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Yak Debut

by Tony Holmes

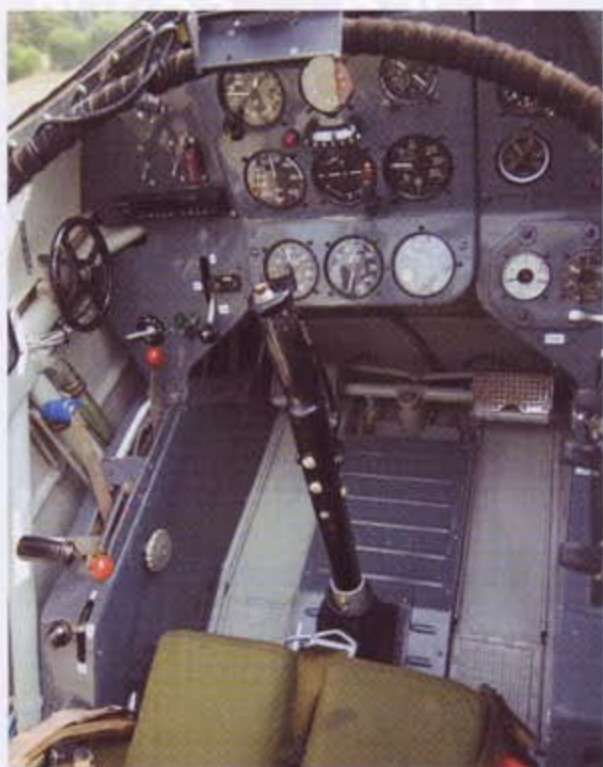
With Avia restoration's Polikarpov I-15bis being absent from this year's Flying Legends air show, the Russian display baton has been passed to Chris Vogelgesang's Yak-3UA.

It has been several years since a Yak-3UA has displayed at Flying Legends, and this weekend sees D-FJAK (serial number 0470107) making its air show debut in the UK. It was one of eleven aircraft built in the wake of a deal struck between OKB Yakovlev and Flight Magic/Museum of Flying in Santa Monica, California, in 1991. Using original wartime drawings, the Russian company produced the all-metal fighters powered by American Allison engines – hence the UA designation – at the Strela factory in Orenburg (700 miles southeast of Moscow, on the Russian-Kazakh border) from July 1993 onward.

Strela has a proud lineage stretching back to World War 2, having been formed from the original Factory 47 in Leningrad (hence the 047 in the fighter's serial number), which was evacuated to Chkalov – a suburb of Orenburg – in late 1941. The factory's designation was changed to Strela in 1958, and it was kept busy manufacturing strategic missiles until 1998.

The original Yak-3 on which D-FJAK is based was actually the second Yakovlev fighter to bear this designation. The first had been abandoned in the autumn of 1941, as it was not seen to be suitable for mass production – it was also underpowered. The new Yak-3 of 1943 was designed to fulfil a Soviet Air Force (VVS) requirement for an agile fighter capable of achieving its maximum performance at low altitude. By meeting these criteria, the fighter bestowed upon the VVS the ability to maintain air superiority immediately over the battlefield – something that the Luftwaffe had enjoyed for much of the war on the Eastern Front.

Based on the Yak-1M *dubler* prototype, complete with its revised fuselage and smaller wing, and powered by a Klimov M-105PF-2 engine, the Yak-3 prototype completed its service trials in October 1943, and series production got underway in March 1944. The small



DR ANDREAS ZETTLER

D-FJAK's cockpit is snug, but uncluttered, and does not look too dissimilar to the layout found in wartime Yak-3s. This Yak-3UA does lack a reflector gunsight, however

number of regiments that rapidly re-equipped with the fighter soon proved its superiority over its Luftwaffe counterparts (the Bf 109G and Fw 190A) in a series of aerial engagements. The Yak-3's impressive rate of roll, turn and climb made the aircraft very popular with VVS pilots.

The aeroplane's effectiveness resulted in a general directive being issued by Luftwaffe high command to its fighter units to 'avoid combat below 5000 m with Yakovlev fighters lacking an oil cooler under the nose', the latter being a reference to the most obvious external difference between the Yak-3 and the Yak-9.

An all-metal M-107-powered version of the fighter was produced in very limited numbers during 1946, with the final examples of the Yak-3 rolling off the Yakovlev production lines that same year. A total of 4848 Yak-3s had by then been built.

Owner Chris Vogelgesang flies his newly painted Yak-3UA D-FJAK over southwest Germany during a photo sortie from Bremgarten. The aircraft is being displayed this weekend by veteran Yak pilot, and current British Aerobatic Champion, Mark Jefferies



MARK VOGELGESANG



Legendary Reno air racer Bob Hannah flew 0470107 in this scheme for the majority of its time in the US. Achim and Elmar Meier acquired the aircraft in April 2002 and had it shipped to Germany, where they painted the fighter's nose bright red and added a white '12' to either side of the fuselage so that the Yak looked more like the mount of 150 GIAP ace Lt Savelii Vasil'evich Nosov

New Yaks

As previously mentioned, D-FJAK (serial number 0470107) was constructed in 1993-94 as part of the deal done between Yakovlev and Flight Magic/Museum of Flying. Negotiations between the two parties had commenced in early 1991, when a delegation led by Sergei Yakovlev (son of the famous designer, and a test pilot in his own right) visited the United States and, over a period of months, formulated a plan with Flight Magic that would see the Yak 3 put back into production.

The key to the success of this project was the fact that Yakovlev still had a complete set of production drawings for the Yak-3 in its archive. The only problem that needed to be solved was the choice of powerplant for the new aircraft. Yakovlev and Flight Magic duly decided to replace the now unavailable Klimov M-105PF-2 or M-107A V12 engines with the tried and tested Allison V-1710 V12. Aside from Allison engines, the Yak-3UAs would also be built with modern avionics and the judicious use of present-day metallurgy to improve safety and corrosion resistance.

The resurrection of the 45-year-old Yak-3 production line was announced at the now legendary Museum of Flying Auction of October 1991. Participants were shocked to say the least when an authentic unrestored Yak 3 fighter was rolled into the auction tent. One of only a handful of genuine wartime Yaks still in existence, this particular aircraft was not being offered for sale. The auctioneer quickly made it known that the fighter had been shipped over for display, courtesy of the Yakovlev Design Bureau and the Russian government. However, brand-new Yak 3UAs *were* being offered for sale at the auction, and this announcement brought more than a ripple of surprise from the gathered warbird buyers.

The 'prototype' Yak-3UA was displayed at the Paris Air Show in June 1993, and made its first flight the following month. It was subsequently sold to David Price's Museum of Flying for US\$500,000. The aircraft on display here at Duxford this weekend was the

MICHAEL O'LEARY



Yak-3UA 0470103 was the fourth aircraft built at Orenburg, and was originally registered in the US as N494DJ. It was acquired by Stuart Davidson of Port Elizabeth, South Africa, in June 1997, and he in turn sold the Yak to Jerry Yagen's Virginia-based Fighter Factory in 2005. The aircraft was shipped to Germany from South Africa by Yagen so that the Meier brothers could reassemble and overhaul it, prior to the much-travelled fighter heading back to the US in 2007

MICHAEL O'LEARY



Yak-3UA 0470103 flies in formation with 0470102 over southern California in August 1994. Given the registration N915LP, this aircraft was shipped out to the Alpine Fighter Collection at Wanaka, in New Zealand, in March 1996. It was sold to current owner Steve Hart, proprietor of Hart's Flying Fighter Museum in Archerfield, Queensland, three years later



VIA ERIC PILAWSKII

D-FJAK's present colour scheme was inspired by this aircraft, Yak-3 'White 100' of 402 IAP. The identity of the pilot in the foreground remains unknown

seventh example to be emerge from the Strela factory. Initially registered to B N Hisey of Oklahoma City in December 1995, 0470107 was acquired by legendary Reno racer Bob Hannah of Caldwell, Idaho, who flew it for the first time in 1996 – most of the other Yak-3UAs were also bought by Reno racers.

The fighter was subsequently sold to Achim and Elmar Meier of Freiburg, Germany, in April 2002, before being bought by present owner Chris Vogelgesang in July 2006 and moved to Max Alpha Aviation in Bremgarten in January 2008.

In the spring of this year, the aircraft was repainted as 'White 100' of 402 IAP (*Istrebitelnyy Aviatsionnyy Polk*, or Fighter Air Regiment). Undoubtedly the most authentic scheme applied to any of the reproduction Yak fighters, it is the end result of cooperation between the

The Yak-3UA's compact size and modest wingspan are highlighted in this unusual overhead view



owner, War Bird Colour Services and noted military historian Erik Pilawski. Warbird Colour Services was set up in 2002 by Steve Atkin with the aim of providing a project management and support service for warbird owners wishing to re-finish their aircraft to the highest possible standards. It is believed that this project is the first application of completely authentic VVS colours to represent a Soviet scheme of this vintage.

402 IAP was one of the most successful users of the Yak-3. Formed in 1941, the regiment was staffed largely by very experienced test pilots drawn from the Scientific Testing Institute of the VVS. During the summer of 1944, 402 IAP received brand new Yak-3s and subsequently went into action in the Vistula-Oder and East Pommerania regions that autumn. The regiment was in the vanguard of VVS operations in the battle over Berlin, and its pilots fought hard, and with distinction, in this bloody campaign.

402 IAP finished the war as one of the most successful regiments in the VVS. In all, it completed 13,511 sorties in four years, and was officially credited with the destruction of 810 enemy aircraft in aerial battles, as well as countless aircraft, vehicles and equipment on the ground. These successes came at the cost of 81 pilots and six groundcrew killed. Seventeen pilots were made Heroes of the Soviet Union within 402 IAP, including some of the leading Yak aces such as Nikolai Pavlushkin (35 and 7 shared kills), Vladimir Yegorovich (22 and 2 shared kills), Mikhail Pivovarov (21 and 9 shared kills), Anatolii Rubakhin (20 and 1 shared kills) and Pavel Gavrilin (19 and 7 shared kills).

Although the assigned pilot of 'White 100' remains unknown, it is believed that the fighter may have been routinely flown over Germany by regimental CO, and Hero of the Soviet Union, Maj Anatolii Rubakhin during the final months of the war.

MARK VOGELGESANG