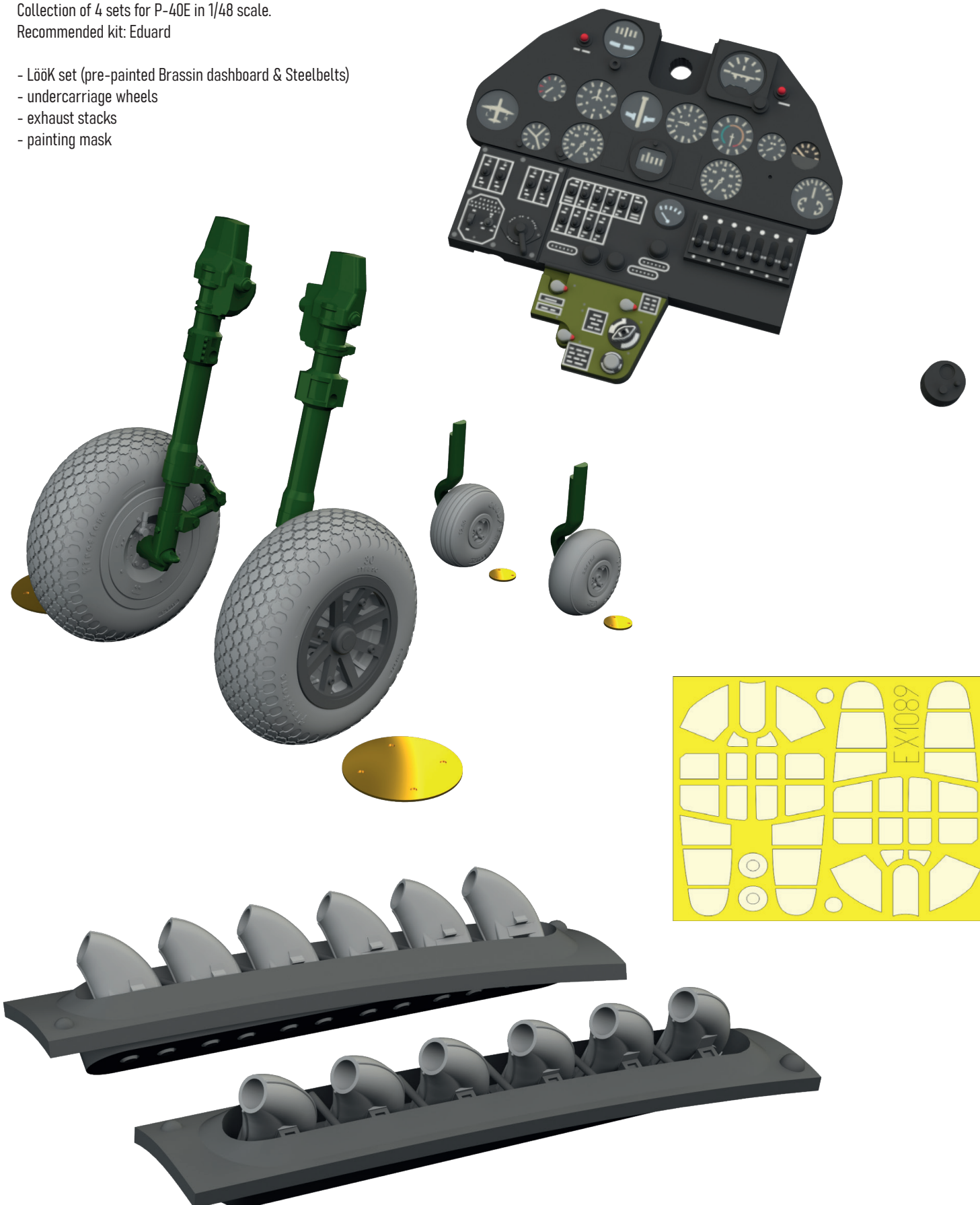
644298

P-40E w/ rounded exhaust stacks LööKplus**1/48 Eduard***LööK+*

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

Recommended kit: Eduard

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



SIN648136

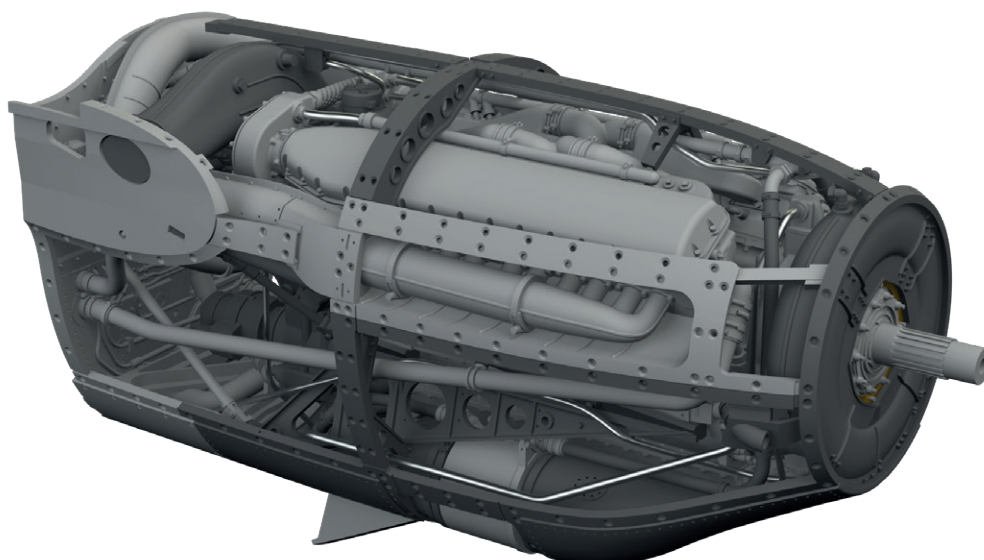
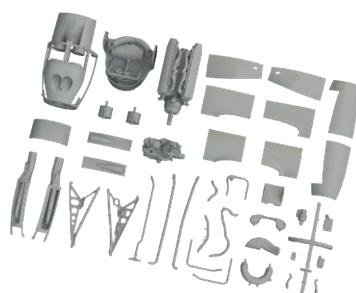
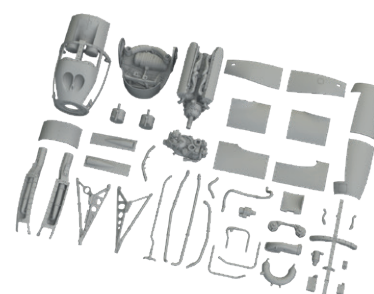
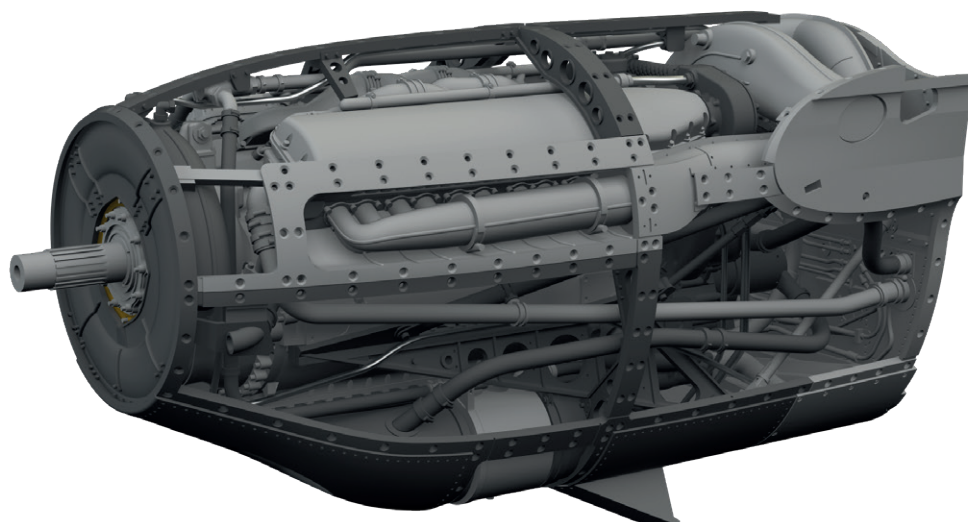
P-38F ENGINES

1/48 Eduard

Collection of 3 sets for P-38F in 1/48 scale.
Recommended kit: Tamiya

- starboard engine
- port engine
- turbochargers

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



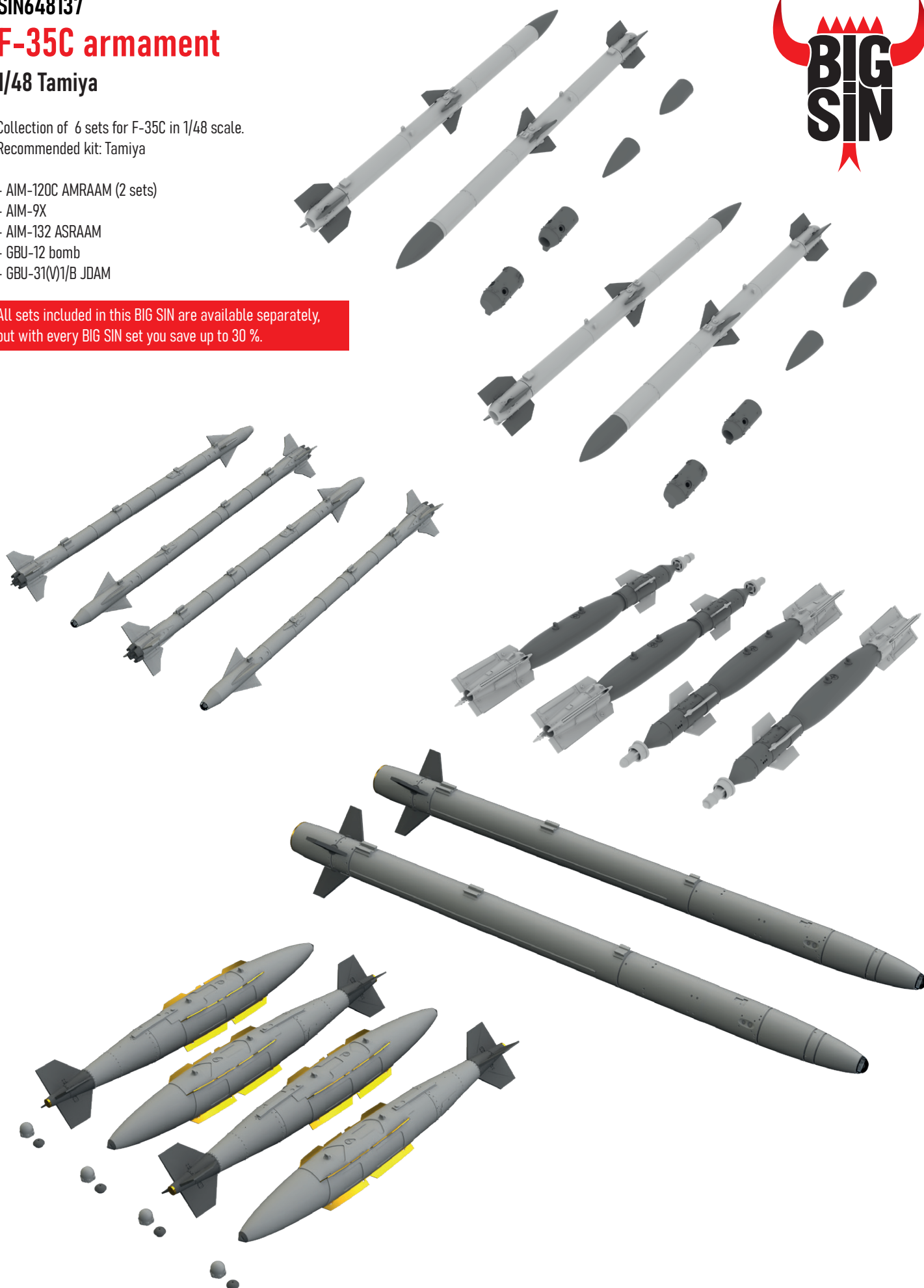
SIN648137

F-35C armament**1/48 Tamiya**

Collection of 6 sets for F-35C in 1/48 scale.
Recommended kit: Tamiya

- AIM-120C AMRAAM (2 sets)
- AIM-9X
- AIM-132 ASRAAM
- GBU-12 bomb
- GBU-31(V)1/B JDAM

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



PE-SETS

53321	USS Wasp LHD-1 part 4	1/350	Trumpeter
36533	M113A1	1/35	Italeri
481156	B-24D undercarriage	1/48	Hobby Boss
481157	F4F-4 landing flaps	1/48	Academy
491503	F-35C	1/48	Tamiya
491505	A-10A	1/48	Great Wall Hobby
491507	F4F-4	1/48	Academy
491509	B-24D cockpit & engines	1/48	Hobby Boss
72742	P-51D tail antennas STEEL	1/72	
73843	BV 222	1/72	Revell
73844	Ki-43-II	1/72	Arma Hobby

ZOOMS

FE1503	F-35C	1/48	Tamiya
FE1504	F-35C seatbelts STEEL	1/48	Tamiya
FE1505	A-10A	1/48	Great Wall Hobby
FE1506	A-10A seatbelts STEEL	1/48	Great Wall Hobby
FE1507	F4F-4	1/48	Academy
FE1508	F4F-4 seatbelts STEEL	1/48	Academy
FE1509	B-24D	1/48	Hobby Boss
FE1510	B-24D seatbelts STEEL	1/48	Hobby Boss
SS843	BV 222	1/72	Revell

MASKS

EX1094	F4F-4	1/48	Academy
EX1095	F4F-4 TFace	1/48	Academy
EX1096	F-35C	1/48	Tamiya
EX1097	F-35C TFace	1/48	Tamiya
EX1098	F-35C RAM panels	1/48	Tamiya
EX1099	A-10A	1/48	Great Wall Hobby
EX1100	A-10A TFace	1/48	Great Wall Hobby
EX1101	B-24D	1/48	Hobby Boss
EX1102	B-24D TFace	1/48	Hobby Boss
CX684	BV 222	1/72	Revell
CX685	Ki-43-II	1/72	Arma Hobby
CX686	Vengeance Mk.II	1/72	Dora Wings
CX687	Bf 109G-6 classic canopy	1/72	Eduard

SPACE

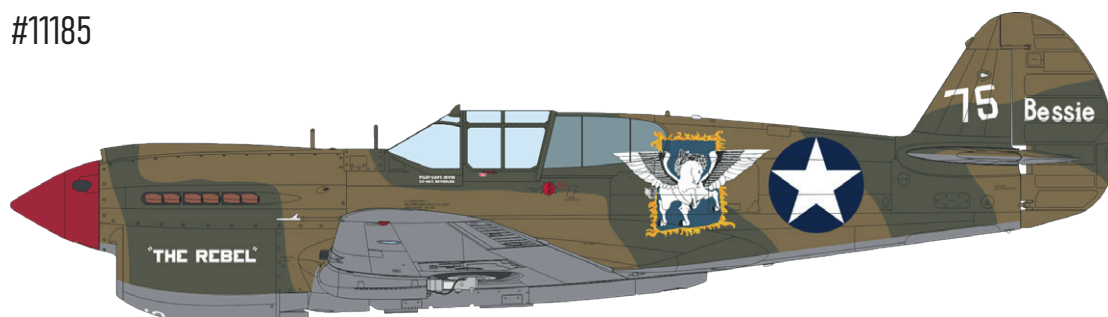
3DL48211	F4F-4 SPACE	1/48	Academy
3DL48212	F-35C SPACE	1/48	Tamiya
3DL48213	A-10A SPACE	1/48	Great Wall Hobby
3DL48214	B-24D SPACE	1/48	Hobby Boss
3DL72057	BV 222 SPACE	1/72	Revell
3DL72058	Ki-43-II SPACE	1/72	Arma Hobby

PACIFIC STAR P-40E Warhawk

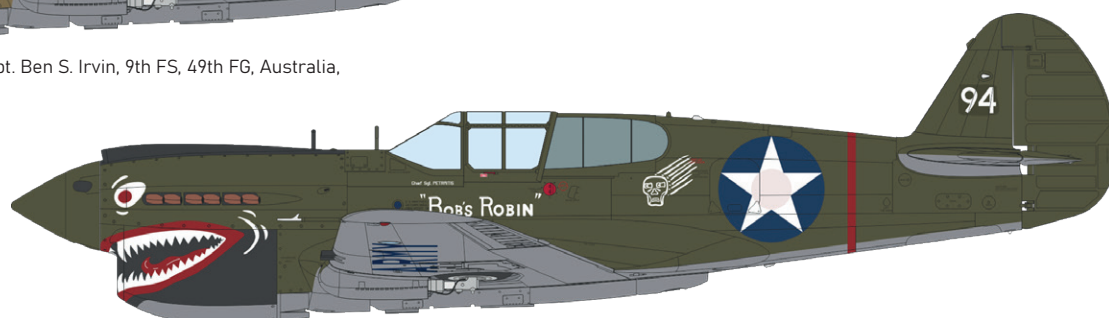
1/48



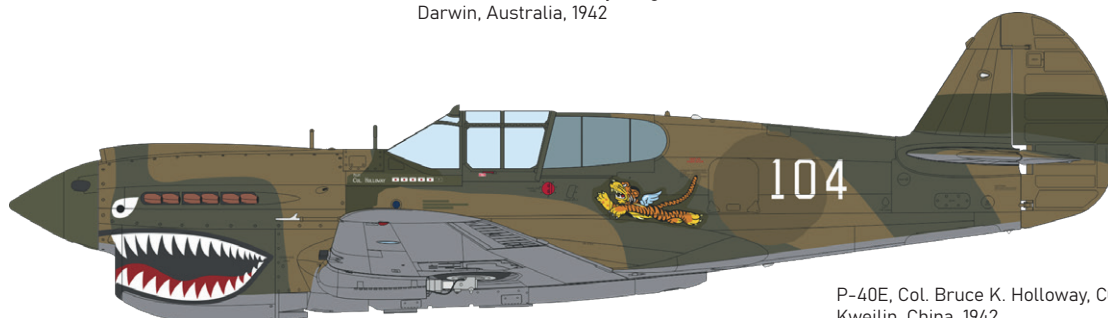
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LIMITED
 EDITION


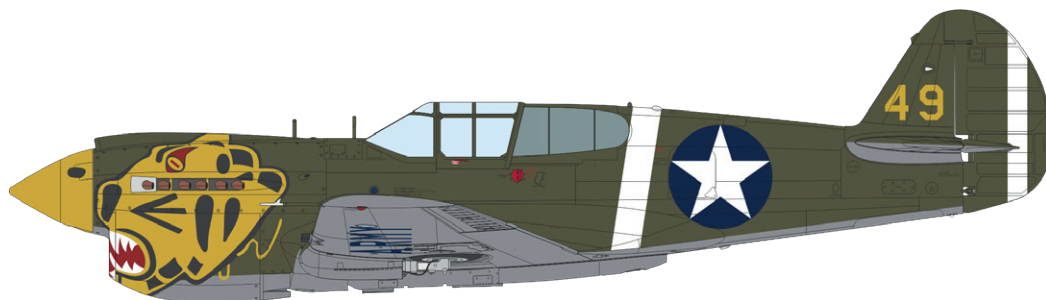
P-40E-1, 41-25164, Capt. Ben S. Irvin, 9th FS, 49th FG, Australia, Darwin, 1942



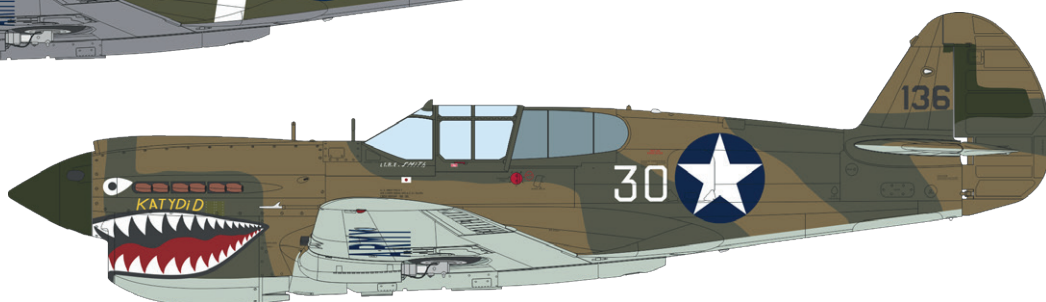
P-40E, Lt. Robert Harry Vaught, 9th FS, 49th FG, Darwin, Australia, 1942



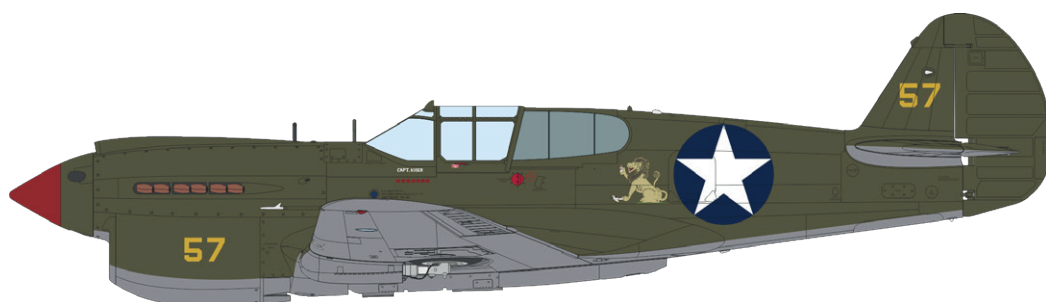
P-40E, Col. Bruce K. Holloway, CO of 23rd FG, Kweilin, China, 1942



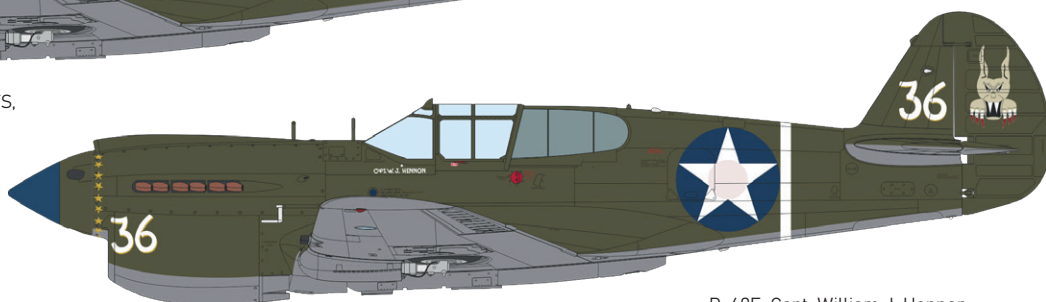
P-40E, Lt. Col. John S. Chennault,
11th FS, 343rd FG, Umnak Atoll,
Aleutian Islands, autumn 1942



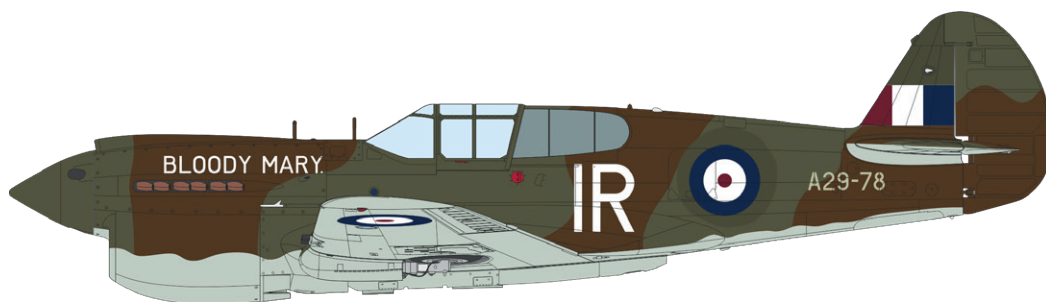
P-40E-1, Lt. Robert E. Smith, 16th FS,
23rd FG, China, autumn 1942



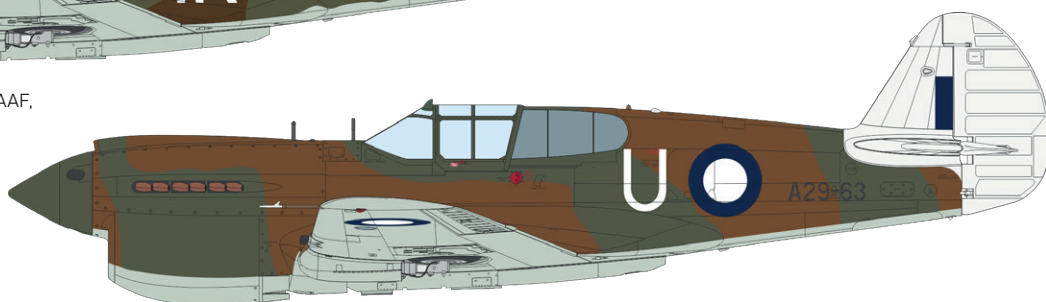
P-40E, Capt. George E. Kiser, 8th FS,
49th FG, Philippine Islands, 1942



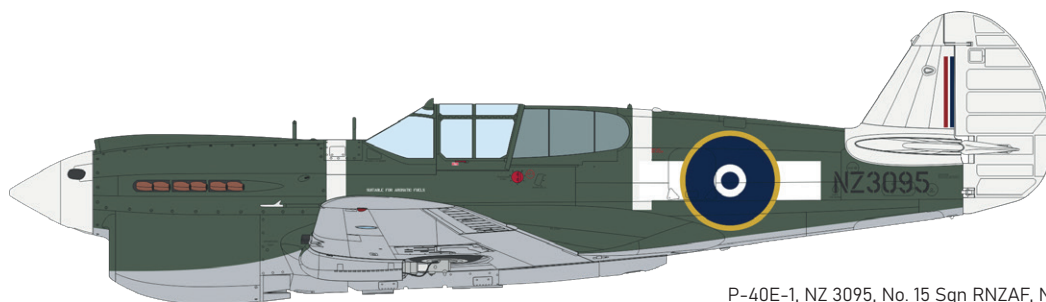
P-40E, Capt. William J. Hennon,
7th FS, 49th FG, Java, 1942



P-40E, A29-78, No. 76 Squadron RAAF,
Gurney Airfield, New Guinea,
August 1942



P-40E, A29-63, No. 82 Squadron RAAF,
Bankstown, Australia, 1943

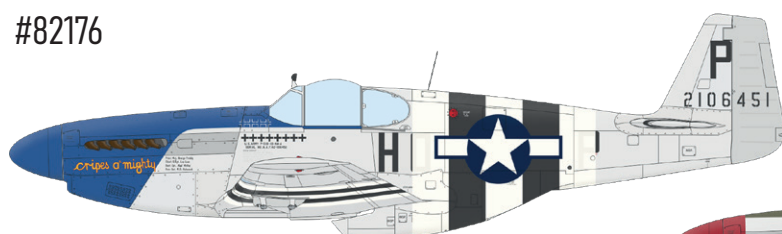


P-40E-1, NZ 3095, No. 15 Sqn RNZAF, New Zealand, 1944

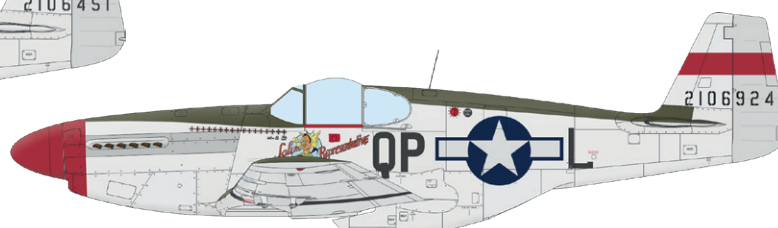
P-51B Mustang Malcolm Hood canopy 1/48



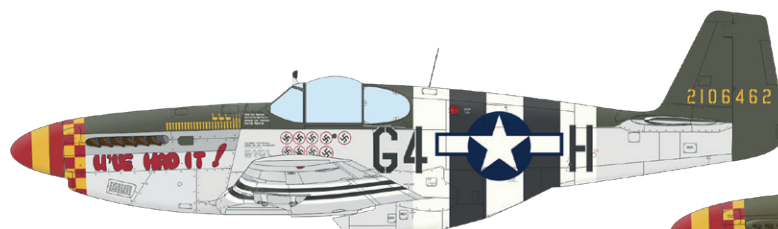
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ProfiPACK
edition

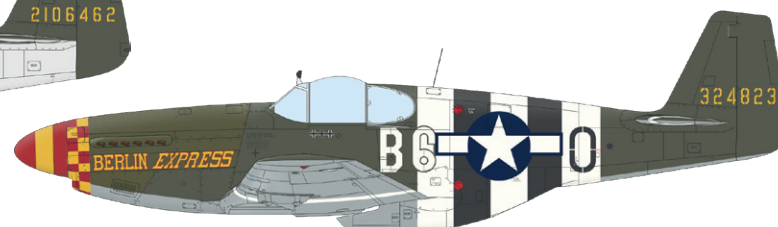
P-51B-10-NA, s/n 42-106451, Maj. George E. Preddy, 487th FS, 352nd FG, 8th AF, Bodney, Great Britain, June 1944



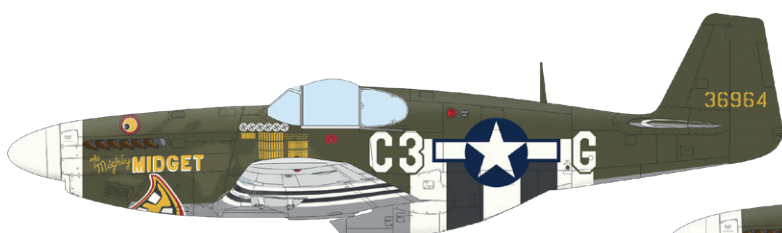
P-51B-15-NA, s/n 42-106924, 2nd Lt. Ralph K. Hofer, 334th FS, 4th FG, 8th AF, Debden, Great Britain, June 1944



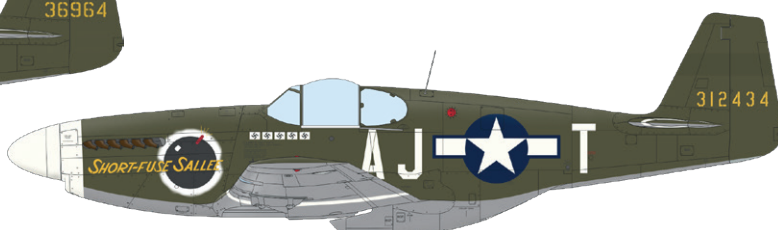
P-51B-10-NA, s/n 42-106462, Capt. John B. England, 362nd FS, 357th FG, 8th AF, Leiston, Great Britain, June 1944



P-51B-15-NA, s/n 43-24823, Lt. William B. Overstreet, 363rd FS, 357th FG, 8th AF, Leiston, Great Britain, July 1944



P-51B-7-NA, s/n 43-6964, 1st Lt. James H. Clark, 382nd FS, 363rd FG, 9th AF, Maupertus, France, July 1944



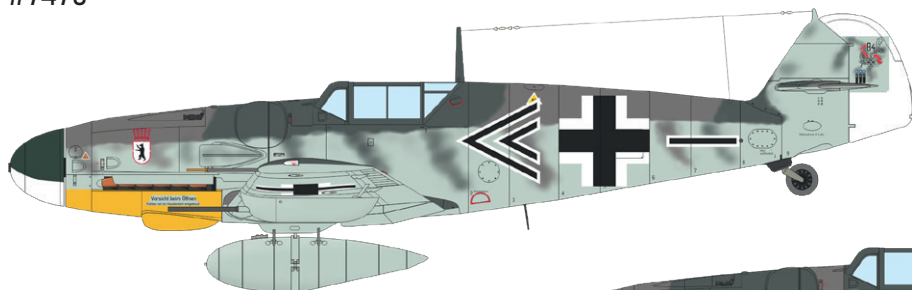
P-51B-1-NA, s/n 43-12434, Capt. Richard Turner, CO 356th FS, 354th FG, 9th AF, Lashenden, Great Britain, May 1944

Bf 109G-6

1/72



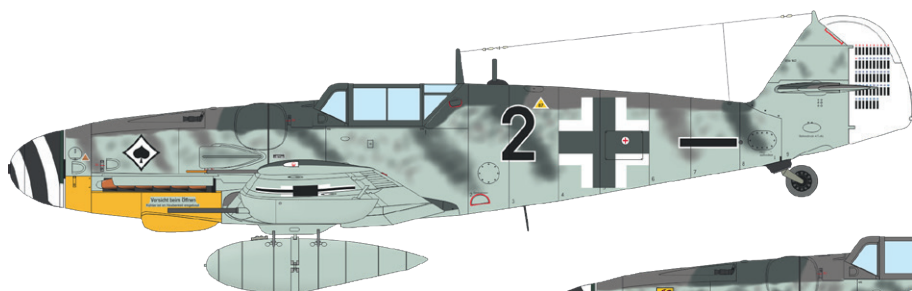
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WEEKEND
edition

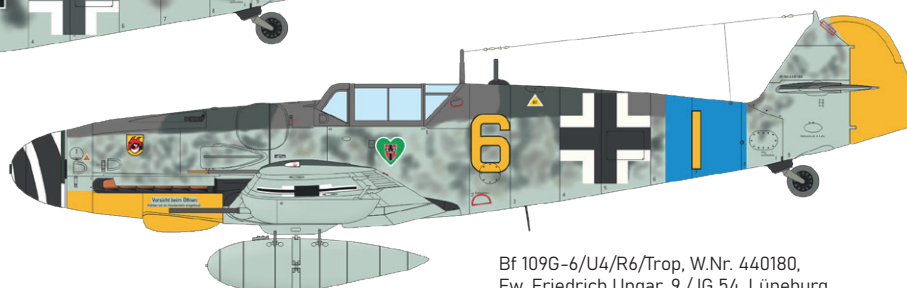
Bf 109G-6/R6, Hptm. Werner Schroer,
CO of II./JG 27, Eschborn, Germany,
September 1943



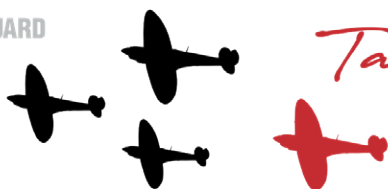
Bf 109G-6, Hptm. Heinrich Ehrler,
CO of 6./JG 5, Alakurtti, Finland,
June 1943



Bf 109G-6/R6/Trop, W.Nr. 1607xx,
Obfw. Herbert Rollwage, 5./JG 53,
Wien-Seyring, Austria, December 1943



Bf 109G-6/U4/R6/Trop, W.Nr. 440180,
Fw. Friedrich Ungar, 9./JG 54, Lüneburg,
Germany, March 1944



NUREMBERG TOY FAIR 2025

Jakub Nademlejnský

Knowing that it would fall to me to prepare the Tail End Charlie for this issue, I suggested to my colleagues that I write it at the very last minute, on Sunday morning, immediately after returning from Nuremberg at midnight on Saturday, as it would surely be of interest to readers. So I am writing my feelings in the heat of the moment. While we were in a very positive mood on the way home, I've decided to split this Tail End Charlie into two parts, positive and negative, with the positive part being the one I'd like to start with, as it's definitely the one that's prevailing in me.

Our participation in Nuremberg certainly served its purpose. Although there were not as many meetings at our stand as in the years before COVID, since representatives from companies in the plastic modelling industry did not come in the same numbers as in these years. However, the meetings were intense, we could afford to have them long and substantive, to deepen relationships, to stay focused during them, not having to rush because of other meetings or because a participant was already waiting for another meeting in front of the stand. So the whole thing took place in a very relaxed atmosphere, visitors came to us with smiles on their faces. For example, we brewed over 50 cups of coffee for guests during the show. Our coffee was said to be the best in the whole world, made by our CEO Mr Šulc himself, and he was probably very proud of it. The number of company stands from our branch remained practically unchanged, apart from us there were Special Hobby, Tamiya, Airfix at the Hornby stand, Academy,



Miniart, Trumpeter/HobbyBoss, Clearprop together with the accessories producer Reskit, Italeri, Heller together with the distributor Glow2B, the trading company Modellbau König, the company Hobby-Pro, which distributes Zvezda and Dragon in Europe, the distributor and profile producer Albion Alloys and Revell in Hall 12. 2. It has to be said that it is quite a walk from Hall 7 to Hall 12.2, but the Revell stand is well worth a visit. Revell and Tamiya have the largest stands in our industry, both offering the opportunity to drive RC cars, for example. Revell has expanded its range



considerably and, as well as plastic models, now offers a relatively new range of plywood and paper models.

In the past, the Nuremberg fair was used extensively by companies for press conferences, which Eduard also held until last year. Last year it was just a modest conference held on our small stand. Due to a lack of interest from the media and the public, no conference was held this year. And hardly anyone asked for one. We simply presented our future plans individually to those who were interested. It was more work for us, but we didn't mind, it was interesting to see the individual reactions. Everyone could ask individual questions, we pleased or surprised almost everyone and I had a nice feeling about it. In the past, the fair was also used by companies to announce long-awaited absolute novelties. I think the trade fair is losing this function as well, with companies preferring to use social networks or other online channels for this purpose. In short, we live in the internet age

and going to a trade fair is probably not so fashionable for journalists or even modellers. However, there have been a few exceptions. Tamiya announced the new Hotchkiss H-39 tank in 1/35th scale, IBG finished their campaign of revealing new model lines and brought the first 1/72nd scale mouldings of the Mk.I-V Spitfire range, they also showed renderings of the Mc.200, 202 and 205 and the Hs 129 in 1/72nd scale.

Now for the negatives. As the number of other companies in related fields continues to dwindle, we moved again. This time from Hall 7A to Hall 7, which was not completely full. This point contributes to the fact that fewer and fewer people and companies are coming to the show overall, which weakens the whole show in terms of making new contacts. Perhaps this is why most of our distributors from the USA have not come to the show since COVID, nor have our distributor from Japan or most of the manufacturers from Asia. There are also fewer and fewer media representatives. This

year, the public were able to visit the show for the entire duration, but this did not increase the number of visitors, at least in our hall. The aisles were rather half-empty, there were no crowds. Another blemish is the catering, the quality of which is getting worse every year. Regrettably, the fair also served us a bitter end in the form of the impossibility to drive our car into the area to get things from our stand while we were packing, so we had to drive on the pavement around the whole area on a small mobile trolley. Unfortunately, most of the companies had the same idea, so we had to dodge various adventurers with pallet trucks or hastily constructed improvised trolleys.

But as I said at the beginning, I am convinced that the show is still relevant to our business. It may be declining in importance, but it is still worth attending. We see meeting our business partners live as an important and strengthening part of our business relationships. Finally, I would like to thank everyone who visited our stand. See you next year!



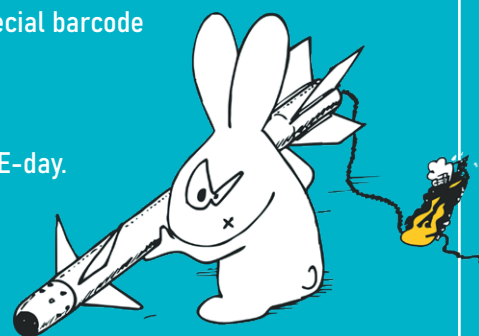


BUNNY FIGHTER CLUB

Eduard's special membership club for all modeling enthusiasts!

- 15% Permanent Club discount at Eduard Store – you will receive permanent 15% discount on all Eduard products and also discount on various other non-Eduard products. Fixed, permanent, forever!
- Unique valuable Club kits and accessories – you will gain access to unique and nowhere else to be sold products, specially made for BFC members.
- Even better prices at Eduard events stand – do you know that Eduard usually has huge discounts on their products at fairs and events all over the world? BFC members will have even higher discount at these events.
- Club T-shirt – you will receive fancy BFC T-shirt with unique design and special barcode (used for event discounts). This exclusive T-shirt will be only available to the members of BFC.
- Free entry fee on E-day – you will not have to pay a penny to visit Eduard's E-day. That means lot of fun at E-day for two days and entry kit, absolutely free!

* E-day - INTERNATIONAL SCALE KIT EXHIBITION - IPMS Czech Republic Championship

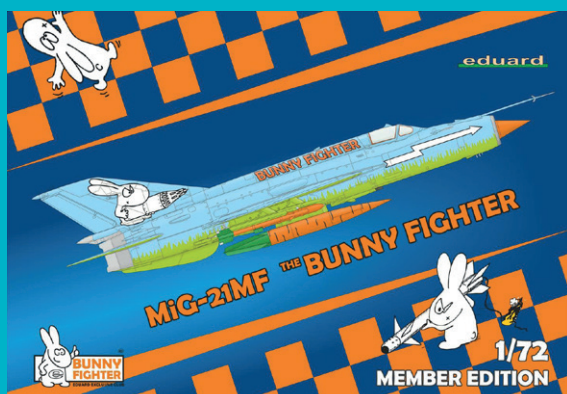


How to become a member of BFC?

Simply by purchasing the Activation product. You will be given 15% discount on (almost) every Eduard product in your shopping cart. To apply this discount, the Activation product has to be in your shopping cart. Activation product is excluded from this calculation.

Activation products:

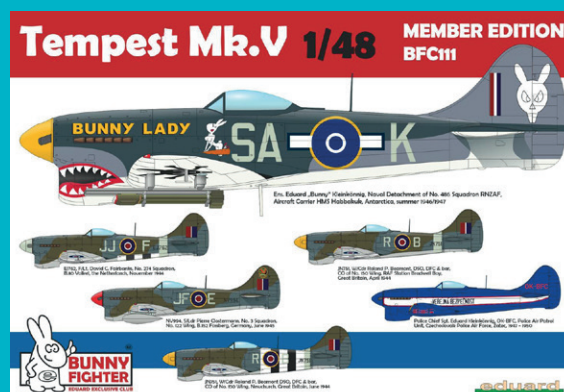
MiG-21MF + T-shirt 1/72



BOX CONTENT:

Plastic parts, Marking options 4, Decal Set, PE parts, Mask, Brassin parts (undercarriage wheels, cockpit, exhaust nozzle, FOD).

Tempest Mk. V + T-shirt 1/48



BOX CONTENT:

Plastic parts, Marking options 6, Decal Set, PE parts, Mask, Brassin parts (two different types of wheels, landing flaps, dust filter with eyelid, intake ring and RP-3 60lb rockets), 3D decals for main and side-walk instrument and control panels with photo-etched details and seat belts.

XX MIĘDZYNARODOWY
FESTIWAL MODELARSKI
BYTOM 2025

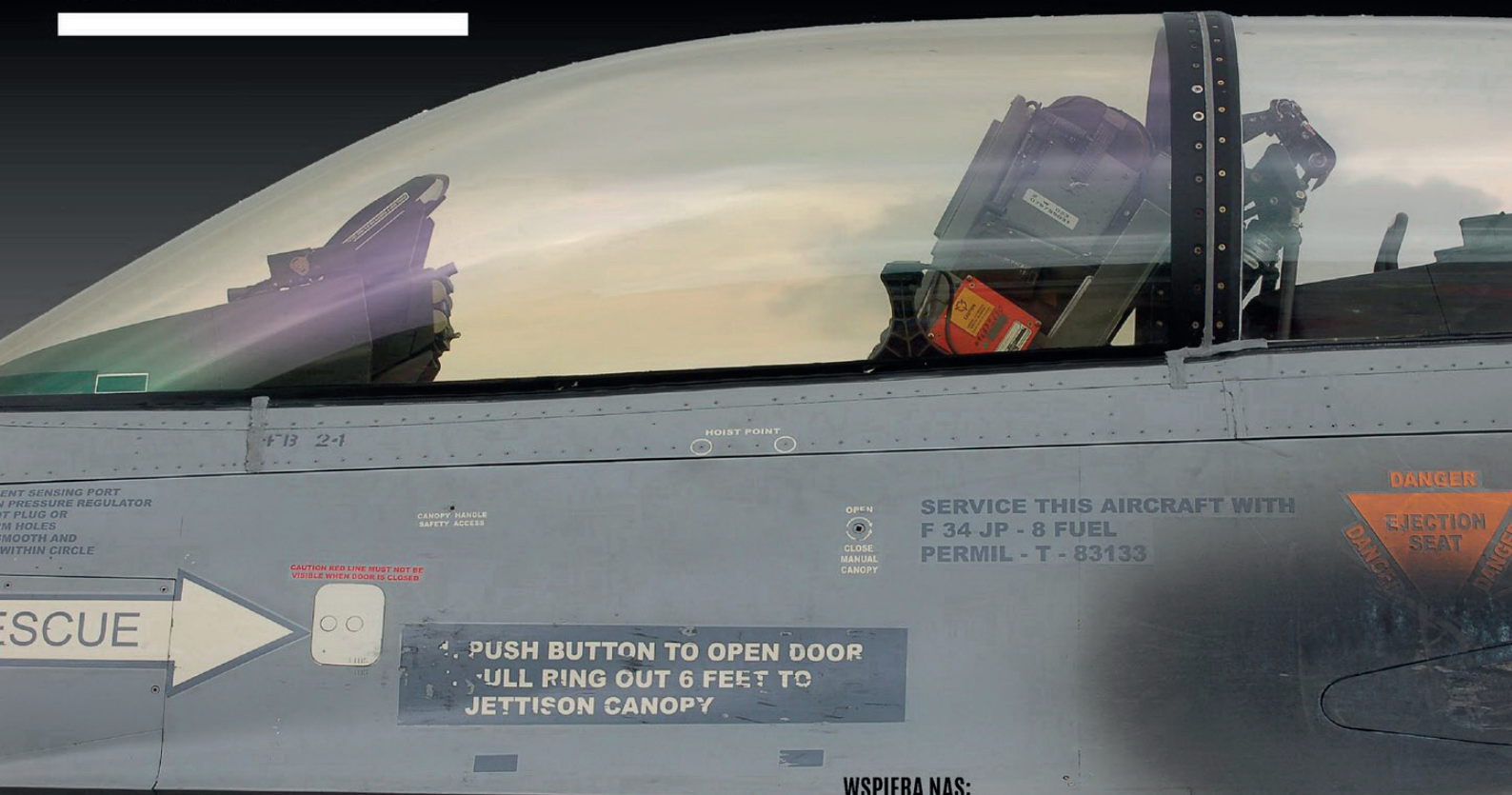


15/16 MARCH

08-17h 09-12h

HALA SPORTOWA >NA SKARPIE<
UL. FRYCZA MODRZEWSKIEGO 5

POLAND



PATRONAT:



PREZYDENT MIASTA
BYTOMIA
MARIUSZ WOŁOŚZ

WSPIERA NAS:



ORGANIZATOR

MŁODZIEŻOWY DOM KULTURY NR 2 W BYTOMIU

ORAZ

UCZNIOWSKI KLUB SPORTOWY PRZY MDK2 W BYTOMIU

ŻYCIE BYTOMSKIE

INFORMACJE NA:

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ZADANIE DOFINANSOWANE ZE ŚRODKÓW GMINY BYTOM

