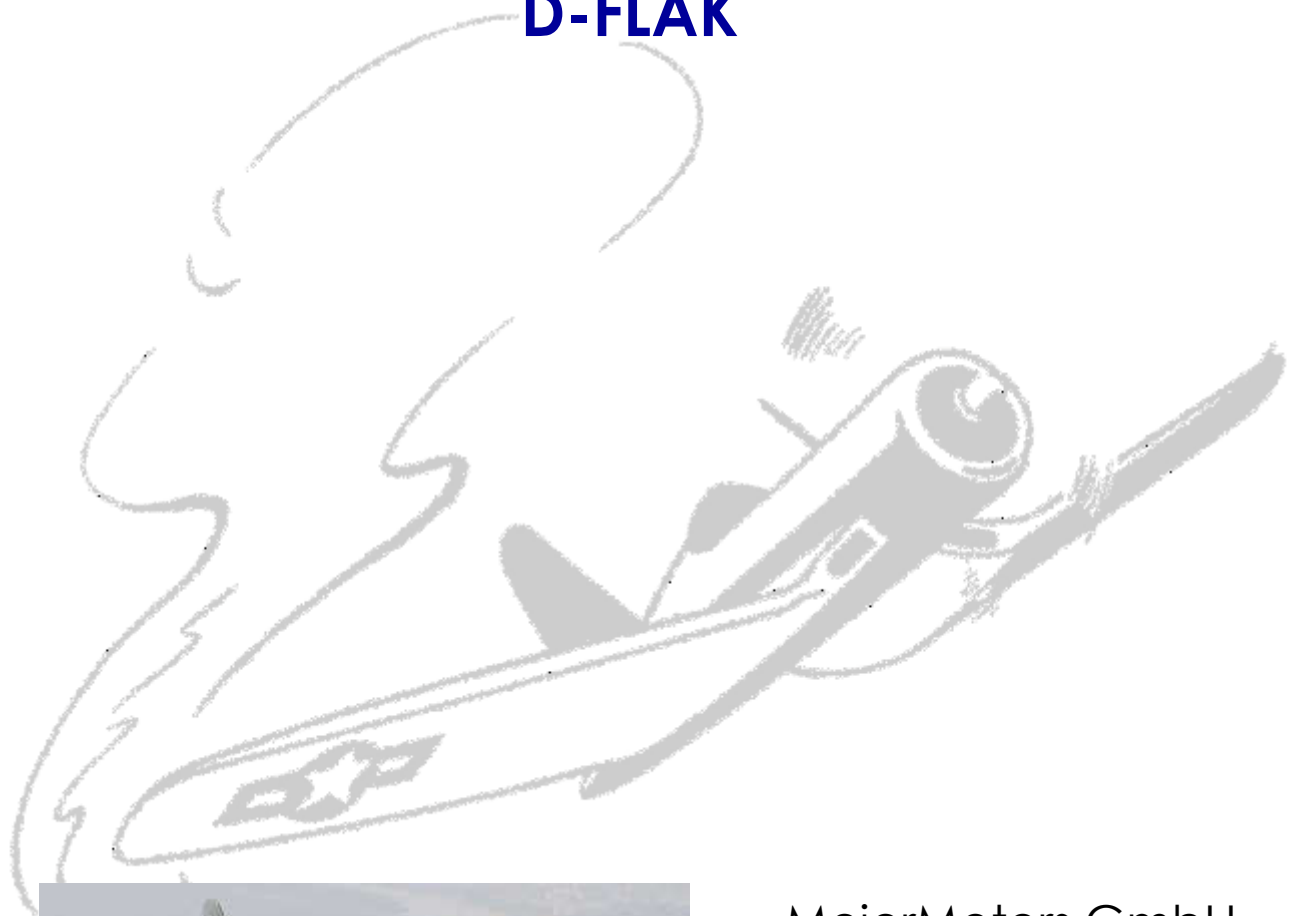


Yakovlev Yak-3M

Serial 470202

D-FLAK



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The history of Yakovlev Yak-3

The Yakovlev Yak-3 (Russian language: ЯК-3) was a World War II Soviet fighter aircraft. Robust and easy to maintain, it was much liked by pilots and ground crew alike. It was one of the smallest and lightest major combat fighters fielded by any combatant during the war, and its high power-to-weight ratio gave it excellent performance. It proved a formidable dogfighter. Marcel Albert, the official top-scoring World War II French ace, who flew the Yak in USSR with the Normandie-Niémén Group, considered it a superior aircraft to the P-51D Mustang and the Supermarine Spitfire. It is well-known, that the German High Command of the Luftwaffe 1944 gave order to avoid dogfights with Yakovlev fighters with bellyradiators. After the war ended, it flew with the Yugoslav and Polish Air Forces.

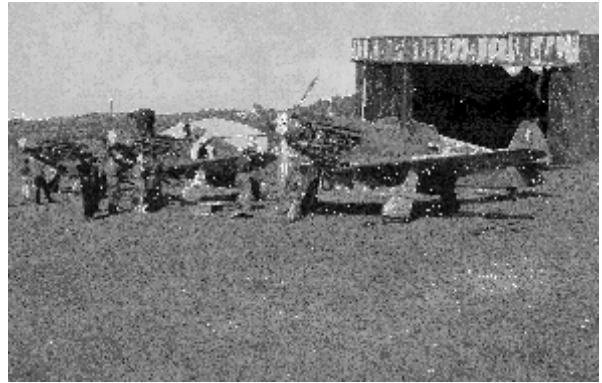
The origins of the Yak-3 went back to 1941 when the I-30 prototype was offered along with the I-26 as an alternative design to the Yak-1. The I-30, powered by a Klimov M-105P engine, was of all-metal construction, using a wing with dihedral on the outer panels. Like the early Yak-1, it had a 20 mm ShVAK cannon firing through the nose spinner and twin 7.62 mm ShKAS machine guns on the fuselage (firing through the propeller), but was also fitted with a ShVAK cannon in each wing. The first of two prototypes was fitted with a slatted wing to improve handling and short-field performance while the second prototype had a wooden wing without slats, in order to simplify production. The second prototype crashed during flight tests and was written off. Although there were plans to put the Yak-3 into production, the scarcity of aviation aluminum and the pressure of the Nazi invasion led to work on the first Yak-3 being abandoned in late fall 1941.

In 1943, Yakovlev designed the Yak-1M which was a smaller and lighter version of the Yak-1. A second Yak-1M prototype was constructed later that year, differing from the first aircraft in plywood instead of fabric covering of the rear fuselage, mastless radio antenna, reflector gunsight and improved armor and engine cooling. The chief test pilot for the project Petr Mikhailovich Stefanovskiy was so impressed with the new aircraft that he recommended that it should completely replace the Yak-1 and Yak-7 with only the Yak-9 retained in production for further work with the Klimov VK-107 engine. The new fighter, designated the Yak-3 entered service in 1944, later than the Yak-9 in spite of the lower designation number.

Production accelerated rapidly, so that by mid-1946, 4,848 had been built in several versions.

The variants powered with Allison V-12 engines is called Yak-3M.

Some wartime shots with Normandie-Niemen Yak-3



Seventy years later
70 années Normandie-Niemen squadron



Invited as special guest and reminiscence... Yak-3 D-FLAK





Technical data

Yakovlev Yak-3 – wartime production & powerplant

Length: 8.5 m (27 ft 10 in)

Wingspan: 9.2 m (30 ft 2 in)

Height: 2.39 m (7 ft 11 in)

Wing area: 14.85 m² (159.8 ft²)

Empty weight: 2,105 kg (4,640 lb)

Loaded weight: 2,692 kg (5,864 lb)

Powerplant: 1 × Klimov VK-105PF-2 V-12 liquid-cooled piston engine,
970 kW (1,300 hp)

Performance

Maximum speed: 655 km/h (407 mph)

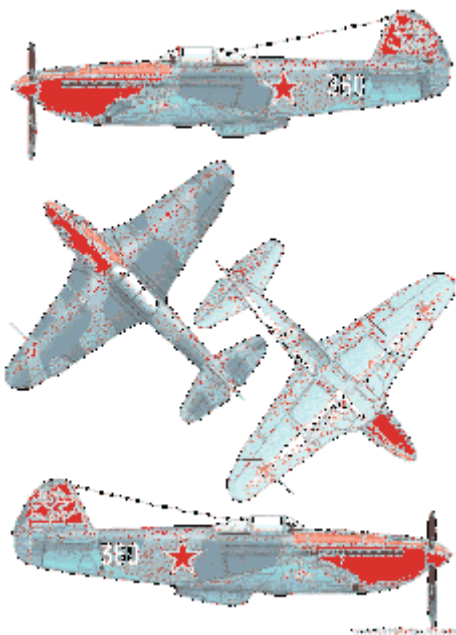
Range: 650 km (405 miles)

Service ceiling: 10,700 m (35,000 ft)

Rate of climb: 18.5 m/s (3,645 ft/min)

Wing loading: 181 kg/m² (36.7 lb/ft²)

Power/mass: 0.36 kW/kg (0.22 hp/lb)





Yakovlev Yak-3M

Serial : 0470202

Year: 1944, as acknowledged by the LBA

2-Seater + rear controls

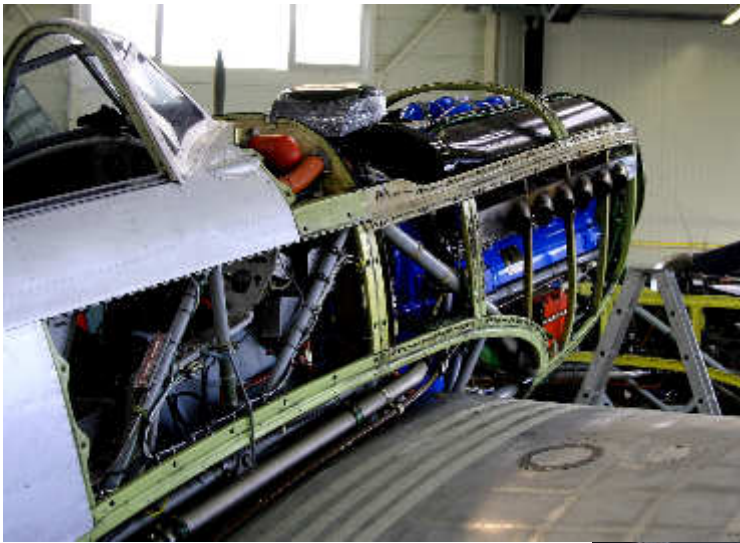
74 hours TT and 125 landings since new

Engine: Vintage V12s ALLISON-111 with 8.8 blower, 23hours SMOH

Propeller: 23E50 wide-Super-DC-3 blades, 74 hours SMOH

Yakovlev Yak-3 D-FLAK

In the year 2010, D-FLAK got a major overhaul including new paintwork and engine

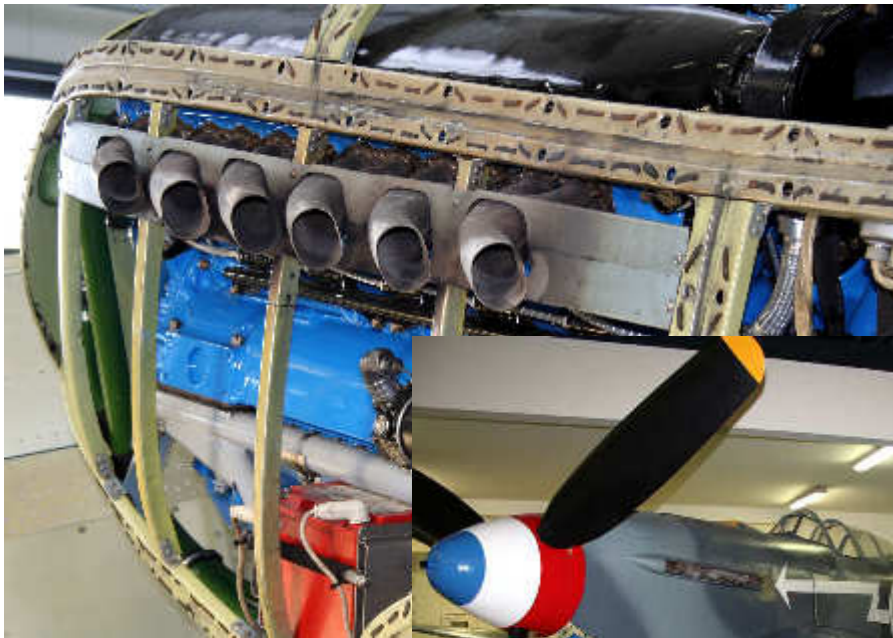




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Yakovlev Yak-3 D-FLAK / maintenance 2012





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backseat with controls



Main panel front cockpit





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